COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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GAIL FARBER, Director

ADDRESS ALL CORRESPONDENCE TO:
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ADOPTED
BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES

25 August 16, 2011

SACHI A. HAMAI
EXECUTIVE OFFICER

August 16, 2011

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Dear Supervisors:

GRANT OF EASEMENTS
FROM THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
TO THE STATE OF CALIFORNIA
COYOTE CREEK - PARCELS 161 AND 165
IN THE CITY OF SANTA FE SPRINGS
(SUPERVISORIAL DISTRICT 1)
(3 VOTES)

SUBJECT

This action will allow the Los Angeles County Flood Control District to grant highway and temporary construction easements to the State of California along Coyote Creek in the City of Santa Fe Springs.

IT IS RECOMMENDED THAT YOUR BOARD ACTING AS THE GOVERNING BODY OF THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT:

1. Acting as a responsible agency for the proposed Interstate 5 Corridor Improvement Project, consider the Final Environmental Impact Report/Environmental Impact Statement prepared and certified by the State of California Department of Transportation as lead agency, together with any comments received during the public review period; adopt the mitigation monitoring program, finding the mitigation monitoring program is adequately designed to ensure compliance with the mitigation measures during project implementation; find that there are no further feasible alternatives or feasible mitigation measures within your Board's power that would substantially lessen or avoid any significant effect the project would have on the environment; and determine that the significant adverse effects of the project have either been reduced to an acceptable level or are outweighed by the specific consideration of the project as outlined in the Findings of Fact and Statement of Overriding Considerations, which findings and statement are adopted and incorporated herein by

reference.

2. Find the grant of easements for highway and temporary construction purposes and the subsequent use of said easements will not interfere with the use of Coyote Creek, Parcels 161 and 165, for any purposes of the Los Angeles County Flood Control District.

3. Approve the grant of easements for highway and temporary construction purposes from the Los Angeles County Flood Control District to the State of California Department of Transportation along Coyote Creek, Parcels 161 and 165, in the City of Santa Fe Springs, for fair market value.

4. Delegate authority to the Chief Engineer of the Los Angeles County Flood Control District, or her designee, to sign the Highway and Temporary Construction Easement documents, enter into Right-of-Way Contracts, and authorize delivery to the State of California.

5. Delegate authority to the Chief Engineer of the Los Angeles County Flood Control District, or her designee, to amend the terms of Lease Agreement No. 66547 between the Los Angeles County Flood Control District and Newport Diversified, Inc.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

The purpose of the recommended actions is to fulfill the requirements of the California Environmental Quality Act (CEQA) for the proposed Interstate 5 Corridor Improvement Project (Project) and obtain approval from your Board, acting as the governing body of the Los Angeles County Flood Control District (LACFCD), to allow the LACFCD to grant highway and temporary construction easements to the State of California (Caltrans) along Coyote Creek, Parcels 161 and 165, in the City of Santa Fe Springs. Caltrans requested the easements as a part of its Project. Execution of the Right-of-Way Contracts will enable the LACFCD to be compensated for said easements.

Lease Agreement No. 66547 (Lease) between the LACFCD and Newport Diversified, Inc., will be affected by Caltrans' Project. Your Board's approval is required to amend the terms of the Lease to reflect the modification to the Lease premises affected by the Project.

Implementation of Strategic Plan Goals

The Countywide Strategic Plan directs the provisions of Operational Effectiveness (Goal 1) and Community and Municipal Services (Goal 3). The revenue received from this transaction will help promote fiscal responsibility for the operation and maintenance of flood control facilities. This transaction allows for the continuation of transportation services to the area, thereby improving the quality of life for residents of the County of Los Angeles.

FISCAL IMPACT/FINANCING

There will be no impact to the County General Fund.

The total cost of the easements is $433,000, which represents the fair market value. This amount will be deposited into the Flood Control District Fund.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

Parcels 161 and 165 are generally located along Coyote Creek northerly and southerly of Alondra Boulevard in the City of Santa Fe Springs.

The grant of easements is authorized by Section 2, paragraph 13, of the Los Angeles County Flood Control Act. This Section provides as follows: "Said Los Angeles County Flood Control District hereby declared to be a body corporate and politic, and as such shall have the power...13. To lease, sell or dispose of any property (or any interest therein) whenever in the judgment of said board of supervisors said property, or any interest therein or part thereof, is no longer required for the purposes of said district or may be leased for any purpose without interfering with the use of the same for the purposes of said district..."

The grant of easements is not considered adverse to the LACFCD's purposes and would not hinder the use of Coyote Creek as possible transportation, utility, or recreational corridors. Moreover, the Easement documents will reserve paramount rights for LACFCD purposes.

County Counsel will approve the documents as to form and, subsequent to your action on this matter and execution by the Chief Engineer of the LACFCD, or her designee, the documents will be recorded.

ENVIRONMENTAL DOCUMENTATION

In granting the easements for highway and temporary construction purposes, the LACFCD is acting as a responsible agency for the Project. Caltrans, as lead agency, has prepared an initial study, consulted with the Department of Public Works, and certified a final Environmental Impact Report on May 25, 2007. The recommended action's significant adverse effects of the Project have either been reduced to an acceptable level or are outweighed by the specific consideration of the Project.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

This action allows for the joint use of the LACFCD right of way without interfering with the primary mission of the LACFCD.

CONCLUSION

Please return one adopted copy of this letter to the Department of Public Works, Survey/Mapping & Property Management Division. Retain the duplicate for your files.

Respectfully submitted,

GAIL FARBER
Director

GF:SGS:hp

Enclosure

c: Auditor-Controller (Accounting Division - Asset Management)
Chief Executive Office (Rita Robinson)
County Counsel
Executive Office

Interstate 5 Corridor Improvement Project

Los Angeles and Orange Counties, California

FINAL EIR - EIS

Caltrans

SANTA ANA FREEWAY

INTERSTATE CALIFORNIA 5

91 to INTERSTATE CALIFORNIA 605

DEPARTMENT OF TRANSPORTATION · UNITED STATES OF AMERICA

Report Number: FHWA-CA-EIS-06-11-F

SCH Number: 2001111151
07-LA-05 0.0/6.3
12-ORA-05 42.2/44.4
EA: 2159A0

INTERSTATE 5 (SANTA ANA FREEWAY)
FROM STATE ROUTE 91 IN ORANGE COUNTY TO
INTERSTATE 605 IN LOS ANGELES COUNTY, CALIFORNIA

FINAL
ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT

Submitted Pursuant to (State) Division 13, Public Resources Code
(Federal) 42 U.S.C. 4332(2)(c)
U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration
THE STATE OF CALIFORNIA
Department of Transportation

5/25/07
Date

DOUGLAS R. FAILING
District Director
District 7
California Department of Transportation

6/19/07
Date

GENE K. FONG
Division Administrator
Federal Highway Administration

The following persons may be contacted for additional information concerning this document:

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Abstract

This Final EIR/EIS addresses proposed alternatives, including freeway widening, designed to improve the operation and safety of Interstate 5 (Santa Ana Freeway) corridor from State Route 91 in Orange County to Interstate 605 in Los Angeles County. The Recommended Alternative (Alternative 4B) was selected after careful consideration of all agency and public comments on the Draft EIR/EIS. The recommended alternative would involve landform alterations and aesthetic impacts, displacement of existing residents and businesses, community disruption, air quality and noise effects, impacts upon utilities and short-term construction impacts. Mitigation measures would reduce the level of significance of some of these impacts. Caltrans and FHWA reserve the right to revisit this decision on the Recommended Project in the future if additional funding and environmental changes occur.

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SUMMARY

INTRODUCTION AND BACKGROUND

Interstate 5 (I-5) is a major regional transportation corridor that extends the entire length of the western United States from Mexico to Canada. It also serves as the backbone of the transportation system connecting the major urban centers of Los Angels County and Orange County. I-5 was originally constructed as a six-lane facility in Los Angeles and Orange Counties. The portion of I-5 north of Interstate 605 (I-605) has been widened to eight mixed-flow lanes. The portion of I-5 in Orange County south of State Route 91 (SR 91) has been widened to ten lanes (eight mixed flow lanes and two High Occupancy Vehicle (HOV) lanes). The section of I-5 between the vicinity of SR 91 and I-605 in Los Angeles County is currently composed of six mixed-flow lanes. This segment acts as a traffic bottleneck and effectively limits capacity for the entire corridor. As a separate project, the segment between SR 91 and Western Avenue in Orange County would be widened to at least eight lanes (3 mixed flow lanes and one HOV lane in each direction), moving the southern end of the bottleneck north into Los Angeles County. Construction of the project from State Route 91 to Western Avenue began in March 2006.

To address these deficiencies, this project is being developed collectively by the U.S. Federal Highway Administration (FHWA), Caltrans, Los Angeles County Metropolitan Transportation Authority (LACMTA), and Orange County Transportation Authority (OCTA), in cooperation with the I-5 Consortium Cities Joint Powers Authority (I-5 JPA).

Changes have been made to this environmental document since the circulation of the draft environmental document. Public and Agency comments received during the circulation of the Draft IS/EA, the Public Hearing process, and subsequent agency consultations have resulted in refinements that have been incorporated in this final environmental document. A vertical line in the outside margin indicates changes in the document.

PURPOSE AND NEED

The primary purpose of the proposed project is to reduce existing and forecast traffic congestion on Interstate 5 between SR 91 and I-605. The proposed project would include short- and long-term strategies to improve regional air quality. The proposed project also implements Traffic Control Measures (TMCs) that are included in the Statewide Implementation Plan (SIP). Reconstruction of Interstate 5 would allow the State to implement current functional and safety design standards, which would increase safety and overall operation of the facility.

If no improvements are made in the affected section of I-5, traffic delays caused by congestion would substantially increase by the year 2015. The proposed HOV lanes would also provide a needed linkage in the HOV system on Interstate 5 between State Route 91 and Interstate 605. If no improvements are made within the project limits, the northbound section just north of SR 91 would continue as a major bottleneck.

PROJECT LOCATION

The proposed I-5 Corridor Improvement Project encompasses the I-5 Corridor from State Route 91 in Orange County in the south through the Interstate 5/605 interchange in Los Angeles

County in the north, a distance of approximately 15 kilometers (9 miles). The proposed freeway mainline improvements would occur within the cities of Norwalk, Buena Park, La Mirada, Santa Fe Springs and Downey. Some non-mainline improvements are proposed in the City of Cerritos (see figure 1-1.1).

DESCRIPTION OF THE PROPOSED ACTION

The general purpose of the proposed action is to enhance capacity within the corridor. Summarized below are the five alternatives that have been evaluated in the Environmental Impact Report/Environmental Impact Study (EIR/EIS) for the proposed I-5 Corridor Improvement Project. Each includes at least one of the following elements: freeway, bus, rail, intelligent transportation systems (ITS), transportation demand management (TDM), truck, HOV, and roadway improvements. Four build alternatives and a No Build Alternative is being considered for implementation. The five alternatives are:

- Alternative 1: No Build Alternative (includes I-5 Interim HOV Improvements)
- Alternative 2: Transportation Systems Management/Transportation Demand Management
- Alternative 3: Transit Enhancement
- Alternative 4: Ten Lane Facility
- Alternative 5: Twelve Lane Facility

In addition, there are sub-alternatives within several of the project alternatives with minor changes from the alternatives themselves. The final Preferred Alternative could be a hybrid combination of two or more of these alternatives or their sub-alternatives.

Description of Alternatives

Alternative 1: No Build Alternative

The No Build Alternative assumes that no improvements are made to the I-5 corridor beyond those already committed, funded, and expected to be in place by the year 2025. The No Build is an eight-lane facility which includes construction of the I-5 Interim HOV Lane Improvement Project. The elements of the No Build Alternative are to be implemented by the local agencies and jurisdictions sponsoring them. The key elements of the No Build Alternative are identified in Table 2-1 and include elements for bus, rail, Intelligent Transportation Systems, Traffic Demand Management, Truck and Roadway improvements.

Alternative 2: Transportation Systems Management/Transportation Demand Management Alternative (TSM/TDM)

The goal of the TSM/TDM Alternative is to increase the operational efficiency of the existing facilities and to shift transportation users to higher capacity modes such as transit. The TSM/TDM Alternative goes beyond the No Build Alternative by adding transportation system management techniques to those elements already assumed in the No Build Alternative. In addition, it is assumed that the elements of the TSM/TDM Alternative are to be implemented by the local agencies and jurisdictions sponsoring them. This alternative does not include any improvements to the State facility. The key elements of the TSM/TDM Alternative are identified in Table 2-1 and include elements for bus, rail, Intelligent Transportation Systems, Traffic Demand Management, Truck and Roadway improvements above and beyond those already planned as part of the no-build alternative.

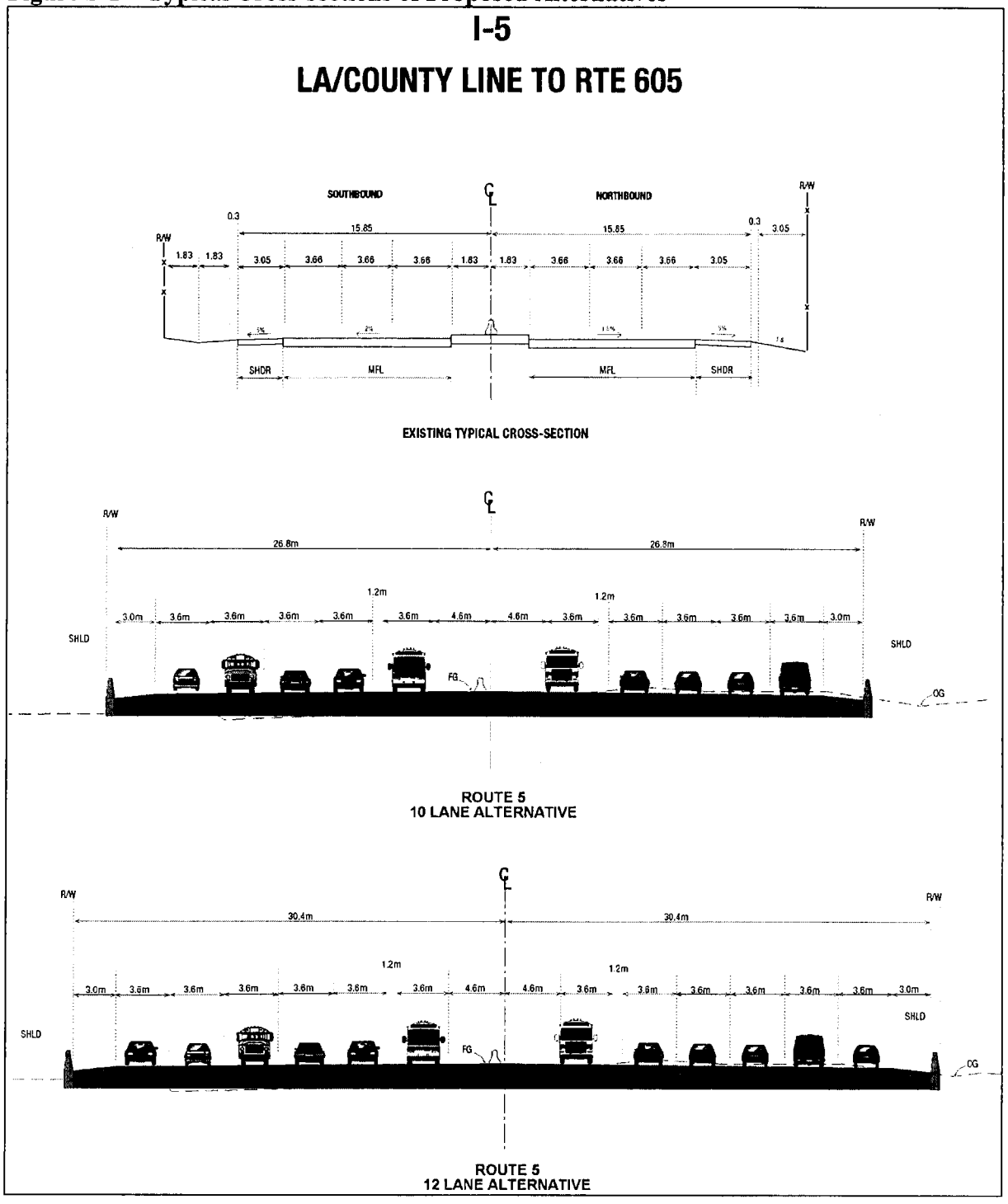
Alternative 3: Transit Enhancement
This alternative would improve the efficiency of transit service through the Interstate 5 corridor. This would be accomplished with the modification and addition of new local and express transit routes. Other improvements under this alternative include: decreasing the headway between buses and alignment of new and modified routes to connect transit hubs and park and ride facilities in the corridor.

The major elements of the selected **Transit Enhancement Alternative** (TEA) include:

- Three possible new transit park and ride joint development sites along the I-5 corridor, with approximately 800 total spaces, near Florence Avenue, Imperial Highway and Rosecrans Avenue at Bloomfield Avenue. These sites could be developed as joint land use transit oriented parking development locations and would be subject to further discussions with local agencies. This may require supplemental environmental documentation if specific land use proposals are not identified prior to selection of preferred alternative.
- Increased frequency and route improvements on several local bus lines in Los Angeles County: Florence Avenue, Firestone Boulevard, Imperial Highway, Rosecrans Avenue, Alondra Boulevard, and Artesia Boulevard in the east-west orientation; and Carmenita Road in the north-south orientation.
- Limited stop bus service increases/implementation on Firestone Boulevard, Whittier Boulevard, Beach Boulevard and La Palma Avenue.
- More frequent express buses along I-5 and I-605 and new express routes serving the Norwalk Green Line station and the park and ride lots along I-5.
- Expansion of Metrolink Service. Various agencies, including the I-5 JPA are working together to increase the commuter rail service between Orange County and Los Angeles County. This would benefit the I-5 freeway corridor.

Alternatives 4 and 5
The proposed project consists of widening the existing six-lane facility to provide an HOV lane and 4 (or 5) general-purpose lanes in each direction. For all design alternatives, the project proposes to alter the profile grade of the facility to meet sight distance and design speed standards improve the operation and safety of the facility. To reduce future impacts to the I-5 JPA Cities, and in anticipation of future traffic needs, all over-crossing structures would be constructed to span across a standard 12 lane freeway cross section. All existing nonstandard hook ramps would be replaced with standard tight diamond configuration ramps. In areas with sensitive right of way, ramp construction would utilize retaining walls instead of embankments. These alternatives proposes 30-foot-wide median, (22-foot-wide medians are proposed within the Carmenita segment, as per Agreement with the JPA, Joint Powers Authority). Use of 22-foot medians at other locations for specific impact mitigation is also being considered.

Figure S-1 – Typical Cross-sections of Proposed Alternatives



The project would also enhance safety and improve operation for local communities by constructing a railroad grade separation on Valley View Boulevard and re-establishing the continuity of Bloomfield Avenue with an under-crossing. Other cross streets and frontage roads would be reconstructed to improve local circulation.

The project would be constructed in smaller segments to limit consecutive ramp closures, minimize traffic congestion during construction, minimize impact to the residents and businesses within the communities, and limit the size of construction contracts to a manageable level.

Construction of the I-5 Corridor Improvement Project is currently programmed to take place over a 5 ½ year period and could begin as early as July 2011. The project would be constructed in smaller segments to prevent consecutive ramp closures, minimize traffic congestion during construction, minimize impact to the residents and businesses within the communities, and limit the size of construction contracts to a manageable level. The construction period for each segment is expected to be less than 5 years.

Alternative 4: Ten Lane Facility
The existing freeway provides three general-purpose lanes in each direction from SR 91 to I-605. The addition of two lanes in each direction is proposed under this alternative. One mixed flow lane and one HOV lane in each direction would bring the total number of lanes to ten. The typical cross-section width of Interstate 5 would be widened from 39 meters (128 feet) to 54 meters (177 feet) under this alternative. Existing soundwalls would be replaced. New soundwalls would be constructed concurrently with the proposed project where noise levels approach or exceed federal noise abatement criteria in residential areas if said mitigation is reasonable and feasible. There are two design variations for this alternative. Those variations are described below.

Alternative 4A: Ten-Lane, Modified MIS Alignment
This alternative includes widening the existing Interstate 5 facility to a full standard, ten-lane, at-grade facility between State Route 91 and Interstate 605. The alignment for this alternative, for the most part, follows the existing centerline alignment of the existing mainline. The proposed alternative represents a modified version of the alignment proposed by the Locally Preferred Alternative in the Major Investment Study (MIS). This alternative proposes four mixed flow lanes and one HOV lane in each direction.

Alternative 4B: Ten-Lane, Value Analysis Alignment
This alternative includes widening the existing Interstate 5 facility to a full standard, ten-lane, at-grade facility between State Route 91 and Interstate 605. The alignment for this alternative was generated to reduce right of way impacts by significantly shifting the existing centerline alignment to the northbound or southbound side of the freeway. Thus, in this alternative, most right-of-way acquisition is limited to one side of the freeway. Locations of alignment shifts were determined in coordination with local cities. This 10-lane Alternative on the Value Analysis alignment maintains all other characteristics of the Modified MIS Alternative.

Alternative 5: Twelve Lane Facility
Alternative 5 would consist of adding three additional lanes to the existing facility in each direction. One mixed flow lane, one HOV lane, and either another mixed flow or HOV lane would increase the freeway to twelve lanes. The typical cross-section width of Interstate 5 would be widened from 39 meters (128 feet) to 61 meters (200 feet) under this alternative. There are two design variations for this alternative. Those variations are described below.

Alternative 5A: Modified 12-lane Alternative
This alternative maintains the same alignment as the Modified 10-Lane alternative. The Modified 12-lane alternative proposes adding an additional lane in each direction. This additional lane would be either an HOV lane or a mixed flow lane.

Alternative 5B: Value Analysis 12-lane Alternative
This alternative maintains the same alignment as the Value Analysis 10-lane Alternative with an additional lane in each direction. The additional lane could be either a mixed flow or an HOV lane.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Section 15126.6(e)(2) of the *State CEQA Guidelines* requires that an EIR identify the "Environmentally Superior Alternative" among the alternatives considered. CEQA states that if the No-Build Alternative does not meet the project objectives, an Environmentally Superior Alternative is identified from the build alternatives. Each of the build alternatives (Alternatives 4 and 5) considered in this EIR would generally result in similar impacts, and each is likely to result in unavoidable significant adverse impacts (construction air quality impacts, local traffic impacts during construction, and impacts associated with relocation of residents and businesses). Alternative 4 would result in fewer or less extensive right-of-way impacts than Alternative 5. Additionally, Alternative 4 could result in increased congestion, inferior improvement in operational air quality, and increased energy consumption compared to Alternative 5. The No-Build Alternative would not result in any of the impacts of either of the build alternatives. However, the No-Build Alternative would not fulfill the projects objectives or provide the benefits the build alternatives would (e.g., improvements to local and interregional access, reduced vehicle miles traveled, or improved traffic circulation). The No-Build Alternative would result in increased congestion, decreased mobility, and increased air pollution and fuel consumption compared to the build alternatives. Additionally, the No-Build Alternative would be inconsistent with the General Plans of the affected municipalities and Southern California Associated Government's Regional Transportation Plan. Consequently, the build alternatives would be environmentally superior to the No-Build Alternative. When compared to each other, Alternative 4 would result in slightly fewer or less extensive right-of-way impacts than Alternative 5. However, Alternative 4 would be less beneficial than Alternative 5. Therefore, at this point neither of the build alternatives can be considered environmentally superior to the other.

SUMMARY OF MAJOR ENVIRONMENTAL IMPACTS

Potential Impacted Resource		No-Build Alternative	Alternative 2 TSM/TDM	Alternative 3 Transit Enhancement	Alternative 4A Modified MIS 10-lane	Alternative 4B Value Analysis 10-lane	Alternative 5A Modified MIS 12-lane	Alternative 5B Value Analysis 12-lane
Land Use and Planning (Consistency with City General Plans)		Inconsistent	Consistent	Consistent	Consistent	Consistent	Inconsistent	Inconsistent
Growth Inducement		Restricting or No Impact			No Impact	No Impact	No Impact	No Impact
Farmlands/Agricultural Lands		No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
Community Impacts	**Relocations**	No Impact	No Impact	No Impact	204 Residential 46 Commercial	108 Residential 42 Commercial	210 Residential 51 Commercial	114 Residential 43 Commercial
	Community Character and Cohesion	No Impact	No Impact	No Impact	Temporary neighborhood disruption during construction periods. Displacement of residents in established neighborhoods.			
	Environmental Justice	No Impact						
Utilities & Emergency/Community Services		No Impact			Possible Intermittent utility disruption during relocation Possible delays in response time for fire, police, and emergency services			
Traffic Transportation Pedestrian Bicycle Parking	**Interstate 5 Corridor**	Substantial degradation of Corridor Level of Service			Improvement in existing and future Corridor Level of Service			
	Transit Service	No Impact	Some improvement	Noticeable improvement in transit service	Temporary change in bus routes and bus stops during construction Some operational improvement due to improved corridor Level of Service			
	Pedestrian Access	No Impact			Temporary pedestrian access impacts during construction periods Improved operational pedestrian access from new pedestrian over-crossing			
	Bicycles	No Impact			Improved operational bicycle access across freeway			
	Parking	No Impact		Additional parking at 3 proposed Park-and-Ride lots	Temporary loss of parking access and street parking during construction periods. Net loss of on- and off-street parking during project operation.			
Visual/Aesthetics		No Impact			Temporary visual degradation during construction periods. Substantial change in appearance of freeway facility. Enhanced freeway landscaping on right-of-way and remnant parcels and aesthetic treatment of structures and soundwalls.			
Cultural Resources	**Historic Resources**	No Impact						
	Archaeological Resources	No Impact			Low likelihood of discovery of subsurface archaeological resources			
Hydrology & Floodplains		No Impact			Increase in freeway drainage surface area			

SUMMARY OF MAJOR ENVIRONMENTAL IMPACTS							
Potential Impacted Resource	**No-Build Alternative**	**Alternative 2 TSM/TDM**	**Alternative 3 Transit Enhancement**	**Alternative 4A Modified MIS 10-lane**	**Alternative 4B Value Analysis 10-lane**	**Alternative 5A Modified MIS 12-lane**	**Alternative 5B Value Analysis 12-lane**
Water Quality & Storm Water Run-off	No Impact			Increase in pollutants from freeway during rain events			
Geology/Soils/Seismic/ Paleontology/Topography	No Impact			Low likelihood of discovery of paleontological resources Minor changes in topography adjacent new structures.			
Hazardous Materials	No Impact			Likelihood of encountering aerially deposited lead, asbestos-containing materials, and lead-based paint. Possible discovery of unknown oil or gas wells and underground storage tanks. Possible discovery of contaminated soils and groundwater.			
Air Quality	Continued degradation of air quality			Temporary fugitive dust and diesel engine emissions during construction periods. Decreased air pollutant emissions during operation.			
Noise & Vibration	No Impact			Temporary increase in noise levels during construction periods. Increase in noise levels during operation.			
Energy	Increasing levels of fossil fuel consumption	Marginal improvement in fossil fuel consumption compared to the No-Build		One-time expenditure of energy to construct Improvements Overall improvement in fossil fuel efficiency of corridor.			
Wetlands & Waters of the United States	No Impact			Temporary impacts to Other Waters of the U.S during construction periods.			
Vegetation	No Impact			Removal of vegetation, including mature trees			
Wildlife	No Impact			Habitat loss for urban wildlife and nesting birds			
Threatened & Endangered Species	No Impact						
Section 4(f) Resources	No Impact			*De Minimis* Impact to two parks			

PREFERRED ALTERNATIVE

Local concerns have been integral to the decision making process. Community comments and public concerns were seriously considered. Issues raised by the various agencies that commented were also considered. FHWA, Caltrans and Metro (also identified as LACMTA or MTA), as the major transportation funding partners for this project, have discussed the various alternatives. Elected officials interested in this project have been consulted. The information contained in this Final EIR/EIS, which includes all comments and responses on the Draft EIR/EIS, was evaluated, discussed and used as the basis for identifying the Preferred Alternative.

The selection of a Preferred Alternative was made after careful consideration of all agency and public comments on this I-5 Draft EIR/EIS. There was support for selection of both the 10 lane and 12 lane build alternatives, specifically Alternative 4B and Alternative 5B. The 10 lane plan is consistent with the freeway sections to the south, in Orange County, while the 12 lane plans provide additional capacity. After evaluation of all factors and all points of view, Alternative 4B was identified as the preferred alternative, at this time. Also called the Ten Lane Value Analysis Alignment, Alternative 4B has been identified as the preferred alignment based upon environmental impacts, funding availability and community acceptance. Also, under CEQA, the 10 lane alternative has been identified as the environmentally superior alternative, when comparing displacement, parkland, noise, air quality and temporary construction impacts.

The primary factors influencing the identification of the Preferred Alternative were:

- A 10 lane project has long been identified as the State, regional and locally preferred option. This is documented in Sections 3.1.3 and 3.13.2 of this document. The Twelve Lane Alternative is inconsistent with the approved local General Plans, SCAG Regional Plans and Metro Long Range Plans for the I-5 corridor. The Ten Lane Alternative is consistent with all these plans.
- During the past two years, public discussions were held by the SCAG Transportation Conformity Working Group, on the 10 lane versus 12 lane alternatives. These meetings involved representatives from FHWA, USEPA, Caltrans, Metro, SCAG, SCAQMD, OCTA, CARB, and other local representatives. At the conclusion of each of these meetings, all parties were in agreement to continue identifying this segment of the I-5 Corridor as a future 10 lane facility. To date, no agency has pursued changes to these agreements.
- When California Proposition 1B Bond funding for this project was in doubt, the leadership of Southern California met and agreed to join together in support of State Bond funding for this project. They followed through with this commitment and argued in support of the 10 lane alternative in front of the California Transportation Commission at their public meeting. The CTC subsequently voted to include Bond Funding for the 10 lane alternative.

Caltrans Districts 7 and 12, Metro, and OCTA have commenced corridor-planning meetings that examine the potential for coordinated inter-county transportation improvements. Long range improvements to I-5 will soon be considered. This Inter-District/Inter-Agency Coordination Committee will reach a formal regional consensus on an appropriate process for expanding Interstate 5 in the future. These planning recommendations would then lead to modifications to Metro's Long-Range Plans, as well as to the RTP, and the RTIP.

AREAS OF CONTROVERSY

The Interstate 5 at Carmenita Interchange Improvement Project has been an area of controversy. After the environmental document was approved in March of 2002, the I-5 JPA brought a lawsuit against Caltrans citing that the state had not adequately disclosed all the environmental impacts associated with the approved project design. A temporary restraining order was issued restricting Caltrans efforts to continue final project design until the lawsuit could be litigated. The I-5 JPA and Caltrans agreed to settle the pending mandate and complaint action without further litigation. As a part of this agreement, some concessions regarding project design were made regarding the cross-section width of the proposed median. Also, Caltrans agreed to consult with the I-5 JPA prior to making any changes to the agreed upon design and to coordinate all interactions with the affected public through the I-5 JPA and/or the cities that have jurisdiction.

The acquisition of residential and commercial property, and associated project costs remains the most controversial issues associated with this project. Existing and projected traffic demand and associated air quality and noise issues have also resulted in some controversy.

Additional areas of controversy with local agencies and the I-5 JPA include the magnitude of loss of sales tax revenues, traffic projections, mitigation of street impacts, the rational for elimination of non-standard design alternatives, and the justification for studying the option of two HOV lanes in each direction under Alternative 5. The description of this project as listed in the current Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) does not include Alternatives 1, 2, 3, or 5. If Alternative 2, 3, or 5 were selected for construction, the RTP and RTIP would have to be amended for the project to be in conformance with the State Implementation Plan (SIP). SCAG and the FHWA have been requested to develop a method of promptly addressing this change, should it occur.

UNRESOLVED ISSUES WITH OTHER AGENCIES

Permits required from U.S. Army Corps of Engineers (404), California Department of Fish and Game (1601), and the Regional Water Quality Control Board (401) would be acquired prior to project construction.

PERMITS NEEDED

The following permits would be required to construct the proposed project:

- Section 404 nationwide permit from the U.S. Army Corps of Engineers
- Section 401 Water Quality Certification from the California Regional Water Quality Control Board
- Section 1601 Streambed Alteration Agreement from the California Department of Fish and Game
- Encroachment Permits from the various cities in which project construction would occur

CHAPTER 1 – PURPOSE AND NEED FOR PROJECT

1-1 INTRODUCTION

Interstate 5 (I-5) between State Route 91 (SR 91) and Interstate 605 (I-605), traversing through the cites of Buena Park, La Mirada, Santa Fe Springs, Norwalk and Downey, serves as a principal corridor linking Orange County and Los Angeles County. It not only provides regional connectivity for Southern California commuters but also provides intra- and interstate connectivity for goods movement.

In July 1981 an Alternatives Analysis was initiated as a cooperative effort which included the California Department of Transportation (Caltrans), Southern California Association of Governments (SCAG), Orange County Transportation Commission (OCTC), twenty six cities, and federal transportation agencies. Named the Santa Ana Transportation Corridor (SATC) Study, this multi-modal analysis examined a three to six mile wide corridor along the I-5 freeway. The improvements recommended in 1984 by the SATC Study included widening I-5 between I-405 and I-605. These recommendations have been implemented between I-405 and SR 91. The portion of I-5 in Orange County south of SR 91 has been widened to ten lanes (1 High Occupancy Vehicle (HOV) lane and 4 mixed-flow lanes in each direction with future provisions for two additional lanes) and the portion of I-5 north of I-605 contains eight lanes. However, the section of I-5 between SR 91 in Orange County and I-605 in Los Angeles County currently has six lanes, creating a recurrent bottleneck on I-5 in both directions. This is the last remaining unimproved segment of the SATC freeway improvement plan.

Currently on I-5, there is heavy congestion in the northbound direction of during AM peak period and southbound direction during PM peak period. These traffic conditions are forecasted to further deteriorate in future years due to a projected increase in traffic demand. A review of year 2025 traffic demands for the I-5 corridor indicates the need for additional roadway capacity. To improve mobility and achieve acceptable levels of traffic operation, the California Department of Transportation (Department), in collaboration with the Federal Highway Administration (FHWA), the I-5 Consortium Cities Joint Powers Authority (JPA) and the Los Angeles County Metropolitan Transportation Authority (LACMTA), initiated a Major Investment Study (MIS) to develop ultimate improvements for the I-5 corridor between SR 91 and Interstate 710 (I-710). The MIS process was completed on July 3, 1998.

Funding for those ultimate improvements was not available or foreseen, so the Department prepared a *Project Study Report* in March 1996 for interim High Occupancy Vehicle improvements that would serve as the first phase of the ultimate improvements addressed in the I-5 MIS. On September 10, 1999 an environmental document approved the interim project which would add a non-standard HOV lane in each direction between SR 91 in Orange County and Lakewood Boulevard in Los Angeles County. The proposed interim improvements would not provide the capacity needed to satisfy the projected future demands, but would help to prevent freeway levels of service from further deteriorating to uncontrollable levels, until such time as the ultimate improvements could be implemented.

In 2000, Governor Gray Davis implemented the Transportation Congestion Relief Program that provided $5.3 billion in critically needed transportation resources to fund more than 100 locally

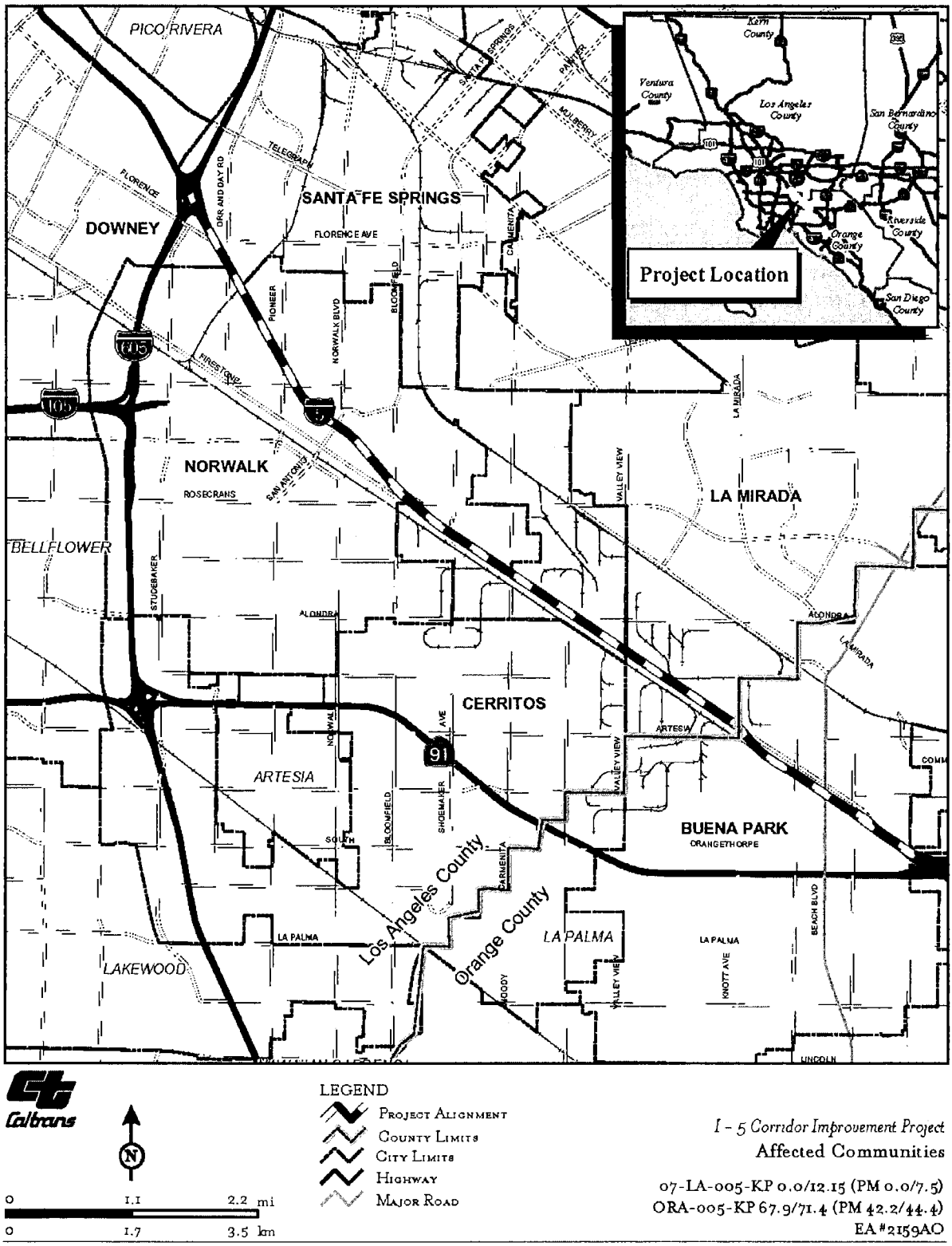
recommended projects throughout California. One of the projects chosen was the ultimate improvement project on Interstate 5 that was proposed in the MIS. With this funding available, focus was shifted towards the ultimate project again.

1-2 THE TRANSPORTATION FACILITY

Interstate 5, from SR 91 to I-605, is a six-lane freeway. The freeway profile grade is generally flat with grades less than 3 percent. There are 18 existing structures (12 overcrossings or bridges and 6 undercrossings), all built between 1953 and 1959. There are several segments of striped auxiliary lanes with outside shoulder widths varying from 0 to 0.6 meters (2 feet) and 0.6-meter (2-foot) inside shoulders. The 3.6-meter (12-foot) wide freeway median has a double metal-beam barrier (on top of a raised island).

North of I-605, I-5 is an eight-lane facility (four mixed-flow lanes in each direction) with 3.05-meter (10-foot) outside shoulders and 0.6-meter (2-foot) inside shoulders. Lane widths are typically 3.66 meters (12 feet). The profile of the freeway is generally flat with grades less than 2 percent while cross-slopes for the traveled way are typically 1.5 percent in straight sections. The freeway median is 3.66 meters (12 feet) wide and includes a double metal-beam barrier situated on top of a raised island. The only major structure involved is the I-5/I-605 separation structure.

Figure 1-1.1 – Project Vicinity Map



1-3 PURPOSE OF THE PROPOSED PROJECT

The primary purpose of the proposed project is to reduce existing and forecast traffic congestion on I-5 between SR 91 and I-605. This project would reduce congestion occurring subsequent to completion of improvements on I-5 south of State Route 91 in Orange County. The project would also constitute the first phase of the recommended ultimate improvements on I-5 that have been identified through the completed MIS process. The project would include short- and long-term strategies to improve regional air quality, and implement Traffic Control Measures (TCMs) in the Statewide Implementation Plan (SIP).

1-4 NEED FOR THE PROPOSED PROJECT

If no improvements are made in the affected section of I-5, traffic delays caused by congestion will substantially increase by the year 2013. According to the 2006 Interstate 5 Traffic and Transportation Study Technical Addendum, by the year 2013 Interstate 5 within the project area will experience 20 hours of congestion in each 24-hour period.

Because northbound Interstate 5 in Orange County (south of SR 91) has four mixed-flow lanes plus one HOV lane, a bottleneck exists when these lanes transition into three mixed-flow lanes near Beach Boulevard. If no improvements are made within the project limits, the northbound section just north of SR 91 will continue as a major bottleneck. Orange County has plans for a 12-lane freeway to the County line, which further supports the need for the proposed project. The proposed HOV lanes would also provide an HOV linkage in the gap on I-5 between Orange County and I-605.

Reconstruction of Interstate 5 would allow the State to implement current functional and safety design standards, which would increase safety and overall operation of the facility. Reconstruction of bridges and interchanges throughout the project area would be designed to accommodate both design and right-of-way objectives of the ultimate corridor footprint.

Freeway Mainline

According to the traffic analysis, in both the existing and 2013 no build scenarios, the northbound freeway segments currently operate at LOS F, with the exception of the segment north of the Artesia on-ramp, which operates at LOS E in both peak hours. In the southbound direction, all freeway segments operate at LOS F in at least one peak hour. In the 2030 no build scenario, all freeway segments are forecast to operate at LOS F in both directions. With implementation of the four mixed-flow lanes (MFL) plus one HOV lane alternative in 2013, some freeway segments are forecast to improve to LOS D or better in at least one peak hour. The exception in the segment north of the Artesia on-ramp, which is forecast to deteriorate to LOS F in both peak hours due to increased traffic volumes. When the four MFL plus one HOV lane is implemented in 2030, some improvement is seen in the northbound direction; however, all segments are forecast to operate at LOS F in the southbound direction.

Corridor Bridge Structures

All of the bridge structures within the project area are structurally deficient and functionally obsolete and need to be replaced.

Freeway Ramps

The freeway ramps generally operate at LOS E or worse in the existing condition, with the exception of the southbound Valley View on-ramp, which operates at LOS C or better, and the northbound Valley View off-ramp, which operates at LOS D. In the 2013 and 2030 no build scenarios, the ramps are forecast to operate at LOS E or worse, with the exception of the southbound Valley View on-ramp, which is forecast to operate at LOS D. Implementation of the four MFL plus one HOV lane alternative in both the 2013 and 2030 horizons would result in some improvements to the freeway ramps, with many locations operating at LOS C.

Intersections

In the existing condition, four intersections currently operate at LOS E or worse. By the year 2013, nine locations are forecast to operate at LOS E or worse. In the 2030 horizon, 15 of the 44 intersections are forecast to operate at LOS E or worse.

Operational Characteristics

The I-5 freeway currently consists of six mixed-flow lanes (three lanes in each direction) from SR 91 to I-605. North of the I-605/I-5 interchange, the freeway widens to an eight-lane facility (four lanes in each direction). Five auxiliary lanes currently exist between SR 91 and I-605: four in the northbound direction and one in the southbound direction. The four northbound auxiliary lanes are located from Beach Boulevard to Artesia Boulevard, Artesia Blvd. to Valley View Ave., Alondra Blvd. To Carmenita Road, and from Carmenita Road to Rosecrans Ave. The southbound auxiliary lane is located between I-605 and Pioneer Blvd.

The existing AM peak period on I-5 extends from approximately 6:00 AM to 9:00 AM, with the peak hour occurring from about 8:00 AM to 9:00 AM. The existing PM peak period extends from approximately 3:00 PM to 7:00 PM, with the peak hour occurring from about 5:00 PM to 6:00 PM. Existing AM and PM peak hour freeway mainline and ramp volume data were taken from the Caltrans Automated Traffic Management System (ATMS) for February 14 and 28 of 1996, March 4, 1998, and February 16 and March 15 of 2000. Between SR 91 and I-605, I-5 carries an average daily traffic (ADT) volume of approximately 173,800 vehicles per day.

The I-5 Corridor is a major local and regional truck route. The percent of trucks currently served by I-5 ranges from 8.1 to 20 percent, with the highest truck traffic levels occurring within the segment between SR 91 and Beach Boulevard. Midday peak hour truck percentages are typically higher than AM and PM peak hours, and can reach as high as 20 percent or more of the ADT.

Travel time is an important measure of mobility. Travel time data are collected through field surveys for periods when no incidents, such as accidents or lane closures, occur on the freeway. I-5 mainline travel time runs were conducted in September 2002 for the segment between SR 91 and I-605 during the AM and PM peak hours for both northbound and southbound directions. The floating-car technique, which is described in the Manual of Transportation Engineering Studies (Institute of Transportation Engineers 1994), was used to perform the surveys. During freeflow conditions, a driver should be able to travel on Interstate 5 between the County line and Interstate 605 in just over eight minutes. During peak periods (northbound during AM and

southbound during PM) congestion on Interstate 5 increases the travel time to an average of almost 14 minutes.

Traffic Safety

Accident data from the Traffic Accident Analysis System (TASAS), Table B, and Accident Summary for a three-year period reveals the following:

Table 1-4.1 – Traffic Accident Analysis System (TASAS) Table B

Location/Period 1999-04-01 2002-03-31	Fatal Actual/Avg (Acc/MV km)	Fatal + Injury Actual/Avg (Acc/MV km)	Total Actual/Avg (Acc/MV km)
Orange/LA Co. Line to Rte 19 Mainline + ramps	0.002/0.008	0.32/0.42	1.47/1.34
Orange/LA Co. Line to Rte 19 Mainline Only	0.002/0.008	0.29/0.42	1.29/1.34

Although the number of fatal accident for this time period with or without ramps remains the same, indicating that all fatalities occurred on the freeway mainline, the overall mainline total actual accident rate, 1.29 is lower than the average accident rate, 1.34, for a similar type of facility.

A closer look at accident data for the project area confirms that the locations with the greatest accident rates are on the ramps and their intersections. An analysis of the types of accident reveals that excessive speed on the hook ramps and congestion while entering or exiting the freeway are the primary collision factors for a majority of the accidents. On the mainline, sideswipe and rear-end accidents account for 85.7% of the types of collisions, and 74% of the accidents occurred between the peak traffic hours of 7 AM to 5 PM peak hours, which suggests that these accidents are congestion related.

Pavement Rehabilitation

Time and increasing traffic have notably impacted freeway pavement while its age has grown past its intended service life. The 2004 Pavement Condition Inventory indicates that the center and outer lanes of the northern half of the project has an average of 30% 1st stage cracking and nearly 20% 3rd stage cracking in the pavement resulting in faulting and poor ride quality. A $22 million dollar capital preventative maintenance project (CAPM project, Expenditure Authorization: 22620) would replace approximately 3500 concrete slabs with 3rd stage cracking between postmile 0 and 12. This rehabilitation is a short-term solution geared towards preserving the ride quality and extending the service life of the existing structural section approximately 5 years.

However, major long-term pavement rehabilitation has been deferred in favor of constructing the new pavement as part of the ultimate facility's improvements for a number of reasons. Rehabilitated pavement sections would be incompatible with the ultimate facility because the build alternatives' require a change in horizontal and vertical alignment. In addition, the

widening proposed by the ultimate facility would accommodate long-term closures and detours while maintaining the full number of existing thru-lanes. The only major drawback to this approach is that the need for rehabilitation grows more urgent as the pavement ages.

1-5 COMPLIANCE WITH MAJOR INVESTMENT STUDY

A Major Investment Study (MIS) Compliance Report (June 1998) was prepared in support of the Initial Study/Environmental Assessment (IS/EA) for the proposed I-5 Interim HOV Lane Improvement Project. The MIS Compliance Report documents how the I-5 HOV Interim Project complies with the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) requirements and MIS guidance, and is consistent with the I-5 Corridor MIS Project ultimate improvements.

Conceptual alternatives were developed for the I-5 Corridor MIS by building on previous studies that had analyzed multi-modal improvements in the I-5 Corridor. The I-5 Corridor MIS No Build and Transportation Systems Management/Transportation Demand Management (TSM/TDM) Alternatives include the interim HOV lanes to reflect the committed and funded status of the Interim HOV Project. In addition, a Locally Preferred Alternative (LPA) for the I-5 Corridor MIS was adopted in January 1998. The LPA includes a full-standard, 10-lane (8 mixed-flow lanes, 2 HOV lanes), at-grade freeway facility between SR 91 and I-710.

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CHAPTER 2 – PROJECT ALTERNATIVES

2-1 DESCRIPTION OF THE ALTERNATIVES

Summarized below are the five alternatives that are evaluated in this Environmental Impact Report/Environmental Impact Study (EIR/EIS). Each includes at least one of the following elements: freeway, bus, rail, intelligent transportation systems (ITS), transportation demand management (TDM), truck, HOV, and roadway improvements. Four build alternatives and a No Build Alternative are being considered:

- Alternative 1: No Build Alternative
- Alternative 2: Transportation Systems Management/Transportation Demand Management (TSM)
- Alternative 3: Transit Enhancement (TEA)
- Alternative 4A: Ten Lane Facility MIS Modified Alignment (MIS 10)
- Alternative 4B: Ten Lane Facility Value Analysis Alignment (Value Analysis 10)
- Alternative 5A: Twelve Lane Facility MIS Modified Alignment (MIS 12)
- Alternative 5B: Twelve Lane Facility Value Analysis Alignment (Value Analysis 12)

PREFERRED ALTERNATIVE

Local concerns have been integral to the decision making process. Community comments and public concerns were seriously considered. Issues raised by the various agencies that commented were also considered. FHWA, Caltrans and Metro (also identified as LACMTA or MTA), as the major transportation funding partners for this project, have discussed the various alternatives. Elected officials interested in this project have been consulted. The information contained in this Final EIR/EIS, which includes all comments and responses on the Draft EIR/EIS, was evaluated, discussed and used as the basis for identifying the Preferred Alternative.

The selection of a Preferred Alternative was made after careful consideration of all agency and public comments on this I-5 Draft EIR/EIS. There was support for selection of both the 10 lane and 12 lane build alternatives, specifically Alternative 4B and Alternative 5B. The 10 lane plan is consistent with the freeway sections to the south, in Orange County, while the 12 lane plans provide additional capacity. After evaluation of all factors and all points of view, Alternative 4B was identified as the preferred alternative, at this time. Also called the Ten Lane Value Analysis Alignment, Alternative 4B has been identified as the preferred alignment based upon environmental impacts, funding availability and community acceptance. Also, under CEQA, the 10 lane alternative has been identified as the environmentally superior alternative, when comparing displacement, parkland, noise, air quality and temporary construction impacts.

The primary factors influencing the identification of the Preferred Alternative were:

- A 10 lane project has long been identified as the State, regional and locally preferred option. This is documented in Sections 3.1.3 and 3.13.2 of this document. The Twelve Lane Alternative is inconsistent with the approved local General Plans, SCAG Regional Plans and Metro Long Range Plans for the I-5 corridor. The Ten Lane Alternative is consistent with all these plans.

- During the past two years, public discussions were held by the SCAG Transportation Conformity Working Group, on the 10 lane versus 12 lane alternatives. These meetings involved representatives from FHWA, USEPA, Caltrans, Metro, SCAG, SCAQMD, OCTA, CARB, and other local representatives. At the conclusion of each of these meetings, all parties were in agreement to continue identifying this segment of the I-5 Corridor as a future 10 lane facility. To date, no agency has pursued changes to these agreements.
- When California Proposition 1B Bond funding for this project was in doubt, the leadership of Southern California met and agreed to join together in support of State Bond funding for this project. They followed through with this commitment and argued in support of the 10 lane alternative in front of the California Transportation Commission at their public meeting. The CTC subsequently voted to include Bond Funding for the 10 lane alternative.

Caltrans Districts 7 and 12, Metro, and OCTA have commenced corridor-planning meetings that examine the potential for coordinated inter-county transportation improvements. Long range improvements to I-5 will soon be considered. This Inter-District/Inter-Agency Coordination Committee will reach a formal regional consensus on an appropriate process for expanding Interstate 5 in the future. These planning recommendations would then lead to modifications to Metro's Long-Range Plans, as well as to the RTP, and the RTIP.

2-1.1 Alternative 1: No-Build Alternative

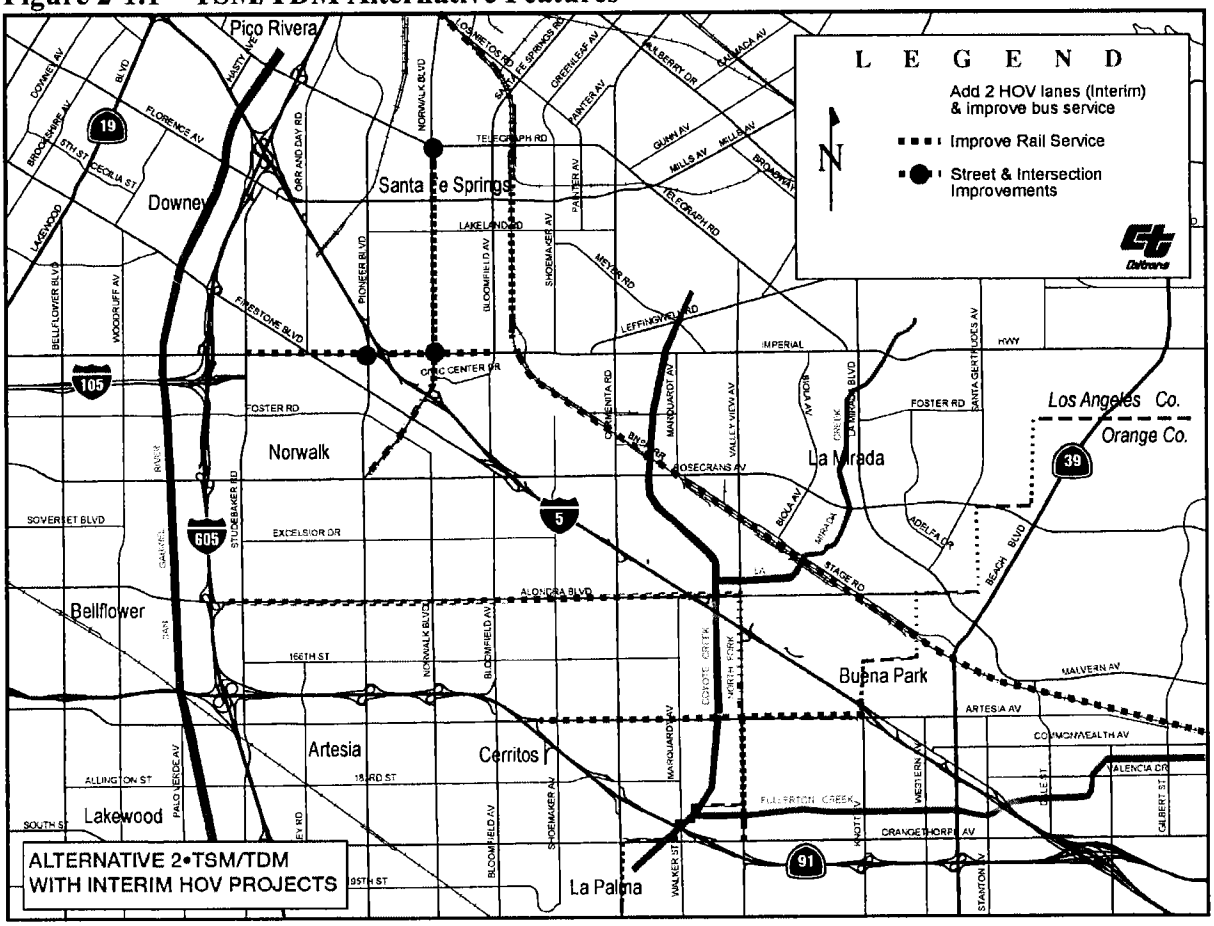
The No Build Alternative assumes that no improvements are made to the I-5 corridor beyond those already committed, and expected to be in place by the year 2025. The key elements of the No Build Alternative are identified in Table 2-1. These elements of the No-Build Alternative are not to be implemented by the State as a part of the proposed project. They are stand-alone projects proposed by partner agencies and are subject to independent environmental and project approval processes. Therefore, environmental impacts of these elements are not discussed in this EIR/EIS.

If the No Build Alternative is selected, it would still be possible for Caltrans to proceed with construction of the previously approved I-5 Interim HOV Lane Improvement Project, which proposed the reconstruction of the median and addition of one HOV lane in each direction (see the I-5 Interim HOV Improvement Project ND/FONSI, September 1999, for more information).

2-1.2 Alternative 2: Transportation Systems Management/Transportation Demand Management

The goal of the Transportation Systems Management/Transportation Demand Management (TSM/TDM) Alternative is to increase the operational efficiency of the existing facilities and to shift transportation users to higher capacity modes such as transit. The TSM/TDM Alternative goes beyond the No Build Alternative by adding transportation system management techniques to those elements already assumed in the No Build Alternative. The key elements of the TSM/TDM Alternative are identified in Table 2-1. The previously approved I-5 Interim HOV Improvement Project could be most appropriately selected for construction with this alternative.

Figure 2-1.1 – TSM/TDM Alternative Features



For more information on the elements of this alternative, see the following documents:

- I-5 Interim HOV Lane ND/FONSI (& technical studies) August 1999
- Arterial and Ramp Terminal Intersections Final Report, Task 2.2.11, Prepared by Meyer, Mohaddes Associates, June 1998.

Table 2-1 - No Build and TSM/TDM Alternatives-TSM/TDM Project Elements		
Element	No Build Alternative	TSM/TDM Alternative (Added elements beyond No Build)
Bus	Planned bus service (2015) by various operators as detailed in and consistent with their Short Range Plans and the MTA Long Range Transportation Plan.	Optimize travel time and reliability, including coordination with rail stations and improvement of headways. Add reverse commute service to OCTA express lines. Additional vehicles would be required on improved routes.
Rail	Completion of Buena Park Metrolink station and Eastern Extension of Metro Red Line to Pomona/Atlantic. Addition of Metrolink reverse commute service in peak periods.	Reduce headways by adding additional trains. Coordinate schedules with other rail and bus lines. Additional vehicles would be required on improved routes.
ITS	Southern CA Priority Corridor, Showcase Project; IMAJINE; Caltrans ATMS; Local Traffic Control Systems; Orange County Travel TIP; SELAC improvements on arterial streets.	Signal Synchronization/Controller Upgrades (remaining signals); Surveillance; I-5 Transportation Management Center; Incident Response Plan; ATIS and message signs; Commercial Vehicle Operations; APTS to increase transit performance.
TDM	Implementation of programs in 1998 SCAG Draft Regional Transportation Plan, including promotion of telecommuting and bicycling.	Create a Transportation Management Association to champion and coordinate TDM strategies. Implement various strategies.
Truck	No elements proposed under this alternative.	Improve arterial street truck operations by implementing recommendations in the Gateway Cities Trucking Study.
Roadway	No elements proposed under this alternative. However, the previously approved I-5 Interim HOV Improvement Project could proceed if this alternative is selected.	Improve additional arterials to Smart Street standards. Enhance intersection capacity with widening, signal phasing, etc. as described in the ITS element. Provide an improved arterial on each side of the freeway as an alternative route from SR 91 to I-710. Provide lane balancing along arterial routes. Construct the Interim HOV Lanes.

2-1.3 Alternative 3: Transit Enhancement

This alternative would improve the efficiency of transit service through the Interstate 5 corridor. This would be accomplished with the modification and addition of new local and express transit routes. Other improvements under this alternative include: decreasing the headway between buses and alignment of new and modified routes to connect transit hubs and park and ride facilities in the corridor. A complete description of the Transit Enhancement Alternative features can be found in the Transit Enhancement Alternative Interim Report (November 2004.) The previously approved I-5 Interim HOV Improvement Project could be most appropriately selected for construction with this alternative.

The major elements of the selected **Transit Enhancement Alternative** (TEA) include:

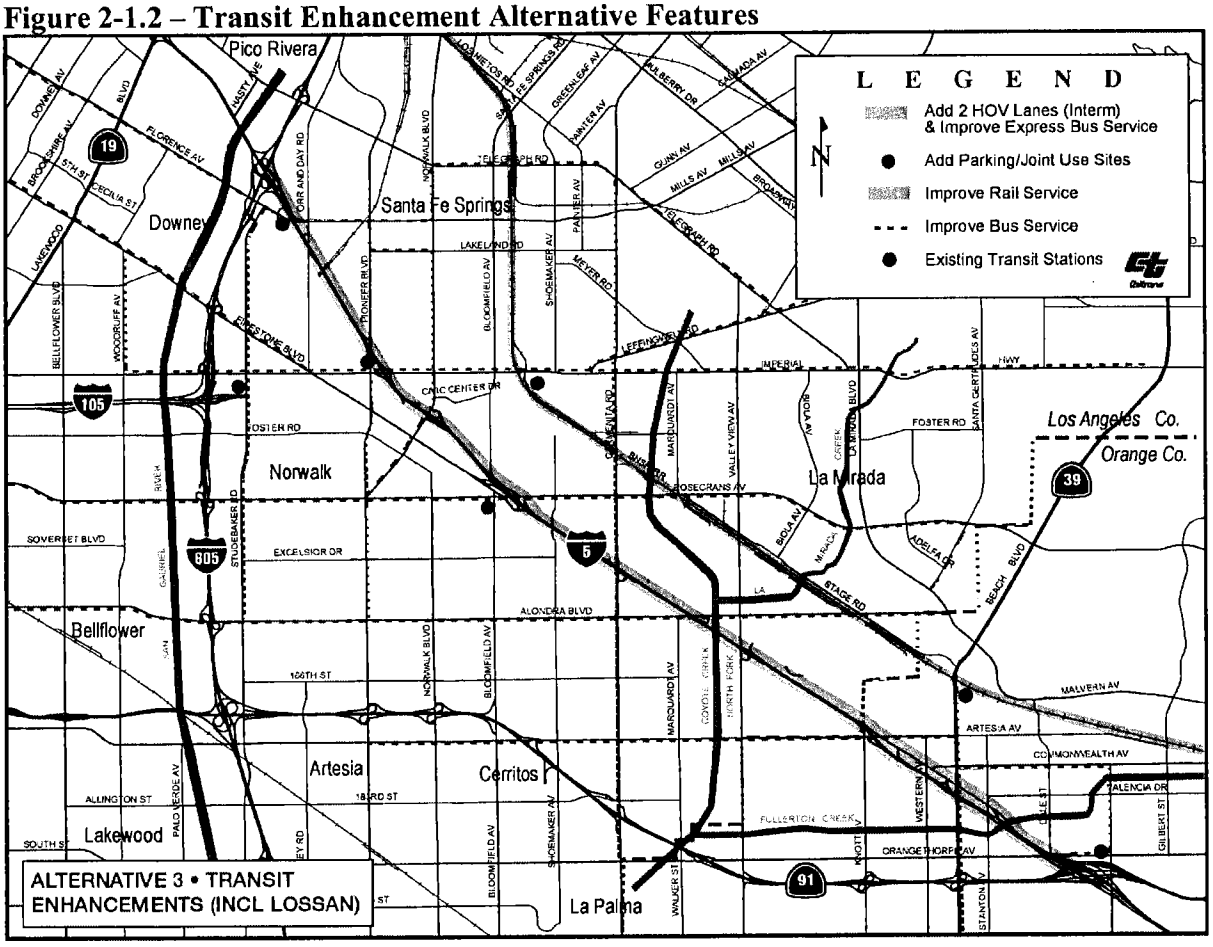
- Three possible new transit park and ride joint development sites along the I-5 corridor, with approximately 800 total spaces, near Florence Avenue, Imperial Highway and Rosecrans Avenue at Bloomfield Avenue. These sites could be developed as joint land use transit oriented parking development locations and would be subject to further discussions with local agencies. This may require supplemental environmental documentation if specific land use proposals are not identified prior to selection of preferred alternative.
- Increased frequency and route improvements on several local bus lines in Los Angeles County: Florence Avenue, Firestone Boulevard, Imperial Highway, Rosecrans Avenue,

Alondra Boulevard, and Artesia Boulevard in the east-west orientation; and Carmenita Road in the north-south orientation.

- Limited stop bus service increases/implementation on Firestone Boulevard, Whittier Boulevard, Beach Boulevard and La Palma Avenue.
- More frequent express buses along I-5 and I-605 and new express routes serving the Norwalk Green Line station and the park and ride lots along I-5.
- Implementation of the Burlington Northern Santa Fe Railway Company Third Main Track and Grade Separation Project. Commuter Rail Improvements would be separately funded (for more information, see the Third Main Track and Grade Separation Final EIR, December 2003).
- Expansion of Metrolink Service. Various agencies, including the I-5 JPA are working together to increase the commuter rail service between Orange County and Los Angeles County. This would benefit the I-5 freeway corridor.

The estimated cost for Alternative 3 is $116,881,000 (excluding rail improvements)

Figure 2-1.2 – Transit Enhancement Alternative Features



For more information on the elements of this alternative see the Transit Enhancement Alternative Interim Report prepared by IBI Group, November 2004.

Alternatives 4 and 5

In general, Alternatives 4 and 5 would alter the profile grade of the facility to meet sight distance and design speed standards to improve the operation and safety of the facility. To reduce future impact, and in anticipation of future traffic needs, all over-crossing structures would be constructed to span across a standard 12 lane freeway cross section. All existing nonstandard hook ramps would be replaced with standard tight diamond ramps. In areas with sensitive right of way, ramp construction would utilize retaining walls instead of embankments. These alternatives propose a 30-foot-wide median, (22-foot-wide medians are proposed within the Carmenita segment, as per a legal agreement with the I-5 Joint Powers Authority). Use of 22-foot median at other locations is also being considered. These build alternatives would also construct a railroad grade separation on Valley View Boulevard and re-establish the continuity of Bloomfield Avenue with an under-crossing. Other cross streets and frontage roads would be reconstructed to improve local circulation. These alternatives would be constructed in phases to minimize impacts to the corridor.

2-1.4 Alternative 4: Ten Lane Facility

This plan would expand the existing freeway from three general-purpose lanes in each direction by the addition of two lanes in each direction. One mixed flow lane and one HOV lane in each direction would bring the total number of lanes to ten. The typical cross-section of the freeway would be increased from 39 meters (128 feet) to 54 meters (177 feet). See Figure 2-1.1 for typical cross-section. Existing soundwalls would be replaced. New soundwalls would be constructed concurrently with the proposed project where noise levels approach or exceed federal noise abatement criteria in residential areas if said mitigation is reasonable and feasible. This alternative has two design options:

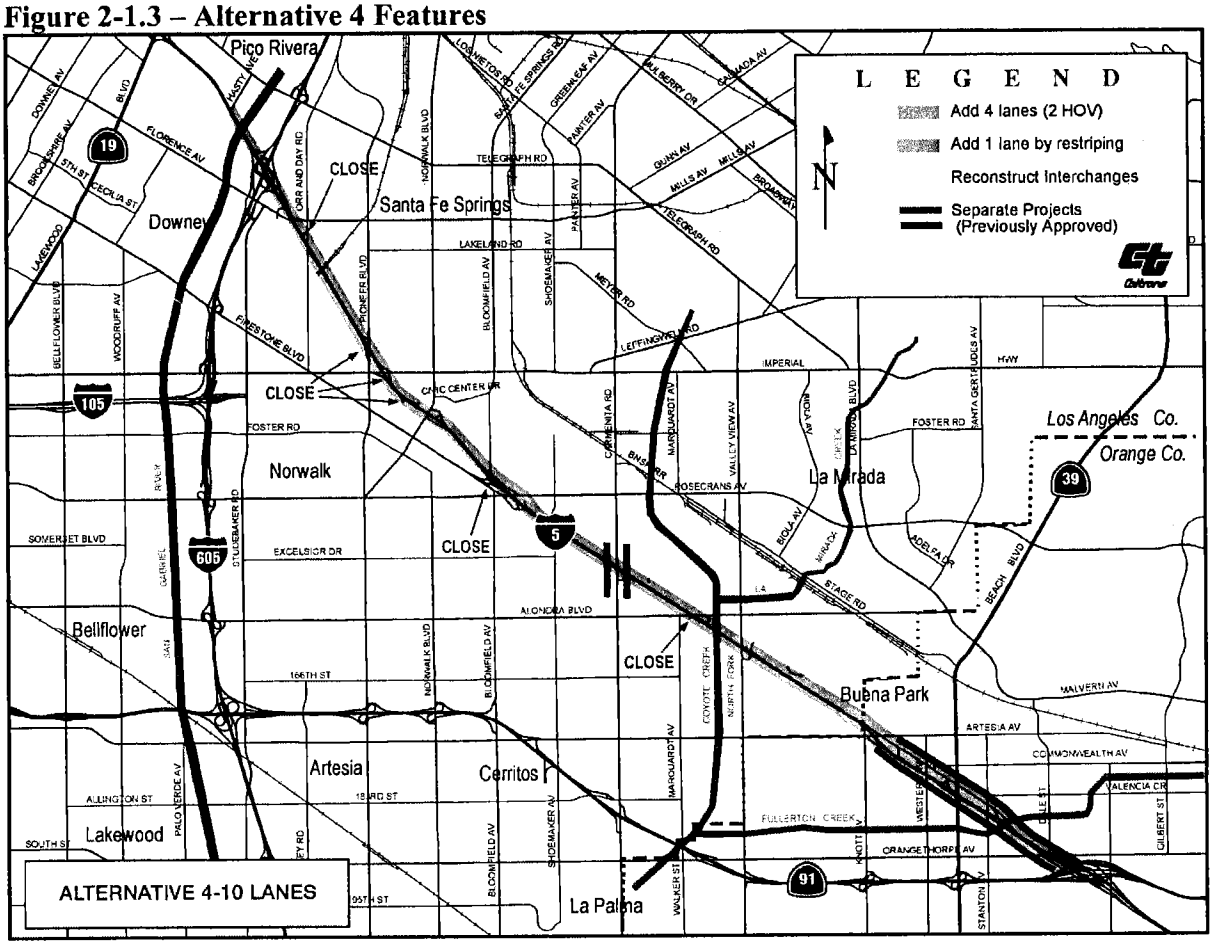
Alternative 4A: Modified MIS Ten-Lane Alignment

This alternative includes widening the existing Interstate 5 facility to a full standard, ten-lane, at-grade facility between State Route 91 and Interstate 605. The alignment for this alternative, for the most part, follows the existing centerline alignment of the existing mainline. The proposed alternative represents a modified version of the Locally Preferred Alternative in the Major Investment Study (MIS) in that the interchanges at Valley View Road and Carmenita Road would remain overcrossings vice changing them to undercrossings as proposed by the MIS LPA. The estimated cost for Alternative 4A is $617 million (2007 estimate is $1,044 million).

Alternative 4B: Value Analysis Ten-Lane Alignment

This alternative includes widening the existing Interstate 5 facility to a full standard, ten-lane, at-grade facility between State Route 91 and Interstate 605. The alignment for this alternative was generated to reduce right of way impacts by shifting the existing centerline alignment to the northbound or southbound side of the freeway. Development of this alternative, and specifically where and to which side the alignment shifts are proposed, was conducted in coordination with the JPA and the individual cities. Thus, in this alternative, most right-of-way acquisition is limited to one side of the freeway. This 10-lane Alternative on the Value Analysis alignment maintains all other characteristics of the Modified MIS Alternative. The estimated cost for Alternative 4B is $594 million (2007 estimate is $914 million).

Figure 2-1.3 – Alternative 4 Features



2-1.5 Alternative 5: Twelve Lane Facility

Alternative 5 would consist of adding three additional lanes to the existing facility in each direction. The typical cross-section of the freeway would be increased from 39 meters (128 feet) to 61 meters (200 feet). See Figure 2-1.1 for typical cross-section. Due to available funding, this alternative may be selected and only 10 lanes initially constructed with the intent to complete the ultimate project when funds became available. This alternative has two design options:

Alternative 5A: Modified MIS 12-Lane Alignment

This alternative maintains the same alignment as the Modified MIS Locally Preferred 10-Lane proposal (Alternative 4A). The Modified 12-lane alternative proposes adding either two mixed flow lanes and one HOV lane, or one mixed flow lane and two HOV lanes in each direction. Estimated cost for Alternative 5A is $668 million. (2007 estimate is $1.133 million).

Alternative 5B: Value Analysis 12-Lane Alignment

This alternative maintains the same alignment as the Value Analysis 10-lane proposal (Alternative 4B). The Value Analysis 12-lane alternative proposes adding either two mixed flow lanes and one HOV lane, or one mixed flow lane and two HOV lanes in each direction. The estimated cost for Alternative 5B is $598,539,000.00. (2007 estimate is $958 million)

Figure 2-1.4 – Alternative 5 Features

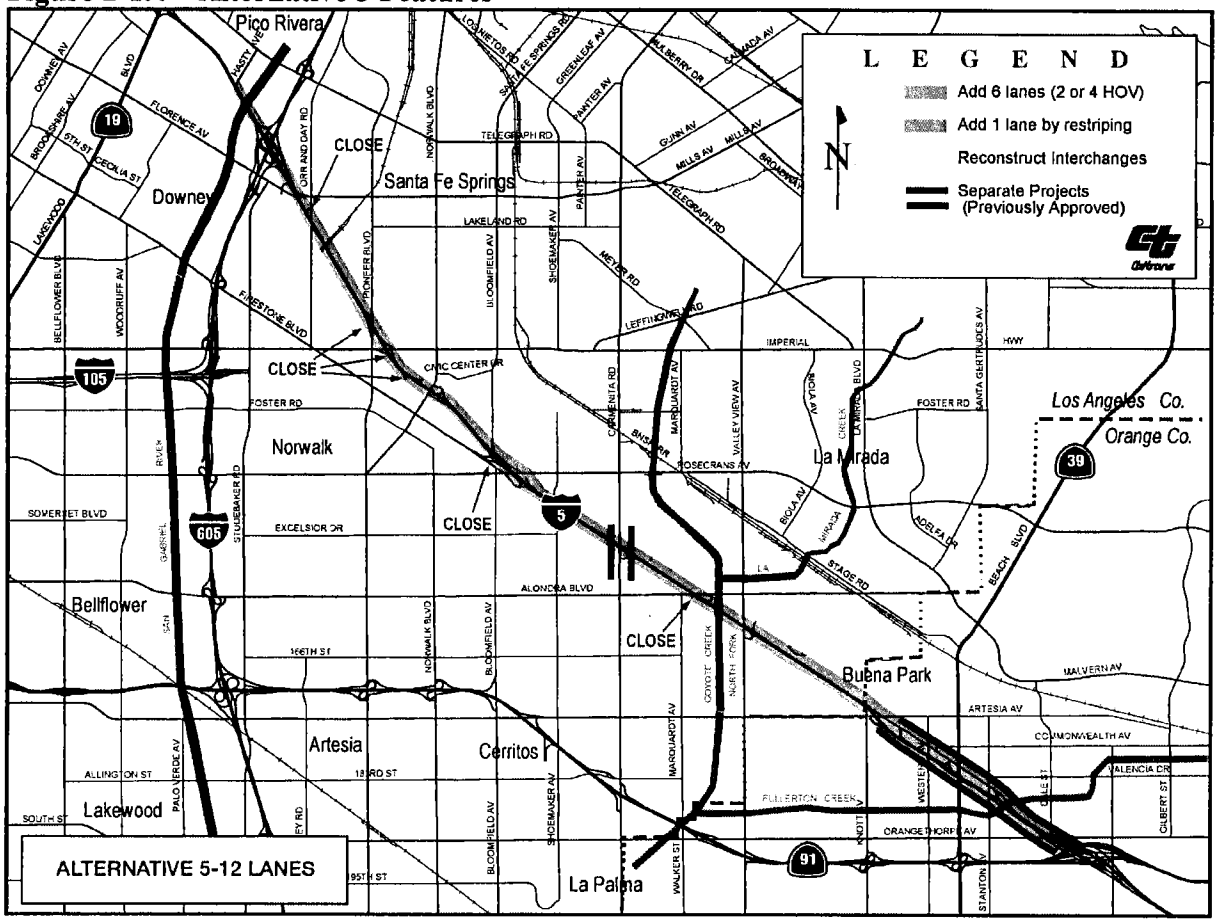
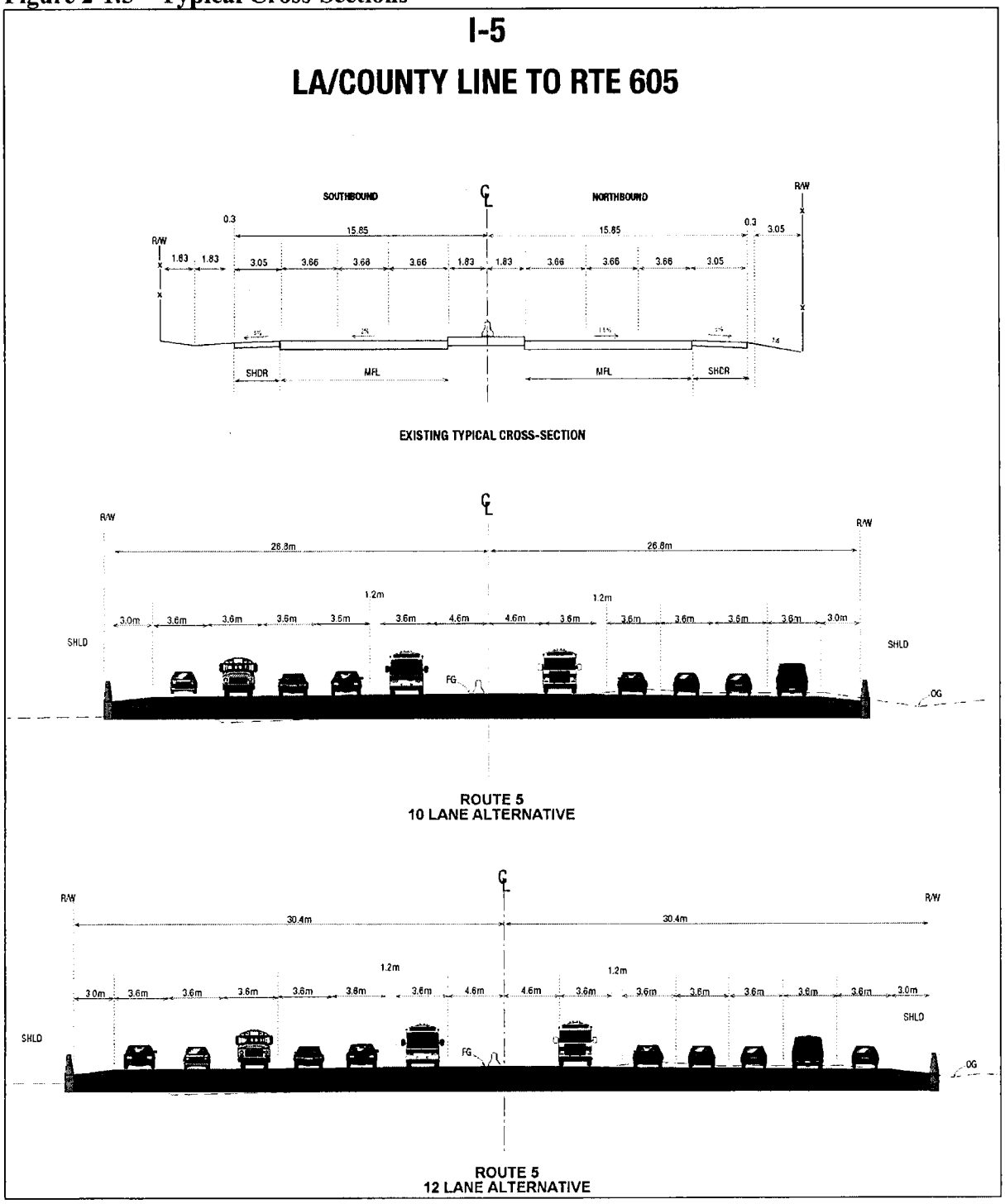


Figure 2-1.5 – Typical Cross-Sections



2-1.6 Proposed Design Features

Horizontal Alignment
The freeway mainline alignment is the backbone of each alternative design option and ultimately plays a central role in determining the right-of-way footprint. The proposed mainline alignments improve upon the existing alignment with increased radii and design speeds. Superelevation is required for curves with a radius less than 6000m, so the curves were designed with radii greater than 6000m to maintain a standard crown section where possible.

Modified MIS Alignment
The Modified MIS Alignment is the existing I-5 centerline with modifications made between the limits of the Carmenita Road interchange and the Valley View Avenue interchange to reduce the R/W impacts.

Value Analysis Alignment
This Value Analysis alignment expands on the same approach used in the Modified MIS Alignment in the Carmenita and Valley View interchanges to encompass the entire project corridor at the requests from the JPA cities to avoid sensitive right-of-way and allow for planned redevelopments.

- This includes a segment in La Mirada where the alignment was shifted south to avoid impacting recent frontage road improvements and planned improvements on the northbound side.
- At the Shoemaker overcrossing, the alignment was shifted north to minimize right-of-way impacts.
- Between Pioneer Blvd and San Antonio Blvd, the alignment was shifted south to impact the residential properties to only the southbound side without affecting the residential properties and the Marriott Hotel on the northbound side as opposed to the Modified MIS alignment, which affects properties on both sides in this area.

In addition to avoiding R/W takes on one side or another; the Value Analysis alignment features geometrically more desirable radii that are larger than the existing radii. The result is a higher design speed and lower super-elevation rates, thereby improving the drainage, easing construction, improving traffic operations, and enhancing the safety of the mainline.

Cross Section
The cross section is a defining feature between the build alternatives 4 and 5. There are design options such as the Modified MIS alignment and Value Analysis alignment, but the cross section remains exclusive to its respective alternative (see Table 2-2 below and Figure 2-1.5 - Typical Cross-Sections).

The build alternatives No. 4 and No. 5 are similar except for the addition of a lane in each direction. Both cross sections provide for a CHP enforcement area with a 9.2 m median (4.3 m shoulder +0.6 m concrete barrier + 4.3 m shoulder), 3.6 m standard width for all lanes, 1.2 m buffer between the HOV and MFL, and standard 3.0 m right shoulders. These standard features are an improvement over the existing freeway cross section with non-standard shoulders and metal beam guard railing in the median.

Table 2-2 - Typical Cross Sections		
Alternative	**Mixed-flow Lanes**	**HOV Lanes**
Alt 1: No-build	6 Mixed-flow Lanes	0 HOV Lanes
Alt 2: TSM (w/Interim Project)	6 Mixed-flow Lanes	2 HOV Lanes
Alt 3: TEA (w/Interim Project)	6 Mixed-flow Lanes	2 HOV Lanes
Alt 4: 10 Lanes	8 Mixed-flow Lanes	2 HOV Lanes
Alt 5: 12 Lanes (5+1)	10 Mixed-flow Lanes	2 HOV Lanes
Alt 5: 12 Lanes (4+2)	8 Mixed-flow Lanes	4 HOV Lanes

The cross sections of the local streets in the interchange area between ramps would be improved to have standard lane widths and shoulders according to Caltrans' standards. Cross streets would be widened in coordination with the cities' plans for future improvements regarding the number of through lanes approaching, and the pedestrian and bicycle accommodations.

Profile

The existing I-5 mainline profile over most of the undercrossing structures has a design speed slightly above 50 mph (80.47 kmh) using the current Caltrans Highway Design Manual (HDM) standards to calculate the stopping sight distance (SSD). The Federal Standards (American Association of State Highway Transportation Officials, AASHTO Green Book) are less conservative regarding the vertical profile and allow for a higher design speed than the Caltrans HDM, around 60 mph (96.56 kmh). Using the Caltrans standard, the mainline profile was designed to meet a minimum design speed of 110 km/hr (65 mph). To accomplish this profile upgrade, the vertical curve lengths were increased so that the curves would be considerably flatter than the existing curves. The profiles between the 10 and 12 lane alternative and the Modified and Value Analysis alignment would essentially have the same design speed and is not a distinguishing factor between the build alternatives.

In the original MIS LPA, the profile of the mainline was raised high enough to accommodate a flip-flop of the structures at Carmenita Road and Valley View Avenue so that these would become undercrossings. Because an undercrossing was undesirable at these locations due to long-term closures, the Modified MIS and Value Analysis alternatives maintain the overcrossing configuration and do not propose to change the general profile configuration of the other structures.

However, the proposed profile would need to be higher than the existing grade by a considerable height just to meet the minimum clearance requirements. In several cases, no falsework (precast structure) may be required just to minimize the raising of the profile and the amount of resulting earthwork. In other cases, additional earthwork may be more feasible. The aim is to find the most economical balance between earthwork and structure work. In areas of an undercrossing, the profile must be raised to adequately clear the cross streets underneath. In areas of an overcrossing, the cross streets' profile would be higher than the existing profile. As part of the structures accommodation for 12 lanes, the clearances are calculated for a 12-lane width.

Interchange and Ramp Modification

Major reconstruction of interchanges is the key operational and safety improvement feature to the design. The proposed configurations beyond the mainline, which include ramps,

interchanges, cross streets, frontage roads, and intersections, are essentially the same in all of the build alternatives. The basic strategy is to eliminate the hook ramps and replace them with a more standard, higher capacity, and safer operating ramps by improving the acceleration and deceleration length, storage length, auxiliary lanes, and ramp termini. The Preferred Alternative will allow interchange ramps to be designed to accommodate a future 12-lane facility.

The Valley View Avenue interchange is proposed to be a tight-diamond over crossing (type L-1) interchange with six through lanes and a grade separated railroad crossing. This is a considerable operational improvement over the existing hook ramps, 4-lane over crossing, and at-grade railroad crossing.

The proposed Rosecrans Avenue interchange would be modified, with the removal of the left lane exit to Firestone Boulevard and the addition of Bloomfield Avenue Undercrossing allowing a more direct north-south traffic flow across the freeway on Bloomfield. The proposed ramp configuration is a tight diamond. However, as new traffic data is currently being gathered, other configurations may be considered to improve operation without increasing the R/W requirements.

Between Norwalk and Imperial Highway, the on and off-ramps with an auxiliary lane are proposed to be removed in favor of a split interchange where the SB on-ramp and NB off-ramp are located at Norwalk Boulevard and the NB on-ramp and SB off-ramp are located at Imperial Hwy.

The proposed ramps at Florence connect directly to Florence as opposed to the existing hook ramps connected to small side streets. Similar to the other interchanges, this configuration is also a type L-1 interchange.

High Occupancy Vehicle (HOV) Lanes

The proposal is to add one 3.6 m (12 ft) wide HOV lane in each direction with a 1.2 m (4 ft) buffer separating it from the mixed-flow lanes and a 4.3 m (14 ft) left shoulder for continuous CHP enforcement. These HOV lanes would be in constant operation and would be accessible via ingress/egress sections at various locations along the project corridor.

With the 12-lane proposal for double HOV lanes and 4 mixed-flow lanes in each direction, the overall operation appears to be the same as the proposal to add only one HOV lane and 5 mixed-flow lanes in each direction.

Ramp Metering/HOV Bypass Lane

All proposed on-ramps should have a ramp meter and HOV bypass lanes to improve peak-hour operation and encourage carpooling. However, there would be exceptions to having a bypass lane for various reasons, including R/W limitations, and operational conflicts. The locations with exceptions are the NB Rosecrans Avenue on-ramp, SB San Antonio Avenue on-ramp, and the NB Imperial Highway on-ramp. These ramps have heavy general-purpose traffic coming from the double left-turn lanes on the cross street, which could trap single occupancy vehicles in a bypass lane. Unless the ramp can be widened to three lanes, there cannot be an HOV bypass lane. Because available R/W is very limited, an exception is necessary for these locations.

CHP Enforcement Areas
In coordination with the California Highway Patrol, HOV Enforcement Areas have been added to the project design. There are two types of areas utilized for CHP enforcement areas. In the median shoulder, 4.3 m (14') is proposed for a continuous CHP enforcement area along the HOV lane. On the on-ramp shoulder, a CHP enforcement area is provided to monitor the ramp meter and HOV bypass lane. These two measures should help reduce the violation rate and increase the HOV percentage.

Utility and Other Owner Involvement
Additional acquisition of Right of Way would be required for this project with any of the build alternatives. The construction and removal of structures, frontage roads, local streets and other roadway items would impact the existing utilities and sewer system. Relocation of various utility facilities would be required.

The exiting utilities within the project area have been identified with the help of the City, County, other government agencies and private utility firms by gathering the latest as-built drawings, topographic maps, survey maps and by field observation and measurements.

A preliminary utility relocation study has been completed. A refined and detailed study would be conducted during the design phase, which would include but not be limited to work such as replacing utility lines, relocation power poles and overhead power lines, acquiring new easement for relocated facilities, providing temporary connections during construction, and replacing various gas, oil, telephone, water, and power lines.

Railroad Involvement
The Union Pacific Rail Road (UPRR) runs adjacent to the I-5 approximately 150 meters southerly to the I-5 centerline from State Route 91 to Rosecrans Avenue. Beyond this cross street, the I-5 diverges away for this set of tracks. A separate set of tracks crosses underneath the I-5 at the Orr and Day Road Overhead. The I-5 project corridor has at-grade railroad crossings at Artesia Avenue, Knott Avenue, Valley View Avenue, Carmenita Road, Marquardt Boulevard, Alondra Boulevard, Shoemaker Avenue, Bloomfield Avenue, and Rosecrans Avenue. Because of their close proximity to the I-5, the train operations have been observed to affect the mainline freeway operations where the queue of cars on the off ramp has backed up into the mainline. To remedy this operational conflict, a grade separation at Carmenita Road (under a separate EA 2159C0) and Valley View Avenue are proposed. However, this improvement would not directly impact the R/W or the UPRR tracks, since, the structure bents and columns would remain outside of the UPRR right of way.

The Orr and Day OH would have to be reconstructed (widened and raised) to accommodate the proposed I-5 mainline. This structure must maintain the existing clearances from the tracks, meet the required minimum distance from the centerline of tracks to the face of the structures, and not affect the railroad R/W. These improvements would require a railroad agreement to be obtained as part of this project.

Highway Planting
Because the visual quality of the freeway area is considered medium or low, landscaping would be a integral part of this project's aesthetics value. The preliminary design and cost of the

highway planting are based upon the standard Caltrans landscaping practices. An Aesthetic Subcommittee headed by the Caltrans Landscape department comprised of various State and local agencies including Caltrans structures and the cities, has been meeting at various stages of the design to develop a coordinated aesthetic guideline for the I-5 facility throughout the corridor. The goal is to implement the Caltrans policy, on "context sensitive solutions" that achieves a balance between maintaining an aesthetic uniformity along the corridor while enhancing the individual identity of each city. The amount and type of treatments would depend on the negotiations on the cooperative agreements regarding costs and maintenance with each city in the Aesthetic Subcommittee.

Erosion Control

Projects of this magnitude (two hectares [5 acres] and above disturbed soil) containing both cut and fill areas up to 7 meters in height, which could be subject to erosion, require implementation of a Storm Water Pollution Prevention Plan (SWPPP) to meet water quality discharge requirements under the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) Permit. The San Gabriel River, Coyote Creek, and the North Fork Coyote all carry storm water from within the project limits and construction within these channels may be restricted to the dry season only. However, implementation of the SWPPP is a year round process. At this stage, all of the 10 or 12-lane build alternatives would have the same best management practices (BMP's) to control the discharge.

The segment of the I-5 between route 19 and the Orange County line, which this project lies within, is part of a site selection study for the implementation of infiltration basins for the treatment of storm water runoff. Evaluation of potential infiltration basin (IFB) sites are being conducted based on the availability of right-of-way outside of the roadway design footprint. Four locations from north of Coyote Creek to the Rio Hondo river segment were considered as some of the best areas for a potential IFB sites because they are located in an areas of significant recharge to the Central Ground Basin. They are:

- NB on ramp from Alondra Boulevard
- NB off ramp to Firestone Avenue
- 5 NB on ramp from San Antonio Avenue
- Between 605 and 605 NB to 5 NB ramp

An additional area at the SB off-ramp to Rosecrans Avenue was evaluated for an IFB site. However, after the setbacks and other area requirements are considered the remaining area did not meet the minimum area necessary for implementation.

Noise Barriers

A noise impact study was conducted using a level-of-service C (a total of 1950 vehicles per hour per lane and a 9% truck traffic distribution based on the year 2000 truck traffic statistics was also factored into the study) for the projected traffic in the year 2025 to ensure an operational worst-case traffic noise scenario at the sensitive receptor locations where the future first row of houses would be located for both the 12-lane Modified MIS and 12-lane Value Analysis alternative.

The noise impact study recommended segments of noise barriers ranging in height from 2.4m (8ft) to 4.9m (16ft) along the future right-of–way for most of the freeway bordering residential areas. In many cases, noise barriers would be built on retaining walls and barriers because of restrictive R/W conditions. In addition, it is recommended as a construction noise mitigation measure to build the noise barriers as early in the construction schedule as possible to provide the least amount of disturbance to the remaining neighboring residences.

Non-Motorized and Pedestrian Features

To improve the safety of both motorists and bicyclists, the designed overcrossings and undercrossings at Valley View Avenue, Bloomfield Avenue, Pioneer, and Florence Avenue, for all of the build alternatives, have cross section widths to accommodate proposed regional *Class II* bike routes under the Southeast Area Bicycle Master Plan. In most cases, this involves a striped 1.5 m bike lane including a gutter or a striped 1.2 m bike lane without a gutter in the shoulder area. Provisions for a future *Class I* bicycle undercrossing at Coyote Creek are also being studied.

The proposed sidewalks are equal to the widths of the existing sidewalks approaching the reconstruction to provide a continuous pedestrian facility. In addition, the Americans with Disabilities Act (ADA) standards as described in the Design information bulletin 82 updated in November 2004 would be incorporated into all pedestrian facilities.

Needed Roadway Rehabilitation and Upgrading

Due to its age and heavy use, the existing pavement on Route 5 is showing signs of deterioration. To address the rehabilitation needs of this segment, short-term strategies are proposed to improve the rideability on Interstate 5 until a long-term solution can be constructed.

In the short-term, a Capital Preventative Maintenance Project (CAPM Project) Expenditure Authorization (EA) 226204, from the LA/Orange County line to Washington Boulevard, dated February 17, 2004, has been under construction to replace 1921 deteriorating concrete slabs with 205 mm rapid strength concrete (RSC) in both directions, and cold plane and place 45 mm Rubberized Asphalt Concrete Type G (RAC Type G) on all ramps, shoulders, and AC lanes. The slab replacement strategy was favored over an overlay strategy due to reduced vertical clearances at structures and overhead signs and drainage problems on the mainline. Although it would have been preferable to be able to reconstruct the pavement as part of the HOV project, the preventative maintenance of the pavement is already needed and can no longer be deferred until the HOV project is ready for construction. Five years after completion of this CAPM project, another maintenance project may be needed unless the HOV project can be ready.

The long-term rehabilitation strategy is developed in a Project Scope Summary Report for Pavement Rehabilitation completed in October 1997 recommending a long-life lane replacement strategy from the LA/Orange County line to Washington Blvd. A supplemental PSSR was completed in September 1999 to add the cost of dowel bar installation to the slab replacement from Rosecrans Avenue to Washington Boulevard. The long-life strategy includes replacing the existing mainline with 300 mm Portland Cement Concrete (PCC) over 150 mm lean concrete base (LCB), the ramps and interchanges with 230 mm Asphalt Concrete (AC), and the ramp termini with 310 mm PCC.

This project's current recommendations are based on traffic index projections up to the year 2030, which is a long-term pavement strategy. However, since the structural recommendations were given in February 2003, the Highway Design Manual (HDM) has been updated in July 2004 to increase the standard PCC pavement section to 300 mm from 260 mm for a traffic index (TI) of 14 and greater. This project's projected TI is 14.5 and the current recommendation calls for 285 mm PCC pavement. The structural section recommendation would be updated to reflect the changes in the HDM and the estimates would be revised.

Needed Structure Rehabilitation and Upgrade

For both the 10 and 12-lane options, the widened cross section would require vertical alignment adjustments to allow for upgraded standard vertical clearances. Horizontal alignment shifts would also be used to avoid right-of-way takes and facilitate stage construction. Therefore, all of the overcrossing and undercrossing structures for both the 10 and 12 lane alternatives must be reconstructed to accommodate the widening. The Structural Analysis and Improvement Needs (STRAIN) report does not indicate any structure rehabilitation, however, a majority of the structures have been identified with a bridge railing system upgrade and the Silverbow pedestrian overcrossing would need to have an improvement to conform to the current American Disabilities Act Standards. At this point, there are currently no separate proposals for upgrading these structures so these improvements are deferred until the I-5 Corridor Improvement Project can be built.

Right-of-Way Data

Right-of-way costs are the single largest item currently representing approximately 50% of the total project cost. Between each alternative, R/W costs contribute the most significant difference in costs. Right-of-way data sheets were made for each alternative based on preliminary assessments of full and partial acquisition on residential and commercial properties (see Attachment 8 of the Project Report). The commercial properties that were only partially affected were assessed without standard setbacks and may be upgraded to a full acquisition if cities do not grant legal-noncompliant status for these properties.

2-2 ALTERNATIVES CONSIDERED AND WITHDRAWN

In addition to the alternatives that are examined in this document, several other alternatives were considered, but were subsequently withdrawn. They are:

- The Major Investment Study Locally Preferred Alternative with non-standard features. This is a 10-lane alternative that was suggested by the I-5 JPA and included non-standard features such as lane widths and median widths. It also included tight-diamond interchanges with structures that would have a maximum 10-lane cross-section. This alternative was withdrawn from further consideration due to: lack of operational improvements, poor geometrics, excessive amount of non-standard features, lack of space for future freeway expansion capabilities, and local opposition to access road cross-sections.

  Caltrans has continued to work with the JPA and local cities on the design of the freeway to address concerns about property impacts and the inclusion of an option or alternative acceptable to them. While some of the corridor cities and also some members of the JPA may continue to support the modified non-standard alternative, a new alternative (the Value Analysis Alternative) has been developed working with the cities and the JPA. Additional

non-standard features would continue to be considered through the design process, especially as a recommended alternative is selected after the public circulation process.

The following alternatives were examined during the Major Investment Study process and were withdrawn from further consideration in the final MIS Report. The findings of the MIS Final Report are hereby incorporated by reference in accordance with 40 CFR 1502.21.

- Alternatives to add two or three mixed flow lanes, rather than HOV lanes. These alternatives were rejected during the MIS process because they are inconsistent with applicable air quality plans for the region.
- Alternatives that incorporated elevated structures for HOV lanes. These alternatives were rejected during the MIS process because of high capital cost, lack of local access, and broad community opposition.
- An alternative to construct light-rail or commuter trains to the median of Interstate 5. This alternative was rejected during the MIS process due to high cost, lack of logical termini, lack of connectivity to other rail lines, and inconsistency with the improved section of the I-5 freeway directly to the south.

For additional analysis supporting these findings on why these alternatives were rejected, please review the Interstate 5 Major Investment Study (MIS) Report (July 1998). The MIS was made available to potentially interested persons during the comment period of the Draft EIR/EIS.

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CHAPTER 3 - AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES

HUMAN ENVIRONMENT

3-1 LAND USE

3-1.1 REGULATORY SETTING

Public Resources Code 21083, 21087 and the California Environmental Quality Act Guidelines Section 15126.2(a) require lead agencies to assess the impact of a proposed project by examining alterations in the human use of the land, including population distribution and population concentration, and commercial and residential development. Section 15131 allows public agencies to consider economic and social impacts when determining the significance of an environmental impact.

The description of the affected environment is based on data from the U.S. Census Bureau and from State of California and County of Los Angeles/Orange sources. County-, City-, and tract-level data are available from the 2000 census. This section describes demographic characteristics of Los Angeles and Orange Counties, the affected communities, and, when detailed tract-level data are available, the smaller "study area."

Council on Environmental Quality (CEQ) regulations 40 CFR 1502.16(c) require environmental documents identify possible conflicts between the project and local land use plans.

3-1.2 AFFECTED ENVIRONMENT

Information regarding land use was obtained from the I-5 Corridor Improvement Project Community Impact Assessment, March 2005, and the I-5 Interim HOV Land Use & Socioeconomic Technical Study, Myra L. Frank & Associates, Inc., August 1998.

Study Area

The regional area includes Los Angeles and Orange Counties. The "affected communities" include the total area of the Cities of Buena Park, Cerritos, Downey, La Mirada, Norwalk, and Santa Fe Springs. The "study area" henceforth refers to the 16 census tracts identified in Figure 3-1.2.

Regional Area

The I-5 Corridor is located in northern Orange and southeast Los Angeles Counties in Southern California. The southern limit of the corridor is located at the Riverside Freeway (SR-91) in Buena Park, and its northern limit is the I-605 Freeway.

Affected Communities

The affected communities, as shown in Figure 3-1.1, include the total area of the Cities of Cerritos, Downey, La Mirada, Norwalk, and Santa Fe Springs in the County of Los Angeles and the City of Buena Park in the County of Orange. These communities may be directly affected by the alternatives through the expansion of transportation facilities, modification of streets, right-of-way acquisition, or displacement of homes and businesses. Residents within these communities

may experience reduced local or regional travel time by improved access to a higher capacity transportation facility. Residents may also benefit from improved mobility across eastern Los Angeles County and northern Orange County.

Five of the six affected communities are members of the I-5 Consortium Cities Joint Powers Authority (JPA). The JPA is a six-city joint powers authority that serves approximately 350,000 people in the Cities of Buena Park, Commerce, Downey, La Mirada, Norwalk, and Santa Fe Springs.

Existing Land Use

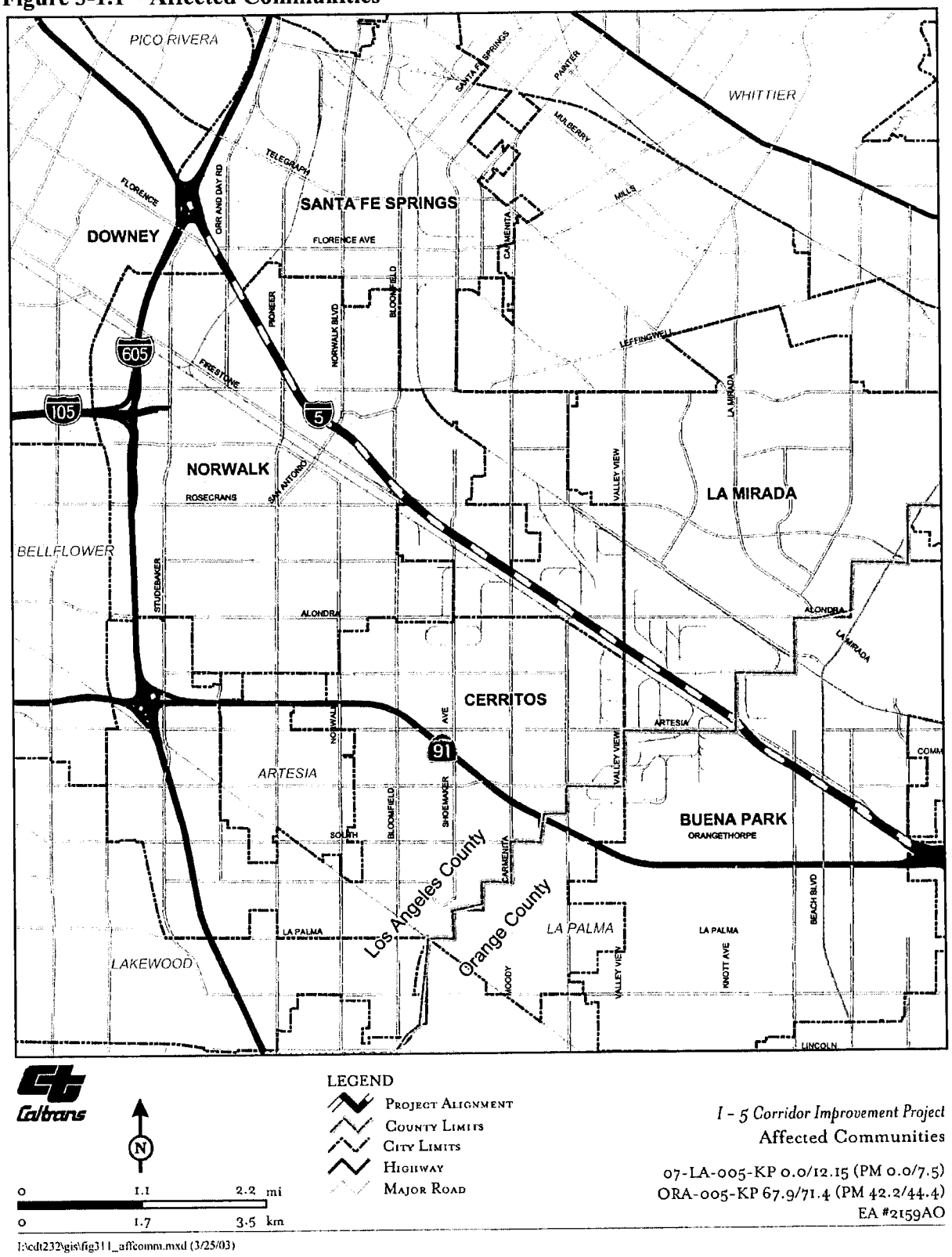
The land use pattern along I-5 is primarily residential, but also contains scattered large-scale, regional commercial uses, as well as pockets of industrial development. A long stretch of commercial properties begins at the Corridor's southern limit (SR-91) and extends northward through the City of Santa Fe Springs toward Shoemaker Avenue. In general, a mixture of commercial and residential uses prevails south of Santa Fe Springs, while residential uses predominate north of Santa Fe Springs in the cities of Norwalk and Downey. Overall, the corridor cities are older, substantially urbanized communities, where existing development and land use patterns have been in place for many years.

General Plan Land Use Patterns[1]

The General Plans of the six affected communities were reviewed in order to understand the development trends, land use-related goals, and specific policies of the local jurisdictions that could be affected by the proposed project. According to the local general plans, substantial new growth in the area is negligible, occurring slowly as a result of redevelopment projects in selected areas. Two generalizations about the corridor cities emerge from the General Plans. First, most of the cities acknowledge their strategic locations along the I-5 Freeway. The freeway has been important in shaping their land use and economic development patterns, providing access to several major regional freeway and rail corridors. Second, the General Plans reveal that many of the corridor cities are experiencing a lack of civic identity. Thus, many of the land use goals and policies seek to foster a sense of uniqueness within the constraints of very mature and fully developed communities. The following sections discuss the local General Plans.

1 Land use patterns as identified in the I-5 Interim HOV Land Use & Socioeconomic Technical Study, Myra L. Frank & Associates, Inc., August 1998.

Figure 3-1.1 – Affected Communities



Buena Park. Buena Park has been fully urbanized for several years. Development is characterized by low-density residential neighborhoods, a solid commercial base, a well-developed tourist and entertainment industry, and an established industrial base. The City of Buena Park is divided into four planning areas. Both the Central Business District (CBD) and the Central Planning Area border I-5 to the north and south, respectively. The CBD area includes most of the city s multifamily housing, as well as auto dealerships. With the exception of the residential areas, most of the CBD planning area is part of a redevelopment project area to promote economic revitalization. The city has a Central Business District Specific Plan covering the area east of Knott Avenue and north of I-5. It promotes new investment and redevelopment in an expanded CBD and would entail establishing a new zone district. In the same Planning Area, the city has adopted the Auto Center Specific Plan to promote continued development of auto dealerships along the highly visible and freeway-accessible areas of Manchester Boulevard and Beach Boulevard. A new zone district has been created to expand dealerships, allow for supporting retail uses, and create signage standards. Within this plan area, there are several projects currently proposed. There is a 20-acre automobile dealership center proposed for a site adjacent to the freeway extending from Botryoides Avenue/Artesia Boulevard on the north to Western Avenue on the south. The Central Planning Area includes the Civic Center, several historic residences and businesses, and older residential areas. No specific plans in this Planning Area cover areas near I-5. Relevant land use-related goals and policies stipulated in the City's General Plan are summarized below:

- Ensure that the development proposals are compatible with existing development and promote the quality of life.
- Preserve the single family character of low-density neighborhoods and upgrade high-density residential neighborhoods.
- Preserve and enhance commercial areas and expand commercial development opportunities.
- Maintain a high level of quality industrial development.
- Encourage the development of a safe, efficient, and comprehensive circulation system.

Cerritos. The City of Cerritos is an established, fully urbanized city. Most of its land is dedicated to residential uses (37 percent), while freeways/public streets accounts for the second-largest land use in the City (23 percent). The Area Development Plans (ADPs) account for 14 percent of all land uses, and commercial and industrial uses make up 9 percent and 13 percent of land use, respectively. There are no ADPs or redevelopment areas located near I-5. Relevant land use-related goals and policies stipulated in the City's General Plan are summarized below:

- Preserve, promote, and protect the existing high-quality physical development and quality of life that characterizes life within the City of Cerritos.
- Coordinate land use and circulation patterns to ensure proper circulation capacity and infrastructure.

Downey. The City of Downey is largely built out. However, new development is occurring in the city through recycling, redevelopment, and/or revitalization of existing properties. Planned development would generally replace older structures. There are no redevelopment areas located in the vicinity of the proposed improvements. However, the project is located within the Florence Avenue/I-5 Specific Plan 90-1, bounded by I-605 on the west, the City of Santa Fe Springs on the east and the City of Norwalk on the south. Specific Plan 90-1 serves as the planning and

development regulations for future improvements to the 39-acre area, focusing on the introduction and intensification of auto and auto related uses. The Specific Plan consists of 12 sites. The City of Downey has indicated that one commercial parcel located on Site 1 (11111 Florence Avenue) of the Specific Plan is currently vacant and would be redeveloped in compliance with the development regulations identified in Specific Plan 90-1. As of December 2004, the City of Downey has received no applications for redevelopment.[1] Relevant land use-related goals and policies stipulated in the City's General Plan are summarized below:

- Maintain the high-quality and single-family character of the City.
- Maintain a balance of land uses
- Coordinate land use and transportation needs of the City.
- Promote project designs that reduce dependency on vehicles and promote pedestrian, transit, and alternative modes of travel.
- Promote commercial and residential uses in proximity to transit stops to reduce dependency on vehicles.
- Retain existing businesses and attract new businesses.

La Mirada. The City of La Mirada is a fully urbanized city. Single family residences are the predominant land use in the City. Industrial development is concentrated in the southern part of the city around I-5. The City's redevelopment area borders the freeway on both sides. The City aims to maintain its balance of land uses and preserve its single-family neighborhoods and open space areas. Focused land use policies within the La Mirada General Plan (March 2003) recognize the new opportunities and improved access that would result from the planned widening of I-5. Portions of the study area are located within the I-5 Corridor Land Use Focus Area, as identified in the City's General Plan. Relevant land use-related goals and policies stipulated in the City's General Plan are summarized below:

- Preserve established neighborhoods.
- Maintain an atmosphere conducive to industrial development.
- Maintain a balanced community that meets the needs of all residents.
- Obtain positive land use and economic benefits from the widening of Interstate 5.

Norwalk. Low-density residential uses make up over 45 percent of all land uses within the City of Norwalk. In contrast to other cities within the study area, Norwalk has limited commercial or industrial development. Only 6 percent of land uses are commercial, and only five percent are industrial. Open space/public facilities and undesignated uses account for the balance of land uses within the City. Plans for new development are confined to specific sites within the City because Norwalk is fully urbanized. Currently two redevelopment areas within the City are intended to eliminate physical and economic conditions of blight. Within the study area, new development contemplated includes the proposed expansion of the Civic Center (Norwalk Boulevard and I-5, located within Redevelopment Project 1 Area) and the development of an approximately six-acre vacant parcel into a mixed-use development (Bloomfield Avenue and Imperial Highway).

[1] Based on a telephone conversation with Jay Jarrin, Senior Planner, City of Downey, on December 9, 2004.

In addition to development plans for specific parcels, the City has three Area Plans that focus on planning, urban design, and economic development in specific areas of the City. The Civic Center Plan covers contiguous areas along Imperial Highway east of I-5. The intent of this plan is the improvement of this area as a major office center. The San Antonio Village Plan centers around San Antonio Drive west of I-5. This plan seeks to create a community and cultural center in San Antonio Village. The Firestone Boulevard Plan encompasses Firestone Boulevard through Norwalk, west of I-5. This plan focuses on the importance of Firestone Boulevard as a commercial corridor through Norwalk. Relevant land use-related goals and policies stipulated in the City's General Plan are summarized below:

- Provide for a development pattern to maximize the City's changing role as a subregional center.
- Coordinate land use with planned transportation facilities and infrastructure.
- Develop an integrated transportation system to meet transportation needs in a more efficient manner.
- Upgrade infrastructure and services to support the City's growth.
- Encourage a regional network of transportation facilities that ensures safe and efficient travel within the City and to surrounding areas and that accommodates regional travel demands.

Santa Fe Springs. Santa Fe Springs is almost fully built out, and extensive new development is not expected. Approximately 10 percent of the City's area is designated as residential. Single family homes account for 84 percent of all residential development. The City plans to maintain this proportion of residential uses and allow conversion of other uses to housing use, if developer interest occurs (MFA, August 1998). Commercial uses account for another 10 percent of all development. Most commercial use occurs clustered in commercial centers located around the city. Industrial development comprises the majority of land use in Santa Fe Springs. Seventy-five percent of the City's land uses are devoted to industrial development. The remaining 5 percent of land uses within the City are used by public and community services, institutional uses, and parks. The City also aims to provide for the addition and preservation of open space. In 1980 several redevelopment areas located in Santa Fe Springs were consolidated into one Consolidated Redevelopment Area. There are currently four redevelopment projects in the study area. Relevant land use-related goals and policies stipulated in the City's General Plan are summarized below:

- Emphasize managed growth and maintain or reduce travel time and distances.
- Provide an environment to stimulate local employment, property values, and community stability.
- Protect land suitable for industrial use from encroachment by non-industrial uses.
- Support and encourage the viability of industrial and commercial areas.
- Maintain and improve the residential community.
- Maintain historic sites and open space.
- Widen I-5 within its existing right-of-way without displacing any buildings.

As described in the City of Santa Fe Springs Municipal Code, "Due to the unique impacts imposed on properties in close proximity to the freeway [I-5], a detailed analysis and an application of high standards of design and quality of improvements are warranted to ensure orderly and consistent development." In response to this need, the City of Santa Fe Springs Freeway Overlay Zone designation was passed on February 7, 2003, and is included in the City's Municipal Code. The purpose of the Freeway Overlay Zone is to:

- To present a positive community identity reflected through the portion of the regional transportation system that traverses the City;
- To establish and maintain a high quality aesthetic appearance, efficient access, and optimum functionality for specially designated properties located adjacent to, directly abutting the freeway, or directly abutting a street adjacent to the freeway through the implementation of design standards as established by this zoning overlay;
- To stimulate continued investment and reinvestment in the properties and businesses within this exceptional location as well as attract uses that benefit from direct regional access and freeway visibility;
- To encourage a creative approach in a development of land and improvements adjacent to the freeway and to allow a variety of industrial and commercial uses while maintaining high standards of design and quality of improvements to preserve the quality of life and economic vitality for the City's businesses and residents;
- To establish a basis for reviewing and evaluating projects on a case-by-case basis to ensure high levels of design and quality developments are maintained adjacent to the freeway and to ensure that they achieve the intent of the Freeway Overlay Zone and design standards; and
- To provide a means for requiring review and action on development plans for properties that are within the proximity of a freeway (either directly abutting or separated by a frontage road) by Planning Commission or other necessary approval bodies. The Freeway Overlay Zone is intended to address the special circumstances and potential impacts created by the existence or expansion of a freeway that traverses the community.

3-1.3 IMPACTS

CONSISTENCY WITH LOCAL PLANS

The study area includes six incorporated cities within Los Angeles and Orange Counties in which existing land uses are determined by Specific and General Plans. This analysis evaluates changes to existing land uses that may occur from the proposed I-5 widening. Throughout the study area, residential and commercial/industrial land dominates existing land use.

General Plan Consistency

The Congestion Management Program (CMP) is a State-mandated program that addresses regional traffic congestion by linking transportation, land use, and air quality decisions. Each county transportation agency (such as MTA in Los Angeles County and OCTA in Orange County) must adopt its own CMP and annually monitor the performance of local jurisdictions in complying with its implementation requirements. Because the I-5 Corridor travels through Los Angeles and Orange Counties, compliance with the Los Angeles County CMP (1999) and Orange

County CMP (2001) is required. Each of the cities within the study area is responsible for implementing the requirements of the CMP.

The CMP must include a Transportation Demand Management (TDM) component that includes a trip reduction and travel demand element that promotes alternative transportation methods, such as carpools, vanpools, transit, bicycles, and park-and-ride lots. The adoption of a TDM ordinance was required of every local jurisdiction within Los Angeles and Orange Counties.

The City of Santa Fe Springs Freeway Overlay Zone was adopted to address the unique impacts imposed on properties in close proximity to I-5 and to ensure orderly and consistent development. A detailed description of the Freeway Overlay Zone is provided in Section 3-1.2, under Santa Fe Springs.

Alternatives 2 and 3. As described in Section 2.2, the goal of Alternative 2 (TSM/TDM) is to increase the operational efficiency of existing transit facilities and shift transportation users to higher capacity modes such as transit. Alternative 3 (TEA) aims to improve integration of I-5 with the existing transit system. Each of the affected communities has adopted goals and policies within its General Plan that aim to support the requirements of the CMP and reduce traffic congestion using strategies other than the construction or expansion of roadways. Therefore, Alternatives 2 and 3 are consistent with the local general plans within the study area.

Alternative 4. The consistency determination for a 10-lane facility within each of the affected communities is shown in Table 3-1.1 below. The construction of a 10-lane facility would be consistent with the goals of the Buena Park, Cerritos, La Mirada, and Norwalk General Plans. The construction of the 10-lane facility would not be supportive of the Downey and Santa Fe Springs goals to widen I-5 without property acquisitions.

Alternative 5. The consistency determination for a 12-lane facility within each of the affected communities is shown in Table 3-1.1 below. The construction of a 12-lane facility would be consistent with the goals of the Cerritos General Plan. The Buena Park, Norwalk, and La Mirada General Plans do not support the expansion of I-5 to a 12-lane freeway. The construction of the 12-lane facility would not be supportive of the Downey and Santa Fe Springs goals to widen I-5 without property acquisitions.

Table 3-1.1 - General Plan Consistency for Alternatives 4 and 5			
General Plan	**Consistency Determination**	**Alternative 4**	**Alternative 5**
Buena Park	The Circulation Element supports the efforts to widen I-5 to an 8- to 10-lane facility.	Consistent	Inconsistent
Cerritos	Although the proposed I-5 facility would not travel through Cerritos, the General Plan aims to work with the counties to solve regional transportation problems.	Consistent	Consistent
Downey	Program 2.1.1.5 of the Circulation Element supports the development of HOV lanes on I-5 within existing right-of-way.	Inconsistent	Inconsistent
La Mirada	Goal 8.0 of the Land Use Element and Goal 2.0 of the Circulation supports the widening of I-5 to a 10-lane facility.	Consistent	Inconsistent
Norwalk	The Circulation Plan supports the effort to widen I-5 to an 8- or 10-lane facility.	Consistent	Inconsistent
Santa Fe Springs	The Plan supports the widening of I-5 without property acquisitions.	Inconsistent	Inconsistent

Source: City General Plans.

Redevelopment Plan Consistency

Redevelopment project areas are essential to a local jurisdiction's income, because a city can substantially increase its tax base with redevelopment projects. An increase in tax revenue can result from a rise in property values that occurs within the redevelopment or from rehabilitation of property in the project area. Redevelopment projects in the study area are described in Section 3-1.2 and are summarized in Table 3-1.2.

Alternative 2. Direct impacts to development efforts within the Corridor cities may occur as a result of Alternative 2. Redevelopment impacts would be associated with enhancement of intersection capacity, upgrading of arterials to Smart Street status, and provision of an improved arterial on each side of I-5 that would serve as an alternative route from SR-91 to I-710. The ability to redevelop parcels in the study area would potentially be limited as a result of conversion of any properties for roadway or transit purposes to the I-5 Corridor. Any loss of redevelopment would not substantially reduce the ability to recycle and upgrade the local community and may provide opportunities to enhance such improvements by providing aesthetic treatments, such as landscaping and streetscape elements, that improve the community aesthetics.

Alternative 3. No direct impacts to development efforts within the Corridor cities are anticipated. The proposed park-and-ride lots associated with this alternative would be located on remnant parcels acquired by Alternative 4 or Alternative 5 and no additional right-of-way would be acquired. Parcel acquisitions associated with this alternative would not conflict with existing redevelopment projects or alter future projects.

Table 3-1.2 - Redevelopment Project Consistency		
City	**Project**	**Project Impact**
Buena Park	20-acre Auto Dealership (Botryoides Ave/Artesia Blvd.) located in the Auto Center Specific Plan	No impact, due to distance from Corridor.
	26.5-acre single-family residential and commercial development Master Plan (La Mirada Boulevard/Beach Boulevard)	No impact, due to distance from Corridor.
Cerritos	No projects adjacent to the Corridor	
Downey	Improvements to Lakewood Boulevard between Telegraph Road and Gardendale Street	Project improvements would occur along an area of Lakewood Boulevard that intersects I-5. No direct impact would occur.
	Commercial parcel (11111 Florence Avenue)	Full acquisition of parcel by Alternatives 4b and 5b.
La Mirada	No current projects adjacent to the Corridor	
Norwalk	Civic Center Expansion (Norwalk Blvd. and I-5) located in the Redevelopment Project 1 Area	Partial acquisition from hotel and parking property by Alternatives 4 and 5.
Santa Fe Springs	Golden Springs Development, Bloomfield Business Center, Southern Wine and Spirits, Villages at Heritage Springs	No impact, due to distance from Corridor.

Source: MFA, August 1998 and LSA Associates, Inc., March 2003.

Alternatives 4 and 5. The consistency between redevelopment projects within the affected communities and proposed right-of-way acquisitions is summarized in Table 3-1.2. The two vacant parcels planned for redevelopment in the City of La Mirada are located within the City's I-5 Land Use Focus Area, but would not be directly impacted by the proposed project. However, the developer and the City should work with Caltrans to develop a compatible site plan for the parcels to ensure adequate access after project implementation. Alternatives 4 and 5 would require partial/full acquisition from properties located in Redevelopment Project Area 1 within the City of Norwalk. The partial acquisition would not eliminate an existing business, nor would the proposed improvements be incompatible with the planned expansion of the Civic Center. Alternative 5 would result in the full acquisition of Site 1 of the City of Downey's Specific Plan 90-1. This property contains a vacant structure, and the City of Downey has not received any applications for development of this parcel.[1]

Physical Compatibility

Full acquisitions that would vacate a large area of land for an extended period of time or introduce new roadway structures that would substantially alter an existing land use pattern could create physical incompatibility with the existing and planned land uses within the study area.

[1] Based on a telephone conversation with Jay Jarrin, Senior Planner, City of Downey, on December 9, 2004.

Alternatives 4 and 5 would require the acquisition of several businesses along Firestone Boulevard, a major commercial corridor that runs through all of the affected communities (with the exception of Cerritos). As discussed in Section 3-1.2, the Firestone Boulevard Plan in the City of Norwalk General Plan focuses on the importance of Firestone Boulevard as a commercial corridor. The proposed widening would result in scattered full and partial acquisitions along Firestone Boulevard and adjacent to I-5, including portions of major commercial business centers such as the La Mirada Business Center, API Properties Association, Meyer Properties Business Park, the Gateway Center, and Parkway La Mirada.

Alternative 2. Alternative 2 would focus on increasing the efficiencies of transit and improving local circulation by utilizing the existing infrastructure of I-5 and local streets. However, physical compatibility impacts resulting from parcel acquisitions adjacent to the I-5 Corridor may result from enhancement of intersection capacity, upgrading of arterials to Smart Street status, and provision of an improved arterial on each side of I-5 that would serve as an alternative route from SR-91 to I-710. This improved arterial may result in physical incompatibilities with parcels adjacent to the I-5 Corridor.

Alternative 3. Alternative 3 is not anticipated to directly produce any physical incompatibilities with the adjacent land uses. The parcel acquisitions and any associated physical incompatibilities required for park-and-ride lots associated with this alternative would involve leftover rights-of-way resulting from takes and the interchange configurations for Alternative 4 or Alternative 5, since Alternative 3 functions as an adjunct to Alternatives 4 and 5. The Florence Avenue/I-5 and Bloomfield Avenue/Firestone Boulevard lots would utilize land made available by the closure of existing I-5 on-ramps and off-ramps. The existing commercial plaza and hotel at the corner of Imperial Highway and Pioneer Boulevard would be acquired as part of Alternatives 4 and 5 and would be utilized for the Imperial Highway/Pioneer Boulevard lot.

Alternative 4A. On the south side of I-5, the removal of seven commercial properties on Firestone Boulevard would create an approximately 0.8-kilometer (0.5-mile) long stretch of vacant land within the City of La Mirada (beginning at 14500 Firestone Boulevard on the east and 14300 Firestone Boulevard on the west). West of Valley View Avenue, Alternative 4a would also require the full acquisition of the Meyer Properties Business Park (14060 Firestone Boulevard), creating an additional approximately 0.4-kilometer (0.25-mile) long stretch of vacant land along Firestone Boulevard in the City of Santa Fe Springs. The properties on Firestone Boulevard adjacent to I-5 are located within areas designated for commercial freeway development. Many of the properties are large and can be reconfigured and resold after construction of the project, maintaining the pattern of commercial freeway development on Firestone Boulevard. If not resold for private development, the land could be used as a community amenity (such as for landscaping, etc.). Therefore, it is not anticipated that these full acquisitions would result in long-term land use impacts through the creation of incompatible vacant land.

Alternative 4B. On the south side of I-5, the removal of 12 commercial properties on Firestone Boulevard would create an approximately 1.1-kilometer (0.7-mile) long stretch of vacant land between Coyote Creek on the east and Valley View Avenue on the west. This stretch of vacant land includes the full acquisition of all of the businesses within the La Mirada Businesses Center at 14670 Firestone Boulevard. West of Valley View Avenue, Alternative 4b would also require the full acquisition of the Meyer Properties Business Park (14060 Firestone Boulevard), creating

an additional approximately 0.4-kilometer (0.25-mile) long stretch of vacant land along Firestone Boulevard in the City of Santa Fe Springs. The properties on Firestone Boulevard adjacent to I-5 are located within areas designated for commercial freeway development. Many of the properties are large and can be reconfigured and resold after construction of the project, maintaining the pattern of commercial freeway development on Firestone Boulevard. If not resold for private development, the land could be used as a community amenity for landscaping, etc. Therefore, it is not anticipated that these full acquisitions would result in long-term land use impacts through the creation of incompatible vacant land.

For Alternative 4b, full acquisitions of 33 single-family residences in the City of Norwalk on the east side of I-5 between Dinard Street and the Ranch Market Strip Mall at Rosecrans Boulevard would create a strip of vacant land between the single-family neighborhood and the freeway. If the parcels were reconfigured and resold after project completion, the acquisitions would not alter the existing land use pattern.

Alternative 5A. On the south side of I-5, the removal of 10 commercial properties on Firestone Boulevard would create an approximately one-kilometer (0.62-mile) long stretch of vacant land between the La Mirada Business Park on the east and Valley View Avenue on the west. West of Valley View Avenue, Alternative 5a would also require the acquisition of the Meyer Properties Business Park, creating an additional approximately 0.4-kilometer (0.25-mile) long stretch of vacant land along Firestone Boulevard in the City of Santa Fe Springs. The properties on Firestone Boulevard adjacent to I-5 are located within areas designated for commercial freeway development. Many of the properties are large and can be reconfigured and resold after construction of the project, maintaining the pattern of commercial freeway development on Firestone Boulevard. Therefore, it is not anticipated that these full acquisitions would result in long-term land use impacts through the creation of incompatible vacant land.

The acquisition of one commercial property (11111 Florence Avenue) would fall within Specific Plan 90-1 in the City of Downey. The site is currently vacant. If the remaining portions of the site are resold after construction of the project, redevelopment of the site would have to follow the development standards established in Specific Plan 90-1.

Alternative 5B. East of Alondra Boulevard, the acquisitions along Firestone Boulevard on the south side of I-5 are the same as Alternative 4b. West of Alondra Boulevard, Alternative 5b would require the acquisition of 10 commercial and industrial properties that would create an additional approximately 0.8 kilometer (0.5-mile) long stretch of vacant land along Firestone Boulevard between Alondra Boulevard and Carmenita Road in the City of Santa Fe Springs. The properties on Firestone Boulevard adjacent to I-5 are located within areas designated for commercial freeway development. Many of the properties are large and can be reconfigured and resold after construction of the project, maintaining the pattern of commercial freeway development on Firestone Boulevard. Therefore, it is not anticipated that these full acquisitions would result in long-term land use impacts through the creation of incompatible vacant land.

The acquisition of one commercial property (11111 Florence Avenue) would fall within Specific Plan 90-1 in the City of Downey. The site has been recently vacated. If the remaining portions of the site are resold after construction of the project, redevelopment of the site would have to follow the development standards established in Specific Plan 90-1.

Full acquisitions of the same 33 single-family residences acquired by Alternative 4b (in the City of Norwalk on the east side of I-5 between Dinard Street and the Ranch Market Strip Mall at Rosecrans Boulevard) would occur under Alternative 5b and create a strip of vacant land between the single-family neighborhood and the freeway. If the parcels were reconfigured and resold after project completion, the acquisitions would not alter the existing land use pattern.

3-1.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

Prior to and during construction, Caltrans staff would contact and interview individual businesses potentially affected by construction activities. Interviews with commercial and industrial businesses would provide knowledge of how these firms conduct their businesses and identify business usage; delivery and shipping patterns; frequented travel routes of customers and clients upon entering and exiting the business establishment; parking requirements; hours of operation; and critical times of the day and year for business activities. Information gathered from these interviews would be used to develop the construction traffic control plans and alternate access routes to maintain critical business activities. Caltrans staff would inform the public of its progress in implementing the measures selected through periodic project newsletters sent to businesses, residents, and property owners within close proximity to the project. Staff would be assigned to work directly with the public to provide project information and resolve construction-related problems.

Prior to and during construction, ongoing coordination between Caltrans and the Joint Powers Authority (JPA)/individual cities would minimize any General Plan/Redevelopment Plan inconsistencies that may result during implementation of the proposed project.

Parcels subject to full acquisition shall be reconfigured or combined with adjacent parcels to allow for development commensurate with previous land uses. Commercial and industrial land uses subject to partial acquisitions should be reconfigured on site in such a manner as to remain in operation. Reconfigurations of remnant properties would need to comply with local codes and some remnants may result in smaller developments. These situations would be reviewed on a case-by-case basis. The mechanism for reconfiguring impacted parcels would be determined by the I-5 Corridor Improvement Project Steering Committee.

3-1.5 CUMULATIVE IMPACTS

Cumulative Impacts Analysis Introduction

The cumulative impact analysis provided for this EIR/EIS assesses the potential environmental effects of the proposed I-5 (Freeway) improvement project (Proposed Action), past, present, and reasonably foreseeable development (cumulative projects) and the Proposed Action's contribution to cumulative effects. For larger development or redevelopment projects identified in Chapter 4, Tables 4-1 (Past Projects) and 4-2 (Present and Foreseeable Future Projects), potential environmental effects of these developments as described in their related environmental documentation has been summarized in Table 6.A of the Cumulative Impact Assessment. Other smaller projects (e.g., a 4,000-square-foot restaurant) often did not have environmental documentation associated with them because they were either exempt from CEQA and NEPA, or they were part of a larger development or redevelopment project. The smaller projects are not included on Table 6.A; however, they are listed on Tables 4-2 and 4-3. Cumulative effects of all

projects, however, both small and large, are considered and documented under each resource section in Chapter 3.

Cumulative Land Use Effects
The Cities within the I-5 Corridor are urban, mature, and predominantly built out, particularly within the study area. Of the projects listed in Tables 4-1, and 4-2 the most common purpose of the projects is to redevelop underutilized or blighted areas. It does not appear that the types of land uses would likely change as a result of any of the build alternatives. Parcels that may end up unusable may be rezoned as open space.

General Plan/Redevelopment Plan Consistency. There are projects in the Cities of Buena Park (Big-T), La Mirada, and Norwalk that are inconsistent with the land use designations set forth in their General Plans. Cumulative development and residential redevelopment has been conducted generally consistent with the overall land use pattern and the City General Plan and redevelopment plans, if appropriate. Redevelopment of prior industrial uses with commercial retail developments has occurred within the last decade as manufacturing and other industrial uses have moved out of the study area.

Project Contribution to Cumulative Land Use Effects
Alternatives 2 and 3
These alternatives are inconsistent with all of the city general plans with the exception of the City of Cerritos General Plan because they do not include widening of the I-5; however, the elements that are part of these alternatives are consistent with the general plans. So, although they do not support the goal of widening the I-5, they do not prevent it from happening in the future. Therefore, the contribution of these alternatives to cumulative land use effects is not substantial.

Alternatives 4 and 5
All of the city general plans support widening of the I-5; however, two general plans only support widening if they do not involve property acquisitions. In addition, the general plans only support up to a 10-lane facility. Essentially, the goals of the plans are to provide an adequate transportation facility without allowing conversion of existing land uses. Other cumulative projects in the area do not include major freeway widening. The purpose of these alternatives is to reduce congestion on this segment of I-5 to match the alignment of the adjoining segments. Because these alternatives would result in a one-time conversion of land use and would not cause other projects to convert land use to transportation facilities, the contribution of these alternatives to cumulative land use effects is not considered substantial.

3-2 GROWTH

3-2.1 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..."

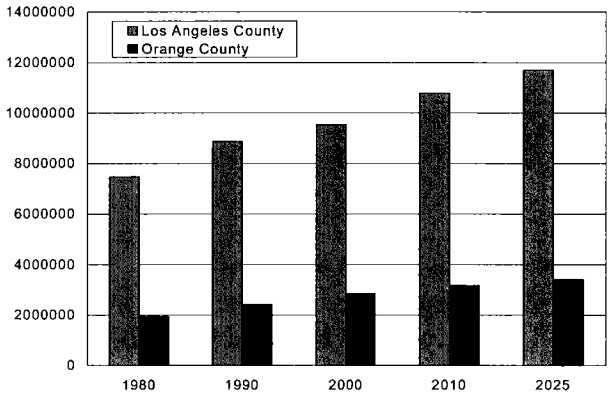
Under NEPA and CEQA, growth inducement is not necessarily considered detrimental, beneficial, or environmentally significant. Typically, the growth inducing potential of a project is considered significant if it fosters growth or a concentration of population in excess of what is assumed in relevant master plans, land use plans, or in projections made by regional planning agencies. Significant growth impacts could be manifested through the provision of infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

3-2.2 AFFECTED ENVIRONMENT

Information regarding land use impacts was obtained from the I-5 Corridor Improvement Project Community Impact Assessment, March 2005.

Regional Population

Los Angeles County and Orange County currently have the first and second largest populations in the Southern California region, respectively. The Southern California Association of Governments (SCAG) reports that Los Angeles County's population totaled 7,472,761 in 1980. In the 20 years that followed, the population increased by more than 25 percent, to 9,519,338. Orange County's population totaled 1,932,705 in 1980. Over the next 20 years, the County's population increased by nearly 50 percent to 2,846,289 in the year 2000.



SCAG projects that Los Angeles County will experience the largest share of regional population growth over the next several decades, reaching 11.9 million by 2025, at an annual growth rate of approximately 1.0 percent. Orange County is projected to increase to 3.5 million in 2025, representing an annual growth rate of approximately 0.9 percent.

Population within Affected Communities

Populations within the affected communities are shown in Table 3-2.1 (SCAG, 2001 RTP Growth Forecast). The City of Santa Fe Springs had the smallest population among the affected communities in 2000 (17,501), and SCAG projects that the City's population will increase to 20,750 in 2025. The City of Downey had the largest population among the affected communities in 2000 (107,821), and the City's population is expected to increase to 121,228 in 2025. The City of Norwalk is anticipated to experience the greatest amount of population growth over the next several decades, reaching 119,336 by 2025. Cerritos and La Mirada are projected to reach 55,282 and 67,163 in 2025, respectively.

Table 3-2.1 – Study Area Populations

City	Census Tract	Population 1990	Population 2000	Percent Change
Buena Park	1105	7086	8599	(+) 21.4%
Buena Park	1106.01	6366	N/A[1]	N/A
Buena Park	1106.06	N/A[2]	4841	N/A
Buena Park	1106.03	6754	8573	(+) 26.9%
Cerritos	5545.11	4446	4323	(-) 2.8%
La Mirada	5039.02	4290	4492	(+) 4.7%
Norwalk	5501	6607	7314	(+) 10.7%
Norwalk	5502	7602	8352	(+) 9.9%
Norwalk	5503	6822	7660	(+) 12.3%
Norwalk	5520	6621	7924	(+) 19.7%
Norwalk	5522	5922	6819	(+) 15.1%
Norwalk	5523	8472	8664	(+) 2.3%
Norwalk	5524	2499	2691	(+) 7.7%
Norwalk	5527	5693	6702	(+) 17.7%
Santa Fe Springs	5028	7116	8627	(+) 21.2%
Santa Fe Springs	5041.02	27	8	(-) 70.4%
Downey	5504	1305	1437	(+) 10.1%
Total Study Area		**87,628**	**97,316**	**(+) 11%**

Source: U.S. Census Bureau, Census 1990 and 2000.

[1] The census tract boundary for tract 1106.01 was redefined after the 1990 Census. Tract 1106.01 was not included in the 2000 Census.

[2] Census tract 1106.06 was not included in the 1990 Census.

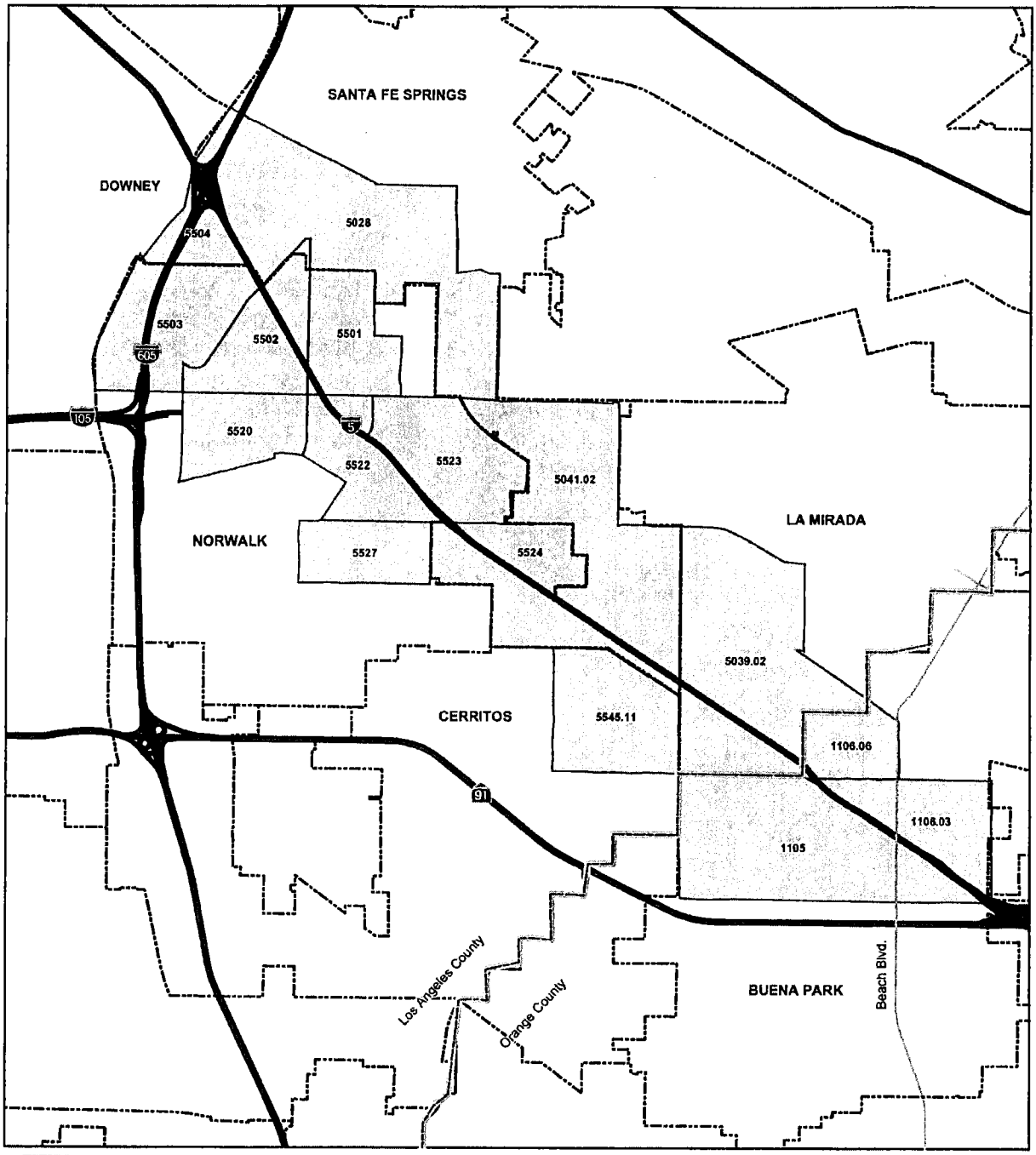
Study Area Population

The population within the study area is shown in Table 3-2.1. Figure 3-2.1 shows the census tracts within the study area. Census Tract 5523 in the City of Norwalk, designated primarily as residential, had the greatest population in 2000 (8,664 persons). Census tract 5041.02 in the City of Santa Fe Springs, containing predominantly commercial and industrial uses, had the smallest population in 2000 (8 persons). The percentage of population change between 1990 and 2000 within each census tract ranges from a decrease of 70.4 percent (Tract 5041.02, from 27 to 8) to an increase of 26.9 percent (Tract 1106.03, from 6,754 to 8,573).

Development Projections

According to SCAG's 2004 RTP Growth Forecast, total employment in Los Angeles County is projected to increase by 1.2 million jobs between 2000 and 2030. This represents an average annual increase of 40,000 jobs, or 0.9 percent, compared to an annual average increase of 43,000 jobs or 1.4 percent during the 1972–2000 period. Total employment in Orange County is projected to increase from 1.3 million jobs in 2000 to 2.0 million jobs in the year 2030. This represents an average annual increase of 23,300 jobs or 1.8 percent, as compared to an annual increase of 32,500 jobs or 6.7 percent during the 1972–2000 period.

Figure 3-2.1 – Study Area Census Tracts



SOURCE: U.S. Census Bureau, 2000.

3-2.3 IMPACTS

The proposed project study area is generally older with substantially urbanized communities where existing developments have been in place for many years. The region that the I-5 facility serves is experiencing continuous population, housing, and employment growth. Although the build alternatives of the proposed project are intended primarily to accommodate rather than induce growth, the improvements to Interstate 5 would provide additional transportation capacity to accommodate the increasing regional growth. It is neither intended, nor expected, to induce a substantial change in the location, distribution, or rate of population and housing growth from that planned by the regional and local land use authorities.

Traditionally, there is a general perception that freeway widening promotes or influences urban growth. This perception is difficult to substantiate in areas that are fully developed in contrast to rural or underdeveloped land areas.

While the perceived demand for new development induced by a highway in the inner city is complex, the U.S. Council on Environmental Quality's report, "The Growth Shapers" provides some insight on the subject in those situations where access is significantly improved. The potential for growth in an area is based upon three factors:

1. The supply of developable land
2. The demand for development
3. The potential for land use change.

A survey of vacant land in the corridor revealed that, aside from a few isolated vacant lots scattered throughout the project area, there was virtually no developable land. The only supply of land which could even remotely be considered as developable anywhere near the proposed project are the underutilized oil production areas in Santa Fe Springs.

The attractiveness of demand for development in the area has remained stable for a number of years. A number of existing office and industrial building in the area remain vacant. While this proposed project might enhance the serviceability of these existing developments, this would not be new growth. To date, previous lane additions south of SR 91 have not led to an increased demand for development in this corridor.

The high degree of neighborhood stability in this area, together with discussions with local land use experts lead to the conclusion that this project held no potential for intensifying or significantly changing land use. Discussions with various developers, as well as local City staff members responsible for land use planning indicated that the proposed widening would not significantly stimulate new growth. In fact there is today a growing pattern of reverse commuting centered in the Irvine area. This is the area where the public's perception of growth is and would be focused.

The results of our examination of the possible growth inducing impacts of this project were conclusive. There is no supply of developable land in the study area; demand for the development in the study area will remain stable; and there will be a minimal amount of land use intensification with or without widening the freeway. Considering these overwhelming constraints together with the excessive traffic volume constraints on freeway capacity and access

to the area the only conclusion that can be made is that the proposed project has no meaningful potential for stimulating growth.

3-2.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

Because the proposed project has no meaningful potential for stimulating growth, no mitigation measures would be required.

3-2.5 CUMULATIVE IMPACTS

Cumulative Growth Effects

The overriding purpose of most projects in the cumulative study area is to revitalize properties and stimulate economic activity. The projects encourage economic growth and community revitalization by replacing underutilized or blighted areas with new commercial, retail, and residential land uses. Additionally, residential development has increased the housing stock within each of the cities, providing opportunities for each jurisdiction to balance jobs and housing consistent with the Housing Elements of their General Plans. The commercial development has created short-term construction jobs and long-term employment. The provision of additional housing balances the jobs-to-housing ratio within each local city. Given the mature nature of the local communities, inducement of substantial growth effects has been limited, but serves to maintain or enhance the existing economic vitality of each jurisdiction, particularly with the loss of industrial/manufacturing uses over the last decade. The projects individually and collectively do not appear to create adverse growth impacts.

Project Contribution to Cumulative Growth Effects

The proposed alternatives are not anticipated to induce any unplanned growth either regionally or in the project area, and therefore are not anticipated to contribute to any cumulative growth impacts.

3-3 FARMLANDS/AGRICULTURAL LANDS

3-3.1 REGULATORY SETTING

The California Land Conservation Act of 1965 (Williamson Act) discourages premature and unnecessary conversion of agricultural land to urban uses (California Government Code Section 51200). See also the Farm Protection Policy Act (7 USC 4201) and the Food Security Act (16 USC 3811) relating to the preservation of farmland.

Prime Farmland is defined by the California Department of Conservation and the U.S. Natural Resource Conservation Service within the Department of Agriculture (NRCS) as land that has the best combination of physical and chemical characteristics for producing agricultural crops and may include land currently used as cropland, pastureland, rangeland, or forestland. It does not include land that is already in or committed to urban development.

3-3.2 AFFECTED ENVIRONMENT

The study area census tracts include approximately 4,223 hectares (10,436 acres) of urbanized land uses and do not contain any designated prime farmland; land in agricultural production; or land protected by Williamson Act contracts.

3-3.3 IMPACTS

This project would not impact farmlands or agricultural lands.

3-3.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

None Required

3-3.5 CUMULATIVE IMPACTS

Cumulative Farmlands/Agricultural Effects

The cumulative study area includes approximately 4,223 hectares (10,436 acres) of urbanized land uses and does not contain any designated prime farmland; land in agricultural production; or land protected by Williamson Act contracts. The areas adjacent to the project study area contain minimal agricultural land. There would be no cumulative impact to farmlands with implementation of the project.

Project Contribution to Cumulative Farmlands/Agricultural Effects

The project would not impact farmlands or agricultural lands; therefore, it would not contribute to cumulative effects on these resources.

3-4 COMMUNITY IMPACTS

3-4.1 RELOCATIONS

3-4.1.1 REGULATORY SETTING

The Department's Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 Code of Federal Regulations (CFR) Part 24. The purpose of RAP is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons would not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Please see Appendix D for a summary of the RAP.

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act [42 U.S.C. 2000d, et seq.]. Please see Appendix C for a copy of the Department's Title VI Policy Statement.

3-4.1.2 AFFECTED ENVIRONMENT

Information regarding relocations was obtained from the I-5 Corridor Improvement Project Community Impact Assessment, March 2005 and the I-5 Corridor Improvement Project Draft Relocation Impact Report, October 2002.

Housing Characteristics

A lack of affordable housing can be a major barrier to a strong, reliable economy. High relative housing prices potentially influence location decisions of corporations, causing some to consider whether to relocate or remain in a region. A shortage of affordable housing (particularly for first-time buyers) may discourage young families from staying in the Southern California region. Alternatively, high housing costs can encourage workers to settle outside Los Angeles and Orange Counties, resulting in longer commutes, increased congestion and pollution, decreased productivity, and an overall diminished quality of life.

Table 3-4.1 shows the average home ownership rates within Los Angeles and Orange Counties and the affected communities (U.S. Census Bureau, Census 2000). The Los Angeles County communities have a greater number of owner-occupied housing units than the County average (47.9 percent), while Buena Park is slightly lower than the Orange County average (61.4 percent). Cerritos has the highest rate of home ownership (83 percent) among the affected communities. The study area census tracts contained approximately 3,974 housing units in 2000, 98 percent of which were occupied, including 67 percent by the property owner.

The median home price within Los Angeles and Orange Counties and the affected communities is shown in Table 3-4.1. The median home price in Orange County ($685,000) is much higher than the Los Angeles County average ($548,000). The median home price in the affected communities (except Cerritos, Downey, and La Mirada) is lower than the respective County averages, primarily due to their inland location. There are generally low vacancy rates, overcrowding, and a shortage of affordable housing in these communities. The City of Santa Fe Springs has the lowest median home price ($510,000), and the City of Cerritos has the highest median home price ($752,000) among the affected communities. Several of the cities have initiated government

programs to provide financial assistance to first-time lower income homebuyers and help residents pay for housing and essential home repairs.

Table 3-4.1 - Percent Owner Occupied and Median Home Price			
Jurisdiction	**Percentage Owner Occupied**	**2000 Price**	**2006 Price**
Counties			
Los Angeles County	47.9%	$270,000	$548,000
Orange County	61.4%	$382,000	$685,000
Affected Communities			
Buena Park	59%	$241,500	$575,000
Cerritos	83%	$281,000	$752,000
Downey	53%	$270,000	$700,000
La Mirada	81.4%	$281,000	$650,000
Norwalk	65%	$208,000	$488,000
Santa Fe Springs	62.5%	$224,000	$510,000

Source: U.S. Census Bureau, Census 2000 & Dataquick News: Southern California Home Resale Activity, August 2006

The Housing Affordability Index (HAI), defined by the Association of Realtors as the percentage of homes sold that a median income family can purchase, is 17 percent in Los Angeles County and 13 percent in Orange County (CAR, October 2001). These rates are over 38 percent below the national HAI rate (55 percent) and 27 percent below the State HAI rate (19 percent). There is a great need for multifamily housing that is affecting both low-income and middle-income populations in Los Angeles County. Renting, as opposed to owning, is often times the only viable option for these groups as a result of the rising home prices. The high cost of housing in Los Angeles and Orange Counties requires people to commute long distances, resulting in long travel times. High paying jobs in coastal communities of Los Angeles and Orange Counties continue to draw people from the inland communities of Los Angeles and Orange Counties, where housing tends to be more affordable.

Despite the rising cost of housing, the demand for housing remains high in Los Angeles and Orange Counties. With an active job growth and natural population growth, housing demand is anticipated to remain strong in the Southern California region. According to SCAG's 2001 RTP Growth Forecast, the number of households in the region is projected to increase to 7.42 million in 2025, which is a 2.2 million household increase from 1997 estimates.

Most of the affected communities experienced their greatest growth during the 1950s and are now mature, nearly built-out cities. An anticipated increase in the housing supply is extremely low within the affected communities. However, many of the communities are undergoing redevelopment and anticipate more housing as a result of infill development and the recycling of existing development.[1]

Business Conditions

The Los Angeles and Orange County profiles of business firms and employment are presented in Table 3-4.2, with comparisons to the State economy. Among the 21 primary economic sectors reported by the Census Bureau in 2000, retail trade accounts for the most establishments (12 percent of the total reported) in Los Angeles County, and Professional and Technical Services

[1] Final IS/EA I-5 Interim HOV Lane Improvement Project, September 1999.

accounts for the most establishments (14 percent of the total reported) in Orange County. Manufacturing firms account for the largest share of employment (16 percent) and payroll in Los Angeles (16 percent) and Orange (18 percent) Counties. Professional and Technical Services and Health Care and Social Assistance also rank high in economic activity in both Los Angeles and Orange Counties. Relative to the State's economy, Los Angeles and Orange Counties have greater activity in the Manufacturing sector and less activity in the Retail Trade sector.

Table 3-4.2 - Los Angeles and Orange County Business Patterns 2000

Economic Sector	Establishments			Employees			Annual Payroll (millions)		
	LA	Orange	CA	LA	Orange	CA	LA	Orange	CA
Construction	12,197 (5%)	6,145 (8%)	9%	140,294 (4%)	88,266 (6%)	6%	5,290 (4%)	3,497 (7%)	6%
Manufacturing	17,606 (8%)	5,768 (7%)	6%	608,230 (16%)	223,025 (16%)	14%	22,208 (16%)	9,425 (18%)	16%
Retail Trade	28,126 (12%)	9,544 (12%)	14%	371,627 (10%)	141,863 (10%)	12%	8,894 (6%)	3,588 (7%)	7%
Finance, Insurance	10,708 (5%)	5,004 (6%)	5%	177,376 (5%)	84,604 (6%)	5%	11,732 (8%)	4,862 (9%)	8%
Professional, Tech Service	25,391 (11%)	10,690 (14%)	12%	406,503 (11%)	99,031 (7%)	8%	16,941 (12%)	6,368 (12%)	13%
Health Care, Social Asst.	22,962 (10%)	7,905 (10%)	10%	372,844 (10%)	106,138 (8%)	10%	12,810 (9%)	3,508 (7%)	9%
Lodging, Food Service	15,985 (7%)	5,565 (7%)	8%	278,078 (7%)	112,670 (8%)	9%	4,060 (3%)	1,514 (3%)	3%
All Other Sectors	42%	36%	36%	37%	39%	36%	42%	37%	38%

Source: http://www.census.gov/epcd/cbp/map/00data/06/999.txt and http://censtats.census.gov/cgi-bin/cbpnaic/cbpsect.pl.

Property Tax Revenue

Property taxes are based on the assessed value of all privately owned property within each tax rate area of each city. Property taxes for properties within the study area are collected by the Counties of Los Angeles and Orange and apportioned to local jurisdictions, the amount levied being approximately one percent of assessed property value. Property tax revenues generated in a tax rate area are then distributed to the county, city, special districts, and schools within the subject tax rate area based on tax rates for each tax rate area. Thus, a privately owned property within the study area is located in a designated tax rate area of its respective city. Property tax revenues generated by the property are distributed in the county and city in which the property is located and to the special districts and schools in the tax rate area.

The City of Cerritos does not receive revenue from property tax collected from residents because the City is a no-low property tax city (City of Cerritos Budget Summary 2002-2003). Property tax from commercial property owners is determined based upon special districts located within the City. Because there is only one full property acquisition within the City of Cerritos for each of the build alternatives, the potential loss is considered negligible and is not included in this estimation of property tax loss. The City of La Mirada and the City of Norwalk are also no-low property tax cities and receive a very small portion of property tax revenue.

Sales Tax Revenue

Sale tax paid by consumers in Los Angeles and Orange Counties is a primary source of funds for local governments. When businesses cease to function, the local and state jurisdictions lose sales tax revenue. This analysis provides an estimate of the annual sales tax revenue losses to city, county, and state governments as a result of the nonresidential acquisitions that would occur from the proposed project. The State Board tabulates sales tax revenues by business and jurisdictions on a quarterly basis. The Board does not disclose sales tax revenues generated by individual businesses due to privacy laws. As such, the taxable sales for the businesses to be impacted by the proposed project could not be obtained.

3-4.1.3 IMPACTS

Alternatives 2 and 3. Alternatives 2 and 3 would require intersection improvements that may result in right-of-way acquisitions within the study area. Generally, these impacts would be minor, partial acquisitions or encroachments and are not anticipated to result in any business or residential relocation.

Alternatives 4 and 5. The construction of Alternatives 4 or 5 would require the acquisition of private property, some of which includes residences and nonresidential buildings. Project impacts include both complete and partial acquisition of existing uses, which may displace or alter existing uses. This analysis identifies properties and improvements affected by each of the proposed alternatives. This analysis was conducted using aerial photographs (2001) of the study area, conceptual site plans, and right-of-way data. Counts of parcels affected are based on preliminary engineering plans and the Draft Relocation Impact Report (April 2006) prepared by Caltrans and are subject to change as a result of project final design.

The proposed project includes the restriping of I-5 south of Artesia Boulevard. There are no right-of-way acquisitions south of Artesia Boulevard within the City of Buena Park. The socioeconomic impacts of right-of-way acquisitions within the City of Buena Park were previously evaluated in the I-5 Interim HOV Project Environmental Reevaluation/Addendum (August 2002). The Reevaluation identified the displacement of four additional commercial and office buildings (including two residential units) that were not identified in the ND/FONSI prepared for the I-5 Interim HOV project. The Reevaluation concluded that there were adequate available office, commercial, and industrial properties to relocate the affected businesses and residential units. There are no additional relocation impacts within the City of Buena Park associated with the proposed project beyond those already documented in the IS/EA prepared for the Interim HOV project and the subsequent Environmental Re-evaluation.

Two types of effects to properties are considered:

- Full acquisition of a property occurs if the entire parcel is within the footprint (right-of-way) of an alternative or if the majority of the building lies within the footprint of an alternative.
- Partial acquisition of a property occurs if any part of a parcel is within the footprint (right-of-way) of the alternative but does not require the displacement of the entire property. These impacts range from a sliver or edge of a parcel within the right-of-way preservation area to substantial portions that fall short of entire displacement.

Full acquisitions would require relocation of employees and businesses to other locations; partial acquisitions generally would not require relocation. Properties impacted by full and partial acquisition for each alternative are identified in Appendix E.

Residential Relocation Impacts

Alternative 4a. Properties to be fully acquired by Alternative 4a are identified in Appendix E and are summarized in Table 3-4.3. Alternative 4a would result in 204 full residential acquisitions. Based upon the household occupancy rate within each community (see Table 3-4.12, Local, Regional, and State Demographic Summaries), approximately 757 people would be displaced by Alternative 4a.

Alternative 4b. Properties to be fully acquired by Alternative 4b are identified in Appendix E and are summarized in Table 3-4.3. Alternative 4b would result in 108 full residential acquisitions. Based upon the household occupancy rate within each community (see Table 3-4.12, Local, Regional, and State Demographic Summaries), approximately 400 people would be displaced by Alternative 4b.

Alternative 5a. Properties to be fully acquired by Alternative 5a are identified in Appendix E and are summarized in Table 3-4.3. Alternative 5a would result in 210 full residential acquisitions. Based upon the household occupancy rate within each community (see Table 3-4.12, Local, Regional, and State Demographic Summaries), approximately 780 people would be displaced by Alternative 5a.

Alternative 5b. Properties to be fully acquired by Alternative 5b are identified Appendix E and are summarized in Table 3-4.3. Alternative 5b would result in 114 full residential acquisitions. Based upon the household occupancy rate within each community (see Table 3-4.12, Local, Regional, and State Demographic Summaries), approximately 423 people would be displaced by Alternative 5b.

Business and Employee Relocation Impacts

The number of employees displaced as a result of business full property acquisitions was estimated based on the employee generation factors. The density factors are based on a weighted average of employees per acre (derived from the SCAG employment database) and a weighted average of floor area ratios (derived from Assessor's parcel records). The employee generation factors are based upon density factors for Los Angeles County. The estimated employee displacements would represent a worst-case scenario for the proposed project. Actual employee displacements would be determined based upon the selection of a build alternative and the actual number of employees within each business to be acquired.

Table 3-4.3 - Summary of Parcel Acquisitions																
City	Alternative 4a				Alternative 4b				Alternative 5a				Alternative 5b			
	Res		Comm		Res		Comm		Res		Comm		Res		Comm	
	Part	Full	Part	Full	Part	Full	Part	Full	Part	Full	Part	Full	Part	Full	Part	Full
Cerritos			5				2	3			3	3			2	3
Downey	4	19	6		3	10	6		4	19	6		3	10	6	
La Mirada			29	25			15	20			28	26			15	20
Norwalk	52	178	17	14	41	92	15	12	48	184	17	14	60	98	15	12
Santa Fe Springs	6	7	16	7	6	6	11	7	6	7	18	8	6	6	10	8
Total	**62**	**204**	**73**	**46**	**50**	**108**	**50**	**42**	**58**	**210**	**72**	**51**	**69**	**114**	**50**	**43**
	385				**250**				**391**				**276**			

Alternative 4a. Properties to be fully acquired by Alternative 4a are identified in Appendix E and are summarized in Table 3-4.3. Alternative 4a would result in 46 full commercial property acquisitions, which could impact 4,200 employees within the affected communities.

Alternative 4b. Properties to be fully acquired by Alternative 4b are identified in Appendix E and are summarized in Table 3-4.3. Alternative 4b would result in 42 full commercial property acquisitions, which could impact 5,116 employees within the affected communities.

Alternative 5a. Properties to be fully acquired by Alternative 5a are identified in Appendix E and are summarized in Table 3-4.3. Alternative 5a would result in 51 full commercial property acquisitions, which could impact 5,854 employees within the affected communities.

Alternative 5b. Properties to be fully acquired by Alternative 5b are identified in Appendix E and are summarized in Table 3-4.3. Alternative 5b would result in 43 full commercial property acquisitions, which could impact 5,116 employees within the affected communities.

Property Tax Revenue Impacts

As described below, the potential property tax loss for each city is shown by alternative in Tables 3-4.4 through 3-4.7. Commercial Revitalization Focus Areas, in the Economic Element of the City of La Mirada's General Plan (2003), areas designated as "freeway commercial target areas" that are a part of "commercial revitalization focus areas" are immediately adjacent to the project area. The City of La Mirada's Redevelopment Agency receives a significant amount of tax increment revenue from these revitalization areas to be used to service bonded indebtedness.

Alternatives 2 and 3. As previously mentioned, no additional property acquisitions beyond those identified for Alternatives 4 and 5 would be required for Alternatives 2 or 3. The park-and-ride lots associated with this alternative would utilize remnant property to be acquired to construct the proposed freeway widenings associated with Alternatives 4 and 5. Therefore, no property tax losses beyond the losses identified for Alternatives 4 and 5 would result.

Alternatives 4 and 5

The potential loss of property tax revenue for Alternatives 4 and 5 is shown in 3-4.4 through 3-4.7. Potential property tax loss is less than 1 percent of the total revenues within each tax rate

area in each jurisdiction. The potential property tax loss represents a worst-case scenario for full property acquisitions within the affected communities. The potential losses in property tax revenues would be increased somewhat because Alternatives 4 and 5 also involve partial property acquisitions. The property tax loss would be considered temporary because it is anticipated that most of the displaced businesses would be relocated within the same City (Draft Relocation Impact Report, March 2003). Adequate relocation resources may not exist for residential displacements. It is anticipated that acquired property that is not needed for the project would be reconfigured and resold in the private market for redevelopment.

Potential property tax losses as a result of parcel acquisitions within the City of La Mirada's "commercial revitalization focus areas" present a potential for the City of La Mirada to lose a small amount of tax increment revenue from these revitalization areas. However, there are several "commercial revitalization focus areas" located throughout the City of La Mirada. Based on a review of the City of La Mirada's redevelopment parcels close to I-5, it is not expected that any one revitalization or redevelopment project would be completely removed as a result of the proposed project. In addition, property values have risen in recent years, resulting in increased levels of property tax revenue, including tax increment property tax revenues generated from revitalization and redevelopment areas to the Redevelopment Agency. The unprecedented increases in tax revenue in recent years would offset any City of La Mirada tax increment revenue impacts stemming from the proposed project.

Table 3-4.4 - Potential Property Tax Loss for Alternative 4a								
Jurisdiction	**Assessed Property Valuation[1]**	**Tax Rate Areas (TRA) in City**	**Assessed Property Valuation Per TRA[2]**	**Tax Rate[3]**	**Revenues Generated from Properties in TRA**	**Total Property Tax Loss[4]**	**Property Tax Loss to Jurisdiction[5]**	**Loss as a % of City Revenues[6]**
Downey	$7,000,897,606	64	$109,389,025	14%	$15,314,464	$41,595	$5,823	0.04%
Special Districts				4%	$4,375,561		$1,664	
Schools				49%	$53,600,622		$20,382	
Los Angeles County				33%	$36,098,378		$13,726	
La Mirada	$4,279,151,494	49	$87,329,622	12%	$10,479,555	$659,671	$79,161	0.76%
Special Districts				23%	$20,085,813		$151,724	
Schools				43%	$37,551,737		$283,659	
Los Angeles County				22%	$19,212,517		$145,128	
Norwalk	$4,749,638,565	30	$158,321,286	12%	$18,998,554	$553,997	$66,480	0.35%
Special Districts				22%	$34,830,683		$121,879	
Schools				43%	$68,078,153		$238,219	
Los Angeles County				23%	$36,413,896		$127,419	
Santa Fe Springs	$4,653,502,457	43	$108,220,987	6%	$6,493,259	$262,100	$15,726	0.24%
Special Districts				5%	$5,411,049		$13,105	
Schools				50%	$54,110,494		$131,050	
Los Angeles County				39%	$42,206,185		$102,219	

1 2005 Annual Report, Office of the Assessor, Los Angeles County

2 Estimated average as the quotient of the Assessed Property Valuation and total number of TRAs by City.

3 Tax Rates for the typical tax rate area in the respective city, as used in the I-5 Interim HOV Land Use & Socioeconomic Technical Study

4 Calculated as the sum of the property tax paid to the County Assessor in 2004–2005 for each property to be fully acquired.

5 Calculated as the product of the tax rate and the estimated total property tax loss. Figures are for fiscal year 2003–2004.

6 Calculated as the quotient of property tax loss to jurisdiction (City) and revenues generated from properties in TRA.

Table 3-4.5 - Potential Property Tax Loss for Alternative 4b								
Jurisdiction	**Assessed Property Valuation[1]**	**Tax Rate Areas (TRA) in City**	**Assessed Property Valuation Per TRA[2]**	**Tax Rate[3]**	**Revenues Generated from Properties in TRA**	**Total Property Tax Loss[4]**	**Property Tax Loss to Jurisdiction[5]**	**Loss as a % of City Revenues[6]**
Downey	$7,000,897,606	64	$109,389,025	14%	$15,314,464	$41,595	$5,823	0.04%
Special Districts				4%	$4,375,561		$1,664	
Schools				49%	$53,600,622		$20,382	
Los Angeles County				33%	$36,098,378		$13,726	
La Mirada	$4,279,151,494	49	$87,329,622	12%	$10,479,555	$387,195	$46,463	0.44%
Special Districts				23%	$20,085,813		$89,055	
Schools				43%	$37,551,737		$166,494	
Los Angeles County				22%	$19,212,517		$85,183	
Norwalk	$4,749,638,565	30	$158,321,286	12%	$18,998,554	$346,885	$41,626	0.22%
Special Districts				22%	$34,830,683		$76,315	
Schools				43%	$68,078,153		$149,161	
Los Angeles County				23%	$36,413,896		$79,784	
Santa Fe Springs	$4,653,502,457	43	$108,220,987	6%	$6,493,259	$281,549	$16,893	0.26%
Special Districts				5%	$5,411,049		$14,077	
Schools				50%	$54,110,494		$140,775	
Los Angeles County				39%	$42,206,185		$109,804	

1 2005 Annual Report, Office of the Assessor, Los Angeles County.

2 Estimated average as the quotient of the Assessed Property Valuation and total number of TRAs by City.

3 Tax Rates for the typical tax rate area in the respective city, as used in the I-5 Interim HOV Land Use & Socioeconomic Technical Study.

4 Calculated as the sum of the property tax paid to the County Assessor in 2004–2005 for each property to be fully acquired.

5 Calculated as the product of the tax rate and the estimated total property tax loss. Figures are for fiscal year 2003B2004.

6 Calculated as the quotient of property tax loss to jurisdiction (City) and revenues generated from properties in TRA.

Table 3-4.6 - Potential Property Tax Loss for Alternative 5a								
Jurisdiction	**Assessed Property Valuation[1]**	**Tax Rate Areas (TRA) in City**	**Assessed Property Valuation Per TRA[2]**	**Tax Rate[3]**	**Revenues Generated from Properties in TRA**	**Total Property Tax Loss[4]**	**Property Tax Loss to Jurisdiction[5]**	**Loss as a % of City Revenues[6]**
Downey	$7,000,897,606	64	$109,389,025	14%	$15,314,464	$41,595	$5,823	0.04%
Special Districts				4%	$4,375,561		$1,664	
Schools				49%	$53,600,622		$20,382	
Los Angeles County				33%	$36,098,378		$13,726	
La Mirada	$4,279,151,494	49	$87,329,622	12%	$10,479,555	$671,769	$80,612	0.77%
Special Districts				23%	$20,085,813		$154,507	
Schools				43%	$37,551,737		$288,861	
Los Angeles County				22%	$19,212,517		$147,789	
Norwalk	$4,749,638,565	30	$158,321,286	12%	$18,998,554	$569,688	$68,363	0.36%
Special Districts				22%	$34,830,683		$125,331	
Schools				43%	$68,078,153		$244,966	
Los Angeles County				23%	$36,413,896		$131,028	
Santa Fe Springs	$4,653,502,457	43	$108,220,987	6%	$6,493,259	$281,549	$16,893	0.26%
Special Districts				5%	$5,411,049		$14,077	
Schools				50%	$54,110,494		$140,775	
Los Angeles County				39%	$42,206,185		$109,804	

1 2005 Annual Report, Office of the Assessor, Los Angeles County.

2 Estimated average as the quotient of the Assessed Property Valuation and total number of TRAs by City.

3 Tax Rates for the typical tax rate area in the respective city, as used in the I-5 Interim HOV Land Use & Socioeconomic Technical Study.

4 Calculated as the sum of the property tax paid to the County Assessor in 2004–2005 for each property to be fully acquired.

5 Calculated as the product of the tax rate and the estimated total property tax loss. Figures are for fiscal year 2003B2004.

6 Calculated as the quotient of property tax loss to jurisdiction (City) and revenues generated from properties in TRA.

Table 3-4.7 - Potential Property Tax Loss for Alternative 5b								
Jurisdiction	**Assessed Property Valuation[1]**	**Tax Rate Areas (TRA) in City**	**Assessed Property Valuation Per TRA[2]**	**Tax Rate[3]**	**Revenues Generated from Properties in TRA**	**Total Property Tax Loss[4]**	**Property Tax Loss to Jurisdiction[5]**	**Loss as a % of City Revenues[6]**
Downey	$7,000,897,606	64	$109,389,025	14%	$15,314,464	$41,595	$5,823	0.04%
Special Districts				4%	$4,375,561		$1,664	
Schools				49%	$53,600,622		$20,382	
Los Angeles County				33%	$36,098,378		$13,726	
La Mirada	$4,279,151,494	49	$87,329,622	12%	$10,479,555	$421,598	$50,592	0.48%
Special Districts				23%	$20,085,813		$96,968	
Schools				43%	$37,551,737		$181,287	
Los Angeles County				22%	$19,212,517		$92,752	
Norwalk	$4,749,638,565	30	$158,321,286	12%	$18,998,554	$569,688	$68,363	0.36%
Special Districts				22%	$34,830,683		$125,331	
Schools				43%	$68,078,153		$244,966	
Los Angeles County				23%	$36,413,896		$131,028	
Santa Fe Springs	$4,653,502,457	43	$108,220,987	6%	$6,493,259	$281,549	$16,893	0.26%
Special Districts				5%	$5,411,049		$14,077	
Schools				50%	$54,110,494		$140,775	
Los Angeles County				39%	$42,206,185		$109,804	

1 2005 Annual Report, Office of the Assessor, Los Angeles County

2 Estimated average as the quotient of the Assessed Property Valuation and total number of TRAs by City.

3 Tax Rates for the typical tax rate area in the respective city, as used in the I-5 Interim HOV Land Use & Socioeconomic Technical Study

4 Calculated as the sum of the property tax paid to the County Assessor in 2004–2005 for each property to be fully acquired.

5 Calculated as the product of the tax rate and the estimated total property tax loss. Figures are for fiscal year 2003–2004.

6 Calculated as the quotient of property tax loss to jurisdiction (City) and revenues generated from properties in TRA.

Sales Tax Revenue Impacts

Alternatives 2 and 3. As previously mentioned, no additional property acquisitions beyond those identified for Alternatives 4 and 5 would be required for Alternatives 2 or 3. The park-and-ride lots associated with this alternative would utilize remnant property to be acquired to construct the proposed freeway widenings associated with Alternatives 4 and 5. Therefore, no sales tax losses beyond the losses identified for Alternatives 4 and 5 would result.

Alternatives 4 and 5. The right-of-way acquisitions associated with Alternatives 4 and 5 would result in a net loss of land available for sales tax generating business locations. Under worst case conditions, the acquisitions would reduce local sales tax revenue if the all businesses relocated could not do so within their respective cities. Table 3-4.8 shows the estimated loss in annual sales tax revenue that impacts each city if all businesses had to be relocated outside of that city. Potential total sales tax losses range from $219,630 for Alternative 4b to $271,608 for Alternative 5b. Table 3-4.8 indicates that the City of La Mirada could be impacted the most disproportionately because it has the fewest number of businesses and the lowest total sales tax revenue. This impact is magnified by the scarcity of replacement commercial and industrial land in La Mirada and Norwalk. Alternative 5a has the most severe impact on La Mirada's sales tax revenue. Alternative 5b has the most adverse impact on the other cities, potentially reducing the sales tax revenues within Santa Fe Springs by almost $130,000 annually. The majority of available land needed for development is absorbed by Santa Fe Springs. The inventory of industrial properties and the projected inventory by the time right-of-way activities commence may fulfill projected requirements, however, office and retail inventory may prove more difficult to replace within the respective cities.

Table 3-4.8 – Sales Tax Revenue

				Potential Tax Loss by Alternative[1]			
City	Total Sales Tax Revenue[2]	Total City Business[3]	Average Sales Tax/ Business[4]	4a	4b	5a	5b
Cerritos	$22,149,620	2,800	$7,911	$0	$0	$23,733	$15,822
Downey	$11,407,850	2,800	$4,074	$0	$0	$0	$0
La Mirada	$6,267,090	1,470	$4,263	$110,838	$76,734	$110,838	$80,997
Norwalk	$6,731,980	1,913	$3,519	$52,785	$45,747	$52,785	$45,747
Santa Fe Springs	$18,864,230	3,500	$5,390	$70,070	$75,460	$75,460	$75,460
Total				$233,693	$197,941	$262,816	$218,026

1 Calculated as the product of average sales tax per business and the number of potentially displaced commercial parcels shown in Table 3-4.3.

2 Calculated as one percent of total taxable sales within each city (California State BOE).

3 Local Chamber of Commerce.

4 Calculated as the quotient of total sales tax revenue and total number of businesses.

Economic Impacts Associated with Alternatives 4 and 5
In 2001, the Interstate 5 Joint Powers Authority commissioned the University of Southern California (USC) School of Policy, Planning and Development to study the economic impacts associated with the project proposed in the Interstate 5 Major Investment Study. The findings of the USC Study were presented in *The Economic Impacts of Caltrans' I-5 Corridor Improvement Project – Final Report,* December 2002. The USC Study examined the original 10-lane MIS alignment from State Route 91 to Interstate 710 as well as a 12-lane alternative on the same alignment. The corridor cities in the USC Study included The City of Commerce, Downey, Los Angeles, La Mirada, Montebello, Norwalk and Santa Fe Springs.

The USC Study presented direct, indirect and induced economic impacts associated with the 10 and 12-lane alternatives under three different scenarios: Displaced businesses relocate within the I-5 Corridor, Displaced businesses relocate to the Inland Empire, and Displaced businesses relocate out of the region. The USC Study concludes that the second scenario would be the most likely of the three to occur. Under that scenario, the corridor cities would lose 7,742 jobs if the 10-lane alternative were constructed and 12,693 jobs if the 12-lane alternative was constructed. The majority of these job loses would occur in the City of Commerce and Santa Fe Springs. Economic losses for the corridor cities would be $758,812,000 and $1,443,065,000 annually for the 10 and 12-lane alternatives respectively. The majority of annual economic loses would occur in the cities of Commerce, Santa Fe Springs, and La Mirada.

While the limits of the USC Study went beyond the Route 605 Freeway, the economic implications are relevant. The USC Study illustrates that the adverse economic impacts of alternatives 4 and 5 are potentially substantial, particularly in the cities of Santa Fe Springs and La Mirada.

3-4.1.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

Public agencies responsible for the acquisitions are required to provide relocation assistance to displaced residents and businesses and compensate the property owners for the sale of the property in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1974, revised effective January 1, 1991 (Public Law 91-646 & 49 CFR Part 24) (see Appendix D). This law establishes a uniform policy for the fair and equitable treatment of residents and businesses displaced as a direct result of programs or projects undertaken by a public entity. The Relocation Assistance Act would be administered in a manner, which is consistent with the fair housing requirements and assures all persons their rights under Title VIII of the act of April 11, 1968 (Public Law 90-284), commonly known as the Civil Rights Act of 1968 and Title VI of the Civil Rights Act of 1964.

To minimize the impact on cities due to loss of property and sales tax, efforts would be made to find suitable replacement housing or business locations within the community if the displacees desire to remain. The Relocation Assistance Act provides nothing to mitigate the loss of tax revenue or loss of economic activity.

3-4.1.5 CUMULATIVE IMPACTS

Cumulative Relocation Effects
The overriding purpose of most projects in the cumulative study area is to revitalize properties and stimulate economic activity. The projects encourage economic growth and community

revitalization by replacing underutilized or blighted areas with new commercial, retail, and residential land uses. Additionally, residential development has increased the housing stock within each of the cities, providing opportunities for each jurisdiction to balance jobs and housing consistent with the Housing Elements of their General Plans. The commercial development has created short-term construction jobs and long-term employment. The provision of additional housing balances the jobs-to-housing ratio within each local city. Given the mature nature of the local communities, inducement of substantial growth effects has been limited, but serves to maintain or enhance the existing economic vitality of each jurisdiction, particularly with the loss of industrial/manufacturing uses over the last decade. The cumulative projects individually and collectively do not require right-of-way acquisitions and therefore do not contribute to a cumulative relocation effect.

Project Contribution to Cumulative Relocation Effects
Since the cumulative projects do not require right-of-way acquisitions, the proposed project alternatives do not contribute to a cumulative relocation effect.

3-4.2 COMMUNITY CHARACTER AND COHESION

3-4.2.1 REGULATORY SETTING

NEPA, as amended, established that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings [42 U.S.S. 4331(b)(2)]. The Federal Highway Administration (FHWA) 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. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under CEQA, an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

3-4.2.2 AFFECTED ENVIRONMENT

Information regarding Community Character and Cohesion was obtained from the I-5 Corridor Improvement Project Community Impact Assessment, March 2005.

Study Area Census Tracts
The study area for the proposed project comprises 16 tracts from the 2000 census that are adjacent to or encompass the I-5 Corridor[1]. The study area census tracts are illustrated in Figure 3-2.1 (Study Area Census Tracts). There are three census tracts located in the City of Buena Park, one in the City of Cerritos, one in the City of La Mirada, eight in the City of Norwalk, two in the City of Santa Fe Springs, and one in the City of Downey. The study area census tracts

1 The study area includes all census tracts located within 3 mile of the I-5 facility. There are five census tracts located within 3 mile of I-5 that were not included in the study area due to their distance from the proposed improvements. No direct or indirect impacts to these census tracts are anticipated.

identified in Figure 3-2.1 extend beyond the limits of impact for this project. However, if any portion of a census tract would be potentially impacted by the proposed project, the entire census tract was included to ensure that impacts to the study area population were identified.

Population within Affected Communities

The City of Santa Fe Springs had the smallest population among the affected communities in 2000 (17,501), and SCAG projects that the City's population will increase to 20,750 in 2025. The City of Downey had the largest population among the affected communities in 2000 (107,821), and the City's population is expected to increase to 121,228 in 2025. The City of Norwalk is anticipated to experience the greatest amount of population growth over the next several decades, reaching 119,336 by 2025. Cerritos and La Mirada are projected to reach 55,282 and 67,163 in 2025, respectively.

Study Area Population

The population within the study area is shown in Table 3-4.9. Census Tract 5523 in the City of Norwalk, designated primarily as residential, had the greatest population in 2000 (8,664 persons). Census tract 5041.02 in the City of Santa Fe Springs, containing predominantly commercial and industrial uses, had the smallest population in 2000 (8 persons). The percentage of population change between 1990 and 2000 within each census tract ranges from a decrease of 70.4 percent (Tract 5041.02, from 27 to 8) to an increase of 26.9 percent (Tract 1106.03, from 6,754 to 8,573).

Table 3-4.9 – Study Area Populations

City	Census Tract	Population 1990	Population 2000	Percent Change
Buena Park	1105	7086	8599	(+) 21.4%
Buena Park	1106.01	6366	N/A	N/A
Buena Park	1106.06	N/A	4841	N/A
Buena Park	1106.03	6754	8573	(+) 26.9%
Cerritos	5545.11	4446	4323	(-) 2.8%
La Mirada	5039.02	4290	4492	(+) 4.7%
Norwalk	5501	6607	7314	(+) 10.7%
Norwalk	5502	7602	8352	(+) 9.9%
Norwalk	5503	6822	7660	(+) 12.3%
Norwalk	5520	6621	7924	(+) 19.7%
Norwalk	5522	5922	6819	(+) 15.1%
Norwalk	5523	8472	8664	(+) 2.3%
Norwalk	5524	2499	2691	(+) 7.7%
Norwalk	5527	5693	6702	(+) 17.7%
Santa Fe Springs	5028	7116	8627	(+) 21.2%
Santa Fe Springs	5041.02	27	8	(-) 70.4%
Downey	5504	1305	1437	(+) 10.1%
Total Study Area		**87,628**	**97,316**	**(+) 11%**

Source: U.S. Census Bureau, Census 1990 and 2000.

Age

Table 3-4.10 shows the distribution of the population by age within Los Angeles and Orange Counties and the affected communities in 1990 and 2000. According to the U.S. Census Bureau, the number of residents in Los Angeles County under the age of 18 rose to 2,665,415 in 2000, an increase of 15 percent since 1990. The number of seniors 65 or older remained unchanged at 9.7 percent. The number of residents in Orange County under the age of 18 rose to 768,498 in 2000, an increase of 31 percent since 1990.

The population between the ages of 18 and 64 has declined in all of the affected communities since 1990. The number of middle-aged residents within the study area census tracts and affected communities have all decreased since 1990, while the number of senior citizens and residents under the age of 18 is on the rise. SCAG projects that the percentage of senior citizens in the Southern California region will continue to rise over the next two decades, with approximately one in six people expected to be a senior citizen in 2030.

Table 3-4.10 – Age Distribution

		Percentage		
Year	**Jurisdiction**	**Population < 18**	**Population 18-64**	**Population > 64**
Counties				
1990	Los Angeles	26.2%	64%	9.7%
2000	Los Angeles	28%	62.3%	9.7%
1990	Orange	24.4%	66.4%	9.2%
2000	Orange	27%	63.2%	9.9%
Affected Communities				
1990	Buena Park	26.6%	65.4%	8%
2000	Buena Park	29.4%	61.2%	9.3%
1990	Cerritos	27.7%	66.5%	5.7%
2000	Cerritos	24.5%	65.9%	9.7%
1990	Downey	24.4%	62.2%	13.4%
2000	Downey	29.2%	59.8%	11%
1990	La Mirada	24.1%	64.5%	11.4%
2000	La Mirada	26.2%	60%	13.8%
1990	Norwalk	29.8%	61.6%	8.6%
2000	Norwalk	32.1%	58.8%	9%
1990	Santa Fe Springs	28.8%	59.6%	11.6%
2000	Santa Fe Springs	29.1%	58.2%	12.8%

Source: U.S. Census Bureau, Census 1990 and 2000.

Ethnicity

Table 3-4.11 shows the racial composition of Los Angeles and Orange Counties and the affected communities in 1990 and 2000. Based on the 2000 Census, Hispanics are the largest ethnic group in Los Angeles County (45 percent) and Non-Hispanic Whites are currently the majority in Orange County (51 percent).

Non-Hispanic Whites are currently the largest ethnic group in the Cities of Buena Park (38.2 percent) and La Mirada (47.1 percent), but the number of Non-Hispanic Whites has decreased by

26 percent in Buena Park and 15 percent in La Mirada since 1990. Asians are currently the majority in the City of Cerritos, while Hispanics are currently the majority in the Cities of Downey (57.9 percent), Norwalk (62.9 percent), and Santa Fe Springs (71.4 percent). The study area census tracts are predominantly Hispanic (56.2 percent), rising above 50,000 in 2000, an increase of 41 percent since 1990.

Table 3-4.11 – Ethnic Composition

Year	Jurisdiction	Percentage[1]						
		White	Black	American Indian/ Native Alaskan	Asian[2]	Hawaiian[3]/ Pacific Islanders	Other	Hispanic
Counties								
1990	Los Angeles	40.8%	10.5%	0.3%	10.2%	--	0.2%	37.8%
2000	Los Angeles	31.1%	9.5%	0.3%	11.8%	0.2%	0.2%	44.6%
1990	Orange	64.5%	1.6%	0.4%	10%	--	0.1%	23.4%
2000	Orange	51.3%	1.5%	0.3%	13.5%	0.3%	0.2%	30.8%
Affected Communities								
1990	Buena Park	58.6%	2.4%	0.5%	13.8%	--	0.2%	24.5%
2000	Buena Park	38.2%	3.6%	0.4%	20.9%	0.5%	0.3%	33.5%
1990	Cerritos	42.3%	7.4%	0.3%	45.2%	--	4.7%	12.5%
2000	Cerritos	26.9%	6.7%	0.3%	58.4%	0.2%	7.5%	10.4%
1990	Downey	55.4%	3.1%	0.5%	8.4%	--	0.2%	32.3%
2000	Downey	28.7%	3.5%	0.3%	7.6%	0.1%	0.2%	57.9%
1990	La Mirada	64.4%	1.3%	0.4%	7.9%	--	0.2%	25.9%
2000	La Mirada	47.1%	1.8%	0.3%	14.7%	0.2%	0.3%	33.5%
1990	Norwalk	36.7%	3%	0.5%	11.6%	--	0.3%	47.9%
2000	Norwalk	18.9%	4.4%	0.4%	11.3%	0.3%	0.1%	62.9%
1990	Santa Fe Springs	26.1%	1.7%	0.4%	4.1%	--	0.3%	67.4%
2000	Santa Fe Springs	19.2%	3.7%	0.5%	3.7%	0.2%	0.1%	71.4%

Source: U.S. Census Bureau, 1990 and 2000 Census.

SCAG's 2004 RTP Socioeconomic Forecast Report identifies regional projections of population, households, and employment by five-year increments for the 1997 to 2025 period. Due to a high fertility rate and immigration from Latin America, SCAG projects that the Hispanic population will become the dominant majority in Los Angeles County in 2030. Approximately three out of five people in Los Angeles County will be Hispanic by 2030. The Asian and Pacific Islander population in Los Angeles County is also projected to grow rapidly, adding 0.7 million people between 2000 and 2030. The number of White and African Americans is projected to decrease, as they are expected to leave Los Angeles County to take advantage of affordable housing in the

[1] Percentages do not add to 100 percent because the White, Black, American Indian and Alaska Native, Hawaiian and Pacific Islander, and Other categories include persons identified with one race only; the Hispanic category overlaps with other categories.

[2] In 1990, the Asian population included Hawaiian and Other Pacific Islanders; in 2000, the Asian population did not include Hawaiian and Other Pacific Islanders.

[3] In the 1990 U.S. Census, the Hawaiian and Other Pacific Islanders race was included with the Asian population.

Inland Empire or job opportunities and a lower cost of living in other western states. Orange County is projected to be transformed from a County with a White majority into a racially and ethnically diverse area. Hispanics are expected to have the largest share of the Orange County population by 2030. The Asian population in Orange County is projected to increase 41 percent by 2030, and the White population is projected to decrease by 2030.

Other Demographics

Table 3-4.12 provides a snapshot of other demographic characteristics of the affected communities, compared to County and State averages. Population growth in the last decade in the affected communities within Los Angeles County (with the exception of Cerritos) was significantly greater than the County average (7.4 percent), which was much lower than the growth rate in Orange County (18.1 percent). The household income in the affected communities within Los Angeles County is greater than the County average ($42,189), while Buena Park is below the Orange County average ($58,820). The proportion of persons living in poverty within the Los Angeles County affected communities is below the County (17.9 percent) and State (14.2 percent) averages, while the proportion in Buena Park is above the Orange County average (10.3 percent). Cerritos, Downey, and La Mirada all have a greater number of residents with high school diplomas than the County average (69.9 percent), and La Mirada has a greater number of residents with college degrees than the County average (24.5 percent).

Table 3-4.12 – Local, Regional, and State Demographic Summaries									
	Affected Communities						Regional		State
Characteristic	Cerritos	Buena Park	Downey	La Mirada	Norwalk	Santa Fe Springs	Los Angeles County	Orange County	CA
Population Change (1990 to 2000)	(-) 3.3%	(+) 13.7%	(+) 17.4%	(+) 15.7%	(+) 9.6%	(+) 12.4%	(+) 7.4%	(+) 18.1%	(+) 13.6%
Median Household Income	$73,030	$50,336	$45,667	$61,632	$46,047	$44,540	$42,189	$58,820	$47,493
Persons Below Poverty	5.0%	11.3%	11.1%	5.6%	11.9%	12.5%	17.9%	10.3%	14.2%
High School Graduate or Higher (over age 25 years)	90.7%	75.8%	72.3%	84.5%	63.0%	62.9%	69.9%	79.5%	76.8%
College Graduate or Higher (over age 25 years)	43.7%	19.7%	17.3%	25.2%	10.6%	9.2%	24.9%	30.8%	26.6%
Employed Civilian Labor Force	25,424	36,763	44,108	21,162	39,231	6,457	3,953,415	1,338,838	14,718,928
Persons Per Household	3.34	3.32	3.11	3.10	3.79	3.35	2.98	3.00	2.87

Source: U.S. Census Bureau, Census 2000.

3-4.2.3 IMPACTS

Neighborhood Disruption

The expansion of an existing freeway facility may affect communities and neighborhoods in ways other than direct property acquisition and displacements. The proposed project could disrupt neighborhoods, further separate resident children from schools, and fragment edges of cohesive groups of people, thereby adversely affecting how a community or neighborhood functions. The residential relocations cited in this section pertain only to those relocations that would result in neighborhood disruption. These relocations are a subset of the total number of relocations resulting from the proposed project cited in Section 3-4.1.3.

The proposed project would benefit the affected communities by reducing congestion and the current and potential costs of traffic delays caused by the existing freeway operation. The project would increase the efficiency of moving people and goods throughout the affected communities and cities located along the I-5 Corridor.

Alternative 2. It is anticipated that Alternative 2 would benefit neighborhoods by increasing accessibility within the affected communities. Residential displacements and the fragmentation of neighborhoods would not occur as a result of Alternative 2, since no residential property acquisitions would occur and physical barriers would not be created that would further divide neighborhoods or cohesive groups of people.

Alternative 3. It is anticipated that Alternative 3 would benefit neighborhoods by increasing accessibility within the affected communities and by providing enhanced transit routes. Residential displacements and the fragmentation of neighborhoods would not occur as a result of Alternative 3, since residential property acquisitions would be minimal for this alternative. Implementation of the associated park-and-ride lots would not create physical barriers that would further divide neighborhoods or cohesive groups of people.

Alternative 4. Alternative 4 would also displace 14 residences located on Firestone Boulevard in the City of Norwalk, adjacent to I-5. The acquisitions would remove the entire segment of homes fronting Firestone Boulevard but would not disrupt the cohesive neighborhood located north of the homes bounded by Rosecrans Avenue, Lochnevis Avenue, Mc Laren Street, and Greenstone Avenue.

Alternative 4 would result in up to 15 residential displacements (13 for Alternative 4a, 15 for Alternative 4b) within the neighborhood located east of Norwalk Park and bounded by I-5 on the north and Firestone Boulevard on the south. Sporadic acquisitions along the northern portion of the neighborhood would remove approximately 12 percent of the single-family homes within the neighborhood.

Alternative 4 would displace up to 18 residences (16 for Alternative 4a, 18 for Alternative 4b) located on Paddison Avenue and Zeus Avenue in the City of Norwalk. The displacements would remove a segment of homes (approximately 50 percent) within a cohesive neighborhood bounded by Zeus Avenue, Lyndora Street, and Paddison Avenue.

Alternative 5. The project would displace up to 14 residences (14 for Alternative 5a, 13 for Alternative 5b) located on Firestone Boulevard in the City of Norwalk, adjacent to I-5.

Alternative 5b would leave one home on Lochnevis Avenue on the south side of the neighborhood as the only remaining home fronting Firestone Boulevard.

Alternative 5 would also displace up to 18 residences (16 for Alternative 5a, 18 for Alternative 5b) located on Paddison Avenue and Zeus Avenue in the City of Norwalk. The displacements would remove a segment of homes (approximately 50 percent) within a cohesive neighborhood bounded by Zeus Avenue, Lyndora Street, and Paddison Avenue.

Alternative 5 would result in up to 18 residential displacements (15 for Alternative 5a, 18 for Alternative 5b) within the neighborhood located east of Norwalk Park and bounded by I-5 on the north and Firestone Boulevard on the south. The acquisitions would remove approximately 14 percent of the single-family homes within the neighborhood. Several of the displacements (five for Alternative 5a, eight for Alternative 5b) would occur on the north side of Sproul Street, creating a separation between the homes that would remain at the north end of Sproul Street, east of Araby Avenue.

Construction Impacts

The proposed project may cause disruptions in community circulation during the construction period by restricting local street access. The closure of freeway ramps, overcrossings, and interchanges during the construction period would result in freeway and local street detours that may increase traffic volumes and restrict neighborhood travel patterns. The proposed project would temporarily close the pedestrian crossing located at Silverbow Avenue and I-5 in the City of Norwalk. The closure would restrict students living in the Norwalk San Antonio Village (located on the south side of I-5) from walking to the Moffitt Elementary School on the north side of I-5 for approximately 12 months during the construction of the replacement crossing. The crossing would be reopened after construction is complete.

Construction activity along the project area may produce a substantial effect upon businesses located along the I-5 Corridor. Disruption could occur when I-5 ramps and local street access is restricted during construction, and businesses would also experience noise and dust impacts from construction activity. Businesses may lose off-street parking as a result of nearby construction. For some businesses, especially small retail operations, the construction period could substantially affect their operation and viability.

Full and partial street closings may be required throughout the construction period. The precise effect to businesses located along the I-5 Corridor would depend upon the site-specific conditions and the strength of the business at the outset of construction. Larger businesses should have less difficulty than smaller ones. Businesses having a loyal client base (such as those that provide unique goods or services) would have less difficulty than those depending upon trade from the general public would.

Temporary project impacts are defined as those that would occur during the construction of the proposed project. These temporary impacts would not occur prior to the construction effort and would be no longer be evidenced upon completion and full operation of the I-5 facility. Construction activities that could affect business operations would include freeway lane and ramp closures, freeway and local street detours, overcrossing closures, stockpiling of construction equipment and excavated materials, removal of billboards along the freeway shoulders, removal of on- and off-street parking, and closures of local frontage roads. The

freeway and street closures and detours could temporarily delay goods shipment and impede business access. The presence of construction equipment and the temporary removal of billboards could diminish the visibility of businesses from the freeway. The temporary impacts would occur only during the construction period.

3-4.2.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

Neighborhood Disruption
Pedestrian access points to businesses within the construction area would be maintained throughout the construction period. If usual access points were lost, provisions for alternative access to the affected parcels would be made. Appropriate signage would be placed to inform pedestrians of access to local businesses. Temporary sidewalks, if necessary, would be installed during the construction phase. Disabled access shall be maintained during construction where feasible.

Appropriate signage would be developed and displayed by Caltrans to direct both pedestrian and vehicular traffic to businesses via alternate routes.

During construction, Caltrans staff would establish one or more information field office(s) near the construction site(s). The field office-(s) would serve the following multiple purposes:

- Provide the community and businesses with a physical location where information pertaining to construction can be exchanged
- Enable Caltrans staff to better understand community/business needs during construction
- Notify property owners, residences, and businesses of major construction activities (e.g., utility relocation/disruption, re-routing of delivery trucks)
- Respond to phone inquiries
- Coordinate business outreach programs

Information and field office telephone numbers would be available to provide community members and businesses a means of direct communication regarding construction activities. Caltrans staff would review and forward calls to the appropriate party for action. A follow-up procedure would be implemented to ensure that calls are be responded to. Community involvement specialists would be available to provide information such as current project schedule, dates for upcoming community meetings, notice of construction impacts, individual problem solving, construction complaints, and general information.

Construction Impacts
Advance notification of temporary parking loss and, where necessary, identification of temporary replacement parking or alternative adjacent parking would be made. Where possible, temporary parking could be provided on either or both ends of the immediate construction areas to serve adjacent uses. If parking areas are sufficiently distant from businesses, shuttle service may be provided. Caltrans would coordinate with the local jurisdictions to mitigate parking losses to businesses.

Construction activities could result in temporary removal of on-street parking and restricted access to off-street parking that serves businesses near the construction sites. Caltrans would consult with those businesses whose parking would be affected during construction. If space is

available in another location, alternative parking spaces may be provided as mitigation. Access to off-street parking would be maintained.

To mitigate the temporary closure of the Silverbow Avenue pedestrian over-crossing, special busses or similar shuttle service would have to be provided to transport students who normally use the Silverbow Avenue pedestrian overcrossing to get to and from school.

Traffic management plans would be developed to maintain access to all businesses near construction activity. For example, mitigation measures to alleviate adverse traffic impacts include: (1) avoiding access points to construction sites on residential streets and posting speed limits of 25 mph along the streets in the vicinity of the construction sites; and (2) preparing specific traffic mitigation plans for each construction site, including detour routes, lane assignments, and vehicular and pedestrian traffic circulation and control. Construction contracts would contain provisions to require the maintenance of driveway access to businesses to the extent feasible with the following measures:

- Construction would be staged. For large businesses with extensive roadway frontage, this would allow at least some access to driveways or loading docks to remain available at all times.
- Construction could occur during off-peak business hours to minimize the impact on employee or customer parking and/or deliveries.

Prior to and during construction, Caltrans staff would contact and interview individual businesses potentially affected by construction activities. Interviews with commercial and industrial businesses would provide knowledge of how these firms conduct their businesses and identify business usage; delivery and shipping patterns; frequented travel routes of customers and clients upon entering and exiting the business establishment; parking requirements; hours of operation; and critical times of the day and year for business activities. Information gathered from these interviews would be used to develop the construction traffic control plans and alternate access routes to maintain critical business activities. Caltrans staff would inform the public of its progress in implementing the measures selected through periodic project newsletters sent to businesses, residents, and property owners within close proximity to the project. Staff would be assigned to work directly with the public to provide project information and resolve construction-related problems.

3-4.2.5 CUMULATIVE IMPACTS

Cumulative Community Character and Cohesion Effects

Implementation of any of the cumulative projects has the potential to result in short-term effects to neighborhoods as a result of construction activities. These activities include grading and excavation, road detouring, and utility construction/relocation. Permanent neighborhood disruption would not occur as a result of the cumulative projects, since the development is consistent with the land use patterns of the local jurisdictions. Site-specific effects, such as noise, vibration, traffic, aesthetics, lighting, and air quality have been addressed through the local project review and appropriate minimization measures identified.

Project Contribution to Cumulative Community Character and Cohesion Effects
The proposed alternatives each involve roadway construction and would contribute incrementally to the other projects to neighborhood disruption by slowing circulation and restricting some local street access during construction. Freeway ramp closures would cause short-term impacts to local circulation. Since the cumulative projects are not anticipated to cause long-term neighborhood disruptions, the impacts to community character and cohesion due to the proposed alternatives are not anticipated to contribute to cumulative impacts to the community.

3-4.3 ENVIRONMENTAL JUSTICE

3-4.3.1 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 Bill 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 2006, this was $20,000 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.

Specific populations included in the affected communities, under the guidance of the National Environmental Policy Act (NEPA), have been evaluated for environmental justice impacts. There is the potential for environmental justice impacts given the presence of minority and low-income populations within the Affected Community. Potential areas of concern for environmental justice include air quality, noise, hazardous materials, property relocations, and property access.

The environmental justice analysis was conducted using census tract level information from the 2000 census. In order to provide full disclosure, data from all of the study area census tracts were included in the following discussion. The following analysis provides a comparison of four measures with which to evaluate environmental justice.

- Percentage of non-white residents
- Percentage of Hispanic residents (the Census Bureau considers Hispanic or Latino ethnicity distinct from racial background)
- Percentage of population below poverty level
- Median household income

3-4.3.2 AFFECTED ENVIRONMENT

Information regarding environmental justice was obtained from the I-5 Corridor Improvement Project Community Impact Assessment, March 2005

Affected Community and Reference Community
As described above in Section 3-4.2.2, the Affected Communities within the project study area include the Cities of Cerritos, La Mirada, Norwalk, Santa Fe Springs, and Downey (which is located in the County of Los Angeles) and the City of Buena Park (which is located in the County of Orange). To assist in the environmental justice analysis, the Reference Community has been identified as the Counties of Los Angeles and Orange. As defined, the Reference Communities consist of the population that will benefit from the proposed project and is used in the environmental justice analysis to determine whether there are disproportionately high and adverse human health or environmental impacts by comparing its effects to the Affected Communities effects.

Non-White Population. The percentage of non-White residents was calculated by subtracting the number of White residents (one race only, as identified by the 2000 census) from 100 percent. As identified in Table 3-4.11, Ethnic Composition, all of the affected communities have a higher percentage of non-White residents than the Los Angeles and Orange County averages (with the exception of La Mirada). The affected communities have led the transition of Los Angeles County into an area dominated by non-White residents.

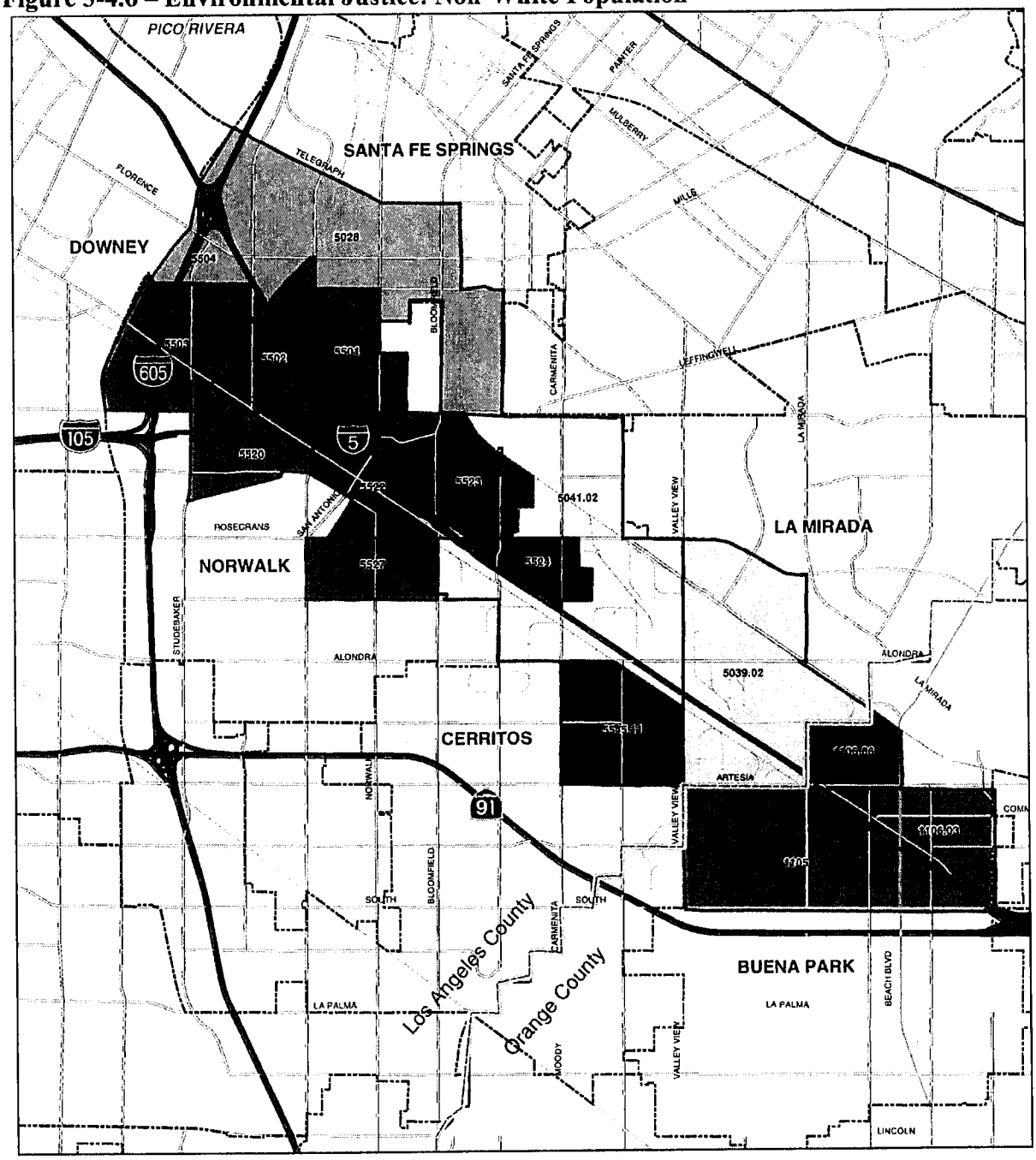
Figure 3-4.6, Environmental Justice: Non-White Population, illustrates the percentage of non-white residents within each study area census tract. The ethnic composition within the Buena Park and Cerritos census tracts is comparable to the composition of the Cities as a whole. The census tracts in the Cities of Downey, La Mirada, Norwalk, and Santa Fe Springs are considerably less diverse than the respective city averages.

Hispanic Population. With the exception of the Cities of Cerritos and La Mirada, all of the affected communities have a higher percentage of Hispanic residents than the Los Angeles and Orange County averages (see Table 3-4.11, Ethnic Composition). Hispanics are currently the majority in the Cities of Downey, Norwalk, and Santa Fe Springs.

Figure 3-4.7, Environmental Justice: Hispanic Population, illustrates the percentage of Hispanic residents within each study area census tract. The census tracts in the City of Santa Fe Springs have a substantially lower number of Hispanic residents than the city average of 71 percent, and the Cerritos, Downey, and La Mirada tracts have a comparable percentage of Hispanic residents to the city averages. The three tracts in the City of Buena Park have nearly 20 percent more Hispanic residents than the City average of 34 percent. Five of the census tracts in the City of Norwalk have a greater percentage of Hispanics than the City average of 63 percent, with one tract (Tract 5524.00) reporting 78 percent Hispanic residents.

There are a disproportionately high number of Hispanic residents in the census tracts in the Cities of Buena Park and Norwalk relative to the City average. However, Buena Park has a substantially lower percentage of Hispanic residents than the other affected communities. The percentage of Hispanic residents within the Buena Park tracts are consistent with the local composition of the I-5 Corridor.

Figure 3-4.6 – Environmental Justice: Non-White Population



Caltrans

Percent of Non-White Population

0% - 15%	30% - 45%	60% - 80%	
15% - 30%	45% - 60%	Census Tract	

0 1.1 2.2 mi

0 1.7 3.5 km

SOURCE: U.S. Census Bureau, 2000.

Average Percentage of Non - White Population per Affected Community

Buena Park	61.8%
Cerritos	73.1%
Downey	71.3%
La Mirada	52.9%
Norwalk	81.1%
Sante Fe Springs	80.8%

I - 5 Corridor Improvement Project

Environmental Justice:

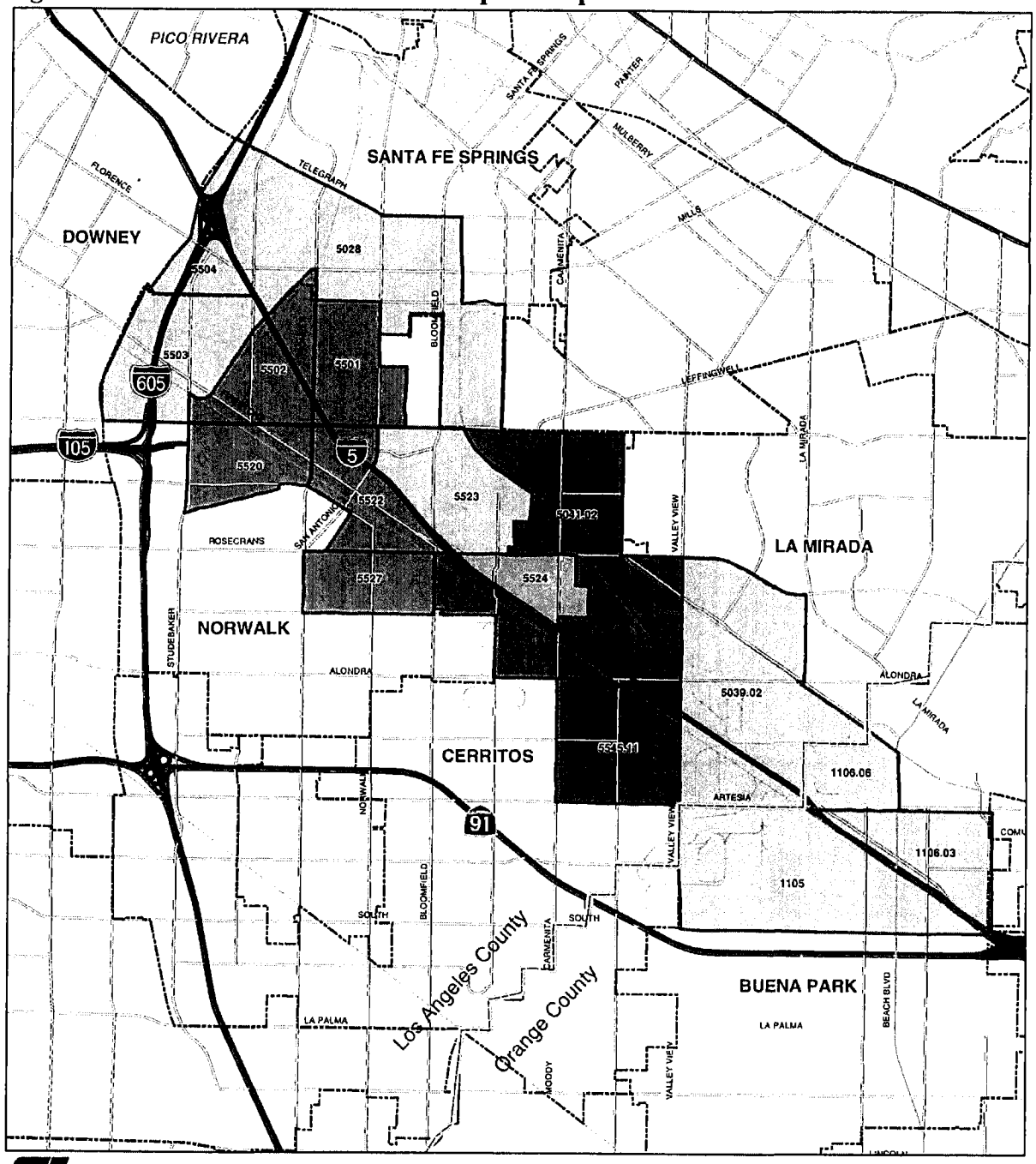
Non-White Population

07-LA-005-KP 0.0/12.15 (PM 0.0/7.5)

ORA-005-KP 67.9/71.4 (PM 42.2/44.4)

EA # 2159A0

Figure 3-4.7 – Environmental Justice: Hispanic Population



Caltrans

Percent of Hispanic Population

0% - 15%	30% - 45%	60% - 75%	
15% - 30%	45% - 60%	75% or greater	
			5546 Census Tract

0 1.1 2.2 mi
0 1.7 3.5 km

Average Percentage of Hispanic Population per Affected Community

Buena Park	33.5%
Cerritos	10.4%
Downey	57.6%
La Mirada	33.5%
Norwalk	62.9%
Sante Fe Springs	71.1%

I - 5 Corridor Improvement Project
Environmental Justice:
Hispanic Population
07-LA-005-KP 0.0/12.15 (PM 0.0/7.5)
ORA-005-KP 67.9/71.1 (PM 42.2/44.4)
EA #2159A0

SOURCE: U.S. Census Bureau, 2000.

Poverty. As identified in Table 3-4.12, Local, Regional, and State Demographic Summaries, the affected communities within Los Angeles County all have a lower percentage of persons below the poverty level than the County average, while the City of Buena Park has a higher percentage than the Orange County average.

Figure 3-4.8, Environmental Justice: Poverty, illustrates the percentage of persons below the poverty level within each study area census tract. The residents in the Downey and La Mirada census tracts have a higher percentage of persons living in poverty than the City averages of 11 and 6 percent, respectively. All of the census tracts in the City of Buena Park have a higher percentage of persons living in poverty than the City average of 11 percent. Two tracts in the City of Norwalk have a higher percentage of persons living in poverty than the City average of 12 percent.

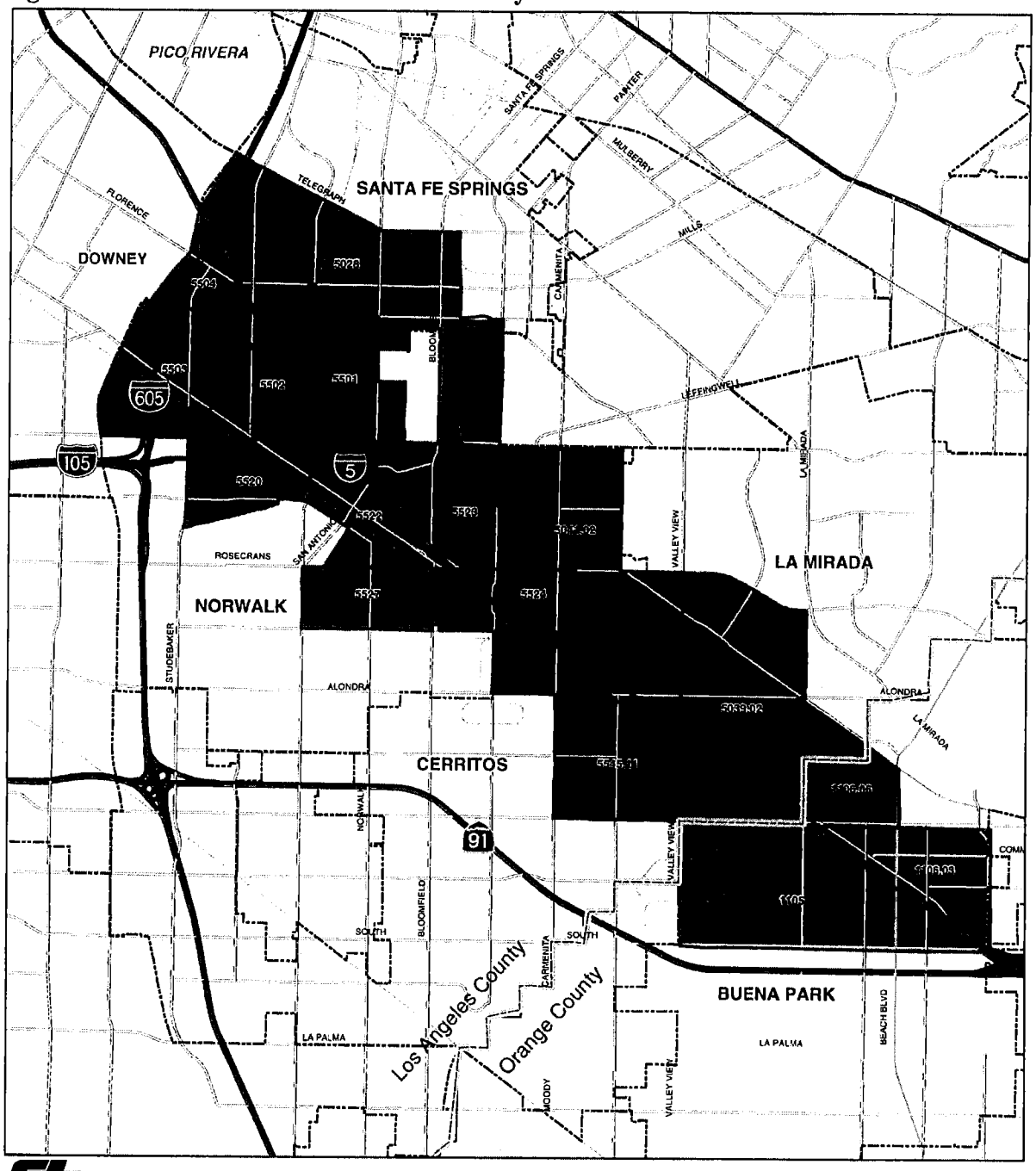
Of the 16 tracts within the study area, eight have a higher percentage of residents living in poverty than the respective City averages. Census tract 5041.02 in Santa Fe Springs has an uncharacteristically high proportion (75 percent) of persons living in poverty. However, there are only eight residents in the tract, resulting in an anomaly when compared to the study area as a whole. This tract is not indicative of the distribution of persons living in poverty throughout the study area. The average percentage of persons living in poverty in La Mirada (6 percent) is substantially lower than the other affected communities. The tract in La Mirada has a comparable percentage of residents living in poverty with other census tracts within the study area, consistent with the local character of the I-5 Corridor.

Median Household Income. The median household income in the affected communities within Los Angeles County is greater than the County average, while the median household income in the City of Buena Park is well below the Orange County average (see Table 3-4.12, Local, Regional, and State Demographic Summaries).

Figure 3-4.9, Environmental Justice: Median Household Income, illustrates the median household income within each study area census tract. Eight of the 16 tracts within the study area have a lower median household income than the respective City averages. All of the census tracts in Buena Park have a lower median household income than the City average ($50,000). The Cerritos tract has a lower median household income than the City average ($73,000). Three tracts in Norwalk have a lower median household income than the City average ($46,000). Tract 5028 in Santa Fe Springs has a lower median household income than the City average ($45,000). However, tract 5028 has a comparable median household income to the City average, with a difference of less than $2,000. Census tract 5041.02 in Santa Fe Springs has a median household income of $110,555. This tract has an uncharacteristically high median household income and is not indicative of the median household income throughout the study area. However, there are only eight residents in the tract, resulting in an anomaly when compared to the study area as a whole.

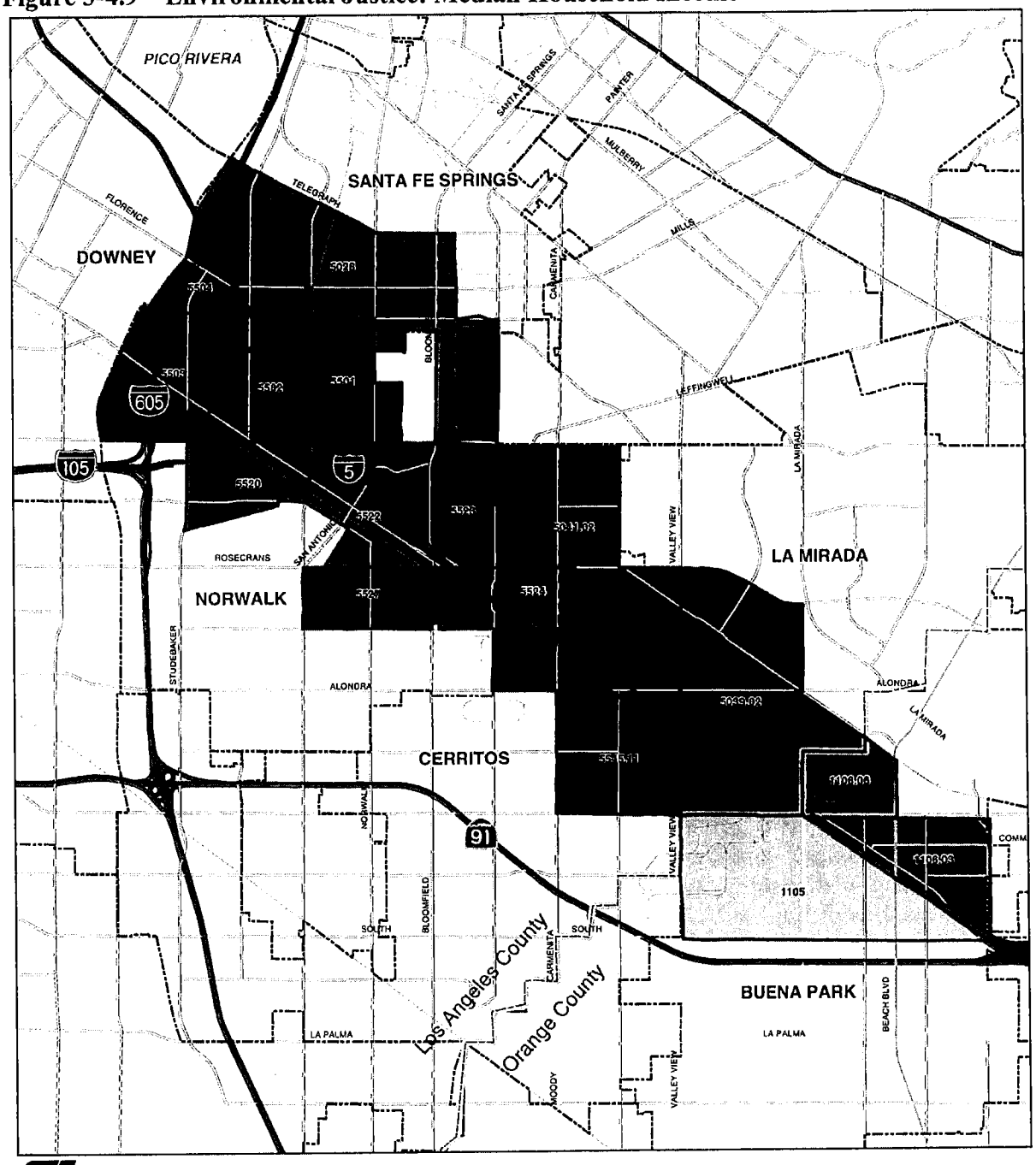
There is a disproportionately high number of Hispanic residents, persons living in poverty, and households with a lower median income in the study area census tracts than the affected communities within the I-5 Corridor. Potential impacts to these residents as a result of project implementation are discussed below.

Figure 3-4.8 – Environmental Justice: Poverty



SOURCE: U.S. Census Bureau, 2000.

Figure 3-4.9 – Environmental Justice: Median Household Income



SOURCE: U.S. Census Bureau, 2000.

3-4.3.3 IMPACTS

Alternatives 2. Alternative 2 is not expected to result in disproportionate impacts to minority or low-income communities. The proposed improvements are anticipated to have a beneficial impact on all study area residents, including minority and low-income populations, by providing traffic improvements that increase the operational efficiency of existing transit services and provide additional transit services throughout the affected communities.

Alternative 3. Alternative 3, as in Alternative 2, is not expected to result in disproportionate impacts to minority or low-income communities. Beneficial impacts, which result from the operational efficiency of existing transit services and provide additional transit services throughout the affected communities, are similar to the beneficial impacts identified in Alternative 2. In addition to the enhanced transit services, Alternative 3 would include park-and-ride facilities that would provide connections to regional and local bus lines, light and commuter rail, as well as the I-5 freeway.

Alternatives 4 and 5. The proposed project would benefit all study residents, including minority and low-income populations, by improving mobility and circulation. Construction activity such as roadway and bridge widening and excavation could expose hazardous materials in the soil and result in intermittent air quality and noise impacts from construction equipment operations.

Residential acquisitions that would occur as a result of the proposed project would affect minority, and low-income populations in the cities of Norwalk and Downey. Residential acquisitions may affect a disproportionately high number of Hispanic and low-income populations in census tracts 5524, 5523, 5501, 5522, 5502, and 5503 in the City of Norwalk. Acquisitions in tract 5504 in the City of Downey may affect a disproportionately high number of persons living in poverty.

3-4.3.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

Because the proposed project involves improvements to an existing transportation facility, avoidance and minimization measures for environmental justice impacts are very limited. Alternatives to widening the freeway, such as double decking the freeway in lieu of widening or construction of an entirely new alignment, would result in severe adverse social, economic, environmental, and human health impacts that are more significant and involve increased costs of an extraordinary magnitude compared to the proposed alternatives.

Short-term construction-related air quality impacts would be mitigated by adhering to South Coast Air Quality Management District rules and regulations and Department Standard Construction Specifications for equipment emission and fugitive dust. Temporary noise impacts would be mitigated through implementation of Department Standard Construction Specifications for noise.

Standard relocation assistance (as detailed in Appendix D) would be provided to all displacees, in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. As indicated in the Draft Relocation Impact Report (March 2003), there is adequate replacement housing for those residences being displaced in the Cities of Downey, La Mirada, and Norwalk. The search for replacement housing within the City of Santa Fe Springs was not successful. However, there are a minimal number of residential displacements within

the City of Santa Fe Springs for Alternatives 4 and 5 (fewer than 10 residential displacements compared to 4,834 households within the City of Santa Fe Springs).

Any increase in noise above the Noise Abatement Criteria (NAC) would be minimized by implementing mitigation measures such as noise barrier construction. These barriers reduce noise levels to within noise abatement criteria, an improvement in many cases over existing and future no-build conditions.

3-4.3.5 CUMULATIVE IMPACTS

Cumulative Environmental Justice Effects
As stated earlier, most of the projects in the cumulative study area were designed to redevelop underutilized or blighted areas, resulting in improvements to cities and neighborhoods where these projects occur. All of the cumulative projects identified are proposed to maintain/enhance the economic vitality of these communities, especially in light of the loss of manufacturing/industrial jobs in recent years. The projects, therefore, do not collectively result in disproportionately high impacts to low-income and minority populations. Some of these projects would have localized effects to neighborhoods, which are addressed through the City approval process that identifies minimization measures to reduce any such neighborhood impacts.

Project Contribution to Cumulative Environmental Justice Effects
Since the majority of the cumulative projects are proposed for redevelopment, displacement of existing uses is not anticipated for these projects. Therefore, the I-5 project build alternatives, when considered with these other projects, would not contribute to substantial cumulative adverse impacts related Environmental Justice in the study area.

3-5 UTILITIES & EMERGENCY/COMMUNITY SERVICES

3-5.1 REGULATORY SETTING

California Code of Regulations Streets and Highways Code Sections 700-711 discusses utility relocation policies and procedures. Public Resources Code 21083, 21087 and the California Environmental Quality Act Guidelines Section 15126.2(a) require lead agencies to assess the impact of a proposed project by examining alterations in the human use of the land, including public services. Public Utilities Commission General Order 131-D provides guidance for transportation projects that involve relocation of 50kV or higher transmission lines.

3-5.2 AFFECTED ENVIRONMENT

Information regarding utilities and emergency/community services was obtained from the I-5 Corridor Improvement Project Community Impact Assessment, March 2005 and the I-5 Corridor Improvement Project Draft Project Report, 2005.

Community Facilities and Services

Community facilities and services located within the study area are shown in Figure 3-5.1 (Community Services and Facilities). Community facilities and services include public and private utilities, schools, fire stations, police stations, religious institutions, medical institutions, and parks and recreational facilities.

Public and Private Utilities

There are several public and private utilities located with the project area. The utilities within the project area are owned by: Southern California Gas Company, Southern California Edison, City of Santa Fe Springs, Verizon, Southern California Water, Charter Communications, Metropolitan Water District, and the US Navy.. The types of utility facilities include: power poles, telephone poles, utility poles, natural gas pipelines, fuel oil pipelines, water pipelines, sewers, manholes, aerial and underground transmission lines, frontage roads, and fire hydrants.

Schools

There are 32 schools located within the study area, including eight schools from the Little Lake City Unified School District, seven schools from the Norwalk-La Mirada Unified School District, three schools from the Buena Park School District, one school from the Whittier Union High School District, two schools from ABC Unified School District, ten schools that are privately owned and operated, and one adult education facility.

Fire Protection Services

The Los Angeles County Fire Department, which provides fire protection services to the cities of Cerritos, La Mirada, and Norwalk, has two facilities located within the study area: Fire Station #20 at 12110 Adore Street in Norwalk and Fire Station #35 at 13717 Artesia Boulevard. The Santa Fe Springs Fire Department has three fire protection facilities located within the study area: Fire Station Headquarters at 11300 Greenstone Avenue, Fire Station #3 at 1517 Carmenita Road, and Fire Station #4 at 11736 Telegraph Road. The Downey Fire Department and Orange County Fire Authority (which provides fire protection services to the City of Buena Park) do not have fire stations within the study area.

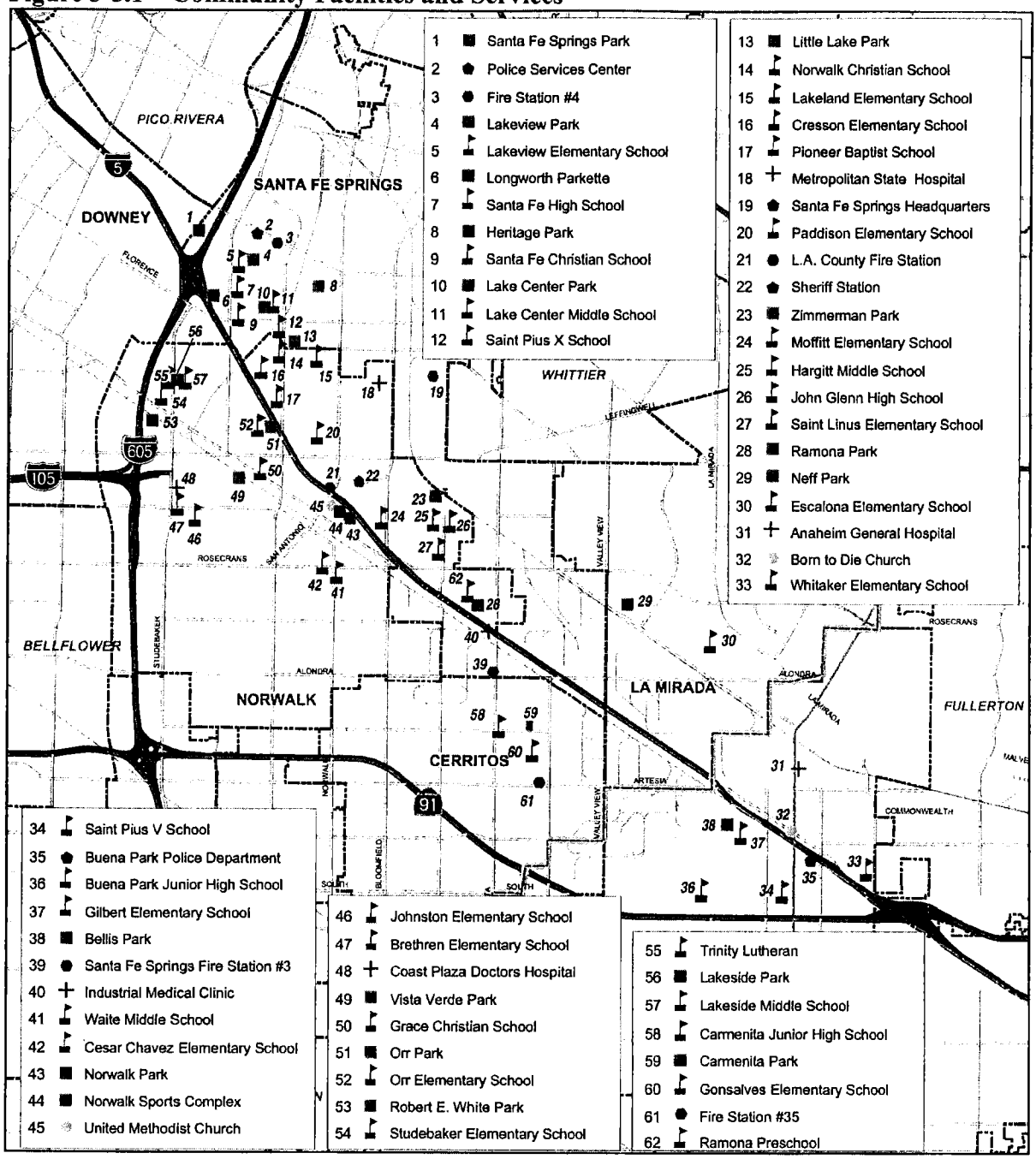
Police Protection Services
The Los Angeles County Sheriff's Department (which provides law enforcement services to the cities of La Mirada and Norwalk), Buena Park Police Department, and Santa Fe Springs Police Department each has one police facility located within the study area. The Los Angeles County Sheriff's Station is located at 12335 Civic Center Drive in the City of Norwalk, the Buena Park Police Station is located at 6650 Beach Boulevard, and the Santa Fe Springs Police Services Center is located at 11576 Telegraph Road. The City of La Mirada Public Safety Annex is located at 15715 Phoebe Avenue. The Downey Police Department does not have any facilities located within the study area.

Religious Institutions
The study area contains two religious institutions: Norwalk United Methodist Church, located at 12111 Olive Street in the City of Norwalk, and the Born to Die Church & Ministries, located at 6309 Manchester Boulevard in the City of Buena Park. The Cities of Cerritos, Downey, La Mirada, and Santa Fe Springs do not have religious institutions within the study area.

Medical Institutions
The study area contains four acute-care medical institutions: Anaheim General Hospital, located at 5742 Beach Boulevard in the City of Buena Park; the Industrial Medical Clinic of Santa Fe Springs, located at 13030 Firestone Boulevard; the Coast Plaza Doctors Hospital, located at 13100 Studebaker Road in the City of Norwalk; and the Metropolitan State Hospital, located at 11400 Norwalk Boulevard in the City of Norwalk. The Cities of Cerritos, Downey, and La Mirada do not have medical institutions within the study area.

Parks and Recreational Facilities
There are 20 parks located within the study area, including 8 parks in the City of Norwalk, 7 in the City of Santa Fe Springs, 2 in the City of La Mirada, and 1 each in the Cities of Cerritos, Buena Park, and Downey.

Figure 3-5.1 – Community Facilities and Services



SOURCE: Thomas Brothers Maps, 2001

3-5.3 IMPACTS

Impacts to public utilities/services are determined based on such factors as: noise, air quality, safety, distance, circulation, accessibility, and disruption of operation during both the construction and the operation of the proposed project alternatives. Potential operational impacts to community facilities include property acquisitions affecting community facilities, restricted access to community facilities and services, or impaired use of the facilities.

Alternative 2

The implementation of Alternative 2 would result in improvements to the study area, including an increase in the number of buses and bus routes, signalization improvements, and the construction of additional bus stops. Community facilities would benefit from the increased accessibility provided by the additional transit facilities and subsequent reduction in traffic anticipated from this alternative. Alternative 2 may also include an improved arterial on each side of I-5 that would serve as an alternative route from SR-91 to I-710 and would provide increased accessibility for community facilities. This arterial may result in parcel acquisitions, circulation, and accessibility impacts to community facilities adjacent to the arterial alignment.

Alternative 3

As previously mentioned, Alternative 3 would include the modification of existing bus lines and the addition of new local and express transit routes. Other improvements under this alternative include decreasing the headway between buses, aligning new and modified routes to connect transit hubs, and adding three new park-and-ride facilities in the corridor. The three new park-and-ride facilities would be located at the following intersections: I-5/Florence Avenue, Imperial Highway/Pioneer Boulevard, and Bloomfield Avenue/Firestone Boulevard. Community facilities would benefit from the increased accessibility provided by the additional transit facilities and subsequent reduction in traffic anticipated from this alternative.

Alternatives 4 and 5

A partial acquisition of the Norwalk United Methodist Church would be required under Alternative 5a (see #45 in Figure 3-5.1, Community Services and Facilities), while a full acquisition resulting in relocation of the church would be required under Alternative 5b.

Impacts to Parks and Recreational Facilities

A partial acquisition of the Norwalk Arts & Sports Complex and the park at William W. Orr Elementary School would be required under Alternatives 4 and 5 (see #44 and #52 in Figure 3.2.3, Community Services and Facilities). The partial acquisition of the Norwalk Arts & Sports Complex may result in a parking loss and disruptions to the storage area, and nature center/petting zoo adjacent to I-5. The partial acquisition of the park at William W. Orr Elementary School would result in loss of a portion of grassy area located adjacent to I-5.

Section 4(f) *De Minimis* Use

Under 49 USC 303(d), FHWA may determine, if certain conditions are met, that a project will have only a *de minimis* impact on a property protected by Section 4(f) of the U.S. Department of Transportation Act of 1966. With respect to public parks, FHWA may make a finding of *de minimis* impact only if it determines that the project will not adversely affect the activities features and attributes of the park eligible for 4(f) protection, and the officials with jurisdiction over the park concurs in the finding. 49 USC 303(d).

FHWA has determined that the preferred alternative will have a *de minimis* impact to both parks protected by Section 4(f) of the U.S. Department of Transportation Act of 1966. Copies of City of Norwalk letters of concurrence with the *de minimis* finding can be found in Appendix B.

Construction Impacts

Construction of Alternative 4 or 5 would require the relocation of several public and private utilities within the project area.

Alternatives 4 or 5 would require reconstruction of 18 existing freeway structures (12 overcrossings or bridges and six undercrossings). Access to community services and facilities in the vicinity of these structures would be diminished during the 5.5-year construction period. The project would be constructed in six segments that would minimize impacts to community services by avoiding consecutive ramp closures and traffic congestion during construction. Potential construction-related impacts such as noise, fugitive dust, and roadway closures/detours would be minimized through the implementation of standard Caltrans construction specifications.

Construction of Alternatives 4 and 5 could involve intermittent and temporary road closures in and around the freeway corridor. This could result in delayed response times for police, fire protection and emergency services.

3-5.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

Utility infrastructures that are impacted by project construction would be relocated before construction, relocated during construction, protected in place, or abandoned. Those utilities that must be relocated as a part of project construction would be relocated in such a manner as to minimize any disruption of service those utilities provide.

The impact to fire, police and emergency services response times would be minimized by implementation of a traffic management plan (TMP) that would contain detailed plans of access routes and detours during construction. The TMP should be reviewed and approved by the County Fire Department and any potentially affected fire or law enforcement agency. Caltrans would maintain contacts with the community, police and fire protection services through public outreach during the construction phase.

3-5.5 CUMULATIVE IMPACTS

Cumulative Utilities and Emergency/Community Services Effects

Utilities. Projects in the cumulative study area collectively could result in adverse impacts on utilities related to increased demand for facilities, requiring new or expansion of facilities, and/or the need to relocate or modify utilities to accommodate proposed development. Build out of the land uses assumed in the development utilities could require upgrading of existing anticipated demand. Where feasible, appropriate minimization measures have been identified to reduce individual project impacts to utilities either through relocation or upgrading of facilities or payment of in-lieu fees.

Fire Protection and Emergency Services. Intensification of land uses associated with the cumulative projects could increase demand for fire and emergency medical services and may affect response times.

Law Enforcement. Intensification of land uses associated with the cumulative projects has the potential to increase demand for law enforcement services and may affect response times and increase property values and tax revenue associated with the redevelopment. Intensification of land uses identified in the cumulative projects would serve to provide additional funds to increase law enforcement officers or facilities, offsetting the cost of any increased demand.

Solid Waste Disposal Services. The projects in the study area would potentially increase solid waste demand due to intensification of uses and could incrementally reduce capacity within County of Los Angeles and County of Orange sanitary landfills. Application of State-mandated recycling requirements for construction and operational activities would reduce the total increase and minimize solid waste.

Schools. Any development has the potential to generate additional students who would need to be accommodated by the local school districts. Currently, payment of State-mandated developer fees are assessed to mitigate potential effects to schools by new development and are considered full mitigation under CEQA. None of the project alternatives would generate demand for schools and, therefore, would not contribute to cumulative impacts to schools. Residential displacement would contribute to a very slight reduction in the need for school expansion.

Project Contribution to Cumulative Utilities and Emergency/Community Services Effects

Utilities. Alternatives 4 and 5 could require substantial utility relocation during construction. However, since the cumulative projects are not anticipated to adversely impact utilities, the impacts to utilities due to the proposed project are not anticipated to contribute to a cumulative impact. Utility disruption due to widening of the freeway and widening replacement of overcrossings would be minimized through development and implementation of a Utility Relocation Plan for the I-5 project; therefore, the project's contribution to cumulative effects to utilities is not adverse.

Fire Protection/Emergency Services and Law Enforcement. Alternatives 4 and 5 involve construction and would, therefore, contribute to short-term cumulative effects to fire protection and emergency services delayed response times. The impact would be minimized by implementation of a traffic management plan (TMP) that would contain detailed plans of access routes and detours during construction. The TMP should be reviewed and approved by the County Fire Department and any potentially affected fire or law enforcement agency. Since the cumulative projects are not anticipated to adversely impact Fire Protection/Emergency Services and Law Enforcement, the impacts due to the proposed project are not anticipated to contribute to a cumulative impact.

Solid Waste. All of the build alternatives would require some level of demolition to accommodate the proposed improvements; therefore, all of the alternatives would create demolition and construction debris. These short-term impacts potentially could be adverse, when considered with the waste disposal needs of the other cumulative projects in the area. Recycling of material either on site or off site would minimize the impacts of the build alternatives; however, these alternatives would not result in long-term cumulative impacts on solid waste disposal because it is a transportation facility and would result in only a minor increase in collection of roadside debris.

3-6 TRAFFIC & TRANSPORTATION/PEDESTRIAN AND BICYCLE FACILITIES

3-6.1 REGULATORY SETTING

The Federal Highway Administration (FHWA) directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 CFR 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

California Code of Regulations Streets and Highways Code Sections 890-894.2, the California Bicycle Transportation Act, discusses the importance of a non-motorized transportation system, establishes bikeway specifications and encourages local agency participation in developing improved bikeways. California Code of Regulations Streets and Highways Code Sections 894.6-894.8, the California Pedestrian Safety Act, encourages projects that address pedestrian safety.

3-6.2 AFFECTED ENVIRONMENT

Information regarding Traffic and Transportation/Pedestrian and Bicycle Facilities was obtained from the I-5 Corridor Improvement Project Traffic and Transportation Study, January 2005 and Technical Addendum, August 2006, and the I-5 Corridor Improvement Project Draft Project Report, 2005.

Evaluation Criteria

Based on the Highway Capacity Manual, the Level of Service (LOS) for freeway segments and freeway ramps is determined by the traffic flow density. The flow density is determined using a static analysis of cumulative volumes divided by the length of the segment or ramp. Table 3-6.1 shows the correlation between level of service and flow density. LOS A represents a freeway segment or ramp with a density less than or equal to 11 passenger cars per mile per lane (pc/mi/ln). LOS F represents a freeway segment or ramp with a density greater than 45 pc/mi/ln. LOS E is considered the maximum threshold for all freeway segments and ramps throughout the study area.

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**

Synchro 6.0 software was used to conduct the intersection analysis. Synchro evaluation criteria for signalized intersections are adapted from the 2000 Highway Capacity Manual (HCM). This method defines level of service

(LOS) in terms of control delay. Control delay is the delay that is attributed to the traffic signal operations for signalized intersections (in seconds per vehicle). Control delay includes initial acceleration delay, queue move-up time, stopped delay, and final acceleration delay. Table 3-6.1 below provides the level of service corresponding to the control delay for signalized intersections. As described in the HCM, LOS A represents free-flow activity with very low delay, and LOS F is overcapacity operations with a condition of excessively high delay. There are six cities within the project study area. For consistency with the local municipal requirement, LOS D is considered the minimum design criteria for satisfactory operation. LOS D or better during the a.m. and p.m. peak hours represents the minimum acceptable intersection level of service for all the municipal intersections.

Table 3-6.1 – Level of Service (LOS)

	Freeway Segments and Freeway Ramps	Arterial Intersections
LOS	**Density (pc/mi/ln)**	**Control Delay Per Vehicle (seconds per vehicle)**
A	≤ 11	≤ 10
B	11–18	10–20
C	19–26	20–35
D	27–35	35–55
E	36–45	55–80
F	>45	> 80

Source: Highway Capacity Manual (HCM), 2000

Freeway Segments Existing Conditions

The freeway geometric information (e.g., the number of lanes on the freeway) and freeway mainline and ramp volumes were obtained from Caltrans District 7. Freeway segment and ramp volumes within Los Angeles County were obtained from Los Angeles Regional Transportation System (LARTS) model and based on Caltrans Automatic Traffic Monitoring System (ATMS) traffic counts. Only Los Angeles County volumes were provided by Caltrans District 7.

The January 2005 Traffic and Transportation Study was updated (Technical Addendum, August 2006) using more current traffic volumes for the existing condition and applying growth factors to these new volumes to estimate the 2013 and 2030 conditions. The growth factors used to develop the Technical Addendum's 2013 and 2030 traffic volumes are the same as those used in the 2005 Traffic and Transportation Study. The Freeway Mainline Analysis Level of Service worksheets are also provided in Appendix B of the Technical Addendum. The following four project alternatives were analyzed for existing, 2013, and 2030 future year: No Build; four mixed-flow lanes with one High Occupancy Vehicle (HOV) lane; four mixed-flow lanes with two HOV lanes; and five mixed-flow lanes with one HOV lane. To identify freeway mainline-only traffic volumes in the future scenarios, Caltrans provided HOV percentages to deduct from the mainline volumes for each scenario. These percentages were derived from the Caltrans Travel Demand Model. The HOV percentages for the four mixed-flow lanes with one HOV lane, four mixed-flow lanes with two HOV lanes, and five mixed-flow lanes with one HOV lane project alternatives were 15.4 percent, 19.8 percent, and 13.4 percent, respectively.

Table 3-6.2 summarizes the results of the existing freeway mainline conditions. As seen in the Table, a majority of the freeway segments operate unacceptably at LOS F in the peak direction (northbound during the a.m. peak hour, southbound during the p.m. peak hour), except for the

segment between Stanton Avenue and Artesia Boulevard in the existing condition. The freeway segment between Imperial Highway and I-605 operates at LOS F in both directions (northbound and southbound) in both peak hours (a.m. and p.m.).

Table 3-6.2 - Existing Condition - Freeway Mainline Analysis Summary		
SEGMENTS: LEVELS OF SERVICE (LOS)	**Existing Condition**	
Freeway Mainline Segment	**AM**	**PM**
Northbound:		
Stanton Avenue[1]	E	E
Artesia Blvd[1]	E	D
Valley View Avenue	F	E
Alondra Boulevard	F	E
Carmenita Road	F	E
Firestone Boulevard	F	E
Norwalk Boulevard	F	E
Imperial Highway	F	F
Interstate 605	F	F
Southbound:		
Stanton Avenue[1]	D	E
Artesia Blvd[1]	D	E
Valley View Avenue	E	F
Alondra Boulevard	E	F
Carmenita Road	E	F
Firestone Boulevard	E	F
Norwalk Boulevard	E	F
Imperial Highway	F	F
Interstate 605	F	F

Notes:
[1] Orange County Section
Freeway Mainline Segment operating at LOS F

Freeway Ramps Existing Condition

The freeway ramp volumes were taken from the freeway mainline and ramp data provided by Caltrans traffic department. The geometric data (e.g., lengths of the accelerate/decelerate lanes and number of ramp lanes) are measured directly from Caltrans existing graphic file (in Microstation format) and converted into feet. Truck percentage data for the ramps and freeways were obtained from the Caltrans Web site (www.dot.ca.gov).

The levels of service for the existing on- and off-ramps during a.m. and p.m. peak hours for southbound and northbound traffic flow are summarized in Table 3-6.3. The majority of the on- and off-ramps for both southbound and northbound directions operate at LOS F except for the following that operate at LOS E or better.

Northbound

- Valley View Avenue off-ramp (LOS D during the a.m. and p.m. peak hour)
- Kalnor(Adoree)/Norwalk Boulevard on-ramp (LOS E during the a.m. peak hour)
- Imperial Highway off-ramp (LOS E during the a.m. and p.m. peak hour)
- Florence (Orr and Day Road) off-ramp (LOS A during the a.m. peak hour)
- Florence Avenue on-ramp (LOS E during the a.m. and p.m. peak hour)

- NB 605/Studebaker Road on-ramp (LOS E during the a.m. peak hour)

Southbound

- Valley View Avenue on-ramp (LOS C during the a.m. and LOS D during the p.m. peak hour)

Intersections Existing Conditions

The existing a.m. and p.m. peak-hour traffic volumes for ramp terminals and adjacent intersections (within one major street of the I-5 corridor) were provided by Caltrans District 7. The geometric data for the initial list of study area intersections were provided by Caltrans District 7 in July 2004. The locations of intersections included in the Traffic and Transportation Study can be found in Figure 3-6.1. The existing geometrics for those intersections can be found on Table 3-6.4. No geometric data for intersections that were later added to the project study area are available.

The intersections that exceed the LOS E threshold at the ramp terminals and adjacent intersections during the a.m. and p.m. peak hours are shown in Table 3-6.5. Based on the table, 19 intersections operate at LOS E in the existing condition with assumed optimization.

Table 3-6.3 - Existing Condition - Freeway Ramps Analysis Summary		
SEGMENTS: LEVELS OF SERVICE (LOS)	**Existing Condition**	
Freeway Ramps	**AM**	**PM**
Northbound:		
Artesia Blvd OFF [1]	D	D
Artesia Blvd ON	C	C
Valley View OFF	D	D
Valley View ON	F	F
Alondra ON	F	F
Carmenita OFF	Carmenita Road Segment is not included in this analysis. Please see Carmenita Road Section in Text	
Carmenita ON		
Rosecrans OFF	F	F
Firestone OFF	F	F
Rosecrans (Bloomfield) ON	E	F
Norwalk OFF	F	F
Norwalk ON	E	F
Kalnor (Adoree)/ Norwalk ON	E	F
Imperial Hwy OFF	E	E
Imperial Hwy ON	F	F
Pioneer ON	F	F
Florence (Orr and Day) OFF	E	F
Southbound:		
Artesia ON	D	D
Artesia/ Knott OFF	E	F
Valley View ON	C	D
Valley View OFF	F	F
Alondra ON	F	F
Carmenita ON	Carmenita Road Segment is not included in this analysis. Please see Carmenita Road Section in Text	
Carmenita OFF		
Rosecrans ON	F	F
Rosecrans OFF	F	F
Firestone ON	F	F
Norwalk ON	F	F
San Antonio/ Union OFF	F	F
Imperial Hwy ON	F	F
Pioneer/ Imperial OFF	F	F
Orr and Day ON	F	F
Florence ON	F	F

Notes:

[1] Orange County Section

Freeway Ramps operating at LOS F

Figure 3-6.1 – Study Intersection Locations

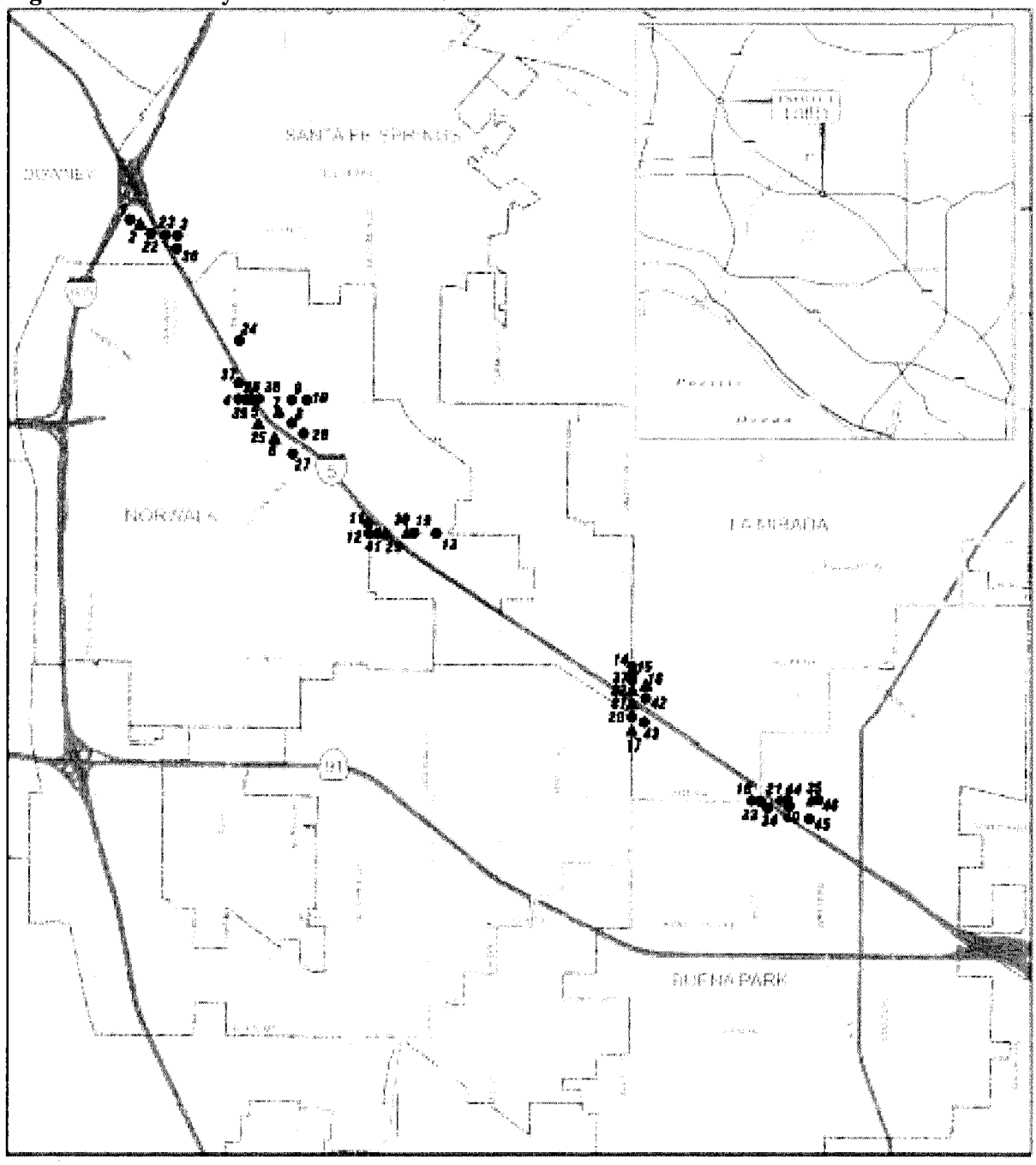


Table 3-6.4 - Existing (2001) Intersection Geometrics													
		Northbound			Southbound			Eastbound			Westbound		
Index	Intersection Name	left	thru	right	left	thru	right	left	thru	right	left	thru	right
1	Florence / Studebaker	1	1	1	0	0	0	0	2	1	1	2	1
2	Florence / Fairford												
3	Florence / Orr and Day	1.5	1.0	0.5	1.5	0.5	2	2	1.5	0.5	1	2	1
4	Imperial / Pioneer	1	2	1	2	2	1	1	3	1	1	3	1
5	Union / I-5 SB Off and Union												
6	Union / I-5 SB Off and Paddison												
7	Adoree / Paddison												
8	Kalnor / Adoree	0	0	0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
9	Imperial / Kalnor	0.5	0.5	1	1	0.5	0.5	1	2.5	0.5	1	3	1
10	Imperial / Norwalk	1	2	1	1	3	1	1	3	1	1	2.5	0.5
11	Firestone / Bloomfield	0	1	1	0	0	0	0	1	1	0	1	0
12	Rosecrans / Bloomfield	1	2	1	1	2	1	1	2.5	0.5	2	1.5	0.5
13	Rosecrans / Shoemaker	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	1	2.5	0.5
14	Alondra / Valley View	1	2	1	1	2	1	1	1.5	0.5	1	1.5	0.5
15	Firestone (N) / Valley View	1	1.5	0.5	0.5	1.5	1	1	1	1	1	1	1
16	Firestone (N) / Gateway Dr												
17	Firestone (S) / Valley View												
18	Artesia / Firestone (S)	0	0	0	1	0	1	1	2	0	1	1.5	0.5
19	Rosecrans / Firestone	1.5	0	1.5	1	1	0	1	2	0	0	2	1
20	I-5 SB Ramps / Valley View Ave	0	2	1	1	2	0	0	0	0	1	0	1
21	Artesia / Firestone (N)	1	1	1	1	1	1	1	2	1	1	1	1
22	Florence / I-5SB On-Ramp	1	0.5	0.5	0	0	0	0	2	1	1	1.5	0.5
23	Florence / I-5 NB Ramps	0	0	0	0	0	0	0	3	0	0	2	1
24	I-5 NB On-Ramp / Pioneer Blvd	1	2	0	0	2	1	0	0	0	0	0	0
25	Imperial Hwy & Union St/ I-5 SB Off												
26	Imperial Hwy / I-5 SB On Ramp	0	0	1	0	0	0	0	3	0	0	3	1
27	I-5 SB On Ramp / San Antonio	1	2	1	1	2	1	0.5	0.5	1	0	0	0
28	I-5 NB Off Ramp / San Antonio & Adoree St	1	1.5	0.5	0	2.5	0.5	1	0	1	1	0.5	1.5
29	Rosecrans Ave / I-5 SB Ramps												
30	Rosecrans Ave / I-5 NB Ramps												
31	I-5 SB Ramps / Valley View Ave												
32	I-5 NB Ramps / Valley View Ave												
33	Artesia Blvd / I-5 SB Off- Ramps	2	0	1	1.5	1.0	0.5	0	2	1	1	2	0
34	Artesia Blvd / I-5 SB On- Ramps	0	0	0	0	0	0	0	2	1	1	2	0
35	Artesia Blvd & Firestone (N) / I-5 NB Ramps												
36	I-5 NB Off-Ramp / Orr and Day	0	1	0	0	1	0	1	0	1	0	0	0
37	Pioneer / I-5 SB Off-Ramp	0	2	0	0	2	0	1	0	1	0	0	0
38	Imperial Hwy / I-5 SB On Ramp	0	0	0	0	0	0	0	2.5	0.5	0	3	0
39	I-5 SB Off-Ramp / Union	0.3	0.3	0.3	0.5	0.5	1	0.3	0.3	0.3	0.3	0.3	0.3
40	I-5 NB On-Ramp / Firestone	1	2	0	0	2	1	0	0	0	0	0	0
41	Rosecrans / Firestone	1	1	0	0	1	0	0	0.5	0.5	0.5	0.5	1
42	I-5 NB On-Ramp / Firestone (N)	1	0.5	0.5	0.3	0.3	0.3	1	1	1	1	1.5	0.5
43	I-5 SB Ramps / Firestone (S)	0.5	0.5	1	1	0.5	0.5	0.5	0.5	1	0	0.5	0.5
44	Artesia / I-5 NB On-Ramp	1.5	1.5	1	0	0	0	1	2	1	1	2	1
45	Manchester / I-5 SB Off-Ramp	1	1	0	0	0	1	1	1	0	0	0.5	0.5
46	Artesia / I-5 NB Off-Ramp	1	0	1	0	0	0	0	2	1	1	2	0

Notes:

Some intersections would be added to or removed from the project area as a result of project construction

Intersections operating at LOS E or F

Table 3-6.5 - Existing (2001) Intersection Level of Service Summary					
		Existing AM		Existing PM	
Index	Intersection Name	Delay (sec)	LOS	Delay (sec)	LOS
1	Florence / Studebaker	72.2	E	99.0	F
2	Florence / Fairford				
3	Florence / Orr and Day	51.4	D	39.1	D
4	Imperial / Pioneer	25.2	C	50.3	D
5	Union / I-5 SB Off and Union				
6	Union / I-5 SB Off and Paddison				
7	Adoree / Paddison				
8	Kalnor / Adoree	8.5	A	9.0	A
9	Imperial / Kalnor	15.2	B	19.0	B
10	Imperial / Norwalk	60.9	E	50.9	E
11	Firestone / Bloomfield	40.1	E	19.5	C
12	Rosecrans / Bloomfield	30.0	C	105.1	F
13	Rosecrans / Shoemaker	68.0	E	55.3	E
14	Alondra / Valley View	96.9	F	113.6	F
15	Firestone (N) / Valley View	232.2	F	280.6	F
16	Firestone (N) / Gateway Dr				
17	Firestone (S) / Valley View				
18	Artesia / Firestone (S)	73.3	E	63.5	E
19	Rosecrans / Firestone	49.9	D	47.9	D
20	I-5 SB Ramps / Valley View Ave	159.6	F	162.2	F
21	Artesia / Firestone (N)	124.7	F	83.5	F
22	Florence / I-5SB On-Ramp	OVERFLOW	F	OVERFLOW	F
23	Florence / I-5 NB Ramps	0.0	A	0.0	A
24	I-5 NB On-Ramp / Pioneer Blvd	11.4	B	11.0	B
25	Imperial Hwy & Union St/ I-5 SB Off				
26	Imperial Hwy / I-5 SB On Ramp	11.5	B	11.9	B
27	I-5 SB On Ramp / San Antonio	33.1	C	10.5	B
28	I-5 NB Off Ramp / San Antonio & Adoree St	OVERFLOW	F	OVERFLOW	F
29	Rosecrans Ave / I-5 SB Ramps				
30	Rosecrans Ave / I-5 NB Ramps				
31	I-5 SB Ramps / Valley View Ave				
32	I-5 NB Ramps / Valley View Ave				
33	Artesia Blvd / I-5 SB Off- Ramps	15.3	B	74.4	E
34	Artesia Blvd / I-5 SB On- Ramps	15.4	C	39.9	E
35	Artesia Blvd & Firestone (N) / I-5 NB Ramps				
36	I-5 NB Off-Ramp / Orr and Day	9.7	A	10.2	B
37	Pioneer / I-5 SB Off-Ramp	13.6	B	12.1	B
38	Imperial Hwy / I-5 SB On Ramp	0.0	A	0.0	A
39	I-5 SB Off-Ramp / Union	12.8	B	12.5	B
40	I-5 NB On-Ramp / Firestone	76.9	E	7.4	A
41	Rosecrans / Firestone	1421.8	F	4200.7	F
42	I-5 NB On-Ramp / Firestone (N)	72.8	E	18.0	B
43	I-5 SB Ramps / Firestone (S)	267.9	F	121.0	F
44	Artesia / I-5 NB On-Ramp	18.0	B	47.0	D
45	Manchester / I-5 SB Off-Ramp	16.1	C	50.1	F
46	Artesia / I-5 NB Off-Ramp	16.5	B	13.8	B

Notes:

Some intersections would be added to or removed from the project area as a result of project construction

Intersections operating at LOS E or F

Commuting Patterns

I-5 serves as the backbone of Southern California's transportation network, connecting the major urban centers within Los Angeles, Orange, and San Diego Counties. It is used as a commuter route between the residential areas of Orange and Riverside Counties and the employment centers of Los Angeles County, such as the corridor industrial zones and downtown Los Angeles.

The 2000 Census provides other measures of commuting patterns. Travel patterns for Los Angeles and Orange Counties and the affected communities are depicted in Table 3-6.6.

- Place of Work: While the Orange County average (78 percent) for employees working outside their home is greater than the Los Angeles County average (62 percent), at least 82 percent of employees within the affected communities work outside their place of residence.
- Travel Time: Approximately six to seven percent of employees commuted between 60 and 90 minutes to work (one-way) in Los Angeles and Orange Counties on a daily basis, and two to three percent drove for more than 90 minutes. Commuting times within the affected communities were generally consistent, if not lower than the County averages. Santa Fe Springs was the only city with over three percent of employees commuting more than 90 minutes.
- Travel Together: Over 74 percent of employees in the affected communities drive to work alone; between 12 and 17 percent carpooled; and less than 3 percent walked.

Table 3-6.6 – Travel Patterns

	Regional		Affected Communities					
	Los Angeles County	Orange County	Buena Park	Cerritos	Downey	La Mirada	Norwalk	Santa Fe Springs
Work outside of residence	62%	76%	86%	87%	82%	86%	87%	82%
Travel Time								
60–89 minutes	7%	6%	7%	7%	6%	7%	6%	4%
> 90 minutes	3%	2%	2%	2%	2%	2%	2%	3%
Travel Type								
Drive alone	70%	77%	76%	81%	75%	79%	74%	77%
Carpool	15%	13%	15%	13%	16%	12%	17%	16%
Walk	3%	2%	2%	1%	1%	3%	2%	2%

Source: U.S. Census Bureau, Census 2000, http://factfinder.census.gov

These commuting patterns build the economic linkages among cities in southern California and diversify the employment options to Los Angeles and Orange County residents. For transportation planning and infrastructure development considerations, these patterns increase the importance of the I-5 transportation network and linking local residents with surrounding areas.

Buena Park has a number of major transportation facilities, including two freeways (I-5 and SR-91), two principal highways (Valley View Street and Beach Boulevard), and two major highways (Lincoln Avenue and Orangethorpe Avenue).

Policy 1.1 of the Circulation Element of the City of Buena Park General Plan encourages the continued development of safe and efficient freeway services to the City and discourages the use of local roadways for non-local and regional through traffic.

Downey is virtually surrounded by freeways; the I-5 Freeway to the north, the I-605 to the east, the I-710 to the west and the I-105 Freeway to the south. Downey is a mature, established community that has developed circulation problems on arterial streets over the years. These have been partially relieved by street widenings in recent years. The Los Angeles County Metropolitan Transportation Authority (Metro) has nine bus routes through Downey, and the City has its own public transportation called DowneyLINK. The Los Angeles MTA Green Line runs through South Downey.

La Mirada is in an urban area with a well-established street system. I-5 runs through the southwestern portion of the City. The General Plan Circulation Element has policies to: continue to work with transit service providers to identify and respond to the short- and long-term mobility needs of residents; continue to provide special transit services for seniors, disabled persons, and other special needs groups residing in La Mirada; work with regional and local transit service providers to improve the connectivity of transit service to other regional transportation service; and continue to accommodate bicycle lanes and pedestrian paths citywide.

Existing Transit Service

Two commuter rail lines provide service to the I-5 study area: the Metrolink system and the Metro Green line. The Metrolink is the regional commuter rail system operated by the Southern California Regional Rail Authority (SCRRA) that provides transit services to the Counties of Orange, San Bernardino, Ventura, Riverside, and San Diego. The SCRRA is a joint powers authority of five member agencies that represents the five Southern California Counties of Ventura, Los Angeles, San Bernardino, Riverside, and Orange. The Norwalk Santa Fe Springs Transportation Center, located at 12700 Imperial Highway in the City of Norwalk, serves as a Metrolink commuter rail station. The Norwalk/Santa Fe Springs Transportation Center is a cooperative venture between the Cities of Norwalk and Santa Fe Springs and Metrolink to provide transit service within Norwalk and Santa Fe Springs. The Metro Green line, operated by the Los Angeles County Metropolitan Transportation Authority (Metro), is part of the Metro Rail System and runs east to west between the Cities of Norwalk and Redondo Beach. There is one Green line station located in the City of Norwalk, at 12901 Hoxie Avenue.

The Santa Fe Springs Tram provides shuttle service within the City of Santa Fe Springs. The Tram provides service to several locations within the study area census tracts, including north-south routes along Orr and Day Road and Pioneer Boulevard and east-west routes along Florence Avenue, Telegraph Road, and Lakeland Road. DowneyLINK provides shuttle service within the City of Downey. The bus provides service to numerous locations within the study area, and all routes begin and end at Firestone Boulevard. Norwalk/La Mirada Transit provides transit service within the City of Norwalk, the City of La Mirada, and adjacent communities through fixed route bus schedules. Norwalk/La Mirada Transit routes 1, 2, 3, 4, and 5 provide service within the study area. Cerritos on Wheels (COW) is a public transportation system that links parks, schools, retail centers, the library, and other major points of interest in the City of Cerritos. The transit service travels a 24-mile route that connects with Long Beach Transit, OCTA, Norwalk Transit, and MTA buses.

The Orange County Transportation Authority (OCTA) provides transit services to the Orange County region through fixed route bus schedules. There are several existing bus routes that provide service through the study area census tracts in the City of Buena Park, including north-south routes along Valley View Street, Knott Avenue, Beach Boulevard, and Magnolia Avenue and east-west routes along Commonwealth Avenue, Orangethorpe Avenue, and La Palma Avenue.

Transit Dependent Population

The Federal Transit Administration defines transit-dependent persons as 1) those without private transportation, 2) elderly (over age 65), 3) youths (under age 18), and 4) persons below poverty or median income levels defined by the U.S. Census Bureau. The presence of low-income residents is discussed in detail in the previous section (Section 3-4.3, Environmental Justice); this section presents information on age characteristics of residents in the study area census tracts. The analysis of residents' age characteristics was conducted using census tract level information, which is available from the 2000 census. While this may overstate the population affected by a given alternative, it was deemed more important to compare consistent census data rather than to try to achieve an exact match of data with alignments.

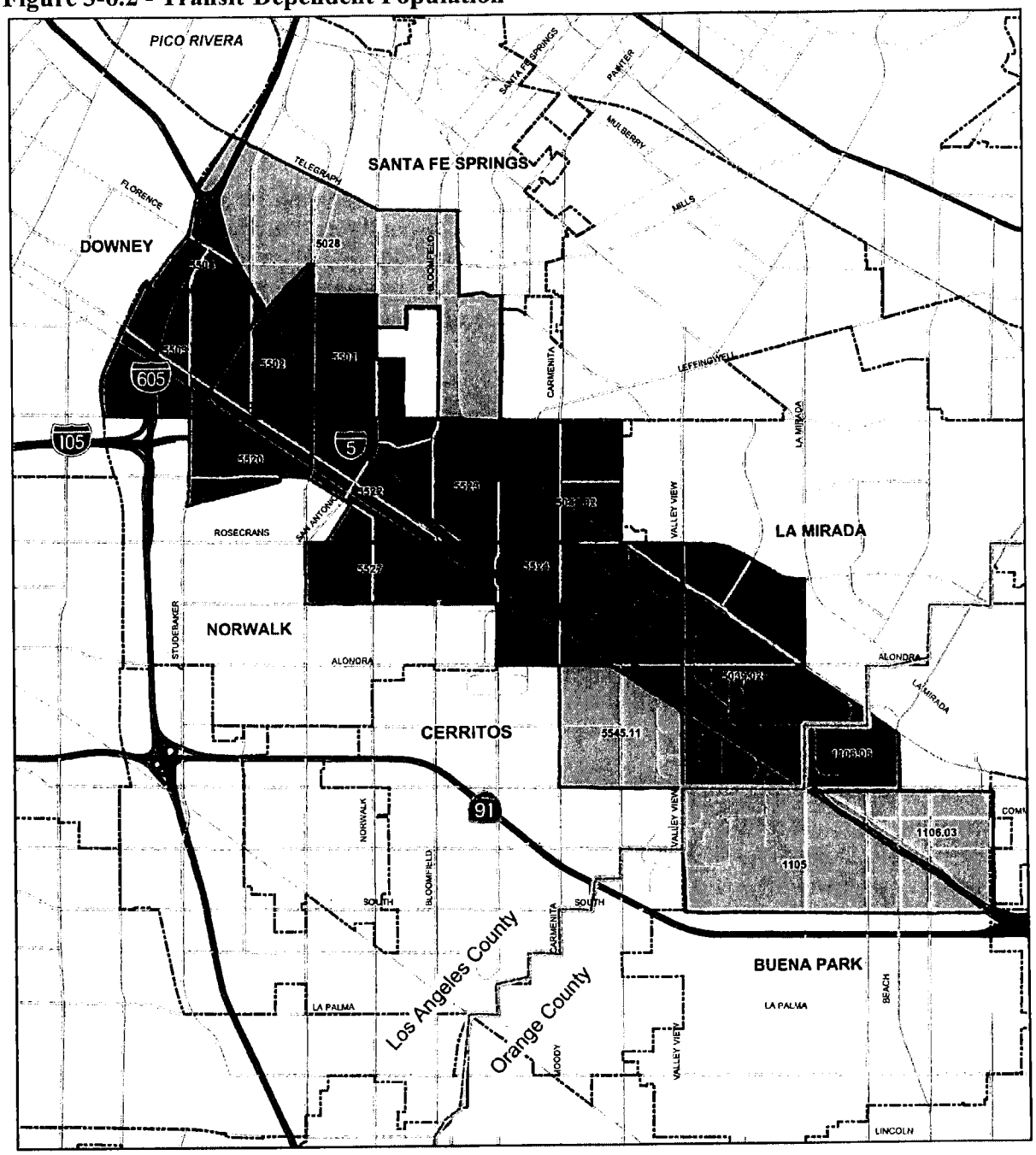
As identified in Table 3-4.2, Age Distribution, the affected communities reported a higher percentage of transit-dependent persons than the Los Angeles and Orange County averages, ranging from 38.7 percent in the City of Buena Park to 41.9 percent in the City of Santa Fe Springs. This reflects a trend in the affected communities to increasingly become a home for young families and senior citizens who tend to walk or utilize public transportation for travel. As discussed in Section 3-4.2 (Community Character and Cohesion) of this report, the number of residents under 18 and over 65 within the affected communities is expected to rise over the next two decades. This suggests that the transit-dependent population would continue to rise within the project study area.

Figure 3-6.2, Transit-Dependent Population, illustrates the percentage of transit-dependent persons located within each study area census tract. The proportion of transit-dependent persons (combined under 18 plus over 65) in the census tracts in the Cities of Buena Park, Cerritos, La Mirada, Norwalk, and Downey did not vary from the respective city averages by more than two percentage points. An elevated level of potential age related transit-dependency was found in 12 census tracts (Tracts 1106.66, 5039.02, 5041.02, 5501, 5502, 5503, 5504, 5520, 5522, 5523, 5524, and 5527) reported that residents less than 18 years of age and residents exceeding 65 years of age equaled 40 percent or more. The discussion of potential impacts to low income residents is included in Section 3-4.3, Environmental Justice.

Pedestrian and Bicycle Access

There is currently one (1) dedicated pedestrian freeway overcrossing located at Silverbow Avenue. Pedestrians also have access across the freeway using arterial freeway crossings.

Figure 3-6.2 - Transit-Dependent Population



SOURCE: U.S. Census Bureau, 2000.

Bicycle facilities are designated in three classifications. *Class I* Bike Paths are special pathway facilities for the exclusive use of *bicycle*s which are separated from motor vehicle facilities by space or a physical barrier. A bike path may be located on a portion of a street or highway right-of-way or in a special right-of-way not related to a motor vehicle facility; it may be grade separated or have street crossings at designated locations. It is identified with "Bike Route" signs and also may have pavement markings.

Class II Bike Lanes are lanes on the paved area of a road for preferential use by *bicycle*s. It is usually located along the edge of the paved area or between the parking lane and the first motor vehicle travel lane. It is identified by "Bike Lane" or "Bike Route" guide signing, special lane lines, and other pavement markings. *Bicycle*s have exclusive use of a bike lane for longitudinal travel, but must share the facility with motor vehicles and pedestrians crossing it.

Class III Bike Routes are streets identified as a *bicycle* facility by "Bike Route" guide signing only. There are no special lane markings; *bicycle* traffic shares the roadway with motor vehicles.

There are two *Class I* bike paths within the project area. These bike paths run adjacent to the San Gabriel River and North Fork Coyote Creek. Orange County Transit Authority and Los Angeles County Metropolitan Transit Authority propose a *Class I* bike path along Coyote Creek.

Carmenita Road – Interchange Improvement Project
Because the Carmenita Road project has an approved environmental document, "Initial Study/Environmental Assessment (IS/EA)" by Caltrans District 7, dated March 2002, Carmenita Road was not included in the traffic study prepared for this project. For continuity of the traffic study, the freeway mainline in the vicinity of the Carmenita Road Interchange has been included in this document.

The Carmenita Road project proposes the removal of the existing I-5 at Carmenita Road overcrossing structure and the associated hook ramps and replacing them with the proposed alternative; the Design Variation 3A Tight Diamond is the preferred alternative in the IS/EA. The improvement would provide the horizontal clearance required for the addition of a minimum of two HOV lanes and two mixed-flow lanes on the freeway mainline. In addition, the improvement would also provide a grade separation for the railroad crossing south of the freeway. The project proposes to realign the existing hook ramps, which would improve freeway movement.

3-6.3 IMPACTS

Each of the project alternatives would have different impacts on the movement of vehicles on Route 5 and on the traffic circulation patterns on local surface streets. To assess the impacts on Route 5 freeway ramps and local street intersections in the forecast years 2013 and 2030, traffic volumes were projected using growth rates from the LARTS traffic model, which range from 1.09 for 2013 No Build Scenario to 2.12 for 2030 5-Mixed flow + HOV lane Scenario. The growth rates provided by Caltrans were applied to the existing traffic volumes to forecast 2013 and 2030 traffic volumes. The growth rate projections from the LARTS model are consistent with the regional forecasts from the Southern California Association of Governments (SCAG) and take into consideration the continued growth of the communities and the socioeconomic changes within the communities along the Route 5 corridor. Under Alternative 1, the No-Build Alternative, corridor travel times would continue to increase. Some freeway drivers would be

deterred from using Route 5 as congestion increases and they would take more circuitous route to their destination, increasing the use of local, parallel city streets. Rerouted trips may also increase congestion on Route 91 between I-5 and I-605. Alternative 1 may discourage some individuals from taking a trip, thereby reducing mobility for those individuals. Alternative 2, the TSM/TDM Alternative, would provide limited congestion relief and has traffic impacts comparable to Alternative 1. Congestion during peak hours would be reduced slightly in duration. Alternative 3, the Transit Enhancement Alternative, would provide limited congestion relief at a level similar to Alternative 2. The extent of the bus and rail service improvements, though undetermined at this point, has potential of reducing the need for the 12-lane freeway proposals. Substantial expansion of transit service in this corridor, especially the Metrolink Commuter Rail Service would reduce traffic congestion of I-5 by unquantifiable but meaningful volume. Components of either Alternative 2 and/or 3 could be selected as complimentary additions to Alternatives 4 or 5. The purpose and need for I-5 Corridor Improvements could be achieved under this hybrid combination scenario.

Freeway Mainline and High Occupancy Vehicle (HOV) Lane 2013 Conditions

The forecasted mainline and ramp volumes for the I-5 in the Los Angeles County segment under the 2013 condition for seven alternatives including No Build were provided by LARTS. The freeway geometric data remain unchanged from the existing condition for 2013 No Build condition. The traffic projections provided by Caltrans have taken into consideration the continued growth of the communities and the socioeconomic changes within the communities along the I-5 corridor. Traffic volumes were provided for each freeway cross section alternative (e.g., four mixed-flow and one HOV, four mixed-flow and two HOV). Traffic projection for each alternative with the same number of lanes (i.e., 5 + 1 MIS Modified, 5 + 1 Value Analysis) are expected to be the same. The mainline volumes are balanced based on the ramp volumes. The growth in traffic that was assumed by Caltrans varied in each scenario and is provided below.

Table 3-6.7 – 2013 Growth Rates

Alternative	Growth Rates	
	Northbound	Southbound
No Build	1.09 – 1.32	1.03 – 1.17
4 Mixed Flow + 1 HOV	1.29 – 1.43	1.18 – 1.31
4 Mixed Flow + 2 HOV	1.22 – 1.45	1.19 – 1.31
5 Mixed Flow + 1 HOV	1.28 – 1.52	1.25 – 1.38

Table 3-6.8 summarizes the results of the future 2013 freeway mainline conditions for the No Build alternative and the different lane configurations possible with the two capacity increasing alternatives. The only possible lane configuration for Alternative 4 is four mixed flow lanes and one HOV lane (4+1). Two configurations are possible for Alternative 5, which are four mixed flow lanes and two HOV lanes (4+2), and five mixed flow lanes and one HOV lane (5+1).

2013 No Build Alternative Freeway Mainline LOS

The majority of freeway segments in the No Build alternative are forecast to operate at LOS F. The segments that are forecast to operate at LOS E or better are northbound between Stanton Avenue and Artesia Boulevard during the p.m. peak hour, southbound between Alondra Boulevard and Stanton Avenue during the a.m. peak hour, and southbound at Artesia Boulevard during the p.m. peak hour.

2013 Four Mixed-Flow Lanes with One HOV Lane Alternative Freeway Mainline LOS
As shown in Table 3-6.8, all freeway mainline segments are forecast to operate at unsatisfactory LOS in 2013 for the four mixed-flow lanes with one HOV lane alternative, with the exception of northbound at Stanton Avenue during the p.m. peak hour, northbound between Valley View Avenue and Imperial Highway during the p.m. peak hour, and southbound between Stanton Avenue and I-605

2013 Four Mixed-Flow Lanes with Two HOV Lanes Alternative Freeway Mainline LOS
As shown in Table 3-6.8, all freeway mainline segments are forecast to operate at unsatisfactory LOS in 2013 for the four mixed-flow lanes with one HOV lane alternative, with the exception of northbound between Stanton Avenue and Imperial Highway during the p.m. peak hour, southbound between Stanton Avenue and I-605 during the a.m. peak hour, and southbound between Valley View Avenue and Alondra Boulevard during the p.m. peak hour.

2013 Five Mixed-Flow Lanes with One HOV Lane Alternative Freeway Mainline LOS
As shown in Table 3-6.8, all freeway mainline segments are forecast to operate at unsatisfactory LOS in 2013 for the five mixed-flow lanes with one HOV lane alternative, with the exception of northbound between Valley View Avenue and Firestone Boulevard during the a.m. peak hour, northbound between Stanton Avenue and Imperial Highway during the p.m. peak hour, southbound between Stanton Avenue and I-605 during the a.m. peak hour, southbound between Stanton Avenue and Norwalk Boulevard during the p.m. peak hour.

Table 3-6.8 - Year 2013 Condition - Freeway Mainline Analysis Summary

SEGMENTS: LEVELS OF SERVICE (LOS)	No Build		4+1		4+2		5+1	
Freeway Mainline Segment	AM	PM	AM	PM	AM	PM	AM	PM
Northbound:								
Stanton Avenue[1]	F	E	F	E	F	E	F	E
Artesia Blvd[1]	F	E	F	F	F	E	F	E
Valley View Avenue	F	F	F	E	F	E	E	D
Alondra Boulevard	F	F	F	E	F	E	E	D
Carmenita Road	F	F	F	E	F	E	E	E
Firestone Boulevard	F	F	F	E	F	E	E	E
Norwalk Boulevard	F	F	F	E	F	E	F	E
Imperial Highway	F	F	F	E	F	E	F	E
Interstate 605	F	F	F	F	F	F	F	F
Southbound:								
Stanton Avenue[1]	E	F	E	F	E	F	D	E
Artesia Blvd[1]	D	E	E	F	E	F	D	E
Valley View Avenue	E	F	E	F	E	E	D	E
Alondra Boulevard	E	F	E	F	E	E	D	E
Carmenita Road	F	F	E	F	E	F	D	E
Firestone Boulevard	F	F	E	F	E	F	D	E
Norwalk Boulevard	F	F	E	F	E	F	D	E
Imperial Highway	F	F	E	F	E	F	E	F
Interstate 605	F	F	E	F	E	F	E	F

Notes:
[1] Orange County Section
Freeway Mainline Segment operating at LOS F

Table 3-6.9 - Year 2013 Condition - Freeway HOV Lanes Analysis Summary														
SEGMENTS: LEVELS OF SERVICE (LOS)	**2013 No Build[2]**		**4+1 (MIS Modified)**		**4+1 (Value Analysis)**		**4+1 (LPA)**		**4+2**		**5+1 (Value Analysis)**		**5+1 (MIS Modified)**	
Freeway HOV Lanes	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Northbound:														
Artesia Blvd OFF [1]			C	D	C	D	C	D	B	C	D	D	D	D
Artesia Blvd ON			D	D	D	D	D	D	B	C	D	D	D	D
Valley View OFF			C	D	C	D	C	D	B	C	C	D	C	D
Valley View ON			D	E	D	E	D	E	B	C	D	D	D	D
Alondra ON														
Carmenita OFF			Carmenita Road Segment is not included in this analysis. Please see Carmenita Road Section in Text											
Carmenita ON														
Rosecrans OFF			C	D	C	D	C	D	B	C	C	D	C	D
Firestone OFF														
Rosecrans (Bloomfield) ON			C	E	C	E	C	E	B	C	C	D	C	D
Norwalk OFF			C	D	C	D	C	D	B	C	C	D	C	D
Norwalk ON														
Kalnor (Adoree)/ Norwalk ON														
Imperial Hwy OFF														
Imperial Hwy ON			D	D	D	D	D	D	B	C	C	D	C	D
Pioneer ON			D	E	D	E	D	E	B	D	D	D	D	D
Florence (Orr and Day) OFF			D	D	D	D	D	D	B	D	D	D	D	D
605 OFF			C	C	C	C	C	C	B	C	C	C	C	C
WB Florence ON			C	C	C	C	C	C	B	C	C	C	C	C
NB 605/ Studebaker ON			C	D	C	D	C	D	B	D	D	D	D	D
SB 605 ON			C	E	C	E	C	E	B	D	D	D	D	D
Southbound:														
Artesia ON			D	E	D	E	D	E	C	D	D	D	D	D
Artesia/ Knott OFF			D	E	D	E	D	E	C	D	D	E	D	E
Valley View ON			D	E	D	E	D	E	C	D	D	D	D	D
Valley View OFF			E	E	E	E	E	E	D	D	D	E	D	E
Alondra ON														
Carmenita ON			Carmenita Road Segment is not included in this analysis. Please see Carmenita Road Section in Text											
Carmenita OFF														
Rosecrans ON			E	E	E	E	E	E	D	D	D	E	D	E
Rosecrans OFF			E	E	E	E	E	E	D	D	E	E	E	E
Firestone ON														
Norwalk ON			E	E	E	E	E	E	C	D	D	D	D	D
San Antonio/ Union OFF														
Imperial Hwy ON														
Pioneer/ Imperial OFF			E	E	E	E	E	E	D	D	E	E	E	E
Orr and Day ON														
Florence ON			E	E	E	E	E	E	D	D	D	E	D	E
NB 605/ Studebaker ON			E	E	E	E	E	E	D	D	D	E	D	E
SB 605 ON			D	E	D	E	D	E	C	D	D	D	D	D
SB 605/ Florence OFF			E	F	E	F	E	F	D	E	E	E	E	E

Notes:

[1] Orange County Section

[2] No HOV Lanes in 2013 No Build

Freeway Ramps Removed in Future Alternatives

Freeway Ramps operating at LOS F

Freeway Ramps 2013 Condition
The level of service summary for northbound and southbound on- and off-ramps during the a.m. and p.m. peak is shown in Table 3-6.10. The table provides a comparison of the impacted ramps operating at LOS F for the 2013 conditions for each cross section alternative.

Compared with the existing condition, the 2013 No Build condition presents the same or worse levels of service due to the increase of traffic volumes. As shown in Table 3-6.10, the results of the 2013 freeway ramp analysis are similar for each of the build alternatives.

Ramp Meters 2013 Condition
The freeway ramp volumes were analyzed to determine the average queue on the on-ramps due to the ramp meter. Every on-ramp in the future design alternatives is assumed to have ramp meters. In addition, all on-ramps are assumed to have HOV bypass lanes except northbound Rosecrans Boulevard and Imperial Highway, and southbound Norwalk Boulevard.

The hourly ramp volumes are considered to be the arrival rate (vehicles/hour). A peak-hour factor was applied to the arrival rate and divided by 4 to get the peak 15-minute volumes. The queuing calculations were applied to the worst-case 15 minutes. The peak 15-minute meter rate is one-fourth of the hourly rate of 900 vehicle/hour/lane. The queuing equations for a Constant Service Problem from *Traffic Flow Fundamentals,* by Adolf D. May,[1] were used where the arrivals are randomly distributed and the service rate is constant, such as at a ramp meter.

The results of the queuing analysis for each alternative, 4 + 1, 4 + 2, and 5 + 1 are shown below.

- 4 + 1 Configuration: During the northbound a.m. and p.m. peak hour, no more than one vehicle is forecast to be in the queue for all on-ramps. For the southbound a.m. and p.m. peak hour, a maximum of three vehicles are forecast to queue at all on-ramps. No vehicle queues are forecast to back up in the adjacent intersection at any on-ramp.
- 4 + 2 Configuration: During the northbound a.m. and p.m. peak hour, no more than one vehicle is forecast to be in the queue. For the southbound a.m. and p.m. peak hour, a maximum of two vehicles is forecast to be in the queue at all on-ramps. No vehicle queues are forecast to back up in the adjacent intersection at any on-ramp.
- 5 + 1 Configuration: During the northbound a.m. and p.m. peak hour, a maximum of two vehicles is forecast to be in the queue. For the southbound a.m. and p.m. peak hour, a maximum of three vehicles is forecast to queue at all on-ramps. No vehicle queues are forecast to back up in the adjacent intersection at any on-ramp.

Based on the results of the queuing analysis, ramp metering is not forecast to create an impact on the adjacent arterial streets in the 2013 horizon in any alternative.

1 Adolf D. May, *Traffic Flow Fundamentals* (Prentice-Hall, Inc., 1990).

Table 3-6.10 - Year 2013 Condition - Freeway Ramp Analysis Summary								
SEGMENTS: LEVELS OF SERVICE (LOS)	**2013 No Build**		**4+1**		**4+2**		**5+1**	
Freeway Ramps	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Northbound:								
Artesia Blvd OFF [1]	E	D	F	F	F	F	F	F
Artesia Blvd ON	F	F	C	C	C	C	C	C
Valley View OFF	F	F	F	F	F	F	F	F
Valley View ON	F	F	C	C	C	C	C	C
Alondra ON	F	F						
Carmenita OFF	Carmenita Road Segment is not included in this analysis. Please see Carmenita Road Section in Text							
Carmenita ON								
Rosecrans OFF	F	F	F	E	F	F	F	F
Firestone OFF	F	F						
Rosecrans (Bloomfield) ON	F	F	C	C	C	C	C	C
Norwalk OFF	F	F	F	F	F	F	F	F
Norwalk ON	E	F						
Kalnor (Adoree)/ Norwalk ON	E	F						
Imperial Hwy OFF	E	E						
Imperial Hwy ON	F	F	B	B	B	C	C	C
Pioneer ON	F	F	C	C	C	D	C	D
Florence (Orr and Day) OFF	F	F	C	C	C	C	C	D
Southbound:								
Artesia ON	D	D	C	C	C	C	C	D
Artesia/ Knott OFF	F	F	F	F	F	F	F	F
Valley View ON	D	D	C	D	C	D	C	D
Valley View OFF	F	F	F	F	F	F	F	F
Alondra ON	F	F						
Carmenita ON	Carmenita Road Segment is not included in this analysis. Please see Carmenita Road Section in Text							
Carmenita OFF								
Rosecrans ON	F	F	C	C	C	C	C	C
Rosecrans OFF	F	F	F	F	F	F	F	F
Firestone ON	F	F						
Norwalk ON	F	F	C	C	C	C	C	C
San Antonio/ Union OFF	F	F						
Imperial Hwy ON	F	F						
Pioneer/ Imperial OFF	F	F	F	F	F	F	F	F
Orr and Day ON	F	F						
Florence ON	F	F	C	C	C	C	C	C

Notes:

[1] Orange County Section

Freeway Ramps Removed in Future Alternatives

Freeway Ramps operating at LOS F

Intersections 2013 Conditions

The 2013 ramp terminals and adjacent intersections a.m. and p.m. peak-hour traffic within the study area for the three alternatives including No Build were provided by Caltrans District 7. The projected 2013 traffic volumes are based on growth rates from the LARTS traffic model applied to the existing traffic. The traffic projections provided by Caltrans have taken into consideration the continued growth of the communities and the socioeconomic changes within the communities along the I-5 corridors.

The intersections that are forecasted to exceed the LOS E threshold in the 2013 condition at the ramp terminals and adjacent intersections during the a.m. and p.m. peak hours are shown in Table 3-6.11. The table provides a comparison of the impacted segments that are forecasted to operate at LOS F for 2013 No Build, Alternative 4 + 1, Alternative 4 + 2, and Alternative 5 + 1.

Based on Table 3-6.11, 25 intersections would operate at LOS E or worse under the 2013 Baseline (No-Build) condition. With the implementation of the project alternatives, many intersections would be either removed or relocated. With the 4+1 alternative, 17 intersections would operate at LOS E or worse; with the 4+2 alternative, 15 intersections would operate at LOS E or worse; and with the 5+1 alternative, 20 intersections would operate at LOS E or worse.

The intersection analysis includes the recommended geometrics for each intersection. The recommended geometrics are provided in Table 3-6.19. The intersection geometrics reflect the attempt to provide the number of lanes required to achieve LOS D conditions. At some intersections, it was not possible to achieve LOS D even with the maximum feasible intersection. The maximum feasible intersection consists of one right-turn lane, three through lanes, and two left-turn lanes. It should be noted that 11 intersections in the 4 + 1 and 4 + 2 scenarios and 13 intersections in the 5 + 1 scenario would continue to operate at LOS E or LOS F conditions with the maximum feasible improvements. The intersections that would operate at LOS E or LOS F with the maximum feasible improvements are listed below:

- Florence/Studebaker (4 + 1, 4 + 2, and 5 + 1)
- Florence/Fairford (5 + 1 only)
- Florence/Orr and Day (4 + 1, 4 + 2, and 5 + 1)
- Imperial/Norwalk (4 + 1, 4 + 2, and 5 + 1)
- Firestone/Bloomfield (4 + 1, 4 + 2, and 5 + 1)
- Rosecrans/Bloomfield (4 + 1, 4 + 2, and 5 + 1)
- Alondra/Valley View (4 + 1, 4 + 2, and 5 + 1)
- Firestone (N)/Valley View (4 + 1 and 5 + 1)
- Firestone (S)/Valley View (4 + 1, 4 + 2, and 5 + 1)
- Artesia/Firestone (S) (4 + 1 and 4 + 2)
- Florence/I-5 SB On-Ramp (5 + 1 only)
- Imperial Hwy & Union St./I-5 SB Off-Ramp (5 + 1 only)
- Rosecrans/I-5 SB Ramps (4 + 2 and 5 + 1)
- Rosecrans /I-5 NB Ramps (4 + 1, 4 + 2, and 5 + 1)
- I-5 SB Ramps/Valley View (4 + 1 and 4 + 2)

Table 3-6.11 - Year 2013 Intersection Level of Service Summary																	
Project Year 2013																	
		No Build AM		No Build PM		Alternative 4+1 AM		Alternative 4+1 PM		Alternative 4+2 AM		Alternative 4+2 PM		Alternative 5+1 AM		Alternative 5+1 PM	
Index	Intersection Name	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Florence / Studebaker	126.5	F	167.0	F	93.6	F	106.9	F	111.3	F	122.8	F	171.4	F	166.3	F
2	Florence / Fairford					51.3	D	67.3	E	37.7	D	70.3	E	77.4	E	84.6	F
3	Florence / Orr and Day	93.4	F	78.3	E	131.4	F	104.5	F	140.9	F	106.9	F	231.6	F	154.1	F
4	Imperial / Pioneer	34.2	C	70.4	E	43.7	D	89.4	F	39.2	D	89.4	F	49.2	D	108.8	F
5	Union / I-5 SB Off and Union					11.9	B	11.2	B	13.9	B	16.6	B	11.5	B	20.5	C
6	Union / I-5 SB Off and Paddison					12.3	B	19.4	B	12.3	B	6.7	A	11.8	B	12.4	B
7	Adoree / Paddison					13.6	B	13.7	B	13.6	B	13.7	B	12.5	B	15.2	B
8	Kalnor / Adoree	8.7	A	9.7	A	25.6	D	16.1	C	16.1	C	25.6	D	31.0	D	17.8	C
9	Imperial / Kalnor	8.2	A	15.0	B	27.4	C	44.7	D	27.4	C	44.7	D	13.6	B	68.8	E
10	Imperial / Norwalk	105.5	F	104.0	F	145.5	F	109.1	F	145.5	F	109.1	F	205.9	F	144.3	F
11	Firestone / Bloomfield	54.8	F	25.5	D	124.5	F	79.3	F	124.4	F	81.7	F	280.1	F	96.6	F
12	Rosecrans / Bloomfield	50.5	D	97.0	F	248.0	F	234.2	F	253.6	F	237.9	F	367.3	F	301.0	F
13	Rosecrans / Shoemaker	89.3	F	81.5	F	49.4	D	45.7	D	49.4	D	47.2	D	57.8	E	49.1	D
14	Alondra / Valley View	128.5	F	193.9	F	71.8	E	90.8	F	74.6	E	91.5	F	84.8	F	109.5	F
15	Firestone (N) / Valley View	394.2	F	437.4	F	63.9	F	73.5	E	36.8	D	46.8	D	71.1	E	71.1	E
16	Firestone (N) / Gateway Dr					10.2	B	8.0	A	10.2	B	8.0	A	10.6	B	8.1	A
17	Firestone (S) / Valley View					264.9	F	249.5	F	264.9	F	303.1	F	260.3	F	188.8	F
18	Artesia / Firestone (S)	63.7	E	50.9	D	96.0	F	104.8	F	97.3	F	93.9	F	11.6	B	122.4	F
19	Rosecrans / Firestone	63.4	E	72.8	E												
20	I-5 SB Ramps / Valley View Ave	279.3	F	269.0	F												
21	Artesia / Firestone (N)	161.7	F	109.5	F												
22	Florence / I-5SB On-Ramp	O/F	F	O/F	F	45.1	D	32.7	C	35.3	D	24.3	C	57.1	E	68.0	E
23	Florence / I-5 NB Ramps	0.0	A	0.0	A	42.5	D	44.6	D	23.5	C	18.7	B	34.9	C	33.1	C
24	I-5 NB On-Ramp / Pioneer Blvd	12.2	B	11.8	B	0.2	A	0.5	A	0.2	A	0.5	A	3.0	A	4.5	A
25	Imperial Hwy & Union St/ I-5 SB Off					47.8	D	79.1	E	48.5	D	78.5	E	74.9	E	99.5	F
26	Imperial Hwy / I-5 SB On Ramp	10.3	B	11.7	B	26.1	C	39.3	D	26.1	C	39.3	D	23.3	C	52.3	D
27	I-5 SB On Ramp / San Antonio	59.7	E	14.2	B	49.1	D	24.5	C	48.4	D	25.0	C	61.9	E	23.2	C
28	I-5 NB Off Ramp / San Antonio & Adoree St	O/F	F	O/F	F	30.2	C	28.6	C	30.2	C	28.6	C	26.8	C	31.5	C

Table 3-6.11 - Year 2013 Intersection Level of Service Summary, Continued

Project Year 2013																	
		No Build AM		No Build PM		Alternative 4+1 AM		Alternative 4+1 PM		Alternative 4+2 AM		Alternative 4+2 PM		Alternative 5+1 AM		Alternative 5+1 PM	
Index	Intersection Name	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
29	Rosecrans Ave / I-5 SB Ramps					53.7	D	63.5	E	61.5	E	58.9	E	88.6	F	67.5	E
30	Rosecrans Ave / I-5 NB Ramps					231.9	F	109.1	F	234.7	F	215.3	F	269.1	F	126.2	F
31	I-5 SB Ramps / Valley View Ave					93.5	F	135.2	F	93.5	F	136.4	F	105.6	F	24.0	C
32	I-5 NB Ramps / Valley View Ave					14.2	B	17.2	B	14.1	B	17.5	B	16.1	B	16.5	B
33	Artesia Blvd / I-5 SB Off- Ramps	17.5	B	94.1	F	33.5	C	123.1	F	34.5	C	124.7	F	38.8	D	137.7	F
34	Artesia Blvd / I-5 SB On- Ramps	18.2	C	92.2	F	10.6	B	56.0	E	10.1	B	47.6	D	17.5	B	48.3	D
35	Artesia Blvd & Firestone (N) / I-5 NB Ramps					33.0	C	55.0	D	33.7	C	40.9	D	34.5	C	54.3	D
36	I-5 NB Off-Ramp / Orr and Day	9.9	A	10.6	B												
37	Pioneer / I-5 SB Off-Ramp	15.2	C	12.9	B												
38	Imperial Hwy / I-5 SB On Ramp	0.0	A	0.0	A												
39	I-5 SB Off-Ramp / Union	14.7	B	13.6	B												
40	I-5 NB On-Ramp / Firestone	115.3	F	17.9	B												
41	Rosecrans / Firestone	1829.9	F	5726.2	F												
42	I-5 NB On-Ramp / Firestone (N)	202.9	F	75.8	E												
43	I-5 SB Ramps / Firestone (S)	355.2	F	181.4	F												
44	Artesia / I-5 NB On-Ramp	44.1	D	85.5	F												
45	Manchester / I-5 SB Off-Ramp	20.1	C	76.3	F												
46	Artesia / I-5 SB Off-Ramp	41.9	D	56.7	E												

Notes:

- Delay is measured in seconds.
- Some intersections would be added to or removed from the project area as a result of project construction.
- Traffic is reassigned from existing to new intersections.
- Data source Caltrans, 2003.
- O/F signifies overflow conditions

Intersections operating at LOS E or F

Freeway Mainline and High Occupancy Vehicle (HOV) Lane 2030 Conditions

The forecasted mainline and ramp volumes for I-5 in the Los Angeles County segment under the 2030 condition for seven alternatives including No Build were provided by LARTS. The freeway geometric data remain unchanged from the existing condition for the year 2030 No Build condition. The traffic projections provided by Caltrans have taken into consideration the continued growth of the communities and the socioeconomic changes within the communities along the I-5 corridors. The growth rates could also represent latent demand that is not served in the existing condition. This additional traffic is not considered generation of new traffic since it already exists on surface streets throughout the corridor. The following shows the different ranges of the growth rate applied to each alternative.

Table 3-6.12 – 2030 Growth Rates

	Growth Rates	
Alternative	**Northbound**	**Southbound**
No Build	1.21 – 1.85	1.06 – 1.45
4 Mixed Flow + 1 HOV	1.85 – 2.30	1.46 – 1.85
4 Mixed Flow + 2 HOV	1.57 – 2.34	1.46 – 1.88
5 Mixed Flow + 1 HOV	1.65 – 2.46	1.55 – 1.97

Table 3-6.13 summarizes the results of the future 2013 freeway mainline conditions for the No Build alternative and the different lane configurations possible with the two capacity increasing alternatives. The only possible lane configuration for Alternative 4 is four mixed flow lanes and one HOV lane (4+1). Two configurations are possible for Alternative 5, which are four mixed flow lanes and two HOV lanes (4+2), and five mixed flow lanes and one HOV lane (5+1).

2030 No Build Alternative LOS

As Table 3-6.13 indicates, all freeway segments are forecast to operate at LOS F in the 2030 No Build Alternative, with the exception of the southbound segment between Artesia Avenue and Stanton Avenue in the a.m. peak hour.

2030 Four Mixed-Flow Lanes with One HOV Lane Alternative LOS

As Table 3-6.13 indicates, all freeway mainline segments are forecast to operate at unsatisfactory LOS in 2030 for the four mixed-flow lanes with one HOV lane alternative.

2030 Four Mixed-Flow Lanes with Two HOV Lanes Alternative LOS

As Table 3-6.13 indicates, all freeway mainline segments are forecast to operate at unsatisfactory LOS in the 2030 for the four mixed-flow lanes with two HOV lane alternative.

2030 Five Mixed-Flow Lanes with One HOV Lane Alternative LOS

As Table 3-6.13indicates, all freeway mainline segments are forecast to operate at unsatisfactory LOS in 2030 for the five mixed-flow lanes with one HOV lane alternative, with the exception of southbound between Norwalk Boulevard and Valley View Avenue during the a.m. peak hour

Table 3-6.13 - Year 2030 Condition - Freeway Mainline Analysis Summary								
SEGMENTS: LEVELS OF SERVICE (LOS)	No Build		4+1		4+2		5+1	
Freeway Mainline Segment	AM	PM	AM	PM	AM	PM	AM	PM
Northbound:								
Stanton Avenue[1]	F	F	F	F	F	F	F	F
Artesia Blvd[1]	F	F	F	F	F	F	F	F
Valley View Avenue	F	F	F	F	F	F	F	F
Alondra Boulevard	F	F	F	F	F	F	F	F
Carmenita Road	F	F	F	F	F	F	F	F
Firestone Boulevard	F	F	F	F	F	F	F	F
Norwalk Boulevard	F	F	F	F	F	F	F	F
Imperial Highway	F	F	F	F	F	F	F	F
Interstate 605	F	F	F	F	F	F	F	F
Southbound:								
Stanton Avenue[1]	E	F	F	F	F	F	F	F
Artesia Blvd[1]	E	F	F	F	F	F	F	F
Valley View Avenue	F	F	F	F	F	F	E	F
Alondra Boulevard	F	F	F	F	F	F	E	F
Carmenita Road	F	F	F	F	F	F	E	F
Firestone Boulevard	F	F	F	F	F	F	E	F
Norwalk Boulevard	F	F	F	F	F	F	E	F
Imperial Highway	F	F	F	F	F	F	F	F
Interstate 605	F	F	F	F	F	F	F	F

Notes:
[1] Orange County Section
Freeway Mainline Segment operating at LOS F

Hourly Variation in Daily Traffic

As indicated in Table 3-6.13, all freeway segments are forecast to operate at LOS F during the peak hours with the four mixed-flow lanes plus one HOV lane and four mixed-flow lanes plus two HOV lanes project alternatives. The five mixed-flow lanes plus one HOV lane alternative would operate slightly better with five segments in the southbound direction operating at LOS E during the a.m. peak hour. To establish which alternative would provide improvements to the operation of the mainline throughout the entire day, the hourly traffic volumes were analyzed to identify the number of hours during which the mainline is forecast to operate at LOS F for each project alternative. In order to identify forecast hourly volumes, hourly to daily percentages to the AADT were calculated. The segment of I-5 between Brookhurst Street and Magnolia Avenue is just south of the proposed project and has already been widened. As a result, the constrained conditions experienced within the project limits may not be as severe in the widened segment, and hourly variations would be more representative of what would be experienced when the project is completed.

In order to make the hourly to daily calculations, the 2006 hourly count data was obtained for three consecutive days during a typical week (Tuesday, Wednesday, and Thursday) for three segments along I-5 in the northbound direction and two segments in the southbound direction from Caltrans. The percentage of traffic per hour based on the total daily volume for each segment for each day was calculated using the data from District 12 segments. Finally, an average of three day percentages of traffic per hour for each individual segment both in northbound and southbound direction was calculated. The threshold of the hourly traffic volume at which the mainline operation changes from LOS E (acceptable) to LOS F (unacceptable) at

each segment along I-5 was identified. Figures 1 and 2 show the results of the hourly variation analysis, and are summarized in the following table:

Table 3-6.14 –Hours of LOS F during each 24-hour Period

Year	No Build		4 + 1		4 + 2		5 + 1	
	NB	SB	NB	SB	NB	SB	NB	SB
2013	7	13	1	0	1	0	0	0
2030	17	16	7.5	13.5	7.5	13.5	4	4.5

Source: I-5 Corridor Improvement Project Traffic and Transportation Study Technical Addendum, August, 2006

Freeway Ramps

The levels of service summary for northbound and southbound on- and off-ramps during the a.m. and p.m. peak are shown in Table 3-6.16. The table provides a comparison of the impacted ramps operating at LOS F for the 2030 conditions for all four (No Build, 4 + 1, 4 + 2, and 5 + 1) alternatives.

Compared with the existing condition, the 2030 No Build condition presents worse levels of services due to the increase of traffic volumes without an increase in available capacity. Project improvements would provide additional capacity and would improve the level of service on several freeway ramps. In the project alternatives, eight ramps are forecast to operate at LOS F. As shown in Table 3-6.16, none of the alternatives operate markedly better than the others do.

Ramp Meters

The 2030 freeway ramp volumes were analyzed to determine the average queue on the on-ramps due to the ramp meters. Every on-ramp in the future design alternatives is assumed to have ramp meters. In addition, all on-ramps are assumed to have HOV bypass lanes except northbound Rosecrans Boulevard and Imperial Highway and southbound San Antonio/Norwalk Boulevard.

The results of the ramp meter analysis for each alternative, 4 + 1, 4 + 2, and 5 + 1 are shown below.

- 4 + 1 Alternatives: In the northbound direction, a maximum queue of seven vehicles is forecast for all on-ramps. For southbound, a maximum of seven vehicles is forecast to queue at all on-ramps except Valley View Avenue, which has potential to impact the adjacent roadways. No vehicle queues are forecast to back up into the adjacent intersection at any on-ramp except Valley View Avenue.
- 4 + 2 Alternatives: In the northbound direction, a maximum queue of three vehicles is forecast for all on-ramps. In the southbound direction, a maximum of three vehicles is forecast to queue at all on-ramps except Valley View Avenue, which has the potential to impact the adjacent roadways. No vehicle queues are forecast to back up into the adjacent intersection at any on-ramp except Valley View Avenue.
- 5 + 1 Alternatives: In the northbound direction, a maximum queue of six vehicles would be in the queue for all on-ramps. In the southbound direction, a maximum queue of three vehicles would be in the queue at all on-ramps except Valley View Avenue. No vehicle queues are forecast to back up into the adjacent intersection at any on-ramp except Valley View Avenue.

At the Valley View on-ramp in all three alternatives, the peak 15-minute demand at the ramp meter would exceed the capacity. As the peak 15-minute traffic volumes at the ramp meter continue to exceed the ramp meter rate over the peak period, the queue at this on-ramp would grow longer until the traffic volumes fall below the meter rate. The dynamic nature of the queue prevents an accurate forecast of queue length. However, it is likely that the queue would spill back onto the adjacent intersection and affect local roadways.

Table 3-6.15 - Year 2030 Condition - Freeway HOV Lanes Analysis Summary														
SEGMENTS: LEVELS OF SERVICE (LOS)	**2030 No Build[2]**		**4+1 (MIS Modified)**		**4+1 (Value Analysis)**		**4+1 (LPA)**		**4+2**		**5+1 (Value Analysis)**		**5+1 (MIS Modified)**	
Freeway HOV Lanes	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Northbound:														
Artesia Blvd OFF [1]			D	E	D	E	D	E	B	C	C	D	C	D
Artesia Blvd ON			D	E	D	E	D	E	C	D	D	D	D	D
Valley View OFF			C	D	C	D	C	D	B	C	C	D	C	D
Valley View ON			D	E	D	E	D	E	B	D	D	D	D	D
Alondra ON														
Carmenita OFF			Carmenita Road Segment is not included in this analysis. Please see Carmenita Road Section in Text											
Carmenita ON														
Rosecrans OFF			C	E	C	E	C	E	B	C	C	D	C	D
Firestone OFF														
Rosecrans (Bloomfield) ON			C	E	C	E	C	E	B	D	C	D	C	D
Norwalk OFF			C	D	C	D	C	D	B	C	C	D	C	D
Norwalk ON														
Kalnor (Adoree)/ Norwalk ON														
Imperial Hwy OFF														
Imperial Hwy ON			D	E	D	E	D	E	B	D	C	D	C	D
Pioneer ON			D	E	D	E	D	E	B	D	D	E	D	E
Florence (Orr and Day) OFF			D	E	D	E	D	E	B	D	C	D	C	D
605 OFF			C	D	C	D	C	D	B	C	C	C	C	C
WB Florence ON			C	D	C	D	C	D	B	C	B	C	B	C
NB 605/ Studebaker ON			D	E	D	E	D	E	B	D	D	D	D	D
SB 605 ON			C	E	C	E	C	E	B	D	D	E	D	E
Southbound:														
Artesia ON			E	E	E	E	E	E	D	D	E	E	E	E
Artesia/ Knott OFF			E	F	E	F	E	F	D	D	E	E	E	E
Valley View ON			E	E	E	E	E	E	C	D	E	E	E	E
Valley View OFF			E	F	E	F	E	F	D	D	E	E	E	E
Alondra ON														
Carmenita ON			Carmenita Road Segment is not included in this analysis. Please see Carmenita Road Section in Text											
Carmenita OFF														
Rosecrans ON			E	F	E	F	E	F	D	D	E	E	E	E
Rosecrans OFF			F	F	F	F	F	F	D	D	F	E	F	E
Firestone ON														
Norwalk ON			E	E	E	E	E	E	D	D	E	E	E	E
San Antonio/ Union OFF														
Imperial Hwy ON														
Pioneer/ Imperial OFF			F	F	F	F	F	F	D	D	F	E	F	E
Orr and Day ON														
Florence ON			E	F	E	F	E	F	D	E	E	E	E	E
NB 605/ Studebaker ON			E	E	E	E	E	E	D	D	E	E	E	E
SB 605 ON			E	E	E	E	E	E	C	D	E	E	E	E
SB 605/ Florence OFF			F	F	F	F	F	F	E	E	F	F	F	F

Notes:

[1] Orange County Section

[2] No HOV Lanes in 2030 No Build

Freeway Ramps Removed in Future Alternatives

Freeway Ramps operating at LOS F

Table 3-6.16 - Year 2030 Condition - Freeway Ramp Analysis Summary								
SEGMENTS: LEVELS OF SERVICE (LOS)	**2030 No Build**		**4+1**		**4+2**		**5+1**	
Freeway Ramps	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Northbound:								
Artesia Blvd OFF [1]	F	F	F	F	F	F	F	F
Artesia Blvd ON	C	C	C	A	C	C	D	D
Valley View OFF	F	F	F	F	F	F	F	F
Valley View ON	F	F	C	C	C	C	C	D
Alondra ON	F	F						
Carmenita OFF	Carmenita Road Segment is not included in this analysis. Please see Carmenita Road Section in Text							
Carmenita ON								
Rosecrans OFF	F	F	F	F	F	F	F	F
Firestone OFF	F	F						
Rosecrans (Bloomfield) ON	F	F	C	C	C	C	C	D
Norwalk OFF	F	F	F	F	F	F	F	F
Norwalk ON	F	F						
Kalnor (Adoree)/ Norwalk ON	F	F						
Imperial Hwy OFF	E	E						
Imperial Hwy ON	F	F	C	C	C	C	C	C
Pioneer ON	F	F	C	D	C	D	C	D
Florence (Orr and Day) OFF	F	F	C	D	C	D	C	D
Southbound:								
Artesia ON	D	F	C	D	C	D	C	D
Artesia/ Knott OFF	F	F	F	F	F	F	F	F
Valley View ON	D	F	D	D	D	D	D	E
Valley View OFF	F	F	F	F	F	F	F	F
Alondra ON	F	F						
Carmenita ON	Carmenita Road Segment is not included in this analysis. Please see Carmenita Road Section in Text							
Carmenita OFF								
Rosecrans ON	F	F	C	D	C	D	D	D
Rosecrans OFF	F	F	F	F	F	F	F	F
Firestone ON	F	F						
Norwalk ON	F	F	C	C	C	C	D	D
San Antonio/ Union OFF	F	F						
Imperial Hwy ON	F	F						
Pioneer/ Imperial OFF	F	F	F	F	F	F	F	F
Orr and Day ON	F	F						
Florence ON	F	F	C	C	C	C	D	C

Notes:

[1] Orange County Section

Freeway Ramps Removed in Future Alternatives

Freeway Ramps operating at LOS F

Intersections 2030 Conditions

Caltrans District 7 provided the 2030 a.m. and p.m. peak-hour traffic volumes for ramp terminals and adjacent intersections within the study area for the three alternatives including the No Build. The traffic projections provided by Caltrans have taken into consideration the continued growth of the communities and the socioeconomic changes within the communities along the I-5 corridors.

Table 3-6.17 shows the intersections that exceed the LOS E thresholds at the ramp terminals and adjacent intersections during the a.m. and p.m. peak hours. The table provides a comparison of

the impacted segments that are forecasted to operate at LOS F for the 2030 No Build, Alternative 4 + 1, Alternative 4 + 2, and Alternative 5 + 1.

Based on Table 3-6.17, 25 intersections would operate at LOS E or worse under the 2030 Baseline (No-Build) Condition. With the implementation of the project alternatives, many intersections would be either removed or relocated. With the 4+1 alternative, 21 intersections would operate at LOS E or worse; with the 4+2 alternative, 19 intersections would operate at LOS E or worse; and with the 5+1 alternative, 20 intersections would operate at LOS E or worse.

The intersection analysis includes the recommended geometrics for the intersection. The recommended geometrics are provided in Table 3-6.19. The intersection geometrics reflect the attempt to provide the number of lanes required to achieve LOS D conditions. The Maximum Feasible Intersection consists of one right-turn lane, three through lanes, and two left-turn lanes. It should be noted that 15 intersections in the 4 + 1 Alternative, 17 intersections in the 4 + 2 Alternative and 16 intersections in the 5 + 1 Alternative would continue to operate at LOS E or LOS F conditions with the maximum feasible improvements. The intersections that would continue to operate at LOS E or LOS F with the maximum feasible improvements are listed below:

- Florence/Fairford (4 + 1, 4 + 2, and 5 + 1)
- Florence/Orr and Day (4 + 1, 4 + 2, and 5 + 1)
- Imperial/Pioneer (4 + 1, 4 + 2, and 5 + 1)
- Imperial/Norwalk (4 + 1, 4 + 2, and 5 + 1)
- Firestone/Bloomfield (4 + 1, 4 + 2, and 5 + 1)
- Rosecrans/Bloomfield (4 + 1, 4 + 2, and 5 + 1)
- Rosecrans/Shoemaker (4 + 1, 4 + 2, and 5 + 1)
- Alondra/Valley View (4 + 1, 4 + 2, and 5 + 1)
- Firestone (N)/Valley View (4 + 1, 4 + 2, and 5 + 1)
- Firestone (S)/Valley View (4 + 1, 4 + 2, and 5 + 1)
- Artesia/Firestone (S) (4 + 1, 4 + 2, and 5 + 1)
- Imperial Highway & Union St./I-5 SB Off-Ramp (4 + 1, 4 + 2, and 5 + 1)
- Rosecrans/I-5 SB Ramps (4 + 1, 4 + 2, and 5 + 1)
- Rosecrans/I-5 NB Ramps (4 + 1, 4 + 2, and 5 + 1)
- I-5 SB Ramps/Valley View (4 + 2 and 5 + 1)
- Artesia/I-5 SB Off-Ramps (4 + 1, 4 + 2, and 5 + 1)
- Artesia & Firestone (N)/I-5 NB Ramps (4 + 2 only)

Table 3-6.17 - Year 2030 Intersection Level of Service Summary

Project Year 2030																	
		No Build AM		No Build PM		Alternative 4+1 AM		Alternative 4+1 PM		Alternative 4+2 AM		Alternative 4+2 PM		Alternative 5+1 AM		Alternative 5+1 PM	
Index	Intersection Name	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Florence / Studebaker	155.7	F	213.0	F	34.9	C	46.9	D	36.7	D	23.6	C	29.1	C	62.9	E
2	Florence / Fairford					60.7	E	103.3	F	66.9	E	117.6	F	169.1	F	127.7	F
3	Florence / Orr and Day	117.5	F	105.2	F	134.6	F	121.9	F	141.3	F	91.1	F	153.1	F	144.1	F
4	Imperial / Pioneer	48.0	D	101.5	F	75.5	E	141.4	F	67.8	E	157.0	F	75.5	E	175.7	F
5	Union / I-5 SB Off and Union					12.0	B	13.9	B	13.0	B	24.0	C	13.1	B	22.0	C
6	Union / I-5 SB Off and Paddison					41.8	D	25.9	C	5.8	A	8.1	A	41.7	D	23.6	C
7	Adoree / Paddison					32.1	C	30.9	C	13.1	B	18.7	B	12.9	B	20.2	C
8	Kalnor / Adoree	8.9	A	9.7	A	23.6	C	44.4	E	21.8	C	45.6	E	12.3	B	16.4	C
9	Imperial / Kalnor	99.4	F	26.1	C	32.6	C	72.3	E	24.0	C	62.9	E	32.6	C	74.8	E
10	Imperial / Norwalk	128.2	F	127.9	F	314.2	F	183.9	F	295.0	F	166.3	F	314.2	F	179.1	F
11	Firestone / Bloomfield	87.3	F	41.1	E	336.1	F	133.6	F	342.2	F	119.3	F	353.9	F	127.6	F
12	Rosecrans / Bloomfield	267.8	F	110.0	F	376.3	F	309.9	F	370.7	F	260.7	F	371.1	F	280.0	F
13	Rosecrans / Shoemaker	134.4	F	126.8	F	135.7	F	113.4	F	104.9	F	68.3	E	113.8	F	74.0	E
14	Alondra / Valley View	177.4	F	203.8	F	88.6	F	148.2	F	118.6	F	154.0	F	99.3	F	164.7	F
15	Firestone (N) / Valley View	809.6	F	457.7	F	89.2	F	105.5	F	87.3	F	108.7	F	95.4	F	124.2	F
16	Firestone (N) / Gateway Dr					22.6	C	18.0	B	24.6	C	17.9	B	26.1	C	18.6	B
17	Firestone (S) / Valley View					121.9	F	238.1	F	254.0	F	246.5	F	243.4	F	238.8	F
18	Artesia / Firestone (S)	96.2	F	121.8	F	114.1	F	62.2	E	117.1	F	140.8	F	123.9	F	156.5	F
19	Rosecrans / Firestone	107.9	E	98.1	F												
20	I-5 SB Ramps / Valley View Ave	269.1	F	299.6	F												
21	Artesia / Firestone (N)	173.8	F	147.1	F												
22	Florence / I-5SB On-Ramp	O/F	F	O/F	F	13.5	B	6.2	A	13.1	B	7.0	A	19.0	B	8.9	A
23	Florence / I-5 NB Ramps	0.0	A	0.0	A	31.3	C	13.8	B	37.3	D	13.2	B	47.1	D	16.3	B
24	I-5 NB On-Ramp / Pioneer Blvd	2.7	B	1.4	B	2.9	A	4.9	A	2.9	A	4.9	A	2.9	A	5.1	A
25	Imperial Hwy & Union St/ I-5 SB Off					95.5	F	126.6	F	84.5	F	111.8	F	95.5	F	129.8	F
26	Imperial Hwy / I-5 SB On Ramp	12.5	B	10.7	B	45.3	D	95.6	F	42.7	D	48.2	D	45.3	D	63.8	E
27	I-5 SB On Ramp / San Antonio	70.0	E	17.1	B	115.9	F	30.9	C	44.8	D	26.6	C	47.3	D	28.2	C
28	I-5 NB Off Ramp / San Antonio & Adoree St	O/F	F	O/F	F	43.7	D	32.7	C	40.7	D	29.5	C	43.7	D	36.1	D

Table 3-6.17 - Year 2030 Intersection Level of Service Summary, Continued																	
		Project Year 2030															
		No Build AM		No Build PM		Alternative 4+1 AM		Alternative 4+1 PM		Alternative 4+2 AM		Alternative 4+2 PM		Alternative 5+1 AM		Alternative 5+1 PM	
Index	Intersection Name	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
29	Rosecrans Ave / I-5 SB Ramps					118.6	F	88.4	F	113.4	F	86.1	F	109.8	F	98.1	F
30	Rosecrans Ave / I-5 NB Ramps					317.8	F	151.3	F	305.0	F	153.3	F	353.2	F	164.3	F
31	I-5 SB Ramps / Valley View Ave					24.3	C	144.1	E	114.3	F	145.3	F	117.4	E	156.9	F
32	I-5 NB Ramps / Valley View Ave					19.7	B	23.7	C	17.0	B	24.6	C	20.4	C	30.5	C
33	Artesia Blvd / I-5 SB Off- Ramps	67.0	E	176.0	F	98.3	F	128.6	F	174.7	F	273.1	F	137.1	F	246.3	F
34	Artesia Blvd / I-5 SB On- Ramps	1.2	D	63.5	F	13.4	B	35.3	D	6.2	A	43.8	D	5.7	A	40.5	D
35	Artesia Blvd & Firestone (N) / I-5 NB Ramps					48.6	D	71.8	E	61.9	E	55.2	E	53.5	D	72.3	E
36	I-5 NB Off-Ramp / Orr and Day	10.0	B	10.8	B												
37	Pioneer / I-5 SB Off-Ramp	17.8	C	14.2	B												
38	Imperial Hwy / I-5 SB On Ramp	0.0	A	0.0	A												
39	I-5 SB Off-Ramp / Union	13.5	B	15.7	B												
40	I-5 NB On-Ramp / Firestone	178.1	F	45.2	D												
41	Rosecrans / Firestone	2642.5	F	979.0	F												
42	I-5 NB On-Ramp / Firestone (N)	134.0	F	30.0	C												
43	I-5 SB Ramps / Firestone (S)	433.7	F	235.5	F												
44	Artesia / I-5 NB On-Ramp	54.8	D	125.5	F												
45	Manchester / I-5 SB Off-Ramp	36.8	E	144.1	F												
46	Artesia / I-5 SB Off-Ramp	48.1	D	18.1	B												

Notes:

- Delay is measured in seconds.
- Some intersections would be added to or removed from the project area as a result of project construction.
- Traffic is reassigned from existing to new intersections.
- Data source Caltrans, 2003.
- O/F signifies overflow conditions

Intersections operating at LOS E or F

The proposed project would not generate traffic, but would facilitate the redistribution of existing and future traffic demand to a proposed enhanced-capacity regional facility. Impacts that have been disclosed in the Traffic and Transportation Study (LSA, January 2005) are a result of regional traffic growth and are not directly attributable to project implementation. Table 3-6.18 summarizes the results of the analyses and shows the number of locations that are forecast to operate at unsatisfactory levels of service (LOS F for freeway and ramps; LOS D for arterial intersections) for each alternative at each time horizon.

Table 3-6.18 - Number of Locations Operating with Unsatisfactory Levels of Service

Analysis Year/ Alternatives	Ramp Terminal/ Adjacent Intersections[1]	Freeway Segments (NB or SB)	HOV Segments (NB or SB)	Freeway Ramps
2013				
No Build	25	38	—	25
4 + 1	17	1	1	8
4 + 2	15	0	0	8
5 + 1	20	0	0	8
2030				
No Build	25	40	—	27
4 + 1	21	8	7	8
4 + 2	19	3	0	8
5 + 1	20	2	3	8

[1] Intersection analysis includes recommended geometrics at ramp termini and adjacent intersections.

As shown in Table 3-6.18, implementation of the 5 + 1 Alternative would result in the least amount of impacts to freeway segments. However, the 5 + 1 Alternative would result in the greatest number of ramp terminal/adjacent intersection impacts in 2013 and the second greatest in 2030. The 4 + 2 Alternative is forecast to result in the fewest number of ramp terminal/adjacent intersection and HOV segment impacts, however would result in the second greatest number of impacts to freeway segments. Based on the simple metrics used in this analysis, the 4+2 alternative would have the fewest congested elements (i.e. segments, ramps, and terminals).

However, as the 4+2 and 5+1 scenarios perform similarly in terms of the number of intersections, freeway and HOV segments, and freeway ramps operating with unsatisfactory levels of service, other factors should be considered in selecting a preferred alternative. These could include latent demand, progression, upstream and downstream bottlenecks, weaving, etc. To evaluate fully the effects of these factors and the relative merits of each alternative, the two alternatives should be further evaluated in more and specific detail to observe the operation of each alternative (e.g., microsimulation). However, before proceeding with the 4+2 option it is recommended to increase the ridership requirements for the proposed HOV lanes to 3+ and determine the affect of that change before proceeding with the 4+2 option.

Transit Dependent Population

Alternative 2

Alternative 2 would benefit transit-dependent persons within the study area by increasing the operational efficiency of existing transit services and providing additional transit services throughout the affected communities. Therefore, Alternative 2 would not result in disproportionate adverse impacts to transit-dependent persons.

Alternative 3
As an overlay to Alternatives 4 and 5, Alternative 3 would benefit transit-dependent persons within the study area by increasing the operational efficiency of existing transit services and providing additional transit services throughout the affected communities. Park-and-ride lots, which would provide a connection to regional and local bus lines, would also be provided as part of Alternative 3. Therefore, Alternative 3 would result in a net benefit to transit-dependent persons over existing conditions.

Alternatives 4 and 5
The displacements associated with Alternatives 4 and 5 are located within census tracts that have transit-dependent populations of 40 percent or more of the total population. Although these alternatives have the potential to acquire properties in areas with large transit-dependent populations, Alternatives 4 and 5 could also potentially benefit these populations by reducing traffic congestion on arterials within the affected communities. Likewise, the reduced traffic congestion may improve transit services that serve the affected communities. Therefore, Alternatives 4 and 5 could result in a net benefit to transit-dependent persons over existing conditions.

3-6.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

Freeway and HOV Segments
In the 2013 horizon, almost every freeway segment is forecast to operate at LOS F in the No Build Condition (two segments are forecast to operate at LOS E). With implementation of the 4 + 2 and 5 + 1 Alternatives, every freeway and HOV segment would operate at LOS E or better. With the 4 + 1 Alternative, one freeway and one HOV segment would continue to operate at LOS F. However, the duration of time that LOS F would occur would be reduced when compared to the No-Build Alternative.

In the 2030 horizon, every freeway segment is forecast to operate at LOS F in the No Build condition. Implementation of the 4 + 1 Alternative would result in eight segments and seven HOV segments operating at LOS F. The 4 + 2 Alternative is forecast to result in three freeway segments and no HOV segments operating at LOS F. The 5 + 1 Alternative would result in two freeway and three HOV segments operating at LOS F. Again, the duration of time that LOS F would occur would be reduced when compared to the No-Build Alternative.

Ramp Meters
The overall maximum queue for all alternatives on the on-ramp is approximately seven vehicles except at Valley View Avenue, where the queue is forecast to increase throughout the peak period. Valley View Avenue has a total of two on-ramp lanes, one metered lane, and one HOV bypass lane. To avoid impacts to the downstream intersection due to the ramp meter at the Valley View Avenue on-ramp, the meter rate should be increased from 900 vehicles per hour to at least 1,150 vehicles per hour; or, the HOV bypass lane should be converted to a metered lane, resulting in two metered on-ramp lanes.

Intersections
Direct project impacts to ramp terminals and adjacent intersections for each scenario in the 2013 and 2030 horizons have been shown in Tables 3-6.11 and 3-6.16 respectively. To mitigate these impacts, intersection improvements have been investigated at these intersections to achieve LOS

D or better operations where feasible. It should be noted that even with the implementation of a "Maximum Feasible Intersection" (i.e., one right, three through, and two left lanes on each approach), several of the intersections would not be improved to LOS D. Furthermore, many of the study area intersections have functional classifications that would not even permit the maximum number of approach lanes. However, as a broad indication of feasibility of circulation improvements, it is a fair criterion to use. Table 3-6.19 identifies the future intersection geometrics that would be necessary for satisfactory intersection operations.

Even with implementation of the project alternatives and intersection capacity improvements, a substantial number of intersections would operate unsatisfactorily. To achieve satisfactory LOS at these locations, signal coordination and optimization should be considered.

Studies have shown that traffic signal coordination and optimization can provide an improvement to individual intersections. A 1994 study by the City of Los Angeles cites two travel time and delay studies that have demonstrated a reduction in delay of between 32.3 percent and 44.2 percent due to the implementation of the City of Los Angeles Automated Traffic Surveillance and Control (ATSAC) system. Currently, the City of Los Angeles allows up to a 10 percent credit to the volume-to-capacity ratio if developers provide funding for Intelligent Transportation Systems (ITS) such as ATSAC. A more recent paper, *ITS Benefits: The Case of Traffic Signal Control Systems,* prepared for the Transportation Research Board Annual Meeting in 2001 by Alexander Skabardonis, cites a 16.5 percent reduction in delay as a result of signal timing optimization and a 24.9 percent reduction in delay from signal coordination.

Signal coordination and optimization can provide substantial benefits to the study area intersections within the I-5 corridor. Caltrans shall, in coordination with local municipalities, plan and implement a signal coordination program, such as a simple TRANSYT 7-F application or a complex ATSAC system, as indicated by future progression analysis to improve future traffic flow and reduce congestion and delay attributable to both growth in regional traffic volumes and any effects of the freeway widening project.

Pedestrian and Bicycle Access

The pedestrian overcrossing that is removed at Silverbow Avenue would be replaced and an additional pedestrian overcrossing would be constructed at Buell Street/Cecilia Street. To mitigate the temporary closure of the Silverbow Avenue pedestrian over-crossing, special busses or similar shuttle service would have to be provided to transport students who normally use the Silverbow Avenue pedestrian overcrossing to get to and from school.

The Los Angeles County MTA's Southeast Area Bicycle Master Plan includes several Class II bike routes along arterial roads within the project corridor. Currently, there is insufficient room on the existing arterial overcrossings to accommodate the planned bike routes. To improve the safety of both motorists and bicyclists, the designed overcrossings and undercrossings at Valley View Avenue, Bloomfield Avenue, Pioneer, and Florence Avenues, for all of the build alternatives, have cross section widths to accommodate Class II the proposed regional bike routes. In most cases, this involves a striped 1.5 m bike lane including a gutter or a striped 1.2 m bike lane without a gutter in the shoulder area. The Coyote Creek Bridge would be constructed to accommodate the addition of a planned Class I Bike Path along its banks.

Table 3-6.19 – Recommended Intersection Improvements

Project Year 2030

		4 + 1 Alternative														4 + 2 Alternative														5 + 1 Alternative													
		AM	PM	Northbound			Southbound			Eastbound			Westbound			AM	PM	Northbound			Southbound			Eastbound			Westbound			AM	PM	Northbound			Southbound			Eastbound			Westbound		
Index	Intersection Name	LOS	LOS	left	thru	right	left	thru	right	left	thru	right	left	thru	right	LOS	LOS	left	thru	right	left	thru	right	left	thru	right	left	thru	right	LOS	LOS	left	thru	right	left	thru	right	left	thru	right	left	thru	right
1	Florence / Studebaker	C	D	2	1	1	0	0	0	1	2	1	2	2	1	D	C	2	1	1	0	0	0	1	2	1	2	2	1	C	E	2	1	1	0	0	0	1	2	1	2	2	1
2	Florence / Fairford	E	F	Maximum Feasible Intersection												E	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection											
3	Florence / Orr and Day	F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection											
4	Imperial / Pioneer	E	F	Maximum Feasible Intersection												E	F	Maximum Feasible Intersection												E	F	Maximum Feasible Intersection											
5	Union / I-5 SB Off and Union	B	B	0.5	0	0.5	1	0	1	0.5	0	0.5	0	0	0	B	C	0.5	0	0.5	1	0	1	0.5	0	0.5	0	0	0	B	C	0.5	0	0.5	1	0	1	0.5	0	0.5	0	0	0
6	Union / I-5 SB Off and Paddison	D	C	0.5	0.5	0	0	0.5	0.5	1	0	1	0	0	0	A	A	0.5	0.5	0	0	0.5	0.5	1	0	1	0	0	0	D	C	0.5	0.5	0	0	0.5	0.5	1	0	1	0	0	0
7	Adoree / Paddison	C	C	0	0.5	0.5	1	0	1	0.5	0.5	0	0	0	0	B	B	0	0.5	0.5	1	0	1	0.5	0.5	0	0	0	0	B	C	0	0.5	0.5	1	0	1	0.5	0.5	0	0	0	0
8	Kalnor / Adoree	C	E	0	0	0	1	0	1	0.3	0.3	0.3	0.3	0.3	0.3	C	E	0	0	0	1	0	1	0.3	0.3	0.3	0.3	0.3	0.3	B	C	0	0	0	1	0	1	0.3	0.3	0	0	2	0
10	Imperial / Norwalk	F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection											
11	Firestone / Bloomfield	F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection											
12	Rosecrans / Bloomfield	F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection											
13	Rosecrans / Shoemaker	F	F	Maximum Feasible Intersection												F	E	Maximum Feasible Intersection												F	E	Maximum Feasible Intersection											
14	Alondra / Valley View	F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection											
15	Firestone (N) / Valley View	F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection											
16	Firestone (N) / Gateway Dr	C	B	0	1	1	1	1	0	0	0	0	1	0	1	C	B	0	1	1	1	1	0	0	0	0	1	0	1	C	B	0	1	1	1	1	0	0	0	0	1	0	1
17	Firestone (S) / Valley View	F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection											
18	Artesia / Firestone (S)	F	E	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection											
22	Florence / I-5SB On-Ramp	B	A	0	0	0	0	0	0	0	3	1	1	1.5	0.5	B	A	0	0	0	0	0	0	0	3	1	1	1.5	0.5	B	A	0	0	0	0	0	0	0	3	1	1	1.5	0.5
23	Florence / I-5 NB Ramps	C	B	2	0	1	0	0	0	0	3	0	0	3	1	D	B	2	0	1	0	0	0	0	3	0	0	3	1	D	B	2	0	1	0	0	0	0	3	0	0	3	1
25	Imperial Hwy & Union St/ I-5 SB Off	F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection											
26	Imperial Hwy / I-5 SB On Ramp	D	F	2	2	1	0	0	0	2	3	1	1	2.5	1.5	D	D	2	2	1	0	0	0	2	3	1	1	2.5	1.5	D	E	2	2	1	0	0	0	2	3	1	1	2.5	1.5
27	I-5 SB On Ramp / San Antonio	D	C	1	3	1	2	2	1	0.5	0.5	1	0	0	0	D	C	1	3	1	2	2	1	0.5	0.5	1	0	0	0	D	C	1	3	1	2	2	1	0.5	0.5	1	0	0	0
28	I-5 NB Off Ramp / San Antonio & Adoree St	D	C	2	1.5	0.5	0	2.5	0.5	1	0	1	1	0.5	1.5	D	C	2	1.5	0.5	0	2.5	0.5	1	0	1	1	0.5	1.5	D	D	2	1.5	0.5	0	2.5	0.5	1	0	1	1	0.5	1.5
29	Rosecrans Ave / I-5 SB Ramps	F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection														Maximum Feasible Intersection											
30	Rosecrans Ave / I-5 NB Ramps	F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection														Maximum Feasible Intersection											
31	I-5 SB Ramps / Valley View Ave	C	E	0	3	1	2	3	0	2	2	1	0	0	0	F	F	Maximum Feasible Intersection														Maximum Feasible Intersection											
32	I-5 NB Ramps / Valley View Ave	B	C	2	3	0	0	3	1	0	0	2	2	1	1	B	C	2	3	0	0	3	1	0	0	0	2	1	1	C	C	2	3	0	0	3	1	0	0	0	2	1	1
33	Artesia Blvd / I-5 SB Off- Ramps	F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection												F	F	Maximum Feasible Intersection											
34	Artesia Blvd / I-5 SB On- Ramps	B	D	0	0	0	0	0	0	0	3	1	2	2	0	A	D	2	3	0	0	3	1	0	0	0	2	1	1	A	D	0	0	0	0	0	0	0	3	1	1	3	0
35	Artesia Blvd & Firestone (N) / I-5 NB Ramps	D	E	2	1	1	2	1	1	2	3	1	2	3	1	E	E	Maximum Feasible Intersection												D	E	2	1	1	2	1	1	2	3	1	2	3	1

Notes:

- Maximum Feasible Intersection consists of 2 left, 3 through, and 1 right turn lane on each approach.
- Recommended geometrics are only shown for intersections that require changes from existing conditions.

Mainline Construction Traffic Mitigation

Caltrans will work with Metro and Southern California Regional Rail Authority to provide incentives for commuters to use Metro transit service and Metrolink service during the Interstate 5 Corridor Improvement construction period.

3-6.5 CUMULATIVE IMPACTS

Cumulative Traffic and Transportation/Pedestrian and Bicycle Facilities Effects

The cumulative study area includes the I-5 mainline and ramps, intersections of ramp terminals with arterial roadways, and intersections within one arterial street of the I-5 freeway. This study area was analyzed in the Traffic and Transportation Study for the project alternatives and includes the freeway mainline in the vicinity of the proposed I-5/Carmenita Road Interchange Improvement Project. Therefore, cumulative traffic and transportation effects are the same as the project effects detailed below.

Project Contribution to Cumulative Traffic and Transportation/Pedestrian and Bicycle Facilities Effects

The project alternative effects described in the Traffic and Transportation Study include the cumulative condition and therefore represent the cumulative contribution as well as the project effects to traffic and transportation.

Alternative 1 would not directly contribute to cumulative effects to traffic and transportation/ pedestrian and bicycle facilities. However, by not providing for future transportation needs and predicted growth in traffic volumes, Alternative 1 would contribute to an indirect adverse cumulative effect on traffic and transportation.

Alternatives 2 and 3 may result in lower future traffic volumes by increasing the number of transit options (buses, bus routes, bus stops) to the study area. This would provide a cumulative benefit to community facilities by providing increased accessibility and a related reduction in traffic anticipated from these alternatives.

Implementation of Alternatives 4 and 5 would reduce traffic congestion on this segment of I-5. Alternatives 4 and 5 do not generate traffic but rather facilitate the redistribution of existing and future traffic to a proposed enhanced-capacity regional facility. Impacts are a result of regional traffic growth and are not directly attributable to project implementation.

Minimization measures are required to reduce construction-related traffic and transportation effects (for all alternatives), impacts to intersections, and impacts to ramp meters (for Alternatives 4 and 5). Even with minimization measures applied, several of the study area intersections would still remain impacted under all of the project alternatives.

3-7 VISUAL/AESTHETICS

3-7.1 REGULATORY SETTING

NEPA, as amended establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* and culturally pleasing surroundings (42 U.S.C. 4331 [b][2]). To further emphasize this point, the FHWA 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, 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 2100[b])

3-7.2 AFFECTED ENVIRONMENT

Information regarding Visual/Aesthetics was obtained from the I-5 Corridor Improvement Project Visual Impact Study, July 2002 and the I-5 Interim HOV Improvement Project Visual Impact Study, June 1998.

The I-5 Corridor Improvement Project area is near the center of the flat Los Angeles Coastal Plain. Development radiates out from the freeway with few visual demarcations of city boundaries. Adjacent development is dense; land use patterns are suburban, including low-rise single family residential, strip commercial, and business parks. There are no scenic vistas from the freeway or adjacent uses. The I-5 freeway would have eight lanes total from SR 91 to Western Avenue and six lanes total from Western Avenue to I-605. The freeway was constructed in the 1950s and has a well-worn appearance due to its age and heavy use. Traffic on I-5 is continual, often congested, and includes large numbers of commuters and freight trucks.

The freeway is bordered primarily by commercial and industrial uses from State Route 91 to Rosecrans Avenue. The I-5 right-of-way is fairly open in from the Los Angeles/Orange County line to Rosecrans Avenue, except for some landscaping along the freeway shoulder, and thus provides good visibility to adjacent businesses. As a result, a number of businesses that cater to a regional clientele and rely on freeway visibility, such as auto dealerships, are located in this area. Billboards are prominently displayed along the freeway and, like many building logos in the I-5 corridor, attract the motorist's attention.

The freeway mainline is bordered by single-family residential neighborhoods in from Rosecrans Avenue to Florence Avenue. These neighborhoods are less visible from the freeway than the businesses in the segments to the south due to adjacent soundwalls and landscaping. However commercial uses border the freeway ramps in this segment and are visible from the freeway.

Because the views of the freeway lack vividness, intactness and unity, the visual quality of the area is considered medium or low. There is no scenic resource in the corridor except for existing landscaping in some sections.

3-7.3 IMPACTS

There are no significant scenic resources or views in the study area. None of the proposed alternatives would have long-term adverse visual impacts, based on an analysis of the effects of property acquisitions on the landscape and the changes in key views due to project components. It could, however, result in an adverse effect because of the acquisition of residential properties. In some cases, there would be remnant parcels remaining as a result of property acquisition and project improvements. These remnant parcels may not be developable due to insufficient lot size and property setback or access requirements. The resulting blight could be considered an adverse visual impact.

Construction lighting could generate light and glare that could intrude into residences and impede motorists' ability to drive.

3-7.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

The proposed project would create a transportation structure that may be up to twice as large as the existing system. In order to minimize the adverse visual impact, landscaping would be important in providing screen, buffer and visual interest for viewers. A comprehensive aesthetic treatment and design plan covering soundwalls, median barriers and structures would help improve visual impact.

Remaining properties after acquisition should be absorbed by adjacent properties or zoning variance should be obtained to allow redevelopment to occur.

During the construction phase, appropriate light shielding equipment would be used to prevent light and glare impacts from construction lighting that could intrude into residences and impede motorists' ability to drive.

In conjunction with the I-5 Corridor Cities, a sizeable urban reforestation plan will be developed and implemented post-project construction. This tree-planting plan is primarily intended to act as a natural carbon-sink for the operation of the I-5 and for overall automobile use in the region. Thusly, the reforestation plan is not intended to hide the freeway or provide new landscaping along I-5's right-of-way. This planting plan would be on a large scale and not only encompass areas close to the freeway, but also areas further away as determined by Caltrans and each respective corridor city. This tree planting mitigation would create more green areas, provide more natural shade in a heavily urbanized area and enhance the visual character of not only the I-5 corridor, but also the surrounding cities.

3-7.5 CUMULATIVE IMPACTS

Cumulative Visual/Aesthetics Effects

The predominant purpose of the cumulative projects are to maintain/increase economic vitality, provide housing, or reduce blighting elements within the community. These improvements typically enhance the aesthetic quality of neighborhoods by reviving underutilized commercial or industrial parcels with developments that attract business and community members (e.g., new residential). Overall, the cumulative projects would enhance the aesthetic nature of the study area. There may be site-specific visual lighting issues that are addressed through local approval processes. This interpretation of land uses can introduce a denser level of development than currently exists and can be viewed negatively by the local community. Implementation of

minimizing measures addressing visual and lighting effects reduces the potential incompatibilities.

Project Contribution to Cumulative Visual/Aesthetics Effects

Potential impacts of the build alternatives were determined to have both positive and negative effects on visual quality within the study area. With implementation of the minimization measures, the contribution to cumulative visual/aesthetic impacts associated with the build alternatives would not be considered adverse.

3-8 CULTURAL RESOURCES

3-8.1 REGULATORY SETTING

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) among 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 takes the place of the Advisory Council's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans.

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 the Department to inventory state-owned structures in its rights-of-way.

3-8.2 AFFECTED ENVIRONMENT

In 1998, a Historic Property Survey Report (HPSR) was done to identify all historic properties that may be affected by the Interim HOV Improvement Project. In 2004, a Supplemental HPSR was done to incorporate the additional widening proposed by the I-5 Corridor Improvement Project, and to request concurrence from the State Historic Preservation Officer (SHPO) regarding the eligibility for the National Register of Historic Places. The Ten and Twelve Lane Alternatives require additional right-of-way that necessitates updating the 1998 HPSR. Consequently, the Area of Potential Effects (APE) for the 2002 SHPSR includes the APE for the 1998 HPSR, and any additional parcels that could be affected by right-of-way acquisition, audible effects, or visual effects resulting from implementation of the proposed alternatives. The 1998 HPSR formally evaluated properties with buildings constructed before 1951. The 2004 SHPSR formally evaluates all properties within the APE with buildings constructed in or before 1957 that were not previously evaluated in 1998.

The Supplemental HPSR incorporates the findings of the Historical Resources Evaluation Report (HRER) prepared for this project, and was prepared in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended. This report implements the January 1, 2004 Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act.

The results of the HRER indicated that there are 41 properties with buildings constructed in or before 1957 within the APE that require formal evaluation in the SHPSR. The 41 properties that

were evaluated include 14 tracts, with 264 individual buildings. None of the properties are currently listed in, or have been previously determined eligible for listing in the National Register of Historic Places or the California Register of Historical Resources. Of the 41 evaluated properties, none were found to meet the National Register criteria for eligibility.

Numerous archaeological studies have been conducted within the project corridor. None of these studies identified any cultural resources within the proposed project area. Based on these investigations and the highly developed and disturbed nature of the project area, it is unlikely that construction within the APE would encounter any cultural resources.

On August 12, 1998, the SHPO concurred with the findings of the original HPSR that none of the 39 structures within the original APE were eligible for listing on the National Register of Historic Places. On April 12, 2005, the SHPO logged in the Supplemental HPSR that contained the determinations that 41 resources were not eligible for listing on the National Register. On July 12, 2005 Gary Iverson, District 7 Heritage Resource Coordinator, notified the FHWA, the OHP, and Caltrans HQ in Sacramento that because the 30 days allowed for comment has past, per stipulation X.B2.(b) of the 106 PA, Caltrans was proceeding with the project.

3-8.3 IMPACTS

No impact to historic architectural resources would occur. No impact to cultural resources or archaeological sites is likely to occur.

3-8.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

None Required. However, should buried cultural materials be encountered during construction, it is Caltrans policy that work in that area must stop until a qualified archaeologist can evaluate the nature and significance of the find (Environmental Handbook, Volume 2, Chapter 7, Section 7-8).

3-8.5 CUMULATIVE IMPACTS

Cumulative Cultural Resources Effects

The projects in the study area are primarily redevelopment projects on existing, disturbed parcels; therefore, the potential for impacts to known cultural resources is minimal. Any buildings over 50 years old are evaluated for eligibility for the California Register of Historic Landmarks and National Register on a project-specific basis. There is the potential to encounter unknown cultural resources during construction, and appropriate minimization measures have been identified for each project to address unknown cultural resources.

Project Contribution to Cumulative Cultural Resources Effects

Alternatives 4 and 5 would have no direct or indirect effects to cultural resources eligible for the National Register. Because there are no properties within the APE for this project that are eligible for listing on the National Register of Historic Places, there is no potential for a cumulative adverse affect to historic properties.

PHYSICAL ENVIRONMENT

3-9 HYDROLOGY AND FLOODPLAINS

3-9.1 REGULATORY SETTING

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 CFR 650 Subpart A.

In order to comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments
- Risks of the action
- Impacts on natural and beneficial floodplain values
- Support of incompatible floodplain development
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values impacted by the project.

The 100-year floodplain is defined as "the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year." An encroachment is defined as "an action within the limits of the 100-year floodplain."

3-9.2 AFFECTED ENVIRONMENT

Information regarding hydrology and floodplains was obtained from a Location Hydraulic Study, dated February 6, 2002.

Surface Waters

The surface waters of the proposed project lie primarily in the San Gabriel River Watershed, but a small portion at the northern end lies within the Los Angeles River Watershed. The surface waters in the project area include the following drainage channels that cross under the I-5 freeway: the Fullerton Creek, the Coyote Creek, and the North Fork of Coyote Creek (also referred to as La Canada Verde Creek).

The project study area is mature and built out, with minimal permeable land. No wild and scenic rivers are present in the study area.

Groundwater

The groundwaters of the proposed project are located within the Central Basin of the Los Angeles Coastal Plain and the Santa Ana Pressure groundwater sub-basin of the Lower Santa Ana Watershed groundwater basins.

The depth to groundwater within the project area is generally greater than 15 meters (50 feet), although the groundwater level will fluctuate depending on precipitation levels, recharge amounts and withdrawal levels. A perched water table is also present in some areas due to a clay horizon.

3-9.3 IMPACTS

The risk associated with the proposed project is low. The project does not contain a longitudinal or encroachment of a floodplain. The risks associated with implementation of the action are not significant. The project would not support probable incompatible floodplain development. There are no significant impacts on natural and beneficial floodplain values.

Increasing the size of the freeway facility would result in minimal paving of permeable land. The increase in freeway pavement would result in water draining into freeway storm drains instead of City storm drains, and is not anticipated to effect groundwater recharge in the study area.

Localized flooding or ponding could be a problem in low-lying portions of the proposed improvements during periods of heavy rainfall. Areas most likely affected would be near the Fullerton Creek, the North Fork of Coyote Creek, and Coyote Creek. Other areas that may have flood potential would be in isolated low areas where flood control inlets are present.

The proposed project would result in the extension of the I-5 freeway bridges over two channelized blue line streams: Coyote Creek and North Fork Coyote Creek. Construction activities would include removal of existing piers and the construction of new piers.

The hydraulic effects of extending the bridge piers would be minimal, resulting in a normal increase in water surface profile.

It is anticipated that the groundwater levels would be high (shallow). However, construction of this project should not have an impact on groundwater.

3-9.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

Appropriate drainage and/or pumping systems would be incorporated into the design of the project to control localized flooding or ponding on the freeway. In areas of shallow groundwater, the placing of subdrains or utilizing groundwater pumps would drain freestanding water.

Construction activities in flood control channels would only be scheduled to occur during the dry season (April 1-October 31). If construction during that time is not possible, a suitable water diversion plan must be developed and implemented to minimize impact to water quality.

Permits would be obtained prior to construction in the channels. A 1601 Streambed Alteration Agreement would be obtained from CDFG. In addition, a 404 permit from the U.S. Army Corps of Engineers and a 401 Certification/Waiver from the Regional Water Quality Control Board may be required.

For engineering purposes, groundwater can be mitigated by adoption appropriate foundation design practices for the new structures (retaining wall, tunneling, extension of the existing structure, etc). For construction purposes, any intercepted groundwater flow would require the construction of a system to collect and dispose of the water in an appropriate and approved way.

3-9.5 CUMULATIVE IMPACTS

Cumulative Hydrology and Floodplain Effects
San Gabriel River Reach 1 and Coyote Creek watersheds make up the study area for cumulative hydrology and floodplains impacts.

The cumulative study area is mostly built out; therefore, the conversion of vacant land to developed land is not considerable. Redevelopment of an area with substantial hardscape would not significantly increase existing peak storm flows. That is, most changes to the natural environment and, subsequently, changes to hydrology and floodplains have already occurred in the affected communities.

Recent regulations require certain categories of redevelopment projects to implement best management practices (BMPs) to reduce storm water runoff and treat it before its discharge to receiving waters or the storm drain system. These regulations benefit hydrology of an area by reducing peak storm flows. Therefore, future development/redevelopment within the cumulative study area is not anticipated to substantially impact hydrology and floodplains.

Project Contribution to Cumulative Hydrology and Floodplain Effects
Alternatives 1,2, and 3 would not result in greater surface area for the freeway. Local jurisdiction transportation improvements would occur within existing facilities; therefore, increases in peak storm flows are not anticipated. Drainage facilities would be upgraded on an as-needed basis to prevent localized flooding. These alternatives' contribution to cumulative hydrology and floodplains effects would not be substantial.

Alternatives 4 and 5 would increase the surface area of the freeway and would therefore increase runoff from the facility itself (with greater runoff produced under Alternative 5). However, the I-5 Corridor is located within a developed area, and the widening would not affect large amounts of undeveloped land. The conversion of developed land to freeway and reuse or landscaping of remnant parcels would result in similar or reduced peak storm flows for the area. In addition, these alternatives would be subject to Caltrans requirements for water quality treatment, which may include detention. Drainage facilities would be upgraded on an as-needed basis to prevent localized flooding. Therefore, these alternatives' contribution to cumulative hydrology and floodplains effects would not be substantial.

3-10 WATER QUALITY AND STORM WATER RUN-OFF

3-10.1 REGULATORY SETTING

Section 401 of the Clean Water Act, the primary federal law regulating water quality, requires water quality certification from the state board or regional board when a project (1) requires a federal license or permit—Section 404 is the most common federal permit for Caltrans projects—and (2) would cause discharge into waters of the United States. Section 402 of the Clean Water Act establishes the National Pollutant Discharge Elimination System permit system for the discharge of any pollutant (except dredge or fill material) into waters of the United States. To ensure compliance with Section 402, the State Water Resources Control Board has developed and issued a National Pollutant Discharge Elimination System, Statewide Storm Water Permit, to regulate storm water discharges from all of Caltran's right of way, properties and facilities. The permit regulates both storm and non-storm water discharges during and after construction.

In addition, the State Water Resources Control Board issues the Statewide Permit for all of Caltrans' construction activities, of 0.4 hectare (1 acre) or greater. Or a number of smaller projects that are part of a common plan of development exceeding with the total area exceeding 0.4 hectares (1 acres), or projects that have the potential to significantly impair water quality. Caltrans projects subject to the Statewide Storm Water Permit require a Storm Water Pollution Prevention Plan, while other projects, smaller than 0.4 hectares, require a Water Pollution Control Program.

The California Environmental Protection Agency has delegated administration of the federal National Pollutant Discharge Elimination System program to the State Water Resources Control Board and nine regional boards. This project is located within the jurisdiction of the State Water Resources Control Board and the Los Angeles Regional Water Quality Control Board.

Subject to Caltrans review and approval, the contractor prepares both the Storm Water Pollution Prevention Plan and the Water Pollution Control Program. The Water Pollution Control Program and Storm Water Pollution Prevention Plan identify construction activities that may cause pollutants in storm water and measures to control these pollutants. Because neither the Water Pollution Control Program nor the Storm Water Pollution Prevention Plan is prepared at this time, the following discussion focuses on anticipated pollution sources or activities that may cause pollutants in the storm water discharges.

Additional laws regulating water quality include the Porter-Cologne Water Quality Act, Safe Drinking Water Act, and Pollution Prevention Act. State water quality laws are codified in the California Water Code, Health and Safety Code and Fish and Game Code Section 5650-5656.

3-10.2 AFFECTED ENVIRONMENT

Information regarding water quality and storm water run-off was obtained from the I-5 Interim HOV Improvement Project Water Quality Report, dated June 1998 and a Natural Environment Study Memo, dated December 3, 2002.

Surface Waters
The surface waters of the proposed project lie primarily in the San Gabriel River Watershed, but a small portion at the northern end lies within the Los Angeles River Watershed. The surface waters in the project area include the following drainage channels that cross under the I-5 freeway: the Fullerton Creek, the Coyote Creek, and the North Fork of Coyote Creek (also referred to as La Canada Verde Creek).

3-10.3 IMPACTS

The project has the potential to affect water resources both from storm water runoff associated with construction activities, and from runoff associated with the operation of the highway system.

Construction
Construction of the proposed alternatives could affect water quality: 1) from construction activity within the various flood control channels (through erosion of exposed soil within the drainage channels), 2) through storm water discharges from the construction area along I-5, and 3) by reducing the groundwater recharge during construction.

Since construction of the project would be undertaken in accordance with the applicable National Pollutant Elimination System (NPDES) permits, adverse impacts to water quality are not anticipated.

Operation
During highway operation, roadway surfaces can contribute to pollution of water resources through the collection and subsequent wash off of dirt, pollutants, and trash. The RWQCB is responsible for controlling the discharge of pollution in storm water runoff. A Storm Water Pollution Prevention Plan (SWPPP) would be prepared in addition to a monitoring and reporting program. The proposed alternatives are anticipated to result in adverse impacts to storm water runoff due to freeway or highway operations.

3-10.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

For areas outside of the flood control channels, construction of the 10 and 12 lane alternatives would require construction of an area greater than 5 acres and would therefore be subject to the NPDES permitting process. To address storm water discharges from construction, the permits contain standard provisions that are intended to provide a required level of storm water pollution prevention.

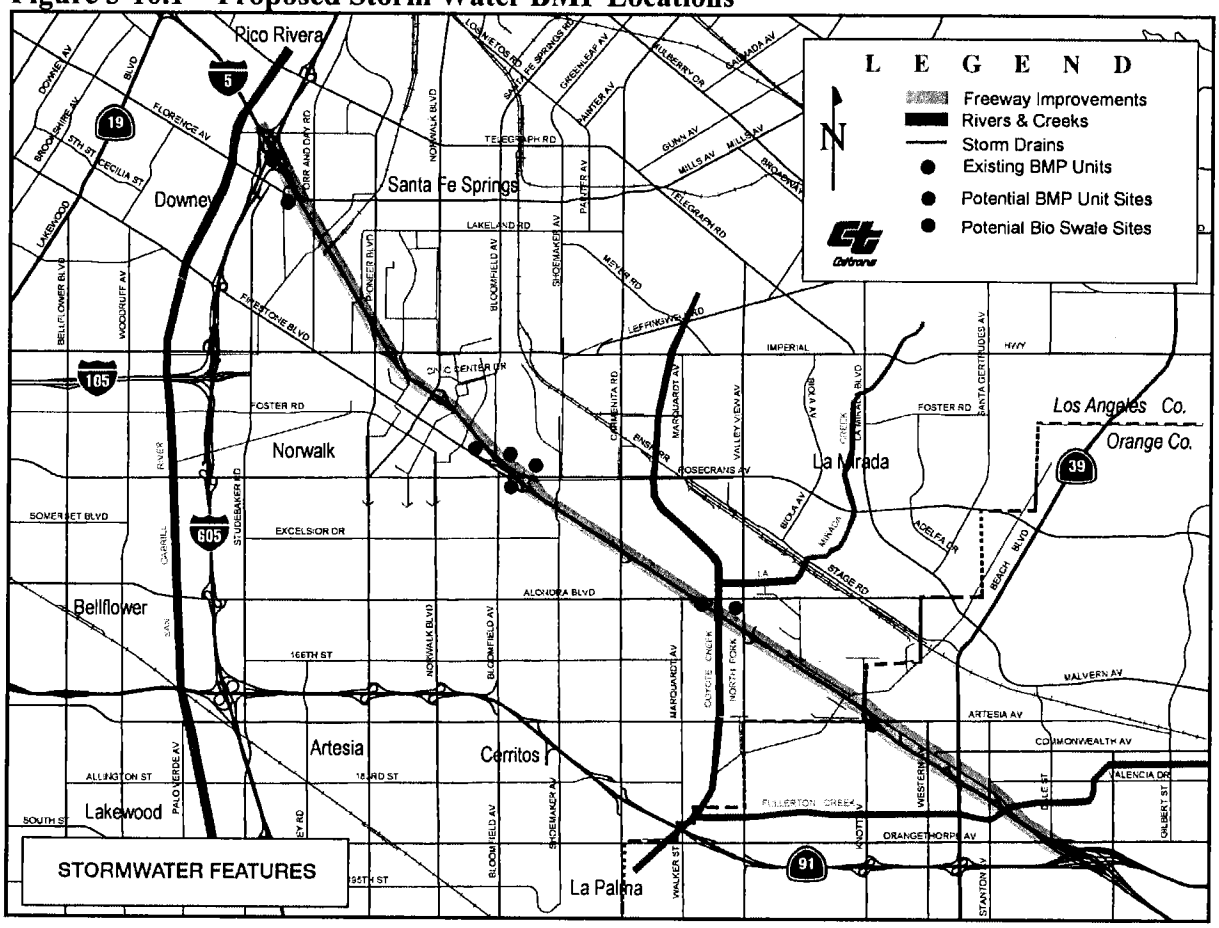
A construction SWPPP would be prepared prior to the start of construction to ensure compliance with existing NPDES permits. The SWPPP would be kept on site during construction and made available upon request to the RWQCB, responsible local agencies, and the public.

The SWPPP would identify potential sources of pollutants, describe erosion and sediment controls, contain non-storm water provisions, describe post-construction storm water management, describe waste management activities, include a maintenance and inspection component, include a list of contractors, incorporate other storm water related plans if applicable, and would list the name of the preparer. Caltrans would conduct additional inspections or analysis if required by the RWQCB, inspect construction sites prior to anticipated storm events and after actual events in order to identify areas contributing to storm water discharge pollutants

in order to evaluate the adequacy of the control measures identified in the SWPPP, certify annually that construction is in compliance with the applicable NPDES permit and SWPPP, and retain the monitoring records for at least three years following completion of construction.

Several locations have been identified for construction of Best Management Practices (BMPs) designed to remove pollutants from storm water run-off from the freeway. One such device, an Extended Retention Basin, has already been installed within the Interstate 5/Interstate 605 interchange. Type selection and final location of the proposed devices would be determined during final design. Figure 3-10 shows the proposed locations of these devices.

Figure 3-10.1 – Proposed Storm Water BMP Locations



3-10.5 CUMULATIVE IMPACTS

Cumulative Water Quality and Storm Water Runoff Effects

San Gabriel River Reach 1 and Coyote Creek watersheds make up the study area for cumulative water quality and storm water runoff impacts.

The conversion of vacant land to developed land is not considerable because the cumulative study area is mostly built out. Redevelopment of an area with substantial hardscape would not

markedly increase existing peak storm flows. However, changes in land use may contribute additional sources of pollutants.

Recent regulations require certain categories of redevelopment projects to implement BMPs to reduce storm water runoff and treat it before its discharge to receiving waters or the storm drain system. These regulations are designed not only to prevent adverse water quality impacts as a result of new development/redevelopment, but to improve existing water quality in each affected watershed. Minimization measures are required to address pollutants associated with a particular land use and to prevent further degradation of waters within the watershed. With these measures in place, future development/redevelopment within the cumulative study area is not anticipated to substantially impact water quality.

Project Contribution to Cumulative Water Quality and Storm Water Runoff Effects
Alternatives 1, 2, and 3 would not result in greater surface area for the freeway. Local jurisdiction transportation improvements would occur within existing facilities; therefore, changes in types of pollutants or concentrations of pollutants are not anticipated. Construction BMPs and operational site design, source control, and treatment BMPs would be required for parking lots associated with the improvements. With minimization measures to address pollutants of concern, these alternatives' contribution to cumulative water quality effects would not be substantial.

Alternatives 4 and 5 would increase the surface area of the freeway and would therefore increase runoff from the facility itself (with greater runoff produced under Alternative 5), which would act to concentrate the amount of pollutants in this runoff. The conversion of developed land to freeway may result in additional sources of pollutants. These alternatives would be subject to Caltrans requirements for construction BMPs and operational design pollution prevention, treatment, and maintenance BMPs to address pollutants of concern. With minimization measures, these alternatives' contribution to cumulative water quality effects would not be substantial.

3-11 GEOLOGY/SOILS/SEISMIC/PALEONTOLOGY/TOPOGRAPHY

3-11.1 REGULATORY SETTING

40 CFR 1508.14 requires that, when economic or social and natural or physical environmental effects are interrelated, the environmental document to discuss all of these effects on the human environment.

3-11.2 AFFECTED ENVIRONMENT

Information regarding geology/soils/seismic/paleontology/topography was obtained from a Preliminary Geotechnical Investigation Report, dated September 2002.

Geology

Regionally, the project site is located in the Los Angeles Basin (Downey Plain) within the Peninsular Ranges, California Geomorphic Province. Structurally, the Los Angeles Basin is relatively simple and is characterized by relatively flat-lying, late Quaternary strata.

Locally, the existing freeway is situated entirely over younger Quaternary alluvial deposits consisting of alternating beds of clay, silt and very fine to very coarse-grained sand and gravel. Existing density of sand layers range from very loose to dense.

There is a low likelihood of discovery of subsurface Paleontological resources.

Seismicity

The project is located in a seismically active area. The geologic processes that have caused earthquakes in the past can be expected to continue. Seismic events, which are likely to produce the greatest bedrock accelerations, could be a moderate event on the Whittier-Elsinore Fault Zone (WEFZ) and/or a large event on a distant active fault.

A fault is considered by the State of California to be active if geologic evidence indicates that movement on the fault has occurred in the last 11,000 years, and potentially active if movement has occurred in the last 2 million years.

There is no geological information that indicates an active fault in the project area. The nearest known active fault (under Alquist-Priolo Earthquake Fault Zoning Act) is the WEFZ, and is located 7.0 km (4.3 miles) to the north of the project.

Ground Shaking

Ground shaking is the primary cause of structural damage during an earthquake; it is considered to be the most likely damage-producing earthquake phenomena for this project. The magnitude, duration and vibration frequency characteristics would vary greatly, depending upon the particular causative fault and its distance from the project.

Deterministic site parameters obtained using the EQFAULT-Version 3.00b (T.Blake, 1999-2000) computer program for the deterministic prediction of peak acceleration from digitized California Fault system indicates that the WEFZ is the closest to the site, having an estimated peak site acceleration of 0.35g for an Maximum Credible Earthquakes (MCE)-Magnitude of 6.8 on the Richter Scale (where g equals the acceleration due to gravity).

Using the 1996 Los Angeles Area Seismic Hazard Map prepared by Caltrans, and the attenuation curve prepared by Maulchin, the Peak Acceleration based on MCE-Magnitude of 7.5 along the WEFZ system would be in the order of 0.5g.

The Norwalk Fault has long been shown on geological maps as an inferred arcuate northwest to east-trending coincident with a prominent linear southern front of the Coyote Hills, crossing I-5 approximately between Imperial Highway and Bloomfield Avenue. This fault is considered a reverse fault with a maximum dip to the north at approximately 80 degrees, and is approximately 28 km in length.

For conservatism, the Norwalk fault may be considered to be potentially active in a seismic analysis but it should not control the seismic design because it would be overshadowed by a larger nearby active fault (WEFZ).

Ground Rupture
An analysis of fault rupture hazard for a particular fault requires that the fault be located exactly, and its approximate potential for rupture to be known. The existing freeway is not located within the confines of an Alquist-Priolo Earthquake Fault Zone. Based on the review of several geologic/seismologic reports, the potential for ground rupture is small and is not considered to be a hazard for this project.

Liquefaction
Liquefaction could exist when fine silts and sands are located below the water table. The water can also be perched groundwater. Liquefaction has been documented to affect soils to ± 15m (50 feet) deep, during prolonged periods of ground shaking.

Based on the limited data available, the potential for this liquifaction is present in the area due to the known shallow groundwater level in the region and the grain-size distribution observed from the boring logs for the existing structures. A regional study conducted by the U.S. Geological Survey (1985) using ground water levels measured from 1960 to 1975, concluded that the relative liquefaction susceptibility along the project is also considered to be high.

Widening of the existing freeway and/or construction of new structures would require additional subsurface exploration that would permit assessment of this seismic phenomenon in detail and describe the appropriate engineering measures to reduce the likelihood of damage due to liquefaction.

Slope Stability
Relocation and/or new construction of some of the slope abutments form the existing structures would be necessary. The Department's Standard Specification Manual Section 19-5.03 provides the side slope compaction required for bridge abutments. Depending on the selected alternative, the Project Materials Report should provide specific slope recommendations.

Landslides
A proper slope design would decrease the landslide potential of new fills during and/or after construction.

3-11.3 IMPACTS

The 10 and 12 lane alternatives would both require minor changes to the topography immediately adjacent to the freeway as fill slopes and retaining walls are modified and overcrossings are constructed. No unique geologic or physical features are present in the project area.

In Southern California, seismic events of damaging magnitude could happen at any time and cause structural damage to this portion of the I-5 freeway by ground shaking and liquefaction. During a moderate to major seismic event near the proposed improvements, seismic settlement from shaking could develop within loose natural soils or in poorly compacted fills. This could result in tension cracks with intermittent elevation differentials on present road surfaces. Elevation differentials at rigid structure joints, such as at a bridge abutment with a fill or soil, could also develop. Relative compaction of native material located outside the existing freeway perimeter, based on existing investigations, is expected to be less than 90 percent in upper natural soils. Compaction to 90 percent would be required for adequate structural support and to prevent settlement from seismic and/or differential compaction.

3-11.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

To mitigate against liquefaction, new piles required for structural support would be placed to a depth below the zones of potential liquefaction to protect structures from liquefaction.

Insufficiently compacted native material in the immediate area of construction would be removed and re-compacted to 90 percent in cut areas and replaced with an imported sub-base in structural sections. In fill areas above natural ground, the natural material would be removed until dense material is reached and replaced as a compacted fill.

It is recommended that fill slopes be treated immediately after construction with planting, hydroseeding or paving to reduce erosion.

3-11.5 CUMULATIVE IMPACTS

Cumulative Geology/Soils/Seismic/Paleontology/Topography Effects

The cumulative study area for geology/soils/seismic/paleontology/topography impacts is the maximum footprint of all the project alternatives.

Ground shaking, landslides, liquefaction and other soils, seismic, and topographical constraints pose a potential hazard for all development/redevelopment projects in Southern California. However, these effects are evaluated on a site-specific basis and potential impacts are minimized via site-specific design features. Likewise, the presence of paleontological resources is site-specific and the potential to encounter these resources depends on soil types and depth of excavation. Measures such as adherence to geotechnical consultant recommendations regarding soil preparation, earthquake structure design, and grading methods, as well as monitoring for paleontological resources minimize potential effects for each project and therefore do not result in substantial cumulative effects.

Project Contribution to Cumulative Geology/Soils/Seismic/Paleontology/Topography Effects

Alternatives 1,2, and 3 involve some degree of ground disturbance but geology/soils/seismic/ paleontology/topography effects would be minimal. For these reasons, the effects from construction of these alternatives would not substantially contribute to effects resulting from any adjacent development/redevelopment projects.

As discussed above, Alternatives 4 and 5 have the greatest potential to result in geology/soils/ seismic/paleontology/topography effects because of the degree of excavation and structural design involved. However, since there are no cumulative projects located in the immediate vicinity of Alternatives 4 and 5, these effects would not cumulatively contribute to other projects' effects.

3-12 HAZARDOUS WASTE/MATERIALS

3-12.1 REGULATORY SETTING

Regulatory criteria to classify a waste as "California hazardous" for handling and disposal purposes are contained in the CCR Title 22, Division 4.5, Chapter 11, Article 3, §66261.24. Criteria to classify a waste as "Resource, Conservation, and Recovery Act (RCRA) hazardous" are contained in Chapter 40 of the *Code of Federal Regulations* (40 CFR, §261).

For a waste containing metals, the waste is classified as "California hazardous" when: (1) the total metal content exceeds the Total Threshold Limit Concentration (TTLC); or (2) the soluble metal content exceeds the Soluble Threshold Limit Concentration (STLC) based on a Waste Extraction Test (WET) analysis. A material is classified as "RCRA hazardous" when the soluble metal content exceeds the Federal Regulatory Level based on Toxicity Characteristic Leaching Procedure (TCLP) testing.

The above regulatory criteria are based on toxicity. Wastes may also be classified as hazardous based on other criteria including ignitability, toxicity, corrosivity, and reactivity. However, for the purposes of Aerially Deposited Lead (ADL) investigations, toxicity and corrosivity (i.e., chemical concentrations and soil pH values, respectively) are the primary factors considered for waste classification. Waste that is classified as either "California hazardous" or "RCRA hazardous" requires management as a hazardous waste and disposal at an approved disposal facility.

According to §25157.8 of the HSC, after January 1, 1999, no person shall dispose of waste that contains total lead in excess of 350 mg/kg to land other than a Class I hazardous waste disposal facility (or other designated facility meeting all the criteria in HSC 25157.8(b)(3)) is prohibited.

The DTSC issued a variance to selected Caltrans Districts on September 22, 2000, to provide guidance for the disposition of soil containing ADL within Caltrans projects. The California State Assembly passed AB 414 dated October 14, 2001 which allows Caltrans to reuse lead impacted soil within their rights-of-way provided that total lead concentrations do not exceed 1,496 mg/kg. The DTSC Variance will expire on June 30, 2007, and Caltrans is in the process of negotiating terms and conditions for a new variance. If the variance expires and is not renewed by the DTSC, hazardous materials previously considered for re-use may no longer be re-used for the project, but should be disposed of at a Class I facility or a Class II facility with special permits depending on the level of contamination.

3-12.2 AFFECTED ENVIRONMENT

Information regarding hazardous materials/waste was obtained from an Initial Site Assessment (ISA), BAS April 13, 2004; Aerially Deposited Lead Investigation Report, Geocon September 19, 2002; Initial Site Assessment, PBQ & D, June 1998; Initial Site Assessment Geocon October 1886.

Aerially Deposited Lead
Soil samples collected from the site were analyzed for total lead, soil pH, soluble lead using the Waste Extraction Test (WET) method using citric acid as an extractant, and soluble lead using a modified WET method using deionized water (WET-DI) as the extractant.

Based upon the 90% arcsine transformed Upper Confidence Level (UCL) and average Waste Extraction Test-Deionized Water Extraction Solution (WET-DI) results, the upper 0.9m of soil is likely suitable for re-use in Caltrans rights-of-way.

Based upon the 95% arcsine transformed UCLs and predicted WET-Citric results, if any portion of the upper 0.9 m of excavated soil is to be disposed, it should be handled as a hazardous material with respect to total and soluble lead content. Other Title 22 metals do not appear to be of concern; however, additional sampling and statistical analysis would be necessary to fully characterize this soil. Caltrans should notify the contractors performing the construction activities that hazardous concentrations of lead may be present in on-site soil and that appropriate health and safety measures should be taken to minimize the exposure to lead.

Asbestos and Lead Paint
Studies show that lead paint waste is affecting soils beneath or adjacent to the following structures: Shoemaker, Carmenita, Route 5/605, Imperial Highway, Route 2/5, Orr and Day Overhead, North Fork Coyote Creek Wash, Rosecrans, Valley View, Florence, San Antonio, Alondra, Silver Bow Pedestrian Overcrossing, Pioneer and Firestone Bridges. Coyote Creek Wash sampling indicated that there are non-hazardous levels of lead in on-site soil.

The majority of residential buildings within the Area of Potential Effect (APE) were constructed prior to 1980. Therefore, there is a high likelihood that these structures incorporate asbestos containing materials (ACM) and/or lead-based paint (LBP). Assessment of ACM and LBP conditions was not in the scope of the ISA. However, it is recommended that the potential presence of these materials be assessed prior to demolition of any structures (including commercial and industrial structures).

Commercial and Industrial Contaminant Sources
Direct inspections of the commercial and industrial properties, located within APE, on May 15 and 22, June 9 and 10, December 16 and 19, 2003, and on February 19, 20 and 23 and March 1, 5, 8, 9, 10, 11 and 12, 2004. In accordance with Notice of Entry letters, all properties, to which access was obtained, were visually inspected for evidence of possible past and/or current environmental concerns. Individual site inspection observations are summarized in tables included in the ISAs. Photos, included on a compact disk (CD) in Appendix E of the ISA, show the general characteristics of each inspected site.

At the times of inspections[1], the majority of inspected sites did not present any recognizable environmental concerns, with the following exceptions:

1 Although some sites may not have been found to present a concern based on visual observations, they were determined to be of environmental concern based on regulatory agency reviews or other reasons, as described in the following sections.

Table 3-12.1 – Properties of Hazardous Material Environmental Concerns		
Site ID	**Site Name**	**Visual Observation of Concern**
Cerritos		
C-6	Royal Plywood	USTs
Downey		
D-1	Sam's Club	Potential former automotive operations, questionable soil conditions, potential former transformers
D-2	Discount Auto SVC & Repair	Small automotive operation
D-3	Massey GM & Chevy	Large automotive operation, on-site clarifier
D-4	Diesel Tune	Small automotive operation, former gas station
La Mirada		
L-7	Former Texaco	Former gas station; impacted soil excavation; multiple groundwater monitoring wells
L-8	Cook's Chevron	USTs. Multiple groundwater monitoring wells; treatment compound
L-17	Star Metal	Large metal recycling operation. Groundwater monitoring wells.
L-26	Vista Media	Poor housekeeping in light-industrial warehouse. Trash/debris around the property.
L-27	Hayes Lemmerz	Large wheel manufacturing operation. Old equipment, although decommissioned, still present on-site. Aluminum dust.
L-28	Diamond Construction	Waste oil AST. Poor housekeeping in heavy machinery yard.
L-29	Architectural Roofing & Construction	Poor housekeeping in equipment yard.
L-30	Multi-Unit Square	Poor housekeeping practices in chemical storage and machine shop units.
L-39	Komatsu/PTO	Poor housekeeping in this medium-size truck repair operation. AST
L-43	Gateway Chevrolet	UST (to be removed). Some surficial staining.
Norwalk		
N-1	Stop-n-Go Market	Former gas station; very uneven pavement
N-6	Former Shell	Former gas station, multiple groundwater monitoring wells; all structures demolished
N-10	Sultze's Auto	Small automotive operation with poor housekeeping
N-11	AC&DC Auto	Small automotive operation; on-site clarifier. Site clean-up performed.
N-18	Budget Rent-a-car	Former location of undocumented UST. Poor housekeeping in portions of the site.
Santa Fe Springs		
S-4	Santa Fe Nissan	Former automotive repairs
S-5	El Monte RV	UST
S-15	Sunston/Komatsu Forklifts	ASTs; surficial staining

Source: I-5 Initial Site Assessment (2004)

3-12.3 IMPACTS

Regional groundwater contamination may affect the project area. During construction of the proposed improvements, oil and gas wells could be encountered. If the wells were not originally abandoned properly according to California codes and regulations, they could leak oil and/or gas and become an environmental or explosion hazard.

Lead contamination from past vehicle emissions may be encountered during construction in unpaved areas of existing Caltrans or local city rights-of-way or rights-of-way that would be acquired by Caltrans.

3-12.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

If excavated soil at the site is to be reused within the Caltrans rights-of-way, any portion of the upper 0.9m of soil should be placed under pavement and at least 1.5m above the maximum groundwater elevation in accordance with the DTSC Lead Variance. If any portion of the upper 0.9m of soil excavated at the site is to be disposed, it should be handled as a hazardous material with respect to total and soluble lead content. Caltrans would notify contractors performing the construction activities that hazardous concentrations of lead may be present in on-site soil and that appropriate health and safety measures should be taken to minimize exposure to lead.

Project construction would be conducted with a contingency plan in place in the event that unidentified underground storage tanks, hazardous materials, petroleum hydrocarbons, or hazardous or solid wastes are unexpectedly encountered during construction. This contingency plan would address underground storage tank decommissioning, field screening and materials testing methods, mitigation and contaminant management requirements, and health and safety requirements for construction workers.

In addition, all structures that would be demolished as part of construction would undergo an evaluation for the presence of asbestos-containing materials and lead-based paint prior to demolition. Solid waste and litter control would be carried out as an extension of existing maintenance procedures.

The asbestos and lead paint survey on the structures revealed the following:

Barrier railing shims and thread sealant on bridges 53-1658 (Florence Ave. on-ramp OC) and 53-1657 (NB 605 to NB 5 connector OC) should be treated as Category II, non-friable asbestos-containing material. It is recommended that a licensed and certified asbestos abatement contractor removes and disposes of the barrier rail shims and thread sealant prior to any activities that would disturb the material.

Structures 53-631 (Valley View Ave. OC), 53-630 (Alondra Blvd. OC), 53-214 (Carmenita Road OC), and 53-1015 (Shoemaker Ave. OC) had peeling/flaking paint that should be removed and disposed of as hazardous waste prior to planned retrofit or demolition activities.

Based on a review of background data, regulatory agency records, historical records, observations made during the site reconnaissance, the following conclusions and recommendations are presented regarding the project site.

The majority of commercial and residential properties encompassed by the I-5 APE do not present a potential environmental threat to the proposed widening. No further inquiry or investigation of these properties is recommended, as discussed on an individual site basis in the ISA. However, the following 38 sites present a concern and require one or some combination of the following:

- Further site investigation (SI, 23 sites). Preliminary scope for the SI is suggested wherever appropriate;

- Implementation of environmental monitoring during construction (10 sites);
- Negotiation of clean-up agreements (3 sites);
- and/or further inquiry (5 sites), as discussed below:

Table 3-12.2 – Recommendations for Further Study

Site ID	Site Name	Conclusion	Recommendation(s)
		Cerritos	
C-3	Roane Floor/Tile Supply	Probability of encountering contamination is unknown.	Perform a limited further SI to confirm the existence or non-existence of the former UST and any associated contamination within the APE.
C-6	Royal Plywood	Moderate amounts of residual contamination exist at the site, and may be encountered during construction.	SI may be necessary to adequately define the limits of contamination. It is also recommended, that if an SI is not performed, environmental monitoring be implemented during construction.
		Downey	
D-1 & 2	Sam's Club and Discount Auto SVC & Repair	Sites involved in variety of automotive operations	Perform a limited-scope SI, e.g. soil gas survey, in areas adjacent to on-ramps to the I-5 and Rt. 605 freeways
D-3	Massey GW & Chevy	Some contamination and/or USTs closed-in-place may still be present at the site	Perform further SI. Scope of SI would depend on the exact limits of the proposed property acquisition.
D-4	Diesel Tune	Former gas station involved in truck repair	Perform further SI to adequately define the extent of potential contamination within the APE.
		La Mirada	
L-3	Samsung	Former location of a gas station	Perform further inquiry and/or investigation into gas station operations. Land survey may be necessary.
L-4	Elephant Bar	Former location of a gas station and/or repair garage	Perform further inquiry and/or investigation into gas station/garage operations. Land survey may be necessary.
L-7 & 8	Former Texaco and Cook's Chevron	Potential environmental problem due to high probability of encountering shallow groundwater contamination during construction. Potential environmental liability, if full takes.	Evaluate the depth of excavation once the design is finalized. Implement environmental monitoring during construction. Negotiate clean-up agreements, if sites become full takes.
L-17	Star Metal	Encountering contamination during construction is unlikely. However, the site is potentially a full take.	If the site is determined to be a full take, conduct SI to screen for shallow heavy metals, solvent and TPH concentrations.
L-23	Schulsinger	Former dry cleaning operation	Conduct a limited SI, e.g., a soil gas survey, to screen for VOCs.
L-26	Vista Media	Encountering contamination during construction is unlikely. However, the site is potentially a full take.	If the site is determined to be a full take, conduct SI to determine the extent of contamination. Implement environmental monitoring during construction.
L-27	Heyes Lemmerz	Probability of encountering contamination is unknown. The site is potentially a full take.	Conduct SI to screen for shallow heavy metals, solvent and TPH concentrations within the potential work and/or right-of-way areas.

Table 3-12.2 – Recommendations for Further Study			
Site ID	**Site Name**	**Conclusion**	**Recommendation(s)**
L-28	Diamond Construction	Encountering contamination during construction is unlikely. However, the site is potentially a full take.	If the site is determined to be a full take, conduct SI to determine the extent of contamination. Implement environmental monitoring during construction.
L-29	Architectural Roofing and Construction	Potential full take. Poor housekeeping practices of environmental concern.	Conduct further inquiry with site owner/operators and more direct inspection to assess the overall potential for contamination.
L-30	Multi-unit Square	Potential full take. Poor housekeeping practices of environmental concern.	Perform a limited-scope SI, e.g. soil gas survey, to screen for overall site contamination.
L-32, 33 & 34	Auto Repair Complex, Machine Shop Complex & Silk Shop	Potential full take. Soil and groundwater contamination at L-33.	Perform a limited-scope SI, e.g. soil gas survey, to screen for overall contamination at L-32 and L-33. Negotiate clean-up agreement and/or conduct a comprehensive investigation, if site L-33 becomes a full take.
L-39	Komatsu/PTO	Poor housekeeping practices of environmental concern. The site is potentially a full take.	If the site is determined to be a full take, conduct an invasive SI to identify and delineate potential site contamination.
L-41 & 42	Mack Sales & Camping World	Encountering contamination during construction is unlikely. However, the site is potentially a full take.	Perform a limited-scope SI, e.g. soil gas survey, to screen for overall site contamination (full take) or only ROW portions (partial take)
L-43	Gateway Chevrolet	Site of variety of commercial and, previously, industrial operations	Implement environmental monitoring during construction.
Norwalk			
N-1	Stop-n-Go Market	Likelihood of encountering contamination is unknown	Conduct further inquiry with site owner/operator; an SI may be appropriate
N-6	Former Shell	Potential for encountering isolated spots of shallow soil contamination	Implement environmental monitoring during construction.
N-10 & 11	Sultze's Auto and AC&DC Auto	Automotive operations. Potential full takes.	Perform a limited-scope SI, e.g. soil gas survey, to screen for overall site contamination.
N-18	Budget Rent-a-Car	Automotive operations. Potential full take.	Perform a limited-scope SI, e.g. soil gas survey, to screen for overall site contamination.
N-19	Tune-up Masters	Minor amounts of residual contamination may be encountered during construction. Former gas station.	Conduct a limited invasive SI to screen the site for the presence of former USTs and associated potential contamination. Implement environmental monitoring during construction.
N-20	El Pollo Loco	Likelihood of encountering contamination is unknown.	Conduct further inquiry with site owner/operator; an SI may be appropriate.
Santa Fe Springs			
S-4	Santa Fe Nissan	Residual soil contamination may be encountered.	Perform further SI. Conduct further inquiry into pipeline leak.
S-5	El Monte RV	Minor residual contamination may be encountered during construction	Implement environmental monitoring during construction
S-7	Bus West	Previous cement operations	Perform further SI to evaluate for shallow soil pH, heavy metals and TPH concentrations within APE
S-9	Carmenita Transfer Plant	Minor residual contamination	Implement environmental monitoring during construction.

Table 3-12.2 – Recommendations for Further Study			
Site ID	**Site Name**	**Conclusion**	**Recommendation(s)**
S-13	Sam Pievac/ COI	Potential for encountering contamination during construction	Perform further SI.
S-15	Sunston/Komatsu Forklifts	Potential for encountering contamination during construction	Perform further SI.
S-18	Freeway Commerce Center	Potential full take; various commercial and light industrial operations	Perform a limited-scope SI, e.g. soil gas survey, to screen for overall site contamination.

Source: I-5 Initial Site Assessment (2004)

3-12.5 CUMULATIVE IMPACTS

Cumulative Hazardous Waste/Materials Effects
The study area for cumulative hazardous waste/materials impacts encompasses the geographic boundaries of the Cities of Buena Park, Cerritos, Downey, La Mirada, Norwalk, and Santa Fe Springs.

Each project that involves demolition or renovation of structures, excavation of soil, or removal of groundwater has the potential to encounter hazardous waste/materials. Regulations are in place to address handling, transport, and disposal of these substances. Hazardous building materials (e.g., asbestos and lead-based paint) are phased out and are not used for new development/redevelopment projects (with specific exceptions).

Technological improvements have reduced tank spills, and increased education and enforcement has reduced improper disposal of hazardous waste/materials within Los Angeles and Orange Counties. For these reasons, it is anticipated that future projects within the study area would involve less exposure to hazardous waste/materials than is currently experienced.

Project Contribution to Cumulative Hazardous Waste/Materials Effects
All of the project alternatives involve improvements to the existing project area; therefore, they all have the potential to contact hazardous waste/materials. The greater the amount of demolition/renovation and excavation, the greater the potential to contact these substances. Alternative 1 has the lowest potential for hazardous waste/materials effects and Alternative 5 has the greatest potential. Minimization measures are required to address hazardous building materials, contaminated soils, contaminated groundwater, and unknown substances. All of the alternatives would involve cleanup of hazardous waste as part of the acquisition process or as it is encountered, resulting in a beneficial impact to the local community. With mitigation to address use, transport, and disposal of hazardous waste/materials, the project alternatives' contribution to cumulative hazardous waste/materials effects would not be substantial.

3-13 AIR QUALITY

3-13.1 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 (NO_2), ozone (O_3), particulate matter (PM), lead (Pb), and sulfur dioxide (SO_2).

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 (SIP) 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 (NO_2), ozone (O_3), 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 25. Based on the projects included in the RTP, an air quality model is run 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 metropolitan planning organization, such as the Southern California Associations of Governments (SCAG) for the Southern California region which includes Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial counties and the appropriate federal agencies, such as the Federal Highway Administration and the Federal Transit 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 "non-attainment" or "maintenance" for any of the criteria pollutants. A region is a "non-attainment" area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as non-attainment 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 and CEQA 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 "non-attainment" areas the project must not cause any increase in the number and severity of violations. If a project creates a known CO,

particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

Project Inclusion in Approved RTP & RTIP

The proposed project is included in SCAG's currently conforming 2004 RTP, which was approved by FHWA/FTA on April 2004 and amended through March 1 1007. The project is also included in SCAG's currently conforming, financially constrained 2006 RTIP which was approved on October 2, 2006. The following project information is excerpted from the 2006 RTP and RTIP, project listing:

- Lead Agency – Caltrans
- Project ID # - LA0D73
- Air Basin – SCAB
- Model # - 1404
- Program Code – CAN69
- Route – 5
- Begin Post Mile – 0.1
- End Post Mile – 6.8
- **Description from the 2006 RTIP, Section II: Regional Emissions Analysis Modeling list for State Highways on page 2 of 22** – La Mirada, Norwalk & Santa Fe Springs – Orange Co Line to Rte. 605 junction. Widen for HOV & Mixed flow lanes, Reconstruct Valley View.
  - **Proposed Changes:** Widen for HOV & mixed flow lanes – 1 lane in each direction.
- **Description from the 2004 RTP, Appendix I: Tier 2 Los Angeles County Project list for State Highways on page I-99** – La Mirada, Norwalk & Santa Fe Springs – Orange Co Line to Rte. 605 junction. Widen for HOV & Mixed flow lanes, Reconstruct Valley View & Carmenita Rd. I/C. Model # 1404.

On October 25, 2005, SCAG provided a clarification to the RTP and RTIP project description.

- TIP project ID LA0D73 is modeled in 2006 RTIP 2015 Build network as a 10 lane project (4MF + 1 HOV). The project is modeled for 2 additional lanes in each direction (1 HOV and 1MF), thereby going from a 6-lane facility to a 10-lane facility.

Timely Implementation of Transportation Control Measure (TCM)

The proposed project is listed as a TCM in the 2006 RTIP, Technical Appendix, Section III, Timely Implementation of TCMs, p. III-22. The TCM list description for proposed project is consistent with that of Section II. The project completion date is scheduled for 2014 in the 2004 RTP and RTIP.

1-8.1 AFFECTED ENVIRONMENT

General Meteorology

The project site is located in Los Angeles and Orange Counties, which are within the South Coast Air Basin (Basin) that includes Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Air quality regulation in the Basin is administered by South Coast Air Quality Management District (SCAQMD), a regional agency created for the Basin.

The Basin climate is determined by its terrain and geographical location. The Basin is a coastal plain with connecting broad valleys and low hills. The Pacific Ocean forms the southwestern

boundary, and high mountains surround the rest of the Basin. The region lies in the semi-permanent high pressure zone of the eastern Pacific. The resulting climate is mild and tempered by cool ocean breezes. This climatological pattern is rarely interrupted. However, periods of extremely hot weather, winter storms, and Santa Ana wind conditions do occur.

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit. With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station closest to the site that monitors temperature is the Montebello Station. The annual average maximum temperature recorded from January 1979 to December 2005 at this station is 26.2°C (79.1°F), and the annual average minimum is 13.2°C (55.7°F). December and January are typically the coldest months in this area of the Basin.

The majority of annual rainfall in the basin occurs between November and April. Summer rainfall is minimal and generally limited to scattered thunderstorms in coastal regions and slightly heavier showers in the eastern portion of the Basin along the coastal side of the mountains. The Montebello Station also monitors rainfall levels. Average monthly rainfall measured at this station varied from 10.6 centimeters (cm) (4.07 inches [inches]) in February to 0.8 cm (0.32 in) or less between May and October, with an average annual total of 40.39 cm (15.90 in). Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

The Basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in mid-afternoon to late afternoon on hot summer days, when the smog appears to clear up suddenly. Winter inversions frequently break by mid-morning. Inversion layers are significant in determining ozone (O_3) formation. O_3 and its precursors will mix and react to produce higher concentrations under an inversion. PM_{10} is both directly emitted and created indirectly in the atmosphere as a result of chemical reactions. Concentration levels are directly related to inversion layers due to the limitation of mixing space.

Winds in the vicinity of the project area blow predominantly from the east-southeast, with relatively low velocities. Wind speeds in the project area average about 6.4 kilometers per hour (kph) (four miles per hour [mph]). Summer wind speeds average slightly higher than winter wind speeds. Low average wind speeds together with a persistent temperature inversion limit the vertical dispersion of air pollutants throughout the Basin. Strong, dry, northerly or northeasterly winds, know as Santa Ana conditions tend to last for several days at a time.

The combination of stagnant wind conditions and temperature inversions produces the greatest pollutant concentration. On days of no inversion of high wind speeds, ambient air pollutant concentrations are the lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominately on shore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are CO and oxides of nitrogen because of inversions and air stagnation during the night and early morning hours. In

the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and oxides of nitrogen to form photochemical smog or ozone.

Attainment Status

The Basin is designated as in maintenance for NO_2 and non-attainment for the following criteria pollutants: CO, Ozone (1-hour and 8-hour), $PM_{2.5}$, and PM_{10}. A SIP is required for each criteria pollutant designated in maintenance or non-attainment. The Basin currently has four applicable SIPs: The 1997 NO_2 SIP, 1997 Ozone SIP/AQMP (amended in 1999), the 1997 CO SIP, and the 2002 PM_{10} SIP.

The 2003 AQMPs/SIPs were approved by SCAQMD and have received an EPA adequacy finding on the emissions budgets for conformity determination. The U.S. EPA issued final non-attainment area designations on April 15, 2004 for 8-hour ozone. Designations and Phase I of the implementation regulations were published in the Federal Register on April 30, 2004, effective June 15, 2004. An 8-hour conformity determination for SCAG's 2004 RTP and RTIP was made by FHWA and FTA on June 15, 2005. On November 9, 2005 the Environmental Protection Agency (EPA) issued a final rule that would take the next steps to protect the public from ground-level ozone pollution. This rule, called the Phase II Ozone Rule, describes the actions states must take to reduce ground level ozone.

On June 15, 2005 the 1-hour ozone standard was rescinded along with all non-attainment and attainment-maintenance designations, however, the 1-hour ozone NAAQS designation and classification status was retained in reference to the effective data of designation for the 8-hour NAAQS for purposes of the anti-backsliding regulations (40 CFR 51.905). Designation of $PM_{2.5}$ non-attainment areas were published in the Federal Register on January 5, 2005 and is effective as of April 5, 2005. SCAG is working on the $PM_{2.5}$ conformity determination for the 2004 RTP and RTIP and seeks Federal approval prior to April 5, 2006.

The goal of a SIP is to secure an attainment designation for the criteria pollutant at a future year. As such, a SIP is created if a pollutant is in non-attainment. Of the six criteria pollutants, two are in attainment: lead and sulfur dioxide. The remaining pollutants have its respective SIP to address attainment for future years. The following table lists the designations per federal and state (NAAQS) standards:

Table 3-13.1 – Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	Federal	State
O_3 1-hour	Revoked June 2005	Non-attainment
O_3 8-hour	Severe-17 Non-attainment	Not designated
PM_{10}	Serious Non-attainment	Non-attainment
$PM_{2.5}$	Non-attainment	Not designated
CO	Serious Non-attainment	Non-attainment
NO_2	Attainment/Maintenance	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB (www.arb.ca.gov/desig/desig.htm).

Criteria Pollutants

Pursuant to the Federal Clean Air Act of 1970 (P.L. 91-064, Dec. 31, 1970) and the Clean Air Act Amendments of 1990 (P.L. 101-549, Nov. 15, 1990), the U.S. Environmental Protection Agency (US EPA) established the NAAQS. The NAAQS was established for six major pollutants or criteria pollutants. The NAAQS are two tiered: primary, to protect public health, and secondary, to prevent degradation to the environment (i.e. impairment of visibility, damage to vegetation and property). Likewise, in California, the state has implemented air quality standards or criteria for the six pollutants known as the California Ambient Air Quality Standards (CAAQS). The table below delineates the NAAQS and CAAQS for the criteria pollutants.

Table 3-13.2 – Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	NoFederal standard	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m^3)		0.08 ppm (157 µg/m^3)[8]		
Respirable Particulate Matter (PM_{10})	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	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	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	15 µg/m^3		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		--	--	--
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (56 µg/m^3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1-Hour	0.18 ppm (338 µg/m^3)		--		
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	--	Ultraviolet Fluorescence	0.030 ppm (80 µg/m^3)	--	Spectrophotometry (Pararosaniline Method)
	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[8] (Pb)	30 Day Average	1.5 µg/m^3	Atomic Absorption	--	--	High Volume Sampler and Atomic Absorption
	Calendar Quarter	--		1.5 µg/m^3	Same as Primary Standard	
Visibility-Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		**No Federal Standards**		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Cloride[8]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Source: CARB (2/22/07).

Footnotes:

1 California standards for ozone; carbon monoxide (except Lake Tahoe); sulfur dioxide (1 and 24 hour); nitrogen dioxide; suspended particulate matter, PM_{10}; 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 eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. 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 upon 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 Any equivalent procedure that can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

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

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

7 Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

8 The CARB 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.

3-13.2 IMPACTS

Regional Analysis Contingency and Finding

The proposed project is listed in the 2004 RTP and RTIP and by design concept and scope of the project, as assumed in SCAG's regional emissions analysis, is consistent with 10-lane alternative (Alternative 4). However, if Alternative 2, 3, or 5 or a hybrid combination of these is selected as the preferred alternative, SCAG would have to be notified of the selected option for inclusion in the next regional analysis update. A flowchart obtained from the Transportation Project-Level Carbon Monoxide Protocol (UCD-ITS-RR-97-21), known as Figure 1, New Project Requirements was used to determine the regional conformity requirement of proposed project. The questions in the flowchart cited are followed by a response, which would determine the next question:

- Is this project exempt from conformity? **NO,** the proposed project is not exempt from conformity because the project includes additional through lanes on the I-5 Freeway. Therefore, it is not exempt from conformity.
- Is the project in an area that is subject to conformity? **YES**, the project is located in a non-attainment or maintenance area for all current federal air quality standards except Lead (Pb) and Sulfur Dioxide (SO_2).
- Is the project exempt from regional conformity? **NO**, as mentioned above, the proposed project would increase the number of through lanes on the I-5 freeway; hence it is not exempt from regional conformity.
- Is the project in an area that has a Metropolitan Planning Organization (MPO)? **YES,** the proposed project is fully funded and is in the 2004 RTP, which was found to conform by SCAG in April 2004. The FHWA and FTA adopted the air quality conformity finding on June 7, 2004. The project also is included in the SCAG's financially constrained 2004 RTIP (Section II: Regional Emissions Analysis Modeling list for State Highways on page 2 of 22). The 2004 RTIP was found to conform by FHWA and FTA on October 4, 2004. The design concept and scope of the proposed project is consistent with the project description in the 2004 RTP, the 2004 RTIP and the assumptions in SCAG's regional emissions analysis.

Carbon Monoxide Hot Spot Analysis

The scope required for local analysis is summarized in Section 4, Local Analysis, Figure 3, entitled Local CO Analysis, of the Transportation Project-Level Carbon Monoxide Protocol. This flowchart is used to determine the type of CO analysis required for the proposed project. Below is a step by step explanation of the flowchart. Each level cited is followed by a response, which would determine the next applicable level of the flowchart for the proposed project. The flowchart begins at level 1:

- Level 1: Is the project in a CO non-attainment area? **Yes**, the Basin is classified as non-attainment for CO. CO designation maps and a summary of the most recent 3 years of the 4-highest monitored CO data are presented below. There is no recorded violation within the most recent three years of CO data. The data is obtained from the California Air Resource Board website. Data from the Pico Rivera Station air-monitoring site was used for the years 2002 to 2004, located at the described location:

Pico Rivera Station
3713 San Gabriel River Pkwy
Pico Rivera, CA 90660

Table 3-13.3 - Highest 4 Daily Maximum 8-Hour CO (ppm) Averages			
	2002	2003	2004
High	4.00	3.94	3.47
2nd High	3.76	3.74	2.97
3rd High	3.66	3.66	2.97
4th High	3.54	3.54	2.90

Federal Standard = 9 ppm

- Level 2: Is the project located in an area with an approved CO attainment or maintenance plan? **NO,** there is no approved CO attainment or maintenance plan for the project area (Proceed to Level 3).
- Level 3: Is the project in an area with a submitted CO attainment or maintenance plan? **YES,** the 2003 AQMP replaces the submitted 1997 attainment demonstration for the federal CO standard and provides a basis for a CO maintenance plan in the future.
- Level 3 (cont.): Was the analysis in the attainment plan performed in sufficient detail to establish CO concentrations as a result of micro-scale modeling? **YES.**
- Level 3 (cont.): Were impacts acceptable? **YES.**
- Level 3 (cont.): Can CO concentrations in the area affected by the project under review be expected to be lower than at those locations specifically modeled in the attainment plan? **NO,** when comparing the CO concentrations in the attainment plan to the proposed project, the prevailing factor is traffic demand. The attainment plan models the worst case intersections in the region (see the 2003 AQMP Appendix V: Modeling and Attainment Demonstrations) where the proposed project is a freeway project, which would substantially have greater traffic counts than the intersections modeled in the attainment plan (Proceed to Level 4).
- Level 4: Perform a screening analysis considering project location, nearby, traffic volumes, LOS, and air quality conditions for current and future years. The screening analysis in Appendix A of the CO Protocol is based on the EMFAC7 model. As the new EMFAC2002 model is required for CO hot spot analyses, the screening analysis Appendix A is no longer to be used (Proceed to Level 5).
- Level 5: Perform a detailed analysis. Are impacts acceptable? **YES.** As detailed below, a CALINE4 CO hot spot analysis was conducted at 110 receptor locations along the proposed project. Due to the numerous pages needed to display the receptor locations for the entire project, please refer to the Air Quality Analysis, Figure 4, where the model receptor locations are displayed on aerial maps. No receptor locations have been or would be exposed to CO concentrations exceeding the Federal or State standards.

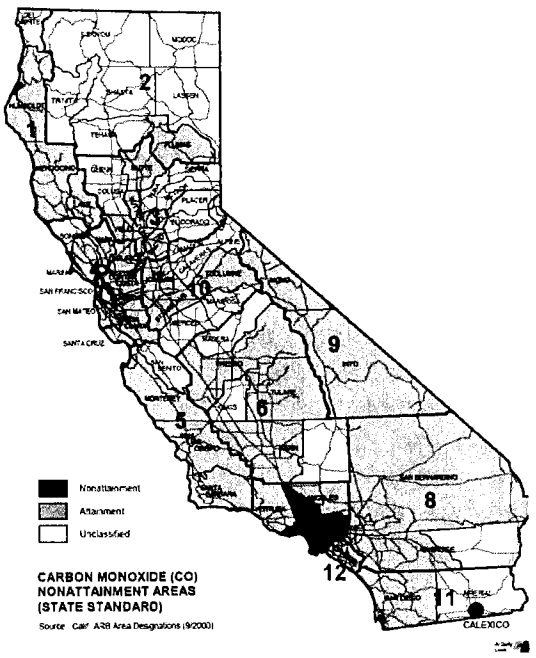
The impact on local CO levels was assessed with the CARB-approved CALINE4 air quality model, which allows micro-scale CO concentrations to be estimated along roadway corridors or near intersections. This model is designed to identify localized concentrations of CO, often termed "hot spots." A brief discussion of input to the CALINE4 model follows. The analysis was performed for the worst-case wind angle and wind speed conditions and is based upon the following assumptions:

- The highest CO concentrations would occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis. Modeling of the CO hot spot analysis was based on traffic volumes generated by the project traffic study (Department/LARTS, September 2002, April 2003, and February 2004), which identified the p.m. peak traffic levels generated in the project area for the existing (year 2003), opening year (2013), and year 2030 under no build and build alternatives.
- Selected modeling locations represent the I-5 main lanes and ramps between SR-91 and I-605.
- Receptor locations with the possibility of extended outdoor exposure from 8 meters (approximately 26 feet) to 30 meters (approximately 1,190 feet) of the roadway centerline were modeled to determine CO concentrations.
- The calculations assume a meteorological condition of almost no wind (0.5 meter/second), a suburban topographical condition between the source and receptor, and a mixing height of 1,000 meters, representing a worst-case scenario for CO concentrations.
- CO concentrations are calculated for the one-hour averaging period and then compared to the one-hour standards. CO eight-hour averages are extrapolated using techniques outlined in the SCAQMD CEQA Air Quality Handbook (April 1993) and compared to the eight-hour standards; a persistence factor of 0.7 was used to predict the CO concentrations.
- The "at-grade" link option with speed adjusted based on average cruise speed and number of vehicles per lane per hour was used rather than the "intersection" link selection in the CALINE4 model (Caltrans has suggested that the "intersection" link should not be used due to an inappropriate algorithm based on outdated vehicle distribution). Emission factors from the EMFAC2002 model for all vehicles based on the adjusted speed for the years 2003 (existing), 2013 (opening year), and 2030 (build-out year) were used for the vehicle fleet.
- As suggested by the EPA, the highest level of the second-highest monitored CO concentrations, 5.4 ppm for the one-hour CO and 3.9 ppm for the eight-hour CO at the Pico Rivera station for the past three years is considered "background" concentration and is added to the model results for the existing scenario. Background concentrations for the future scenarios were taken from the SCAQMD "Projected Future Year 1-Hour Concentration" and "Projected Future Year 8-Hour Concentration" tables which were 5.1 ppm and 4.1 ppm respectively and added to the model results for both future scenarios.

It should be noted that although traffic volumes are expected to increase from their existing levels, the decrease in emission factors due to improved technology and lower ambient levels would more than offset the increase in CO emissions from increased traffic volumes. Therefore, future projected CO levels would be lower than their corresponding existing levels. There is no exceedance of either the Federal or State CO standards for the one-hour or the eight-hour durations they are all below the Federal and State standards. The analysis uses three milestone years: existing (2003), build (2013) and horizon (2030). The existing is based on traffic data availability. The build year is the expected year when proposed project would be completed and open to the public. The horizon year coincides with the last year of SCAG's regional emissions analysis. A summary of the traffic data, CALINE4 inputs required for CALINE4 modeling, and a summary of the CALINE4 output printouts are presented in Appendix H. The results of a supplemental CALINE4 model run are also included in Appendix H.

CO levels for both model runs for all alternatives and future year scenarios do not exceed Federal and State one-hour and eight-hour standards; hence no further analysis is required.

Figure 3-13.1 – Federal and State CO Non-attainment Area Maps



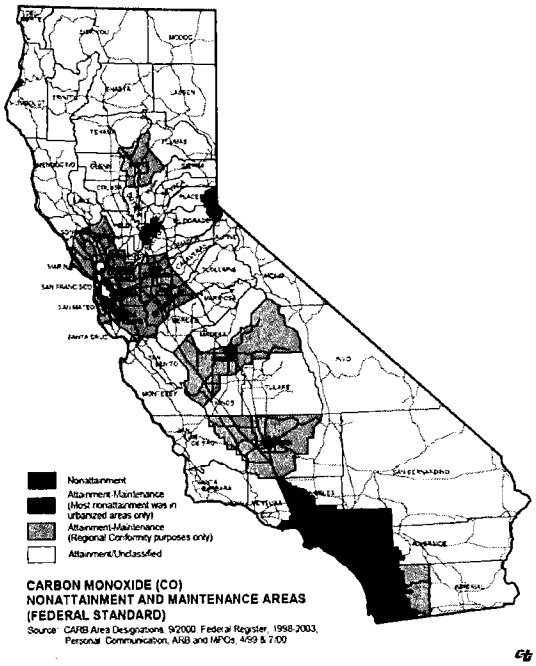
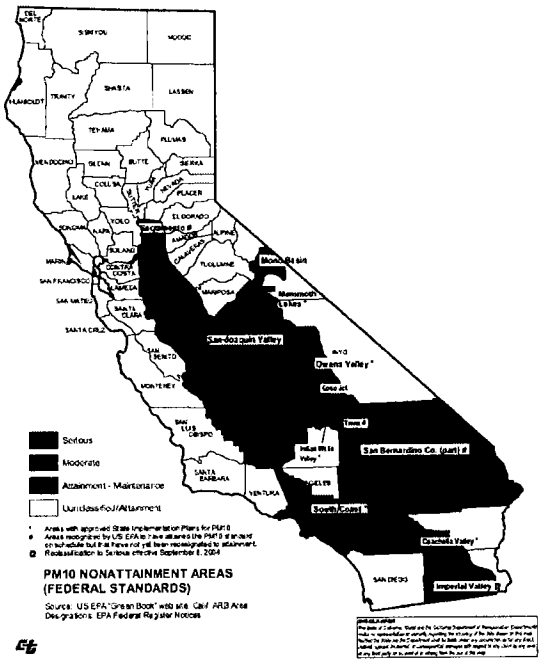
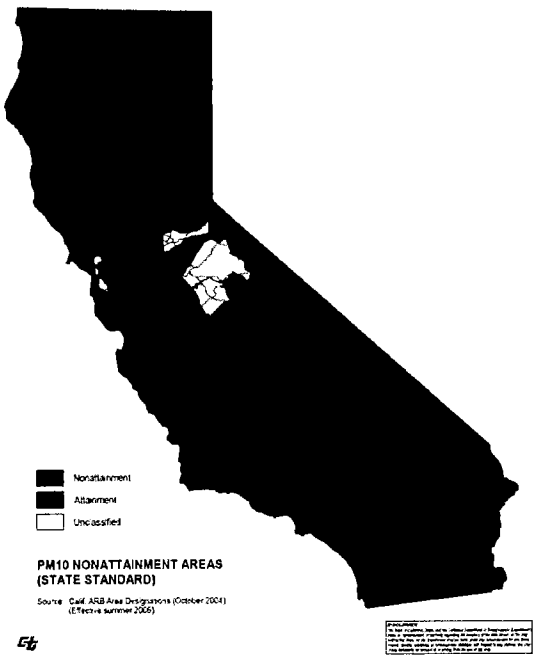


Figure 3-13.2 – Federal and State PM_{10} Non-attainment Area Maps





PM_{10} Hot Spot Analysis

Section 93.116 of the Transportation Conformity Rule states that any project-level conformity determination in a PM_{10} non-attainment or maintenance area must document that no new local PM_{10} violations would be created and the severity or number of existing violations would not be increased as a result of the project. §93.123(b)(1) requires that the PM_{10} analysis be quantitative. However, §93.123(b)(4) waives such analysis until the EPA releases modeling guidance and announces such guidance in the Federal Register. As early as 2005, no quantitative guidance has been released by the EPA, hence §93.123(b)(4) offsets the implementation of §93.123(b)(1).

FHWA released PM_{10} guidance to its field offices in September 2001. The document attempts to fill the gap in understanding the type of analysis required. It provides examples on how to develop a hot spot analysis and the guidance defers to other qualitative analysis methods (40 CFR 93.105(c)(1)(i)). In December 2004, EPA published proposed regulations to revise PM_{10} and $PM_{2.5}$ analysis requirements, but do not yet include or reference guidance materials required to complete such analyses. Caltrans and FHWA sought to build upon FHWA's 2001 guidance document by providing planners with a step-by-step tool to assist those responsible for documenting transportation project-level PM_{10} effects. On February 2005, UC Davis-Caltrans Air Quality Team developed a project-level PM_{10} analysis protocol on behalf of Caltrans and FHWA to satisfy the transportation conformity requirement for hot spot PM_{10} analyses. It is a qualitative guidance specific for California's highways and is currently used, under the terms of the FHWA guidance, to screen projects from transportation conformity analyses that are unlikely to create PM_{10} hot spot problems. Although the protocol is based, in part, on California data, it may be applied in any PM_{10} non-attainment or maintenance areas. Figure 3-13.2 shows the SCAB part of Los Angeles County as in serious non-attainment for PM_{10} per NAAQS standard and non-attainment under CAAQS.

The protocol consists of a four-part methodology to screen projects unlikely to contribute to exceedances of the PM_{10} air quality standards: (1) a "project comparison" approach for maintenance areas that allows users to compare the proposed project to pre-existing facilities; (2) a "project comparison" approach for non-attainment areas; (3) a "threshold screening" analysis that takes advantage of real-world measurements of the contribution of roadways to observed PM_{10} concentrations; and (4) a "relocate and reduce, build vs. no-build" approach that assesses whether a project would spatially reallocate traffic to reduce hot spot problems. Before proceeding with the protocol step-by-step procedures, a checklist of eight questions, helps analysts determine whether the protocol is applicable for their respective project analysis. In this case, the scope of the proposed project does not allow it to immediately be screened out; hence a flowchart is used to determine the type of PM_{10} analysis required. Below is a step by step explanation of the flowchart. The section cited is followed by a response, which would determine the next applicable section of the flowchart for the proposed project. The flowchart for the proposed project begins with Chart 2, question F2.1:

Chart 2: Project Comparison – Non-attainment Areas

- F2.1: Is there an existing facility appropriate for comparison with the proposed project (must meet Table 2 criteria)? **NO**, the Basin does have an approved PM_{10} attainment plan; however there were no intersections or existing facilities applied in the PM_{10} modeling attainment demonstration to compare with the proposed project. The 2003 AQMP incorporated updated modeling tools for attainment demonstration to reach the 2006 PM_{10} attainment target date.
- F2.4: Go to Chart 3 – Threshold Screening.

Chart 3: Threshold Screening

- F3.1: At the most representative monitor for the proposed project site, are 24-hr average concentrations expected to be ≤ 80% of the 24-hr standard (120μg/m^3)? **YES.** Presented below is a summary of the most recent 3 years of the highest four monitored PM_{10} data. Data is obtained from the nearest air monitoring station. There are 3 air monitoring stations in the project vicinity, the Anaheim – Pampas Lane, La Habra, and Los Angeles – Westchester Parkway. The La Habra station has no PM_{10} data available, the Los Angeles – Westchester Parkway PM_{10} station only has 2004 data, hence the Anaheim – Pampas Lane station data was used. The data obtained from the Anaheim – Pampas Lane site is located a the following described location:

  Anaheim – Pampas Lane Station
  1630 Pampas Lane
  Anaheim, CA 92802

Table 3-13.4 - Highest 4 Daily Maximum PM_{10} Measurements (μg/m^3)						
	2001	**2002**	**2003**	**2004**	**2005**	**2006**
High	62.0	69.0	96.0	74.0	65.0	104.0
2nd High	52.0	64.0	77.0	70.0	54.0	95.0
3rd High	51.0	61.0	65.0	62.0	53.0	61.0
4th High	49.0	57.0	56.0	61.0	45.0	60.0

- Project conforms to 24-hr PM_{10} standard. Continue analysis for annual standard.
- F3.3: At the most representative monitor for the proposed project site, are annual average concentrations expected to be ≤ 64% of the annual standard (32μg/m^3)? **NO.** The following annual average concentrations are also obtained from the Anaheim – Pampas Lane site:

Table 3-13.5 – Annual Averages for Pampas Lane Station						
	2001	**2002**	**2003**	**2004**	**2005**	**2006**
National Annual Average	21.9	33.5	32.8	33.9	28.2	33.3
State Annual Average	21.9	33.5	32.8	34.0	28.1	33.3

- F3.4: Calculate the annual threshold value; is the projected annual background PM_{10} concentration <= annual threshold?

  When calculating PM_{10} concentrations, there are 2 factors to account for as to whether the project would pass the annual PM_{10} screening test:
  1. Select a 24-hour project increment; and
  2. Find the appropriate CR (conversion ration)

  If Appendix C is used, the CR (Los Angeles) = 0.55. However, the years used to calculate the CR (1998-2000) are not the most recent 3-years of data; hence the most recent PM_{10} data would be used instead to determine a more appropriate CR.
- F3.4: Calculate the annual threshold value; is the projected annual background PM_{10} concentration ≤ annual threshold?

  When calculating PM_{10} concentrations, there are 2 factors to account for as to whether the project would pass the annual PM_{10} screening test:

1. Select a 24-hour project increment; and
2. Find the appropriate CR (conversion ratio)

If Appendix C is used, the CR (Los Angeles) = 0.55. However, the years used to calculate the CR (1998-2000) are not the most recent 3-years of data; hence the most recent PM_{10} data would be used instead to determine a more appropriate CR.

Table 3-13.6 – Conversion Ratios for PM_{10} Concentrations	
CR = Annual Average/24-hour concentrations:	National Annual PM_{10} Maximum:
CR (2001) = 21.9/62.0 = 0.35	2001 – 21.9
CR (2002) = 33.5/69.0 = 0.49	2002 – 33.5
CR (2003) = 32.8/96.0 = 0.34	2003 – 32.8
CR (2004) = 33.9/74.0 = 0.46	2004 – 33.9
CR (2005) = 28.2/65.0 = 0.43	2005 – 28.2
CR (2006) = 33.3/104.0 = 0.32	2006 – 33.3

Use conservative numbers to calculate the PM_{10} Concentration.
CR (2002) = 0.49 Annual PM_{10} (2004) background concentration = 33.9
Table 3 – Freeway > 150,000 vehicles/day = 8.0
Annual project PM_{10} concentration = CR (2002) x freeway increment = (0.49)(8.0) = 3.92
Annual PM_{10} Total = annual background + annual project increment = 33.9 + 3.92=37.82≈38
Is project's PM_{10} Total ≤ Annual PM_{10} NAAQS? **YES**, $38\mu g/m_3 \leq 50\mu g/m_3$

- F3.5: Project screened out. End analysis. The project has sufficiently addressed the PM_{10} impact and no further analysis is needed.

Fugitive Dust

PM_{10} emissions from site clearance/grading operations during a peak construction day are based on assumptions and past experience on similar sized projects. The SCAQMD estimates that each acre of graded surface creates about 26.4 pounds of PM_{10} per day during the construction phase of the project, and 21.8 pounds of PM_{10} per hour from dirt/debris pushing per dozer/scraper. The entire site is not expected to be under construction at one time. It is assumed that up to three acres of land would be under construction or exposed on any one day. It is also assumed that at least one dozer/scraper would be used eight hours per day, together with other equipment. Therefore, a maximum of 254 pounds of PM_{10} per day would be generated from soil disturbance without mitigation during the construction phase. This level of dust emission would exceed the SCAQMD threshold of 150 pounds per day during construction.

$PM_{2.5}$ Hot Spot Analysis

The Environmental Protection Agency (EPA) released new $PM_{2.5}$ and PM_{10} hotspot analysis requirements in its March 10, 2006 final transportation conformity rule (71 FR 12468). The 2006 Final Rule supersedes the Federal Highway Administration's (FHWA) existing September 12, 2001, "Guidance for Qualitative Project-Level: Hotspot Analysis in PM_{10} Non-attainment and Maintenance Areas." The following $PM_{2.5}$ Qualitative Hotspot Analysis data was obtained from the Air Quality Analysis for the Interstate 5 (I-5) Corridor Improvement Project Technical Addendum, August 2006.

The new Final Rule establishes the transportation conformity criteria and procedures for determining which transportation projects must be analyzed for local air quality impacts in $PM_{2.5}$

and PM_{10} non-attainment and maintenance areas. The proposed project is located in the South Coast Air Basin (Basin), which has been designated as a federal non-attainment area for both $PM_{2.5}$ and PM_{10}; therefore, a hotspot analysis is required for both pollutants.

A hotspot analysis is defined in the Code of Federal Regulations (CFR) (40 CFR 93.101) as an estimation of likely future localized $PM_{2.5}$ or PM_{10} pollutant concentrations and a comparison of those concentrations to the relevant air quality standards. A hotspot analysis assesses the air quality impacts on a scale smaller than an entire non-attainment or maintenance area, including, for example, congested roadway intersections and highways or transit terminals. Such an analysis is a means of demonstrating that a transportation project meets Clean Air Act conformity requirements to support state and local air quality goals with respect to potential localized air quality impacts. When a hotspot analysis is required, it is included within the project-level conformity determination that is made by the FHWA or the Federal Transit Administration (FTA).

Clean Air Act Section 176(c)(1)(B) is the statutory criterion that must be met by all projects in nonattainment and maintenance areas that are subject to transportation conformity. Section 176(c)(1)(B) states that federally supported transportation projects must not "cause or contribute to any new violation of any standard in any area; increase the frequency or severity of any existing violation of any standard in any area; or delay timely attainment of any standard or any required interim emission reductions or other milestones in any area."

Ambient Air Quality Standards (AAQS). $PM_{2.5}$ nonattainment and maintenance areas are required to attain and maintain two standards:

- 24-hour standard: 65 micrograms per cubic meter ($\mu g/m^3$)
- Annual standard: 15.0 $\mu g/m^3$

The current 24-hour standard is based on a 3-year average of the 98th percentile of 24-hour $PM_{2.5}$ concentrations; the current annual standard is based on a 3-year average of annual mean $PM_{2.5}$ concentrations. A $PM_{2.5}$ qualitative hotspot analysis must consider both standards unless it is determined for a given area that meeting the controlling standard would ensure that Clean Air Act requirements are met for both standards. The interagency consultation process should be used to discuss how the $PM_{2.5}$ qualitative hotspot analysis meets statutory and regulatory requirements for both $PM_{2.5}$ standards, depending on the factors that are evaluated for a given project.

Projects of Air Quality Concern (POAQC)

The first step in the hotspot analysis is to determine whether the project qualifies as a POAQC. The EPA specified in 40 CFR 93.123(b)(1) of the Final Rule that POAQC are certain highway and transit projects that involve significant levels of diesel vehicle traffic, or any other project that is identified in the $PM_{2.5}$ and PM_{10} State Implementation Plan (SIP) as a localized air quality concern. The Final Rule defines the POAQC that require a $PM_{2.5}$ and PM_{10} hotspot analysis in 40 CFR 93.123(b)(1) as:

i. New or expanded highway projects that have a significant number of or significant increase in diesel vehicles;

ii. Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that would change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;

iii. New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;

iv. Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and

v. Projects in or affecting locations, areas, or categories of sites which are identified in the $PM_{2.5}$ and PM_{10} applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

This project clearly meets the criteria of the first item above, as the project proposes adding one or more lanes to the I-5 freeway, resulting in significant increases in traffic including diesel vehicles. Therefore, this project is a POAQC and $PM_{2.5}$ and PM_{10} Hotspots analyses are required.

Types of Emissions Considered

In accordance with "Transportation Conformity Guidance for Qualitative Hot-spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas" (Guidance) developed by the EPA in conjunction with the FHWA in March 2006, this hot-spot analysis would be based only on directly emitted $PM_{2.5}$ emissions.

Vehicles cause dust from paved and unpaved roads to be re-entrained, or re-suspended, in the atmosphere. According to the March 10, 2006 final rule, road dust emissions are only to be considered in $PM_{2.5}$ hot-spot analyses if the EPA or the state air agency has made a finding that such emissions are a significant contributor to the $PM_{2.5}$ air quality problem (40 CFR 93.102(b)(3)). The EPA or the California Air Resources Board (ARB) has not yet made such finding of significance; and therefore, the re-entrained $PM_{2.5}$ is not considered in this analysis.

Secondary particles formed through $PM_{2.5}$ precursor emissions from a transportation project take several hours to form in the atmosphere giving emissions time to disperse beyond the immediate project area of concern for localized analyses; therefore, they would not be considered in this hot-spot analysis. Secondary emissions of $PM_{2.5}$ are considered as part of the regional emission analysis prepared for the conforming RTP and FTIP.

According to the project schedules, the construction would not last more than 5 years, and construction-related emissions may be considered temporary; therefore, any construction-related $PM_{2.5}$ emissions due to this project would not be included in this hot-spot analysis. This project would comply with the South Coast Air Quality Management District (SCAQMD) Fugitive Dust Rules for any fugitive dusts emitted during the construction of this project. Excavation, transportation, placement, and handling of excavated soils would result in no visible dust migration. A water truck or tank would be available within the project limits at all times to suppress and control the migration of fugitive dusts from earthwork operations.

Analysis Method

This Hotspots analysis relies on air quality data from monitoring stations along the length of the proposed project. This data is compared with AAQS and examined for trends in order to predict future conditions in the project vicinity. Additionally, the impacts of the project are discussed and the likelihood of these impacts interacting with the ambient $PM_{2.5}$ levels to cause hotspots.

Ambient $PM_{2.5}$ Concentrations

The monitored $PM_{2.5}$ concentrations at the Anaheim-Pampas Lane Station and at the Los Angeles-North Main St. Station are shown in Table 3-13.7. These data show that the federal 24-hour $PM_{2.5}$ AAQS (65 $\mu g/m^3$) has not been exceeded at the Anaheim Station in the last six years. The Anaheim-Pampas Lane Station shows that the annual average $PM_{2.5}$ concentration fell below the federal annual arithmetic mean standard (15 $\mu g/m^3$) in 2005. The annual average $PM_{2.5}$ at the Los Angeles-North Main St. Station was exceeded in all six years; however, as at the Anaheim-Pampas Lane Station, the concentration continues to diminish every year.

Table 3-13.7 – Ambient $PM_{2.5}$ Monitoring Data

	2001 $\mu g/m^3$	2002 $\mu g/m^3$	2003 $\mu g/m^3$	2004 $\mu g/m^3$	2005 $\mu g/m^3$	2006 $\mu g/m^3$
Anaheim-Pampas Lane AQ Station						
1-year average 98th percentile	60	48	52	48	42	41
3-year average 98th percentile	64	58	53	49	47	44
Exceeds federal 24-hour standard (65 $\mu g/m^3$)?	No	No	No	No	No	No
National Annual average	25.4	18.6	17.3	17.0	14.7	14.0
Exceeds federal annual average standard (15 $\mu g/m^3$)?	Yes	Yes	Yes	Yes	No	No
Los Angeles-North Main St. AQ Station						
1-year average 98th percentile	58	55	61	66	55	41
3-year average 98th percentile	61	62	58	61	61	54
Exceeds federal 24-hour standard (65 $\mu g/m^3$)?	No	No	No	Yes	No	No
National Annual average	22.9	22.1	21.4	18.6	17.8	15.6
Exceeds federal annual average standard (15 $\mu g/m^3$)?	Yes	Yes	Yes	Yes	Yes	Yes

Source: EPA Web: http://www.epa.gov/air/data/monvals.html?st~CA~California, May 2007.

While the current levels of $PM_{2.5}$ in the project vicinity are generally below the federal 24-hour standard, indications are that levels in the future would go down even further. To estimate what the background $PM_{2.5}$ concentration would be in the project opening year, 2015, an exponential projection was made of the Anaheim-Pampas Lane 1-year 98th percentile levels (the 2003 AQMP does not have any projections for $PM_{2.5}$ concentrations). This predicts that the $PM_{2.5}$ concentration would be approximately 23 $\mu g/m^3$, which is approximately 35 percent of the federal 24-hr $PM_{2.5}$ standard. The exponential projection for the Los Angeles levels indicates that the $PM_{2.5}$ concentration would be approximately 32 $\mu g/m^3$, which is approximately 49 percent of the federal 24-hr $PM_{2.5}$ standard.

When projected to 2030, the 24-hour and annual average $PM_{2.5}$ concentrations experienced at both stations are significantly lower than the current levels. Based on the historical 24-hour and annual average $PM_{2.5}$ concentrations and their projections, constant decrease is anticipated in the future. This trend is consistent with the ARB's plan to achieve attainment for $PM_{2.5}$ by 2010. The

Initial Attainment State Implementation Plan (SIP) submittal to the EPA is anticipated by April 5, 2008.

$PM_{2.5}$ Emission Trends

Table 3-13.7a lists the vehicle $PM_{2.5}$ emission rates for 2007, 2015, and 2030. These emission rates were calculated using EMFAC2002 for the SCAG region. As shown, the $PM_{2.5}$ emission rates would be reduced by 8 to 17 percent by 2015 and by 21 to 52 percent by 2030.

Table 3-13.7a –$PM_{2.5}$ Emission Trends

Vehicle Speed (MPH)	2007 g/mile	2015 g/mile	Percent Reduction	2030 g/mile	Percent Reduction
5	0.101	0.092	9%	0.08	21%
10	0.073	0.065	11%	0.053	27%
15	0.056	0.049	13%	0.037	34%
20	0.045	0.038	16%	0.027	40%
25	0.037	0.032	14%	0.021	43%
30	0.032	0.027	16%	0.017	47%
35	0.029	0.024	17%	0.015	48%
40	0.026	0.023	12%	0.013	50%
45	0.025	0.022	12%	0.012	52%
50	0.024	0.021	13%	0.012	50%
55	0.024	0.021	13%	0.012	50%
60	0.025	0.022	12%	0.013	48%
65	0.026	0.024	8%	0.015	42%

Source: EMFAC2002

Transportation and Traffic Conditions

Existing average daily traffic volumes, truck percentage, and average daily truck volumes for I-5 within the project limits are tabulated below.

Table 3-13.8 - Interstate 5 Existing Conditions

	AADT	% of Trucks (3 or more Axles)	Truck AADT (3 or more Axles)
I-5 in 2004	430,000	4.6	19,553

Source: Caltrans web site (www.dot.ca.gov/hq/traffops/saferesr/trafdata/) retrieved August 9, 2006.

The table indicates that the facility currently experiences more than 10,000 trucks AADT. In terms of traffic congestion experienced by motorists, the traffic analysis for this project described the facility as operating at LOS F. LOS F indicates that typical motorists would experience traffic congestion for more than 15 minutes but less than 1 hour during peak hours.

Traffic Changes Due to the Proposed Project

The proposed project is a highway expansion project that increases the capacity of I-5. This type of project improves freeway mainline and interchange operations by reducing traffic congestion and improving ingress/egress movements. Table 3-13.9 shows that, based on the Traffic Analysis (LSA Associates, Inc., February 2004), all the Build Alternatives would result in an overall increase in traffic volumes on the I-5; however, the hourly peak number of vehicles per lane would be reduced compared to the No Build Alternative. Thus, the efficiency of the traffic flow would be better for all the Build Alternatives compared to the No Build Alternative. Improved traffic flow efficiency is directly related to vehicle engine operating efficiency, which directly affects pollutant emission rates, including $PM_{2.5}$ and PM_{10}.

Table 3-13.9 – Interstate 5 Peak-Hour Traffic Volumes for 2030		
Roadway Link	**Total[1]**	**Traffic per Lane[2]**
No Build Alternative (3 Lane/4 Lane Mix)	20,793	6,700
4 Lane/1 HOV Alternative	20,857	4,359
4 Lane/2 HOV Alternative	20,918	3,776
5 Lane/1 HOV Alternative	22,064	3,809

Source: LSA Associates, Inc., February 2004.

The Caltrans traffic data shows that the existing traffic on the I-5 between SR-91 and SR-605 was approximately 4.6 percent heavy vehicles (3+ axle trucks). This project is not expected to have any effect on this percentage. The project does not provide additional truck capacity as a design purpose. The project adds HOV lanes, which in the Los Angeles area accommodate primarily gasoline-fueled light duty and alternative-fueled (typically CNG or LNG) transit vehicles. State and local (South Coast Air Quality Management District) transit fleet rules essentially prohibit the acquisition of diesel-powered transit vehicles for use in the South Coast air basin.

Conclusions of $PM_{2.5}$ Qualitative Hotspot Analysis

Transportation conformity is required under CAA section 176(c) to ensure that federally supported highway and transit project activities are consistent with the purpose of the State Air Quality Implementation Plan (SIP). Conformity to the purpose of the SIP means that transportation activities would not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS. As required by the March 10, 2006 final rule, this qualitative $PM_{2.5}$ hot-spot analysis demonstrates that this project meets the CAA conformity requirements to support state and local air quality goals with respect to potential localized air quality impacts.

It is not expected that changes to $PM_{2.5}$ emissions levels associated with the proposed project would result in a new violation because any increased emissions that might affect concentrations would be offset by the decreasing ambient $PM_{2.5}$ emissions and concentrations at the project location described above. In other words, any increase in the emissions of $PM_{2.5}$ due to increased traffic volumes associated with future growth and the proposed project would be offset by decreases in the background concentrations. Additionally, $PM_{2.5}$ emissions would be reduced due to implementation of the proposed project because the efficiency of the traffic flow would be better for all the Build Alternatives compared to the No Build Alternative.

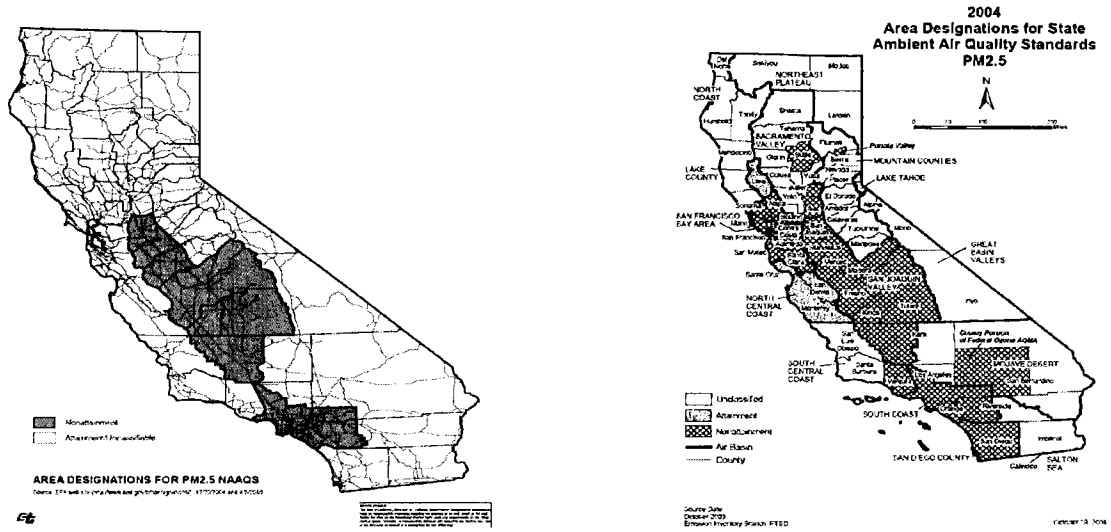
Federal regulations and the State's Diesel Risk Reduction Plan would require future diesel vehicles to have substantially cleaner engines and to use fuels with lower sulfur contents. Thus, even though the project would have an increase in diesel truck traffic in all future analysis years, the increase would be more than offset by the larger decrease in per-vehicle $PM_{2.5}$ emissions. Therefore, the project would not cause higher $PM_{2.5}$ emissions or a $PM_{2.5}$ hot-spot.

The historical meteorological and climatic data, monitored $PM_{2.5}$ emissions data and their declining trend, current and projected traffic data, and the Federal regulations and the State's

1 Total hourly traffic for PM peak hour, including all traffic (cars & trucks).
2 Capacity of HOV Lane is 75 percent of capacity of Mixed Flow Lane.

Plan, support the assertion that the project would not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS. Activities of this project should, therefore, be considered that they are consistent with the purpose of the SIP and it should be determined that this project conforms to the requirements of the CAA.

Figure 3-13.3 - Federal and State $PM_{2.5}$ Non-attainment Area Maps



Naturally Occurring Asbestos (NOA)

Though not required for project-level air quality analysis, it is routine and an established local practice in the Department's District 7 region to include a discussion pertaining to NOA. This discussion is limited to NOA and the Memorandum Addressing Naturally Occurring Asbestos in CEQA Documents released by the Governor's Office of Planning and Research. Discussions relating to all other types of asbestos are deferred to the Department's hazardous waste or other environmental reports.

The purpose of the discussion is to establish the impact of NOA entrainment during construction. The two common sets of NOA are the serpentine and ultramafic rocks. The project is located in Los Angeles County. Los Angeles County is among the counties listed as containing serpentine and ultramafic rock. However, only the Catalina Island portion of Los Angeles County has been found to contain such rock; hence, it is not found in the project area. Therefore, no potential impacts from naturally occurring asbestos (NOA) during project construction would occur.

Airborne Structural Asbestos

The project involves the construction of an auxiliary lane, off-ramps, and over-crossings. It also involves acquisition and demolition of older buildings or structures that may have asbestos-containing material (ACM). The build alternatives for the proposed project could contribute to cumulative hazardous air pollutants relating to the demolition of ACM. For further details, please refer to the Hazardous Waste Section.

Mobile Source Air Toxics (MSAT)

MSAT Analysis Methodology

The basic procedure for analyzing emissions for on-road MSAT is to calculate emission factors using EMFAC2002, and apply the emission factors to speed and vehicle miles traveled (VMT) data specific to the project. EMFAC2002 is the latest emission inventory model developed by the California Air Resources Board (CARB), which calculates emission inventories for motor vehicles operating on roads in California. The emission factors information used in the MSAT analysis is from EMFAC2002 and is specific to the Los Angeles County portion of the South Coast Air Basin.

The analysis focused on six MSAT pollutants identified by the EPA as being the highest priority MSATs[1]. The six pollutants are diesel particulate matter (DPM), acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene. EMFAC2002 provides emission factor information for DPM, but does not provide emission factors for the remaining five MSATs. Each of the remaining five MSATs, however, is a constituent of motor vehicle reactive organic gas (ROG) emissions, and EMFAC2002 provides emission factors for ROG. CARB has supplied Caltrans with "speciation factors" for each of the remaining five MSATs not directly estimated by EMFAC2002. Each speciation factor represents the portion of total ROG emissions that is estimated to be a given MSAT. For example, if a speciation factor of 0.03 is provided for benzene, its emissions is estimated to be 3% of total ROG emissions, utilizing the speciation factor as a multiplier once total ROG emissions are known. The analysis used the CARB-supplied speciation factors to estimate emissions of the aforementioned five MSATs as a function of ROG emissions.

The University of California at Davis (UCD), in cooperation with Caltrans, developed a spreadsheet tool that incorporates EMFAC2002 emission factors, CARB speciation factors, and project-specific traffic activity data such as peak and off-peak hour VMT, speed, travel times and traffic volumes. The spreadsheet tool applies the traffic activity data to the emission factors, and estimates MSAT emissions for base case (with "No-Build" alternative) and "Build" alternative scenarios. Results were produced for the base year (2004), for the first operational year once the project is complete (2013), and for the horizon year consistent with the Southern California Association of Governments' (SCAG's) regional transportation plan (2030). Year 2015 and 2035 analyses compared "No-Build" conditions to expected conditions resulting from implementation of the various "Build" alternatives.

MSAT analysis Results

Traffic activity data have been utilized in performing the analyses. The traffic activity data have 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.

As described above, emission factors for DPM and ROG have been obtained for the South Coast Air Basin portion of Los Angeles County, using EMFAC2002. The spreadsheet tool developed by the UCD was then utilized in applying the emission factors, speciation factors from CARB, and the traffic activity data. It should be noted that only Alternatives 4 and 5 have been evaluated for the purpose of this analysis.

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1 U.S. Environmental Protection Agency (2001) Control of emissions of hazardous air pollutants from mobile sources: final rule. *Federal Register*, Vol. 66, No. 61, pp. 17230-17273. March 29.

Discussion of MSAT Analysis Results

The analysis indicates that a significant decrease in MSAT emissions can be expected for the proposed Alternatives from the base year (2004) levels through future year levels. This decrease is prevalent throughout the highest priority MSATs and the analyzed Alternatives, regardless of the difference in mainline configurations. This decrease is 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 MSATs expected by 2030 are: 75-78 percent of DPM, 84-86 percent of benzene, 87-89 percent of 1,3-butadiene, 82-84 percent of acetaldehyde, 87-89 percent of acrolein, and 83-85 percent of formaldehyde. These projected reductions are achieved while total VMTs for the Alternatives increase by approximately 70 percent in 2035.

Difference of varying degrees is noted in the projected individual MSAT emissions. According to the results, all Build Alternatives are expected to reduce emissions of DPM well below the No Build Alternative (11-19 percent less)

Although the No Build Alternative is expected to accommodate less traffic as indicated in Table A, its MSAT emissions are expected to be greater than those of other "Build" Alternatives in both 2015 and 2035. 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.

Unavailable Information for Project Specific MSAT Impact Analysis. This EIS includes a basic analysis of the likely MSAT emission impacts of this project. However, available technical tools do not enable us to predict the project-specific health impacts of the emission changes associated with the alternatives in this EIS. Due to these limitations, the following discussion is included in accordance with CEQ regulations (40 CFR 1502.22(b)) regarding incomplete or unavailable information:

Information that is Unavailable or Incomplete. Evaluating the environmental and health impacts from MSATs on a proposed highway project would involve several key elements, including emissions modeling, dispersion modeling in order to estimate ambient concentrations resulting from the estimated emissions, exposure modeling in order to estimate human exposure to the estimated concentrations, and then final determination of health impacts based on the estimated exposure. Each of these steps is encumbered by technical shortcomings or uncertain science that prevents a more complete determination of the MSAT health impacts of this project.

- **Emissions:** The EPA and California tools to estimate MSAT emissions from motor vehicles are not sensitive to key variables determining emissions of MSATs in the context of highway projects. While both MOBILE 6.2 and EMFAC (either 2002 or the recently-released 2007 version) are used to predict emissions at a regional level, they have limitations when applied at the project level. Both are a trip-based models--emission factors are projected based on a typical trip of around 7.5 miles, and on average speeds for this typical trip. This means that neither model has the ability to predict emission factors for a specific vehicle operating condition at a specific location at a specific time. Because of this limitation, both models can only approximate emissions from the operating speeds and levels of congestion likely to be present on the largest-scale

projects, and cannot adequately capture emissions effects of smaller projects. For particulate matter, the MOBILE 6.2 model results are not sensitive to average trip speed; however, particulate matter (PM) emissions from the EMFAC model are sensitive to trip speed, so for California conditions diesel PM emissions are treated the same as other emissions. Unlike MOBILE 6.2, the EMFAC model does not provide MSAT emission factors; off-model speciation of EMFAC's Total Organic Compounds output must be used to generate MSAT emissions. The emissions rates used in both MOBILE 6.2 and EMFAC are based on a limited number of vehicle tests.

- **Dispersion.** The tools to predict how MSATs disperse are also limited. The EPA's current regulatory models, CALINE3 and CAL3QHC, were developed and validated more than a decade ago for the purpose of predicting episodic concentrations of carbon monoxide (CO) to determine compliance with the NAAQS. The CALINE4 model used in California is an improvement on the CALINE3-based EPA models, but like them was built primarily for CO analysis, has not been specifically validated for use with other materials such as MSATs, and is difficult to use for averaging periods of more than 8 hours or so (health risk data for MSATs are typically based on 24-hr, annual, and long-term [30-70 years] exposure). Dispersion models are appropriate for predicting maximum concentrations that can occur at some time at some location within a geographic area, but cannot accurately predict exposure patterns at specific times at specific locations across an urban area to assess potential health risk. The NCHRP is conducting research on best practices in applying models and other technical methods in the analysis of MSATs. This work also will focus on identifying appropriate methods of documenting and communicating MSAT impacts in the NEPA process and to the general public. Along with these general limitations of dispersion models, FHWA is also faced with a lack of adequate monitoring data in most areas for use in establishing project-specific MSAT background concentrations.
- **Exposure Levels and Health Effects.** Finally, even if emission levels and concentrations of MSATs could be accurately predicted, shortcomings in current techniques for exposure assessment and risk analysis preclude us from reaching meaningful conclusions about project-specific health impacts. Exposure assessments are difficult because it is difficult to accurately calculate annual concentrations of MSATs near roadways, and to determine the portion of a year that people are actually exposed to those concentrations at a specific location. These difficulties are magnified for 70-year cancer assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over a 70-year period. There are also considerable uncertainties associated with the existing estimates of toxicity of the various MSATs, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population. Because of these shortcomings, any calculated difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with calculating the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against other project impacts that are better suited for quantitative analysis.

Summary of Existing Credible Scientific Evidence Relevant to Evaluating the 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. Non-carcinogenic effects of benzene include decreased lymphocyte counts.
- **Acrolein** is not a known carcinogen. Non-carcinogenic effects of acrolein include nasal legions.
- **Formaldehyde** is a probable human carcinogen, based on limited evidence in humans, and sufficient evidence in animals. Non-carcinogenic effects of formaldehyde include eye, nose, and throat irritation, nasal congestion, and increased eosinophils and protein in nasal lavage fluid.
- **1,3-butadiene** is characterized as carcinogenic to humans by inhalation. Non-carcinogenic effects of 1,3-butadiene include ovarian atrophy.
- **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. Non-carcinogenic effects of acetaldehyde include the degeneration of olfactory epithelium.
- **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. Much of this research is not specific to MSATs, instead surveying the full spectrum of both criteria and other pollutants. The FHWA cannot evaluate the validity of these studies, but more importantly, they do not provide information that

would be useful to alleviate the uncertainties listed above and enable us to perform a more comprehensive evaluation of the health impacts specific to this project.

Relevance of Unavailable or Incomplete Information to Evaluating Reasonably Foreseeable Significant Adverse Impacts on the Environment, and Evaluation of impacts based upon theoretical approaches or research methods generally accepted in the scientific community.

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."

Construction Equipment Exhaust Emissions

The proposed Alternative 1 would not involve significant freeway construction, and Alternatives 2 and 3 have minimal construction, hence the following discussion of construction impacts applies primarily to the Build Alternatives (Alternative 4 and 5).

The construction emission estimate is provided solely for informational purposes and cannot be used to accurately determine emissions. The emissions are proportional to equipment usage. It is the discretion of the construction contractor to determine type and quantity of equipment deployed. The contractor is selected through a competitive bidding process at later stages of project development. At this time, the contractor is unknown and emissions are based on assumptions provided from prior construction practices, which is not necessarily indicative of the proposed project.

Construction activities produce combustion emissions from various sources, such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting the construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions.

Currently, there is no information available regarding the construction operation and schedule for the proposed project. The following construction emissions estimates, summarized in Table 3-13.10, were based on projects with construction activities similar in scope and size to the Build Alternatives.

The SCAQMD has established emissions thresholds for construction activities. As shown, construction equipment emissions would exceed the SCAQMD daily construction thresholds for the criteria pollutant NO_x. Emissions of other criteria pollutants would be below operational standards. Construction equipment exhausts shown in the table assume a peak day operation. Emissions for an average day's construction would be lower, but would still potentially exceed the NO_x threshold. Compliance with Section XI of the SCAQMD's rules and regulations for cutback and emulsified asphalt paving materials (Rules 1108 and 1108.1) shall be abided by during the construction of the proposed project. Additionally, measures listed in Section 7.0 of

the Air Quality Analysis should be implemented to further reduce emissions generated from equipment exhaust.

Table 3-13.10 - Peak Day Emissions from Construction Equipment Exhaust[1]						
Number and Equipment Type	**No. of Hours in Operation**	**Pollutants (pounds/day)**				
		CO	**ROC**	**NO_X**	**SO_X**	**PM_{10}**
2 Tracked Loader	8	3.2	1.5	13.3	1.2	0.9
2 Tracked Tractor	8	5.6	1.9	20.2	2.2	1.8
6 Scrapers	8	60.0	13.0	184.3	22.1	19.7
1 Wheeled Loader	8	4.6	1.8	15.2	1.5	1.4
1 Wheeled Tractor	8	28.6	1.4	10.2	0.7	1.1
1 Roller	8	2.4	0.5	7.0	0.5	0.4
2 Motor Grader	8	2.4	0.6	11.4	1.4	1.0
4 Miscellaneous	8	21.6	4.8	54.4	4.6	4.5
24 Const. Worker Trips	50 miles/RT[2]	12	0.52	1.8	0.009	2.8
TOTAL		**140**	**26**	**318**	**34**	**34**
SCAQMD Threshold		**550**	**75**	**100**	**150**	**150**

Source: LSA Associates, Inc., 2004.

3-13.3 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

Operational Mitigation Measures

No mitigation required

Mitigation of NO_x During Construction

The following mitigation measures are to be implemented where feasible:

- Maintain equipment and vehicle engines in good condition and in proper tune as per manufacture's specifications.
- For construction equipment, require the use of alternate clean fuel such as electric or compressed natural gas-powered equipment with oxidation catalysts and particulate traps instead of gasoline- or diesel-powered engines. Diesel-powered equipment that has been retrofitted with after-treatment products reduces NO_x by 40 percent.
- Trucks supplying materials and supplies to the project site should be required to use alternative fuels such as compressed natural gas or fitted with oxidation catalysts or particulate traps.
- Use electricity from power poles instead of temporary diesel- of gasoline-powered generators.
- Prohibit heavy-duty construction vehicles from idling in excess of five minutes, bot on- and off-site, to be consistent with State law.

Mitigation of PM_{10} During Construction

The submitted 2004 Particulate Matter SIP contains provisions calling for mitigation of PM_{10} emissions during construction. Pursuant to 40 CFR 93.117, the Department, the project sponsor, is required to stipulate to include, in its final plans, specification, and estimates, control measures

[1] Emission factors included in EPA AP-42 Report, September 1985, were used for construction equipment exhaust.
[2] RT: Round-trip

that would limit the emission of PM_{10} during construction. Such control plans must be contained in an applicable SIP.

The PM_{10} emissions is a composite of geologic and aerosol varieties. The prime concern during construction is to mitigate geologic PM_{10} that occurs from earth movement such as grading. The agency who sponsored the PM_{10} SIP is SCAQMD with concurrence from the CARB. SCAQMD has amended the 2004 Rule 403 Implementation Handbook in June 2005. It addresses the mitigation for PM_{10} by reducing the ambient entrainment of fugitive dust. Fugitive dust consists of solid particulate matter that becomes airborne due to human activity (i.e. construction) and is a subset of total suspended particulates. Likewise, PM_{10} is a subset of total suspended particulates. The Handbook states that 50% of total particulate matter suspended is comprised of PM_{10}. Hence, in mitigating for fugitive dust, emissions of geologic PM_{10} are reduced.

The Handbook categorizes mitigation of fugitive dust into three sections: Tables 3-13.11, 3-13.12, and 13-3.13 list Best Available Control Measures (BACM), Dust Control, and Contingency Control Measures for Large Operations, respectively. BMACs are applicable to all construction projects within the Basin.

Table 3-13.11 - Best Available Control Measures (Applicable to All Construction Activity Sources)		
Source Category	**Control Measure**	**Guidance**
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	• Mix backfill soil with water prior to moving • Dedicate water truck or high capacity hose to backfilling equipment • Empty loader bucket slowly so that no dust plumes are generated • Minimize drop height from loader bucket
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	• Maintain live perennial vegetation where possible • Apply water in sufficient quantity to prevent generation of dust plumes
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	• Use of high pressure air to clear forms may cause exceedance of Rule requirements
Crushing	04-1 Stabilize surface soils prior to operation of Support equipment; and 04-2 Stabilize material after crushing	• Follow permit conditions for crushing equipment • Pre-water material prior to loading into crusher • Monitor crusher emissions opacity • Apply water to crushed material to prevent dust plumes
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and 05-2 Stabilize soil during and after cut and fill activities.	• For large sites, pre-water with sprinklers or water trucks and allow time for penetration • Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
Demolition-Mechanical/ Manual	06-1 Stabilize wind erodible surfaces to reduce dust; and 06-2 Stabilize surface soil where support equipment and vehicles would operate; and 06-3 Stabilize loose soil and demolition debris; and 06-4 Comply with AQMD Rule 1403.	• Apply water in sufficient quantities to prevent the generation of visible dust plumes
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and 07-2 Stabilize disturbed soil between structures	• Limit vehicular traffic and disturbances on soils where possible • If interior block walls are planned, install as early as possible • Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes

Table 3-13.11 - Best Available Control Measures (Applicable to All Construction Activity Sources)		
Source Category	**Control Measure**	**Guidance**
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and 08-3 Stabilize soils once earth-moving activities are complete.	• Grade each project phase separately, timed to coincide with construction phase • Upwind fencing can prevent material movement on site • Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Importing/ Exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least six inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	• Use tarps or other suitable enclosures on haul trucks • Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage • Comply with track-out prevention/mitigation requirements • Provide water while loading and unloading to reduce visible dust plumes
Landscaping	10-1 Stabilize soils, materials, slopes	• Apply water to material to stabilize • Maintain materials in a crusted condition • Maintain effective cover over materials • Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes • Hydroseed prior to rain season
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	• Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs • Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	• Dedicate water truck or high capacity hose to screening operation • Drop material through the screen slowly and minimize drop height • Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	• Limit size of staging area • Limit vehicle speeds to 15 miles per hour • Limit number and size of staging area entrances/exists

Table 3-13.11 - Best Available Control Measures (Applicable to All Construction Activity Sources)		
Source Category	**Control Measure**	**Guidance**
Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	• Add or remove material from the downwind portion of the storage pile • Maintain storage piles to avoid steep sides or faces
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	• Apply gravel/paving to all haul routes as soon as possible to all future roadway areas water trucks and allow time for penetration • Barriers can be used to ensure vehicles are only used on established parking areas/haul routes
Trenching	16-1 Stabilize surface soils where trencher or excavator and Support equipment would operate; and 16-2 Stabilize soils at the completion of trenching activities.	• Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching • Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	• Haul waste material immediately off-site
Unpaved roads/parking lots	19-1 Stabilize soils to meet the applicable performance standards; and 19-2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	• Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
Vacant land	20-1 In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

Table 3-13.12 - Dust Control Measures For Large Operations	
Fugitive Dust Source Category	**Control Actions**
Earth-moving (except construction cutting and filling areas, and mining operations)	(1a) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR (1a-1) For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.
Earth-moving: Construction cut areas and mining operations:	(1c) Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b) Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c) Apply chemical stabilizers within five working days of grading completion; OR (2d) Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a) Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR (3b) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (3c) Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR (3d) Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

Table 3-13.12 - Dust Control Measures For Large Operations (Continued)	
Fugitive Dust Source Category	**Control Actions**
Unpaved Roads	(4a) Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hours work day]; OR (4b) Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR (4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a) Apply chemical stabilizers; OR (5b) Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR (5c) Install temporary coverings; OR (5d) Install a three-sided enclosure with walls with no more than 50 percent porosity, which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.
All Categories	(6a) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.

Table 3-13.13 – Contingency Control Measures for Large Operation	
Fugitive Dust Source Category	**Control Actions**
Earth-moving	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations would not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four time per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3C) Stop all vehicular traffic.
Open storage piles	(1D) Apply water twice per hour; OR (2D) Install temporary coverings.
Paved road track-out	(1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

SCAQMD requires that at least one best available control measure be implemented for each source of fugitive dust. In addition, Rule 403 requires activities defined as "large operations" to notify the SCAQMD by submitting Form 403N, implement the Rule 403 Table 2 and 3 control actions, and maintain records of control measure implementation. Rule 403 defines large operations as: "any active operations on property which contains in excess of 50 acres of disturbed surface area; or any earth-moving operation which exceeds a daily earth-moving or throughput volume of 3,850 cubic meters (5,000 cubic yards) three times during the most recent 365-day period." In summary, prior to construction, Rule 403 entails the implementation of best available fugitive dust control measures during active operations capable of generating dust.

3-13.4 CUMULATIVE IMPACTS

The cumulative study area for air quality is the South Coast Air Basin (Basin).

Cumulative Air Quality Effects

Implementation of any of the projects in the study area has the potential to result in short-term impacts to air quality associated with construction activity (i.e., CO, NO_X, ROC, and PM_{10}) and some have the potential for long-term effects on air quality due to new vehicle trips, or use, storage, and transport of hazardous substances. The short-term effects are minimized through compliance with SCAQMD rules and regulations during construction. The long-term effects are minimized through mitigation specific to each project. The I-5/Carmenita project is listed in the 2006 Final RTIP, which was found to be conforming by the Federal Highway Administration (FHWA)/Federal Transportation Authority (FTA) on October 2, 2006, (Project ID No. LS0D73B) and therefore conforms to the SIP.

Project Contribution to Cumulative Air Quality Effects

Selection of Alternative 1 (No Build) would not involve construction by Caltrans and would, therefore, not contribute to cumulative effects to air quality impacts. There would be no short-term construction effects or long-term operation effects associated with the No Build Alternative.

Implementation of any build alternatives would contribute cumulatively to the exceedence of SCAQMD daily thresholds for CO and PM10 emission during short-term construction activity. Construction-related air quality impacts would be minimized through compliance with SCAQMD Rules and Regulations during construction.

The Build Alternatives' contribution to cumulative air quality effects is not considered adverse because the Build Alternatives are not anticipated to exceed the one-hour or eight-hour CO standards. The Build Alternatives would not contribute to cumulative effects on quality or toxic air emissions, since the alternatives are not expected to cause a substantial increase of toxic air constituents.

Implementation of any of the build alternatives could contribute to cumulative hazardous air pollutants relating to the demolition of asbestos-containing material (ACM). Compliance with SCAQMD Rules and Regulations for demolition of buildings containing ACM would minimize the potential effects.

Alternative 4 would not contribute to cumulative effects to regional air quality impacts since it is compliant with the State Implementation Plan; however, Alternative 5 would potentially contribute to regional air quality effects because it is not included in the 2004 RTIP. Inclusion and analysis of Alternative 5 in the RTP and RTIP would minimize the cumulative effect on regional air quality impacts since it would be compliant with the State Implementation Plan.

3-14 NOISE

3-14.1 REGULATORY SETTING

Traffic noise abatement requirements of FHWA are based on Title 23, *Code of Federal Regulations*, Part 772 (23 CFR, Part 772), "Procedures for Abatement of Highway Traffic and Construction Noise." Under NEPA, impacts and measures to mitigate adverse impacts must be identified, including the identification of impacts for which no or only partial mitigation is possible, when noise effects of a proposed project would substantially increase the ambient noise levels of adjacent areas. Under CEQA, a substantial increase may result in a significant adverse environmental impact and, if so, must be mitigated or identified as a noise impact for which it is likely that no, or only partial abatement measures are available. Under FHWA regulations, when noise levels approach or exceed the Federal Noise Abatement Criteria (NAC) (Table 3-14.1), noise abatement must be considered, and feasible and reasonable solutions recommended. When the predicted noise levels have substantially increased (12 dBA or greater increase) over the existing peak-noise hour levels, noise mitigation must be considered and feasible solutions recommended.

Table 3-14.1 – Noise Abatement Criteria

Activity Category	Noise Abatement Criteria (dBA) L_{eq}	Description of Activity Category
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 sports 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)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: 23 CFR Part 772, 2001

The state and federal policies require evaluation and determination to be made whether the proposed project would result in traffic noise impacts, which may also be a significant adverse environmental effect due to a substantial noise increase. If so, noise abatement or mitigation must be considered including identification of impacts for which no or only partial abatement or mitigation is available. Feasible and reasonable abatement or mitigation measures must be implemented for traffic noise impacts even when the changes in existing noise levels are not found to result in a significant impact. For purposes of noise analysis, when the predicted noise level reaches 1 dBA less than the NAC, it is considered to be approaching the NAC for all land use categories.

3-14.2 AFFECTED ENVIRONMENT

Information regarding noise was obtained from the I-5 Major Improvement Project Noise Study Report, March 2003.

Existing land uses are primarily residential. In addition, there is a church/school and two parks in close proximity to the project corridor. There are also commercial land uses that include industrial businesses, hotels, motels, restaurants, and wholesale and retail stores. Existing peak-hour noise levels along the project alignment range from 59 to 77 dBA.

3-14.3 IMPACTS

Operational Impacts

A noise study was conducted to determine the potential noise impacts at sensitive receptors within the boundaries of this project for the Year 2025. This section discusses the future noise environment, predicts impacts, and considers possible abatement/mitigation measures.

Level-of-Service (LOS) C volumes were modeled to ensure the absolute worst-case scenario traffic noise for the future year. The LOS C volumes or limits used for this project are 1,950 vehicles per hour per lane for the mainline and HOV lanes, and 1,000 vehicles per hour per lane for on and off ramps. Since the freeway traffic would be the dominant noise source at receptors located adjacent to the project corridor, no local surface street traffic was considered.

Table 3-14.2 presents the future LOS C traffic volumes, speeds, and traffic distributions used for the noise analysis. Traffic distribution for Interstate 5 was obtained from Caltrans Year 2000 Truck Traffic statistics available on the Caltrans web site. The total truck traffic percentages within the project boundaries were found to be 9%, with 4.3% being medium trucks and 4.7% being heavy trucks.

Table 3-14.2 - Design Year 2025 Peak Hour Traffic Volumes

Lane Type	Peak-Hour Traffic Volume (LOS C)	# of Lanes	Cars Vol (%)		Medium Trucks Vol (%)		Heavy Trucks Vol (%)		Vehicle Speed, km/h / mph
I-5 Northbound									
General Lanes	9750	5	8873	(91)	419	(4.3)	458	(4.7)	105 / 65
HOV Lanes	1950	1	1775	(100)	0	(0)	0	(0)	105 / 65
On and Off Ramps	1000	1	910	(90)	43	(4.3)	47	(4.7)	65 / 40
I-5 Southbound									
General Lanes	8873	5	8873	(91)	419	(4.3)	458	(4.7)	105 / 65
HOV Lanes	1775	1	1775	(100)	0	(0)	0	(0)	105 / 65
On and Off Ramps	910	1	910	(90)	43	(4.3)	47	(4.7)	65 / 40

Notes:
1. LOS C traffic volume/condition has been used to model peak noise hour traffic to obtain the worst case scenario.
2. Truck Percentages for I-5 traffic were obtained from Caltrans 2000 truck traffic data.

The existing peak-hour noise level readings represent the noise generated with freeway LOS F. Since the year 2025 no-build LOS is projected to be worse, and the worst-case noise levels are generated at LOS C, an increase in noise levels for the no-build alternative is not anticipated. Therefore, the projected noise levels for 2025 no-build are the same existing noise levels. The predicted peak-hour noise levels for the design year 2025 are shown in Table 3-14.3 (for the 12-lane Modified MIS Alternative) and Table 3-14.4 (for the 12-lane Value Analysis Alignment). Since alternatives 2 and 3 do not propose improvements to the freeway mainline, noise levels for these alternatives are anticipated to be the same as the as the no-build alternative.

The predicted future noise levels without abatement/mitigation range from 64 to 81 dBA. For both alignments, these future levels exceed the existing peak-hour noise levels at all of the receptor locations, and impacts are anticipated at all receptor sites with the exception of Receptors R72 and R73, which are shielded from the freeway by the elevated southbound Florence Avenue on-ramp.

Layouts in Appendix G depict the existing soundwalls, proposed soundwall, and receptor locations and noise levels on aerial photographs.

It is assumed in this study that all existing soundwalls along the corridor, on both sides of the freeway within the project limits, would be demolished as a result of the proposed project. This is one of the reasons why the future predicted noise levels without abatement/mitigation reflected in the tables are high compared to the existing noise levels that are benefiting from the existing soundwalls. All demolished soundwalls would be replaced per recommendations resulting from this noise study. Where practical, feasible and reasonable, it is recommended that proposed soundwalls shall be constructed prior to the removal of existing soundwalls in the beginning of the project as a mean of minimizing the impact on the sensitive receptors.

Soundwalls are generally not considered for commercial land uses unless they are considered areas of frequent human use where lowered noise levels would be of benefit. None of the commercial land uses adjacent to the project corridor is considered areas of frequent human use where lowered noise levels would be of benefit. There is an outdoor seating area at an In-N-Out Burger restaurant in the area, but it is considered transitory in nature or short –term occupation only and not considered "impacted." At the Extended Stay America hotel, results of the simultaneous indoor/outdoor measurements indicated that the building structure yields at least a 23-dBA attenuation. This attenuation would be sufficient in abating the interior noise levels inside the typical hotel rooms to noise levels that would be below the interior noise limits of the NAC of 52-dBA. This would also hold true for other hotels of similar construction located along side the corridor within the project limits. All hotels were observed to have similar window types and air conditioning. At most of the commercial properties, it is the parking lot that would be located closest to the project corridor.

Table 3-14.3 – Traffic Noise Prediction and Barrier Analysis – Modified MIS Alignment

REC. NO.	LAND USE [2]	EXISTING/ 2025 No-Build NOISE LEVELS		FUTURE NOISE LEVELS, Leq(h), dBA [1, 3]												BARRIER NO./LOCATION/ SEGMENT
				WITHOUT BARRIER	ACTIVITY CATEGORY AND NAC	IMPACT TYPE (S, A/E, or NONE) [6]	NOISE LEVELS AND BARRIER INSERTION LOSS (I.L.) AT VARIOUS HEIGHTS									
							2.4 m (8 ft)		3.0 m (10 ft)		3.7 m (12 ft)		4.3 m (14 ft)		4.9 m (16 ft)	
		Leq(h) dBA[3, 4]	MEAS. SITE NO. [5]				Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	
R 1A	COMM	71	M1A	74	C(72)	A/E	--	--	--	--	--	--	--	--	--	--	Artesia Blvd. to Carmenita Road
R 1B[9]	COMM	45	M1B	48	E(52)	NONE	--	--	--	--	--	--	--	--	--	--	
R 1C	COMM	74	M1C	76	C(72)	A/E	--	--	--	--	--	--	--	--	--	--	
R 1D	COMM	76	M1D	79	C(72)	A/E	--	--	--	--	--	--	--	--	--	--	
R 1E	COMM	71	M1E	72	C(72)	A/E	--	--	--	--	--	--	--	--	--	--	
R 1	SFR	61	E	76	B(67)	S	74	2	73 T	3	72	4	71	5	**70 R**	6	S48/Shoulder Carmenita Road to Rosecrans Ave.
R 2	SFR	62	M1	79	B(67)	S	75	4	74 T	5	72	7	70	9	**69 R**	10	
R 3	SFR	63	E	79	B(67)	S	75	4	74 T	5	72	7	70	9	**69 R**	10	
R 4	SFR	66	M2	79	B(67)	S	75	4	74 T	5	72	7	70	9	**69 R**	10	
R 5	SFR	64	M3	77	B(67)	S	74	3	73 T	4	71	6	70	7	**69 R**	8	
R 6	SFR	64	E	77	B(67)	S	74	3	73 T	4	71	6	70	7	**69 R**	8	
R 7	SFR	64	E	78	B(67)	S	75	3	74	4	73 T	5	71	7	**70 R**	8	
R 8	SFR	68	M5	77	B(67)	A/E	73	4	72	5	71 T	6	69	8	**68 R**	9	
R 9	COMM	73	E	79	C(72)	A/E	--	--	--	--	--	--	--	--	--	--	Carmenita Road to Rosecrans Ave.
R 10	COMM	74	M28	80	C(72)	A/E	--	--	--	--	--	--	--	--	--	--	
R 11	SFR	71	M6	73	B(67)	A/E	69 T	4	69	4	68	5	**67 R**	6	67	6	S56/Shoulder S64/ROW
R 12	SFR	70	M7	74	B(67)	A/E	69 T	6	67	6	66	8	**65 R**	9	65	9	
R 13	SFR	66	E	72	B(67)	A/E	68	4	67 T	5	65	7	**65 R, 7**	7	64	8	S64/ROW Rosecrans Ave. to Norwalk Blvd.
R 14	SFR	69	M8	71	B(67)	A/E	67	4	66	5	66	5	**65 R**	6	64	7	
R 15	SFR	67	E	74	B(67)	A/E	70 T	4	68	6	67	7	66	8	**65 R**	9	
R 16	SFR	68	E	78	B(67)	A/E	72 T	6	70	8	69	9	68	10	**67 R**	11	
R 17*	SFR	64	M12B	75	B(67)	A/E	73	2	71 T	4	70	5	69	6	**68 R**	7	
R 18*	SFR	64	E	75	B(67)	A/E	72	3	71 T	4	70	5	68	7	**67 R**	8	
R 19	SFR	64	M15B	75	B(67)	A/E	72	3	71 T	4	70	5	69	6	**67 R**	8	
R 20	SFR	68	M16	80	B(67)	S	71 T	9	69	11	68	12	67	13	**66 R**	14	
R 21	SFR	65	E	75	B(67)	A/E	70 T	5	69	6	68	7	67	8	**66 R**	9	
R 22	SFR	62	E	72	B(67)	A/E	68 T	4	67	5	66	6	66	6	**65 R**	7	
R 23	HTL	69	M17	71	B(67)	A/E	66	5	65	6	**64 R**	7	64	7	64	7	

Notes:

1 Traffic noise from freeway only; other local noise sources are not included
2 Land Uses: SFR – single family residence, MFR – multi-family residence, SCH – school, COMM – commercial, HTL – hotel
3 Leq levels are A weighted, eqivilant noise levels are in decibels (dBA re: 20 mPa).
4 Existing noise levels include the benefits of shielding provided by any existing barriers or rows of houses.
5 Noise measurement site number, or estimated existing noise level based on measurements; E = Estimated.
6 S = Substantial Increase (12 dBA or more); A/E = Approach or Exceed NAC.
7 Wall height recommended in order to meet requirements of adjacent receptor(s).
8 The overlapping segment of this barrier has been kept at a constant 2.4 m (8 ft) during the modeling of barrier heights ranging from 3 m (10 ft) to 4.9 m (16 ft).
9 Noise level at M1B measured indoors at Extended Stay America Motel.
C Modeled levels adjusted by calibration of noise model.
T Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
R Recommended height to meet feasibiity requirements of Caltrans Noise Analysis Protocol.
* Receptor location differs between Modified MIS Alternative and Value Analysis Alignment.

Insertion Loss (I.L.) is defined as the sound level at a given receiver before the construction of a barrier minus the sound level at the same receiver after the construction of the barrier.

Table 3-14.3 (continued) – Traffic Noise Prediction and Barrier Analysis – Modified MIS Alignment

REC. NO.	LAND USE [2]	EXISTING/ 2025 No-Build NOISE LEVELS		FUTURE NOISE LEVELS, Leq(h), dBA [1, 3]												BARRIER NO./LOCATION/ SEGMENT
							NOISE LEVELS AND BARRIER INSERTION LOSS (I.L.) AT VARIOUS HEIGHTS									
							2.4 m (8 ft)		3.0 m (10 ft)		3.7 m (12 ft)		4.3 m (14 ft)		4.9 m (16 ft)	
		Leq(h) dBA[3, 4]	MEAS. SITE NO. [5]	WITHOUT BARRIER	ACTIVITY CATEGORY AND NAC	IMPACT TYPE (S, A/E, or NONE) [6]	Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	
R 24	SFR	68	E	71	B (67)	A/E	68	3	67	4	67	4	67	4	**66** R	5	
R 25	SFR	67	M9B	72	B (67)	A/E	69	3	68 T	4	67	5	67	5	**66** R	6	
R 26	SFR	64	M10	78	B (67)	S	74	4	73 T	5	71	7	70	8	**69** R	9	S65/ROW Rosecrans Ave. to Norwalk Blvd.
R 27	SFR	65	M11	79	B (67)	S	75 T	4	73	6	71	8	70	9	**69** R	10	
R 28	SFR	65	E	79	B (67)	S	75 T	4	73	6	71	8	70	9	**69** R	10	
R 29	SFR	59	M14	77	B (67)	S	74	3	73 T	4	71	6	70	7	**68** R	9	
R 30 *	PARK	71	E	77	B (67)	A/E	70 T	7	69	8	68	9	67	10	**66** R	11	
R 31 *	SCH	69	M18	75	B (67)	A/E	69	6	69 T	6	68	7	**67** R	8	67	8	S65[8]/S75 Shoulder
R 32	MFR	68	M20	74	B (67)	A/E	70	4	69 T	5	68	6	67	7	**66** R	8	
R 33	MFR	61	M23	78	B (67)	S	74	4	73 T	5	71	7	70	8	**69** R	9	
R 34	SFR	63	E	76	B (67)	S	74	2	72	4	71 T	5	69	7	**68** R	8	S76/Shoulder Norwalk Blvd. To Imperial Hwy.
R 35	SFR	63	M24	76	B (67)	S	74	2	73	3	71 T	5	70	6	**69** R	7	
R 36	SFR	62	E	74	B (67)	S	72	2	71	3	69 T	5	68	6	**67** R	7	
R 37	SFR	60	M26	76	B (67)	S	70 T	6	69	7	68	8	**67** R	9	66	10	
R 38 *	SFR	71	M19	74	B (67)	A/E	69 T	5	68	6	66	8	**65** R	9	65	9	
R 39	SFR	71	M21	75	B (67)	A/E	72	3	70 T	5	69	6	68	7	**67** R	8	
R 40	SFR	72	E	76	B (67)	A/E	73	3	72 T	4	70	6	69	7	**68** R	8	
R 41 *	SFR	74	M22	78	B (67)	A/E	74	4	72 T	6	71	7	69	9	**68** R	10	S75/Shoulder Norwalk Blvd. To Imperial Hwy.
R 42	SFR	68	E	76	B (67)	A/E	72	4	71 T	5	69	7	68	8	**67** R	9	
R 43	SFR	59	M25B	72	B (67)	S	69	3	68 T	4	67	5	66	6	**65** R	7	
R 44	SFR	59	E	73	B (67)	S	70 T	3	69	4	68	5	**68** R, 7	5	68	5	
R 45	SFR	65	E	74	B (67)	A/E	69 T	5	67	7	66	8	**65** R	9	65	9	S76/ROW S82[8]/ROW
R 46	SFR	64	M27B	72	B (67)	A/E	67	5	66 T	6	65	7	**64** R, 7	8	64	8	
R 47 *	SFR	64	E	70	B (67)	A/E	67	3	66	4	**65** R	5	64	6	63	7	
R 48A	SFR	69	M32	68	B (67)	A/E	66	2	65	3	**65** R, 7	3	65	3	65	3	S82/ROW Imperial Hwy. To Pioneer Blvd.
R 49	SFR	70	M33	72	B (67)	A/E	68 T	4	67	5	**66** R	6	66	6	66	6	
R 50	SFR	67	E	74	B (67)	A/E	70	4	69	5	**68** R	6	67	7	66	8	

Notes:

1 Traffic noise from freeway only; other local noise sources are not included

2 Land Uses: SFR – single family residence, MFR – multi-family residence, SCH – school, COMM – commercial, HTL – hotel

3 Leq levels are A weighted, eqivilant noise levels are in decibels (dBA re: 20 mPa).

4 Existing noise levels include the benefits of shielding provided by any existing barriers or rows of houses.

5 Noise measurement site number, or estimated existing noise level based on measurements; E = Estimated.

6 S = Substantial Increase (12 dBA or more); A/E = Approach or Exceed NAC.

7 Wall height recommended in order to meet requirements of adjacent receptor(s).

8 The overlapping segment of this barrier has been kept at a constant 2.4 m (8 ft) during the modeling of barrier heights ranging from 3 m (10 ft) to 4.9 m (16 ft).

9 Noise level at M1B measured indoors at Extended Stay America Motel.

C Modeled levels adjusted by calibration of noise model.

T Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.

R Recommended height to meet feasibility requirements of Caltrans Noise Analysis Protocol.

* Receptor location differs between Modified MIS Alternative and Value Analysis Alignment.

Insertion Loss (I.L.) is defined as the sound level at a given receiver before the construction of a barrier minus the sound level at the same receiver after the construction of the barrier.

Table 3-14.3 (continued) – Traffic Noise Prediction and Barrier Analysis – Modified MIS Alignment

REC. NO.	LAND USE [2]	EXISTING/ 2025 No-Build NOISE LEVELS		FUTURE NOISE LEVELS, Leq(h), dBA [1, 3]												BARRIER NO./LOCATION/ SEGMENT
				WITHOUT BARRIER	ACTIVITY CATEGORY AND NAC	IMPACT TYPE (S, A/E, or NONE) [6]	NOISE LEVELS AND BARRIER INSERTION LOSS (I.L.) AT VARIOUS HEIGHTS										
							2.4 m (8 ft)		3.0 m (10 ft)		3.7 m (12 ft)		4.3 m (14 ft)		4.9 m (16 ft)		
		Leq(h) dBA [3, 4]	MEAS. SITE NO. [5]				Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	
R 51 [C]	MFR	70	M34	79	B (67)	A/E	73 [T]	6	71	8	70	9	69	10	**68** [R]	11	S92/ ROW Pioneer Blvd. to Florence Ave.
R 52 [C*]	SFR	62	E	77	B (67)	S	73	4	72 [T]	5	71	6	70	7	**69** [R]	8	
R 53 [C]	SFR	63	M38B	78	B (67)	S	75	3	73 [T]	5	72	6	70	8	**69** [R]	9	
R 54 [C]	SFR	63	E	78	B (67)	S	75	3	73 [T]	5	72	6	71	7	**70** [R]	8	
R 55	SFR	61	E	75	B (67)	S	71	4	70 [T]	5	68	7	67	8	**66** [R]	9	
R 56	SFR	64	M41	71	B (67)	A/E	67	4	66	5	66	5	**65** [R]	6	65	6	
R 57	SFR	64	M44	73	B (67)	A/E	68	5	67	6	66	7	**65** [R]	8	65	8	
R 58	SFR	66	M45	75	B (67)	A/E	70 [T]	5	69	6	68	7	**67** [R]	8	66	9	
R 59	SFR	66	M48	73	B (67)	A/E	70	3	69 [T]	4	68	5	**67** [R]	6	67	6	
R 60	SFR	67	M29	73	B (67)	A/E	68 [T]	5	67	6	66	7	66	7	**65** [R]	8	S91/ ROW Imperial Hwy. to Florence Ave.
R 61	SFR	68	M30	76	B (67)	A/E	70 [T]	6	69	7	67	9	67	9	**66** [R, 7]	10	
R 62 [C*]	PARK	77	M31	81	B (67)	A/E	75 [T]	6	73	8	72	9	70	11	**69** [R]	12	
R 63 [C]	SFR	64	E	79	B (67)	S	75	4	74 [T]	5	72	7	71	8	**70** [R]	9	
R 64	SFR	63	M35	77	B (67)	S	74	3	72	5	71 [T]	6	70	7	**69** [R]	8	
R 65	SFR	62	M35A	77	B (67)	S	74	3	72 [T]	5	71	6	70	7	**69** [R]	8	
R 66	SFR	64	M36	78	B (67)	S	74 [T]	4	72	6	71	7	70	8	**69** [R]	9	
R 67	SFR	62	E	75	B (67)	S	72	3	70 [T]	5	69	6	68	7	**67** [R]	8	
R 68	SFR	60	M39A	74	B (67)	S	69 [T]	5	68	6	67	7	66	8	**65** [R]	9	
R 69 *	SFR	63	E	73	B (67)	A/E	68 [T]	5	67	6	66	7	66	7	**65** [R]	8	
R 70	SFR	66	M43	76	B (67)	A/E	73	3	71 [T]	5	70	6	68	8	**67** [R]	9	
R 71	SFR	64	M46	76	B (67)	S	69 [T]	7	68	8	66	10	66	10	**65** [R]	11	
R 72	SFR	62	M47	65	B (67)	NONE	64	1	64	1	64	1	64	1	64	1	
R 73	SFR	61	E	64	B (67)	NONE	64	0	64	0	63	1	63	1	63	1	

Notes:

1 Traffic noise from freeway only; other local noise sources are not included
2 Land Uses: SFR – single family residence, MFR – multi-family residence, SCH – school, COMM – commercial, HTL – hotel
3 Leq levels are A weighted, eqivilant noise levels are in decibels (dBA re: 20 mPa).
4 Existing noise levels include the benefits of shielding provided by any existing barriers or rows of houses.
5 Noise measurement site number, or estimated existing noise level based on measurements; E = Estimated.
6 S = Substantial Increase (12 dBA or more); A/E = Approach or Exceed NAC.
7 Wall height recommended in order to meet requirements of adjacent receptor(s).
8 The overlapping segment of this barrier has been kept at a constant 2.4 m (8 ft) during the modeling of barrier heights ranging from 3 m (10 ft) to 4.9 m (16 ft).
9 Noise level at M1B measured indoors at Extended Stay America Motel.
C Modeled levels adjusted by calibration of noise model.
T Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
R Recommended height to meet feasibiity requirements of Caltrans Noise Analysis Protocol.
* Receptor location differs between Modified MIS Alternative and Value Analysis Alignment.

Insertion Loss (I.L.) is defined as the sound level at a given receiver before the construction of a barrier minus the sound level at the same receiver after the construction of the barrier.

Table 3-14.4 – Traffic Noise Prediction and Barrier Analysis – Value Analysis Alignment

REC. NO.	LAND USE [2]	EXISTING/ 2025 No-Build NOISE LEVELS		FUTURE NOISE LEVELS, Leq(h), dBA [1, 3]												BARRIER NO./LOCATION/ SEGMENT
				WITHOUT BARRIER	ACTIVITY CATEGORY AND NAC	IMPACT TYPE (S, A/E, or NONE) [6]	NOISE LEVELS AND BARRIER INSERTION LOSS (I.L.) AT VARIOUS HEIGHTS										
							2.4 m (8 ft)		3.0 m (10 ft)		3.7 m (12 ft)		4.3 m (14 ft)		4.9 m (16 ft)		
		Leq(h) dBA[3, 4]	MEAS. SITE NO. [5]				Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	
R 1A	COMM	71	M1A	74	C (72)	A/E	--	--	--	--	--	--	--	--	--	--	Artesia Blvd. To Carmenita Rd.
R 1B[9]	COMM	45	M1B	48	E (52)	NONE	--	--	--	--	--	--	--	--	--	--	
R 1C	COMM	74	M1C	76	C (72)	A/E	--	--	--	--	--	--	--	--	--	--	
R 1D	COMM	76	M1E	80	C (72)	A/E	--	--	--	--	--	--	--	--	--	--	
R 1E	COMM	71	M1D	72	C (72)	A/E	--	--	--	--	--	--	--	--	--	--	
R 1*	SFR	63	E	79	B (67)	S	75[T]	4	73	6	72	7	70	9	**69**[R]	10	S48/Shoulder Carmenita Rd. to Rosecrans Ave.
R 2	SFR	62	M1	79	B (67)	S	75	4	74[T]	5	72	7	70	9	**69**[R]	10	
R 3	SFR	63	E	79	B (67)	S	75	4	74[T]	5	72	7	70	9	**69**[R]	10	
R 4	SFR	66	M2	78	B (67)	S	75	3	74[T]	4	72	6	70	8	**69**[R]	9	
R 5	SFR	64	M3	77	B (67)	S	74	3	73[T]	4	71	6	70	7	**69**[R]	8	
R 6	SFR	64	E	77	B (67)	S	74	3	73	4	71[T]	6	70	7	**69**[R]	8	
R 7	SFR	64	E	78	B (67)	S	75	3	74	4	73[T]	5	71	7	**70**[R]	8	
R 8	SFR	68	M5	78	B (67)	A/E	74	4	72	6	71[T]	7	70	8	**69**[R]	9	
R 9	COMM	73	E	79	C (72)	A/E	--	--	--	--	--	--	--	--	--	--	Carmenita Rd. to Rosecrans Ave.
R 10	COMM	74	M28	80	C (72)	A/E	--	--	--	--	--	--	--	--	--	--	
R 11	SFR	71	M6	72	B (67)	A/E	69	3	68[T]	4	67	5	**67**[R, 7]	5	66	6	S56/ Shoulder S64/ ROW
R 12	SFR	70	M7	73	B (67)	A/E	68[T]	5	67	6	66	7	**65**[R]	8	65	8	
R 13	SFR	66	E	71	B (67)	A/E	67[T]	4	66	5	65	6	**64**[R, 7]	7	64	7	S64/ ROW Rosecrans Ave. to Norwalk Blvd.
R 14	SFR	69	M8	72	B (67)	A/E	68[T]	4	67	5	66	6	**65**[R]	7	64	8	
R 15	SFR	67	E	73	B (67)	A/E	70	3	68[T]	5	67	6	66	7	**65**[R]	8	
R 16	SFR	68	E	77	B (67)	A/E	72[T]	5	70	7	69	8	68	9	**67**[R]	10	
R 17[C*]	SFR	71	M12A	80	B (67)	A/E	74[T]	6	72	8	71	9	70	10	**69**[R]	11	
R 18*	SFR	66	M13	81	B (67)	S	73[T]	8	71	10	69	12	68	13	**67**[R]	14	
R 19	SFR	64	M15B	75	B (67)	A/E	72	3	71[T]	4	70	5	68	7	**67**[R]	8	
R 20[C]	SFR	68	M16	81	B (67)	S	74[T]	7	72	9	71	10	69	12	**68**[R]	13	
R 21	SFR	65	E	74	B (67)	A/E	70	4	69[T]	5	67	7	67	7	**66**[R]	8	
R 22	SFR	62	E	71	B (67)	A/E	68[T]	3	67	4	66	5	**65**[R]	6	65	6	
R 23	HTL	69	M17	69	B (67)	A/E	65	4	64	5	**63**[R]	6	63	6	63	6	

Notes:

1 Traffic noise from freeway only; other local noise sources are not included
2 Land Uses: SFR – single family residence, MFR – multi-family residence, SCH – school, COMM – commercial, HTL – hotel
3 Leq levels are A weighted, eqivilant noise levels are in decibels (dBA re: 20 mPa).
4 Existing noise levels include the benefits of shielding provided by any existing barriers or rows of houses.
5 Noise measurement site number, or estimated existing noise level based on measurements; E = Estimated.
6 S = Substantial Increase (12 dBA or more); A/E = Approach or Exceed NAC.
7 Wall height recommended in order to meet requirements of adjacent receptor(s).
8 The overlapping segment of this barrier has been kept at a constant 2.4 m (8 ft) during the modeling of barrier heights ranging from 3 m (10 ft) to 4.9 m (16 ft).
9 Noise level at M1B measured indoors at Extended Stay America Motel.
C Modeled levels adjusted by calibration of noise model.
T Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
R Recommended height to meet feasibility requirements of Caltrans Noise Analysis Protocol.
* Receptor location differs between Modified MIS Alternative and Value Analysis Alignment.

Insertion Loss (I.L.) is defined as the sound level at a given receiver before the construction of a barrier minus the sound level at the same receiver after the construction of the barrier.

Table 3-14.4 (continued) – Traffic Noise Prediction and Barrier Analysis – Value Analysis Alignment

REC. NO.	LAND USE [2]	EXISTING/ 2025 No-Build NOISE LEVELS		FUTURE NOISE LEVELS, Leq(h), dBA [1, 3]												BARRIER NO./LOCATION/ SEGMENT
				WITHOUT BARRIER	ACTIVITY CATEGORY AND NAC	IMPACT TYPE (S, A/E, or NONE) [6]	NOISE LEVELS AND BARRIER INSERTION LOSS (I.L.) AT VARIOUS HEIGHTS									
							2.4 m (8 ft)		3.0 m (10 ft)		3.7 m (12 ft)		4.3 m (14 ft)		4.9 m (16 ft)	
		Leq(h) dBA[3, 4]	MEAS. SITE NO. [5]				Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	
R 24	SFR	68	E	70	B (67)	A/E	67[T]	3	66	4	66	4	**65**[R]	5	65	5	
R 25	SFR	67	M9B	72	B (67)	A/E	69	3	68[T]	4	67	5	**66**[R]	6	66	6	
R 26	SFR	64	M10	80	B (67)	S	75[T]	5	73	7	71	9	70	10	**69**[R]	11	S65/ ROW Rosecrans Ave. to Norwalk Blvd.
R 27	SFR	65	M11	80	B (67)	S	75	5	73[T]	7	71	9	70	10	**68**[R]	12	
R 28	SFR	65	E	80	B (67)	S	75[T]	5	73	7	71	9	70	10	**69**[R]	11	
R 29	SFR	59	M14	78	B (67)	S	74	4	73[T]	5	71	7	70	8	**69**[R]	9	
R 30*	PARK	71	E	76	B (67)	A/E	70	6	69[T]	7	68	8	67	9	**66**[R]	10	
R 31*	SCH	69	E	75	B (67)	A/E	70	5	69[T]	6	**68**[R]	7	68	7	67	8	S65[8]/ S75 Shoulder
R 32	MFR	68	M20	74	B (67)	A/E	70	4	69[T]	5	68	6	67	7	**66**[R]	8	
R 33	MFR	61	M23	77	B (67)	S	73	4	72[T]	5	70	7	69	8	**68**[R]	9	
R 34	SFR	63	E	76	B (67)	S	72	4	71	5	70[T]	6	69	7	**68**[R]	8	S76/ Shoulder Norwalk Blvd. to Imperial Hwy.
R 35	SFR	63	M24	77	B (67)	S	73	4	72	5	70[T]	7	69	8	**68**[R]	9	
R 36	SFR	62	E	75	B (67)	S	72	3	70	5	69[T]	6	68	7	**67**[R]	8	
R 37	SFR	60	M26	75	B (67)	S	70[T]	5	69	6	67	8	**66**[R]	9	66	9	
R 38*	SFR	71	E	75	B (67)	A/E	70[T]	5	69	6	67	8	66	9	**65**[R]	10	
R 39	SFR	71	M21	75	B (67)	A/E	72	3	71[T]	4	69	6	68	7	**67**[R]	8	
R 40	SFR	72	E	77	B (67)	A/E	74	3	72[T]	5	71	6	69	8	**68**[R]	9	S75/ Shoulder Norwalk Blvd. to Imperial Hwy.
R 41*	SFR	71	E	75	B (67)	A/E	73	2	72[T]	3	70	5	69	6	**68**[R]	7	
R 42	SFR	68	E	77	B (67)	A/E	72[T]	5	71	6	69	8	68	9	**67**[R]	10	
R 43	SFR	59	M25B	73	B (67)	S	69	4	68[T]	5	67	6	66	7	**65**[R]	8	
R 44	SFR	59	E	73	B (67)	S	69[T]	4	68	5	**67**[R]	6	67	6	67	6	
R 45	SFR	65	E	73	B (67)	A/E	69[T]	4	67	6	66	7	**65**[R]	8	64	9	
R 46	SFR	64	M27B	72	B (67)	A/E	68	4	66[T]	6	65	7	**64**[R]	8	63	9	S76/ ROW S82[8]/ ROW S82/ ROW Imperial Hwy. to Pioneer Blvd.
R 47*	SFR	63	E	66	B (67)	A/E	64	2	64	2	**64**[R]	2	64	2	64	2	
R 48A	SFR	69	M32	70	B (67)	A/E	66	4	66	4	**65**[R]	5	65	5	64	6	
R 49	SFR	70	M33	73	B (67)	A/E	68[T]	5	67	6	67	6	**66**[R]	7	65	8	
R 50	SFR	67	E	74	B (67)	A/E	70	4	69[T]	5	67	7	**66**[R]	8	66	8	

Notes:

1 Traffic noise from freeway only; other local noise sources are not included

2 Land Uses: SFR – single family residence, MFR – multi-family residence, SCH – school, COMM – commercial, HTL – hotel

3 Leq levels are A weighted, eqivilant noise levels are in decibels (dBA re: 20 mPa).

4 Existing noise levels include the benefits of shielding provided by any existing barriers or rows of houses.

5 Noise measurement site number, or estimated existing noise level based on measurements; E = Estimated.

6 S = Substantial Increase (12 dBA or more); A/E = Approach or Exceed NAC.

7 Wall height recommended in order to meet requirements of adjacent receptor(s).

8 The overlapping segment of this barrier has been kept at a constant 2.4 m (8 ft) during the modeling of barrier heights ranging from 3 m (10 ft) to 4.9 m (16 ft).

9 Noise level at M1B measured indoors at Extended Stay America Motel.

C Modeled levels adjusted by calibration of noise model.

T Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.

R Recommended height to meet feasibiity requirements of Caltrans Noise Analysis Protocol.

* Receptor location differs between Modified MIS Alternative and Value Analysis Alignment.

Insertion Loss (I.L.) is defined as the sound level at a given receiver before the construction of a barrier minus the sound level at the same receiver after the construction of the barrier.

Table 3-14.4 (continued) – Traffic Noise Prediction and Barrier Analysis – Value Analysis Alignment

REC. NO.	LAND USE [2]	EXISTING/ 2025 No-Build NOISE LEVELS		FUTURE NOISE LEVELS, Leq(h), dBA [1,3]												BARRIER NO./LOCATION/ SEGMENT
				WITHOUT BARRIER	ACTIVITY CATEGORY AND NAC	IMPACT TYPE (S, A/E, or NONE) [6]	NOISE LEVELS AND BARRIER INSERTION LOSS (I.L.) AT VARIOUS HEIGHTS										
							2.4 m (8 ft)		3.0 m (10 ft)		3.7 m (12 ft)		4.3 m (14 ft)		4.9 m (16 ft)		
		Leq(h) dBA [3,4]	MEAS. SITE NO. [5]				Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	Leq(h)	I.L.	
R 51[C]	MFR	70	M34	78	B (67)	A/E	73	5	72	6	70[T]	8	69	9	**68**[R]	10	S92/ ROW Pioneer Blvd. to Florence Ave.
R 52[C*]	SFR	69	M37	78	B (67)	A/E	72[T]	6	71	7	70	8	69	9	**68**[R]	10	
R 53A[C]	SFR	69	M38A	79	B (67)	A/E	73[T]	6	71	8	70	9	69	10	**68**[R]	11	
R 54[C]	SFR	63	E	78	B (67)	S	75	3	73[T]	5	72	6	71	7	**69**[R]	9	
R 55	SFR	61	E	75	B (67)	S	71	4	70[T]	5	68	7	67	8	**66**[R]	9	
R 56	SFR	64	M41	71	B (67)	A/E	67	4	66	5	66	5	**65**[R]	6	65	6	
R 57	SFR	64	M44	73	B (67)	A/E	67	6	67	6	66	7	**65**[R]	8	65	8	
R 58	SFR	66	M45	76	B (67)	A/E	70[T]	6	69	7	68	8	**67**[R]	9	66	10	
R 59	SFR	66	M48	73	B (67)	A/E	70	3	69[T]	4	68	5	**67**[R]	6	67	6	
R 60	SFR	67	M29	72	B (67)	A/E	67[T]	5	66	6	66	6	**65**[R]	7	65	7	S91/ ROW Imperial Hwy. to Florence Ave.
R 61	SFR	68	M30	75	B (67)	A/E	69[T]	6	68	7	67	8	**66**[R,7]	9	66	9	
R 62[C*]	PARK	77	E	81	B (67)	A/E	75[T]	6	73	8	72	9	70	11	**69**[R]	12	
R 63[C]	SFR	64	E	80	B (67)	S	76	4	74[T]	6	73	7	71	9	**70**[R]	10	
R 64	SFR	63	M35	78	B (67)	S	74	4	73[T]	5	71	7	70	8	**69**[R]	9	
R 65	SFR	62	M35A	78	B (67)	S	74	4	73[T]	5	71	7	70	8	**69**[R]	9	
R 66	SFR	64	M36	78	B (67)	S	74[T]	4	72	6	71	7	70	8	**69**[R]	9	
R 67	SFR	62	E	75	B (67)	S	72	3	70[T]	5	69	6	68	7	**67**[R]	8	
R 68	SFR	60	M39A	74	B (67)	S	69[T]	5	68	6	67	7	66	8	**65**[R]	9	
R 69*	SFR	64	M42	67	B (67)	A/E	65	2	65	2	64	3	64	3	**64**[R,7]	3	
R 70	SFR	66	M43	74	B (67)	A/E	70	4	69	5	68	6	67	7	**66**[R]	8	
R 71	SFR	64	M46	76	B (67)	S	69	7	68	8	67	9	66	10	**65**[R]	11	
R 72	SFR	62	M47	65	B (67)	NONE	65	0	65	0	64	1	64	1	64	1	
R 73	SFR	61	E	64	B (67)	NONE	64	0	64	0	64	0	64	0	64	0	

Notes:

1 Traffic noise from freeway only; other local noise sources are not included
2 Land Uses: SFR – single family residence, MFR – multi-family residence, SCH – school, COMM – commercial, HTL – hotel
3 Leq levels are A weighted, eqivilant noise levels are in decibels (dBA re: 20 mPa).
4 Existing noise levels include the benefits of shielding provided by any existing barriers or rows of houses.
5 Noise measurement site number, or estimated existing noise level based on measurements; E = Estimated.
6 S = Substantial Increase (12 dBA or more); A/E = Approach or Exceed NAC.
7 Wall height recommended in order to meet requirements of adjacent receptor(s).
8 The overlapping segment of this barrier has been kept at a constant 2.4 m (8 ft) during the modeling of barrier heights ranging from 3 m (10 ft) to 4.9 m (16 ft).
9 Noise level at M1B measured indoors at Extended Stay America Motel.
C Modeled levels adjusted by calibration of noise model.
T Minimum height required to block the line-of-sight from the receptor to truck exhaust stacks.
R Recommended height to meet feasibility requirements of Caltrans Noise Analysis Protocol.
* Receptor location differs between Modified MIS Alternative and Value Analysis Alignment.

Insertion Loss (I.L.) is defined as the sound level at a given receiver before the construction of a barrier minus the sound level at the same receiver after the construction of the barrier.

Construction Impacts

Noise due to project construction would be intermittent and the intensity of it would vary. The degree of construction noise impacts may vary for different areas of the project site and depending on the construction activities. Long-term noise exposure descriptors are difficult to quantify due to the intermittent nature of construction noise. Highway construction is accomplished in several different phases. These typical phases and their estimated overall noise levels at the right-of-way can be characterized by the information in Table 3-14.5 (FHWA, 1977).

Table 3-14.5 - Typical Construction Noise

Construction Phase	Leq(h), dBA	
	15 meters (50 feet) from centerline	30 meters (100 feet) from centerline
Clearing and Grubbing	86	83
Earthwork	88	85
Foundation	85	82
Base Preparation	88	85
Paving	89	86

Construction noise impacts can be assessed by comparing the existing noise levels with the expected noise levels produced by various construction activities. More detailed construction noise levels cannot be calculated at this time because some of the necessary data, such as the type of equipment, effective usage factor, and number of each equipment type, are not yet available. During the construction period, some of the sensitive receptors that are close to the freeway may be impacted.

3-14.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

Operational Abatement Measures

Tables 3-14.6 and 3-14.7 provide a summary of the barriers recommended to abate/mitigate noise impacts at noise sensitive receptors located adjacent to proposed project corridor for the two separate alignments, the Modified MIS Alternative and the Value Analysis Alignment, respectively. These summary tables provide the type and number of benefited noise sensitive receptors, barrier location, and height of each of the barriers. The number of benefited residences/receptors was determined by calculating/modeling the noise levels and reductions at various distances and calculating the distance from the freeway that each recommended barrier produces at least a 5-dB reduction or attenuation with distance attenuation and building shielding taken into consideration. Results of simultaneous noise measurements at first and second row residences were also used for this purpose. The numbers of residences that fall within this distance and produce the 5 dB reduction were then counted as benefited.

Future noise levels were predicted at noise sensitive receptors, i.e., residences, schools, and playgrounds, along the freeway to assess potential impacts. Selected sensitive receptor sites included existing first-row and would-be first-row residences since the proposed project involves the displacement of many structures immediately adjacent to the freeway to make room for the freeway expansion.

Soundwalls at optimum location and of appropriate height and length were analyzed and recommended separately for each of the two alternatives considered. Caltrans guidelines and criteria were strictly followed, including the abatement/mitigation "feasibility" and "reasonableness" analysis. The abatement must provide a readily perceptible reduction of at least 5 dBA to be considered feasible. Greater noise reductions are encouraged as long as they can be achieved under the reasonable guidelines. The overall reasonableness of noise abatement is determined by considering a multitude of factors including but not limited to the following:

- Cost of abatement
- Absolute noise levels
- Change in noise levels
- Noise Abatement benefits
- Date of development along the highway
- Life cycle of abatement measures
- Environmental impacts of abatement construction
- Views (opinions) of impacted residents
- Input from the public and local agencies
- Social, economic, environmental, legal, and technological factors

A final decision on the installation of abatement measures would be made upon completion of the design process and the public involvement process.

Table 3-14.6 - Summary of Recommended Barriers – Modified MIS Alignment

Barrier No.	Receptor No.	Type and No. of Benefited Residences	Barrier Location/ Hwy. Side	Barrier Height/ Total Length	Reasonable Allowance Cost	
					Per Residence	Per Barrier(s)
S48	R1-R8	49 Single Family Residences	Shoulder/ Northbound	4.9 m (16 ft)/ 890 m (2920 ft)	$43,000	$2,107,000
S56	R11-R12	42 Single Family Residences	Shoulder/ Northbound	4.3 m (14 ft)/ 280 m (919 ft)	$37,000	$5,587,000
S64	R12-R23	109 Single Family Residences	Right-of-Way/ Northbound	3.7 m (12 ft) to 4.9 m (16 ft)/ 1350 m (4429 ft)		
S65	R24-R31	61 Single Family Residences	Right-of-Way/ Southbound	2.4 m (8 ft) to 4.9 m (16 ft)/ 1150 m (3773 ft)	$41,000	$2,501,000
S75	R31, R38-R44	72 Single Family Residences	Shoulder/ Southbound	4.3 m (14 ft) to 4.9 m (16 ft)/ 1140 m (3740 ft)	$37,000	$2,664,000
S76	R32-R37, R45-R46	34 Single Family Residences and 8 Multi Family Residences	Shoulder/ Northbound	4.3 m (14 ft) to 4.9 m (16 ft)/ 940 m (3084 ft)	$41,000	$1,722,000
S82	R45-R50	37 Single Family Residences	Right-of-Way/ Northbound	2.4 m (8 ft) to 3.7 m (12 ft)/ 555 m (1821 ft)	$35,000	$1,295,000
S92	R51-R59	106 Single Family Residences and 1 Multi Family Residence	Right-of-Way/ Northbound	4.3 m (14 ft) to 4.9 m (16 ft)/ 1675 m (5495 ft)	$39,000	$4,173,000
S91	R60-R71	146 Single Family Residences	Right-of-Way/ Southbound	4.9 m (16 ft)/ 2060 m (6759 ft)	$41,000	$5,986,000

Table 3-14.7 - Summary of Recommended Barriers – Value Analysis Alignment

Barrier No.	Receptor No.	Type and No. of Benefited Residences	Barrier Location/ Hwy. Side	Barrier Height/ Total Length	Reasonable Allowance Cost	
					Per Residence	Per Barrier(s)
S48	R1-R8	49 Single Family Residences	Shoulder/ Northbound	4.9 m (16 ft)/ 890 m (2920 ft)	$43,000	$2,107,000
S56	R11-R12	42 Single Family Residences	Shoulder/ Northbound	4.3 m (14 ft)/ 340 m (1116 ft)	$37,000	$6,586,000
S64	R12-R23	136 Single Family Residences	Right-of-Way/ Northbound	3.7 m (12 ft) to 4.9 m (16 ft)/ 1350 m (4429 ft)		
S65	R24-R31	61 Single Family Residences	Right-of-Way/ Southbound	2.4 m (8 ft) to 4.9 m (16 ft)/ 1150 m (3773 ft)	$41,000	$2,501,000
S75	R31, R38-R44	63 Single Family Residences	Shoulder/ Southbound	3.7 m (14 ft) to 4.9 m (16 ft)/ 1170 m (3839 ft)	$39,000	$2,457,000
S76	R32-R37, R45-R46	36 Single Family Residences and 8 Multi Family Residences	Shoulder/ Northbound	4.3 m (14 ft) to 4.9 m (16 ft)/ 940 m (3084 ft)	$43,000	$1,892,000
S82	R45-R50	44 Single Family Residences	Right-of-Way/ Northbound	2.4 m (8 ft) to 4.3 m (14 ft)/ 560 m (1837 ft)	$35,000	$1,540,000
S92	R51-R59	127 Single Family Residences and 1 Multi Family Residence	Right-of-Way/ Northbound	4.3 m (14 ft) to 4.9 m (16 ft)/ 1660 m (5446 ft)	$41,000	$5,248,000
S91	R60-R73	152 Single Family Residences	Right-of-Way/ Southbound	4.3 m (14 ft) to 4.9 m (16 ft)/ 2060 m (6759 ft)	$41,000	$6,232,000

Construction Abatement Measures

The following measures should be implemented in order to minimize noise and vibration disturbances at sensitive receptors during periods of construction:

Equipment Noise Control

- Where practical, feasible and reasonable, proposed soundwalls shall be constructed prior to the removal of existing soundwalls in the beginning of the project as a mean of minimizing any impact on the sensitive receptors.
- Use newer equipment with improved noise muffling and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine enclosures, and engine vibration isolators intact and operational. Newer equipment would generally be quieter in operation than older equipment. All construction equipment should be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding, etc.).
- Utilize construction methods or equipment that would provide the lowest level of noise and ground vibration impact such as alternative low noise pile installation methods.
- Turn off idling equipment.
- Temporary noise barriers should be used and relocated, as needed, to protect sensitive receptors against excessive noise from construction activities. Noise barriers can be made of heavy plywood, or moveable insulated sound blankets.

Administrative Measures

- Implement a construction noise and/or vibration monitoring program in or limit the impacts.
- Comply, when possible, with relevant construction noise criteria of affected cities, i.e., Santa Fe Springs, Downey, and Norwalk. The City of Norwalk restricts construction to daytime hours between 7 am and 6 pm. Santa Fe Springs restricts construction activities to daytime hours between 7 am and 7 pm. The City of Downey imposes a maximum sustainable noise limit of 85 dBA, and allows construction activity to occur during daytime hours of 7 am to 7 pm, Monday to Saturday; construction activity is prohibited on Sundays.
- Limit construction activities to daytime hours, if possible. If nighttime construction is absolutely necessary, obtain the proper permits and variances.
- Keep noise levels relatively uniform and avoid impulsive noises.
- Maintain good public relations with the community to minimize objections to unavoidable construction impacts. Provide frequent activity updates of all construction activities and schedules.

A combination of abatement/mitigation techniques with equipment noise control and administrative measures can be selected to provide the most effective means to minimize effects of the construction activity. Application of these abatement/mitigation measures would reduce construction related noise impacts; however, a temporary increase in noise and vibration over the existing ambient levels may still occur.

3-14.5 CUMULATIVE IMPACTS

The cumulative study area for noise includes the projects within 0.8 kilometer (0.5 mile) of the project right-of-way.

Cumulative Noise Effects

Implementation of the projects in the cumulative study area would result in cumulative short-term noise effects to sensitive land uses during construction. Short-term noise impacts are localized and temporary and can be controlled through compliance with local noise ordinances. Implementation of the projects in the study area would contribute to cumulative operational stationary-source and off-site traffic noise impacts. Measures to reduce the impacts were included in the environmental documentation associated with the major projects in the study area noise attenuation measures such as construction of solid walls perimeters and installation of sound minimizing windows to reduce noise impacts were designed for projects that were estimated to exceed interior and exterior noise standards. However, some long-term/operation noise impacts could still exist after mitigation.

Project Contribution to Cumulative Noise Effects

Implementation of any of the build alternatives would contribute to cumulative short-term/ construction noise effects. Alternatives 4 and 5 each involve the addition of lanes to I-5 which would involve longer construction periods, and potentially greater noise impacts than Alternatives 2 and 3. Short-term noise impacts under each alternative (e.g., equipment noise control, administrative measures) would be minimized through implementation of the measures identified.

Implementation of Alternatives 4 and 5 would contribute to cumulative long-term operational noise effects. Inclusion of noise barriers in the project design would reduce the project noise effects and minimize the project's contribution to the cumulative noise impacts on the study; however, some noise levels would continue to exceed federal and State standards.

3-15 ENERGY

3-15.1 REGULATORY SETTING

California Department of Transportation Director's Policy 0-1-2003, Energy Efficiency and Conservation, states that the Department incorporates energy efficiency and conservation measures into its services and products, and implements strategies to improve the performance of transportation facilities, and promote sustainable transportation and lower vehicular emissions.

CEQ Regulation 40 CFR 1502.16(e) requires environmental documents to identify energy requirements and conservation potential of the various alternatives and mitigation measures.

3-15.2 AFFECTED ENVIRONMENT

Energy consumption associated with vehicular movement is almost entirely confined to the consumption of fossil fuel (gasoline and diesel). According to the SCAG 1998 Regional Transportation Plan, in the six-county SCAG region, an estimated 5.5 billion gallons of gasoline and 530 million gallons of diesel fuel were consumed annually in 1990. By the year 2020, these figures are estimated to grow to 7.7 billion gallons of gasoline and 740 million gallons of diesel fuel per year.

3-15.3 IMPACTS

Construction of the 10 or 12 lane alternative would entail a one-time energy expenditure to manufacture building materials, prepare the surface, and construct the roadway and facilities. This expenditure is balanced by the improved system efficiency over the design life of the project.

While renewable natural resources such as lumber would be used in the construction of the project, there would not be an increase in the rate of consumption in the region. Non-renewable resources such as fossil fuels would be used during construction and also used by motorists following construction of the project. However, this use would not cause a substantial depletion in the supplies of these resources.

3-15.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

None Required

3-15.5 CUMULATIVE IMPACTS

Cumulative Energy Effects

Implementation of the projects in the study area would result in a cumulative effect on the consumption of nonrenewable natural resources (i.e., lumber for construction, fossil fuels [gasoline and diesel] used to for equipment operation and vehicle trips to and from construction sites).

Considering a number of projects in the study area are redevelopment projects, it is anticipated that modern energy-conserving fixtures, appliances, etc. would replace inefficient equipment, lessening the use of non-renewable energy sources on-site. The projects are also anticipated to stimulate local economy and may result in a net increase vehicular trips over existing conditions,

particularly the shopping areas. Therefore, implementation of the projects in the study has the potential for increasing demand for energy on energy sources.

Project Contribution to Cumulative Energy Effects

Alternative 1 (No Build) would not contribute to short-term cumulative effects to energy because the project does not include construction on the I-5. There would be no short-term construction or long-term beneficial energy effects associated with the No Build Alternative. With this alternative, existing and projected congestion on the existing I-5 freeway would increase, resulting in increased consumption of gasoline associated with idling during peak periods of congestion.

Implementation of any of the Build Alternatives would contribute to the cumulative short-term since it would require the expenditure of energy resources to construct the proposed improvement. This expenditure would be offset by the energy savings associated reduced congestion as a result of improvements to the I-5 freeway and local intersections.

BIOLOGICAL ENVIRONMENT

3-16 WETLANDS AND OTHER WATERS OF THE UNITED STATES

3-16.1 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 other 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 Department of Fish and Game (CDFG) and the Regional Water Quality Control Boards (RWQCB). In certain circumstances, the Coastal Commission (or Bay Conservation and Development 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 for additional details.

3-16.2 AFFECTED ENVIRONMENT

Information regarding wetlands and other waters of the U.S. was obtained from a Water Quality Report, dated June 1998 and a Natural Environment Study Memo, dated December 3, 2002.

There are several flood control channels within the project area, including Fullerton Creek, Coyote and North Fork Coyote Creek and the San Gabriel River. These flood control channels and the San Gabriel River are considered "Other Waters of the United States". There are wetlands within the San Gabriel River, however these are located outside of the project area.

3-16.3 IMPACTS

Construction of the proposed alternatives could affect water quality: 1) from construction activity within the various flood control channels (through erosion of exposed soil within the drainage channels), 2) through storm water discharges from the construction area along I-5, and 3) by reducing the groundwater recharge during construction. Proposed improvements over the San Gabriel River are limited to lane re-striping to match the existing lane configuration north of the project limits.

Since construction of the project would be undertaken in accordance with the applicable NPDES permits, adverse impacts to water quality are not anticipated.

3-16.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

A 1602 Streambed Alteration Agreement from the California Department of Fish and Game would be required for this project. A Section 404 permit from the U.S. Army Corps of Engineers and a Section 401 permit from the California Regional Water Quality Control Board may also be needed for this project.

For areas outside of the flood control channels, construction of the 10 and 12 lane alternatives would require construction of an area greater than 1 acre and would therefore be subject to the National Pollutant Discharge Elimination System (NPDES) permitting process. To address storm water discharges from construction, the permits contain standard provisions that are intended to provide a required level of storm water pollution prevention.

A construction Storm Water Pollution Prevention Plan (SWPPP) would be prepared prior to the start of construction to ensure compliance with existing NPDES permits. The SWPPP would be kept on site during construction and made available upon request to the RWQCB, responsible local agencies, and the public.

The SWPPP would identify potential sources of pollutants, describe erosion and sediment controls, contain non-storm water provisions, describe post-construction storm water management, describe waste management activities, include a maintenance and inspection component, include a list of contractors, incorporate other storm water related plans if applicable, and would list the name of the preparer. Caltrans would conduct additional inspections or analysis if required by the RWQCB, inspect construction sites prior to anticipated storm events and after actual events in order to identify areas contributing to storm water discharge pollutants and evaluate the adequacy of the control measures identified in the SWPPP, certify annually that construction is in compliance with the applicable NPDES permit and SWPPP, and retain the monitoring records for at least three years following completion of construction.

3-16.5 CUMULATIVE IMPACTS

Cumulative Wetlands and Other Waters of the United States Effects
The study area for waters of the U.S. impacts encompasses the geographic boundaries of the Cities of Buena Park, Cerritos, Downey, La Mirada, Norwalk, and Santa Fe Springs. The study area is mostly built out; there may be isolated wetlands, and the improved flood control channels may be subject to U.S. Army Corps of Engineers (Corps), California Department of Fish and Game (CDFG) and Regional Water Quality Control Board jurisdiction.

Direct impacts on urban wetlands and other waters of the U.S. could occur from development/redevelopment projects in the study area. Existing regulatory requirements, however, ensure that implementation of these projects would not result in cumulative effects on wetlands and other waters of the U.S. Wetlands regulatory requirements include avoidance and minimization of impacts and "no net loss" policies imposed by the Corps and CDFG. Regulatory requirements concerning non-wetland waters of the U.S. require avoidance and minimization of impacts. Section 404 of the federal Clean Water Act has a "no net loss" of wetlands provision; it requires that wetlands lost due to a Section 404-permitted project be replaced at a minimum 1:1 ratio.

Indirect impacts of the cumulative projects, including increases in peak storm flows, wetland inundation, and water quality degradation, can also affect waters of the U.S. Project hydrology is subject to review and minimization measures of the local jurisdiction to prevent downstream flooding. Federal regulations require reduction in pollutant discharges to the "maximum extent practicable." Within Los Angeles and Orange Counties, development/redevelopment projects are subject to stringent requirements with respect to storm water and dry weather discharges. With regulatory minimization measures in place, cumulative effects to waters of the U.S. would not be adverse.

Project Contribution to Cumulative Wetlands and Other Waters of the United States Effects
The project area does not contain any wetlands as documented in the Natural Environment Study Memo. Local jurisdiction transportation improvements would occur within existing facilities; therefore, increases in peak storm flows are not anticipated. Drainage facilities would be upgraded on an as-needed basis to prevent localized flooding; BMPs would be required during construction to minimize impacts to jurisdictional drainages. Construction BMPs and operational site design, source control, and treatment BMPs would be required for parking lots associated with the improvements. The contribution alternatives 1, 2, and 3 to cumulative effects on non-wetland waters of the U.S. cumulative effects would not be substantial.

Alternatives 4 and 5 may result in direct and indirect effects to non-wetland waters of the U.S. Additionally, the surface area of the freeway would be enlarged and increased runoff from the facility itself (with greater runoff produced under Alternative 5) would occur. However, the I-5 Corridor is located within a developed area and the widening would not affect large amounts of undeveloped land. The conversion of developed land to freeway and reuse or landscaping of remnant parcels would result in similar or reduced peak storm flows for the area. These alternatives would be subject to Caltrans requirements for construction BMPs and operational design pollution prevention, treatment, and maintenance BMPs to address pollutants of concern.

Drainage facilities would be upgraded on an as-needed basis to prevent localized flooding; BMPs would be required during construction to minimize impacts to jurisdictional drainages.

In summary, with minimization measures, the contribution of these alternatives to cumulative effects on wetlands and other waters of the U.S. are not considered adverse.

3-17 VEGETATION

3-17.1 REGULATORY SETTING

Public Resources Code 21083, 21087 and the California Environmental Quality Act Guidelines Section 15126.2(a) require lead agencies to assess the impact of a proposed project by examining alterations in ecological systems. California Code of Regulations Fish and Game Code Section 1300-1301 and the Federal Wildlife Conservation Act of 1947 Section 1600-1616, state that the protection and conservation of fish and wildlife resources is of utmost public interest. CCR Section 1750, the Native Species Conservation and Enhancement Act, and Section 1801-1802 affirm that it is State policy to encourage preservation, conservation and maintenance of wildlife resources under the jurisdiction and influence of the State. Section 1802 instructs the California Department of Fish and Game to consult with lead agencies and to provide biological expertise to review and comment on environmental documents.

CEQ Regulation 40 CFR 1502.16(f) requires environmental documents to discuss natural resource requirements and conservation potential of various alternatives and mitigation measures. CEQ Regulation 40 CFR 1502.25 requires environmental documents to be integrated with related environmental impact analyses, surveys and studies required by the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.), the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), and other environmental review laws and executive orders.

3-17.2 AFFECTED ENVIRONMENT

Information regarding vegetation was obtained from a Biological Resources Report, dated June 1998 and a Natural Environment Study Memo, dated December 3, 2002 and an update to that memo dated September 16, 2005.

Previous biological studies for the project area, layout plans, aerial photos, field visit, and the latest version of California Department of Fish and Game's Natural Diversity Database (NDDB) (July 1, 2005) were evaluated for this project. The U.S. Fish and Wildlife Service and the California Department of Fish and Game were contacted regarding this project to help assess the potential presence of sensitive species within the project area.

Vegetation in the project area is limited to mature landscaping and ruderal, weedy species along the freeway right-of-way. Large areas are completely devoid of vegetation. Common landscape species along the project route include oleander, eucalyptus, bottlebrush, ivy and maple. It occurs in a thin strip along each side of I-5, although larger landscaped areas are located adjacent to some on and off ramps. The only highly vegetated areas adjacent to the freeway (outside Caltrans right-of-way) are two school properties containing large grassy fields with scattered trees.

There is minimal vegetation (duckweed – *Lemna* spp.) within the three drainages crossed by the project. They are all concrete-lined flood control channels and are subject to the periodic removal of sediment and vegetation.

3-17.3 IMPACTS

Because of the length of the project, a large amount of vegetation, including mature trees, would be removed. This would result in the loss of habitat for urban wildlife and nesting birds. The replacement of the bridges over Coyote Creek and North Fork Coyote Creek would require the removal of existing piers and construction of new piers in the channels. These activities have the potential to result in a minor loss of aquatic vegetation. However, the vegetation present in the channels is minimal.

3-17.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

In order to help avoid or minimize impacts to vegetation, the area of disturbance should be kept to the minimum required to construct the project.

New landscaping should be installed in areas where space permits to allow for the re-establishment of wildlife habitat. A large amount of existing landscape vegetation would be removed by this project and would need to be replaced following construction. It is strongly recommended that a minimum of 10 percent of the replacement plantings consist of native species. In addition, no species identified on the California Exotic Pest Plant Council's list of invasive exotic species should be planted anywhere within the project limits.

3-17.5 CUMULATIVE EFFECTS

Cumulative Vegetation Effects

The study area for vegetation impacts encompasses the geographic boundaries of the Cities of Buena Park, Cerritos, Downey, La Mirada, Norwalk, and Santa Fe Springs. The study area is mostly built out; native species and habitats have been mostly replaced with ornamental landscaping and urban wildlife.

Because the presence of native plant communities is severely limited within the study area, vegetation impacts from development/redevelopment projects are anticipated to be minimal.

Project Contribution to Cumulative Vegetation Effects

The study area is dominated by ornamental landscaping, and the affected landscaping would be replaced as part of the project; therefore, the cumulative contribution to vegetation effects would not be substantial for any of the project alternatives.

3-18 WILDLIFE

3-18.1 REGULATORY SETTING

Public Resources Code 21083, 21087 and the California Environmental Quality Act Guidelines Section 15126.2(a) require lead agencies to assess the impact of a proposed project by examining alterations in ecological systems. California Code of Regulations Fish and Game Code Section 1300-1301 and the Federal Wildlife Conservation Act of 1947 Section 1600-1616, state that the protection and conservation of fish and wildlife resources is of utmost public interest. CCR Section 1750, the Native Species Conservation and Enhancement Act, and Section 1801-1802 affirm that it is State policy to encourage preservation, conservation and maintenance of wildlife resources under the jurisdiction and influence of the State. Section 1802 instructs the California Department of Fish and Game to consult with lead agencies and to provide biological expertise to review and comment on environmental documents.

CEQ Regulation 40 CFR 1502.16(f) requires environmental documents to discuss natural resource requirements and conservation potential of various alternatives and mitigation measures. CEQ Regulation 40 CFR 1502.25 requires environmental documents to be integrated with related environmental impact analyses, surveys and studies required by the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.), the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), and other environmental review laws and executive orders.

3-18.2 AFFECTED ENVIRONMENT

Information regarding wildlife was obtained from a Biological Resources Report, dated June 1998 and a Natural Environment Study Memo, dated December 3, 2002 and an update to that memo dated September 16, 2005.

Previous biological studies for the project area, layout plans, aerial photos, field visit, and the latest version of California Department of Fish and Game's Natural Diversity Database (NDDB) (July 1, 2005) were evaluated for this project. The U.S. Fish and Wildlife Service and the California Department of Fish and Game were contacted regarding this project to help assess the potential presence of sensitive species within the project area.

The landscaping and ruderal vegetation along the freeway right-of-way supports wildlife habitat that is considered disturbed. There is no evidence to suggest the presence of rare, threatened or endangered species in the project area. Wildlife species occurring in the project area would typically include species adapted to urban environments. This would possibly include small mammals (deer mouse – *Peromyscus maniculatus*, California mouse – *Peromyscus californicus*, house mouse – *Mus musculus*), reptiles (western fence lizard – *Sceloperus occidentalis*, side-blotched lizard – *Uta stansburiana*) and birds (starling – *Sturnus vulgaris*, house sparrow – *Passer domesticus*, rock dove – *Columbia livia*, mockingbird – *Mimus polygolottos*, and house finch – *Carpodacus mexicanus*). Although mallards were observed in Fullerton Creek, there was no evidence that either bats or swallow have utilized the bridges over the three creeks; however, that possibility cannot be discounted.

Because of the highly urbanized area stretching for many miles on either side of I-5, it is not likely that any of the drainages crossing the project would be used as a wildlife corridor.

3-18.3 IMPACTS

Because of the length of the project, a large amount of vegetation, including mature trees, would be removed. This would result in the loss of habitat for urban wildlife and nesting birds. The replacement of the bridges over Coyote Creek and North Fork Coyote Creek would require the removal of existing piers and construction of new piers in the channels. However, the aquatic life in the channels is minimal.

There was no evidence that either bats or swallows utilize the bridges over any of the three channels affected by the project. Although it is not likely, the potential exists for them to be present at the time of construction. If bats or swallows are present, construction would result in a temporary loss of roosting and nesting habitat.

3-18.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

In order to help avoid or minimize impacts to wildlife, the area of disturbance should be kept to the minimum required to construct the project.

The removal of trees and other vegetation should be scheduled to occur between September 16 and March 1 to avoid the bird-nesting season. If this is not possible, a pre-construction survey would be required one to two weeks prior to the vegetation removal. If nesting birds are present, construction activities in the vicinity of the nest (within 500 feet for raptors, 100 feet for other birds) would be delayed until nesting is completed and all young have left the nest.

If work at Coyote Creek and North Fork Coyote Creek is scheduled to begin between March 15 and September 30, periodic surveys of these areas should be conducted between March 15 and the start of construction to determine if bats and/or swallows are present. If there is evidence that roosting/nesting behavior is beginning, removal of partially completed nests or installation of exclusionary devices should be performed to prevent occupation of the bridge. If this is not accomplished, construction would have to be delayed until all roosting/nesting activities are completed.

New landscaping should be installed in areas where space permits to allow for the re-establishment of wildlife habitat. A large amount of existing landscape vegetation would be removed by this project and would need to be replaced following construction. It is strongly recommended that a minimum of 10 percent of the replacement plantings consist of native species. In addition, no species identified on the California Exotic Pest Plant Council's list of invasive exotic species should be planted anywhere within the project limits.

3-18.5 CUMULATIVE EFFECTS

Cumulative Wildlife Effects

The cumulative study area for wildlife impacts encompasses the geographic boundaries of the Cities of Buena Park, Cerritos, Downey, La Mirada, Norwalk, and Santa Fe Springs. The study area is mostly built out; native species and habitats have been replaced with ornamental landscaping and urban wildlife.

Because the presence of native plant communities and wildlife species is severely limited within the study area, impacts associated with development/redevelopment projects would mostly affect urban wildlife. However, removal of mature trees has the potential to affect nesting migratory birds. Bats and swallows often reside under bridges. In addition, impacts to wetlands and non-wetland waters of the U.S. have the potential to affect migratory birds and aquatic species. Minimization measures that are applicable to the project (construction outside of the roosting/nesting season, replacement of trees and vegetation) are applicable to all development/redevelopment projects within the study area. With these minimization measures in place, cumulative impacts to animal species would not be substantial.

Project Contribution to Cumulative Wildlife Effects

Mature trees that support resident and migratory nesting birds would be removed as part of property acquisition for these alternatives. Extension of freeway bridges could affect roosting bats or nesting swallows. Minimization measures are required to prevent potential impacts to migratory nesting birds and bats during construction. Affected mature trees and vegetation would be replaced consistent with Caltrans requirements, which include native plant species requirements that would support native wildlife. With minimization measures to protect nesting birds and bats during construction and replacement of mature trees and vegetation, the contribution of the project alternatives to cumulative wildlife impacts would not be substantial.

3-19 THREATENED AND ENDANGERED SPECIES

3-19.1 REGULATORY SETTING

Public Resources Code 21083, 21087 and the California Environmental Quality Act Guidelines Section 15126.2(a) require lead agencies to assess the impact of a proposed project by examining alterations in ecological systems. Public Resources Code 21104.2 states that the lead agency shall consult with the California Department of Fish and Game regarding impacts on threatened or endangered species. Threatened and endangered species are protected by Sections 7 and 10 of the Endangered Species Act (16 USC 1536, 1538, 1539) and the California Endangered Species Act (California Fish and Game Code, Sections 2081 and 2090).

CEQ Regulation 40 CFR 1502.16(f) requires environmental documents to discuss natural resource requirements and conservation potential of various alternatives and mitigation measures. CEQ Regulation 40 CFR 1502.25 requires environmental documents to be integrated with related environmental impact analyses, surveys and studies required by the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.), the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), and other environmental review laws and executive orders.

3-19.2 AFFECTED ENVIRONMENT

Information regarding threatened and endangered species was obtained from a Biological Resources Report, dated June 1998 and a Natural Environment Study Memo, dated December 3, 2002 and an update to that memo dated September 16, 2005.

The CDFG Natural Diversity Database (NDDB) was searched on July 1,2005 in an effort to identify threatened or endangered species that may inhabit the project area. In addition, the U.S. Fish and Wildlife Service list of endangered or threatened species in the area was reviewed. Both of these lists were checked along with the biology reports from the MIS and Interim HOV Lane Improvement Project. None of these references, when considered with respect to the resources present within the project area, give any indication that sensitive species are likely to be affected by this project. The results of this evaluation, and the rationale for this conclusion, are contained in Table 3-18.1.

3-19.3 IMPACTS

The proposed project is expected to have no effect on any threatened or endangered species or habitat.

3-19.4 AVOIDANCE, MINIMIZATION, AND COMPENSATION MEASURES

None required.

3-19.5 CUMULATIVE EFFECTS

Cumulative Threatened and Endangered Species Effects

The cumulative study area for Threatened and Endangered Species impacts encompasses the geographic boundaries of the Cities of Buena Park, Cerritos, Downey, La Mirada, Norwalk, and

Santa Fe Springs. The study area is mostly built out; native species and habitats have mostly been replaced with ornamental landscaping and urban wildlife.

Project Contribution to Cumulative Threatened and Endangered Species Effects
Because the project alternatives would not impact threatened or endangered species, no cumulative contribution would occur.

Table 3-19.1 – Project Study Area Sensitive Species							
Scientific Name	Common Name	Status	Specific Habitat Description	Specific Habitat Present/ Absent	Species Presence/ Absence	Rationale	Potential for Impacts
PLANTS							
Astragalus brauntonii	Braunton's milk vetch	FE, CNPS-1B	Recently burned and disturbed areas; in stiff gravelly clay soils overlying granite or limestone within closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland habitats. 4-640m.	A	A	Suitable habitat is not present within project limits.	None
Berberis nevinii	Nevin's bearberry	FE,SE, CNPS-1B	On steep, north facing slopes or in low grade sandy washes within chaparral, cismontane woodland, coastal sccrub and riparian scrub habitats. 290-1575m.	A	A	Suitable habitat is not present within project limits.	None
Brodiaea filifolia	Thread-leaved brodiaea	FT,SE, CNPS-1B	Usually associated with annual grassland and vernal pools within cismontane woodland, coastal scrub, playas, valley and foothill grassland habitats. Often surrounded by shrubland. 25-860m.	A	A	Suitable habitat is not present within project limits.	None
Chorizanthe parryi var. fernandina	San Fernando Valley spineflower	FC,SE, CNPS-1B	Sandy soils within coastal scrub habitats. 3-1035m.	A	A	Suitable habitat is not present within project limits.	None
Orcuttia californica	California Orcutt grass	FE,SE, CNPS-1B	Vernal pools located at elevations from 15 to 660 meters.	A	A	Suitable habitat is not present within project limits.	None
Lasthenia glabrata ssp. Coulteri	Coulter's goldfields	CNPS-1B	Usually found on alkaline soils in playas, sinks and grasslands within coastal salt marshes, valley and foothill grassland and vernal pool habitats. 1-1400m.	A	A	Suitable habitat is not present within project limits.	None
Navarretia prostrata	Prostrate navarretia	CNPS-1B	Alkaline soils in grasslands or vernal pools located in coastal scrub or valley and foothill grassland habitats. 15-700m.	A	A	Suitable habitat is not present within project limits.	None
Phacelia stellaris	Brand's phacellia	CNPS-1B	Open areas within coastal scrub or coastal dune habitats. 5-1515m.	A	A	Suitable habitat is not present within project limits.	None

Table 3-19.1 – Project Study Area Sensitive Species continued							
Scientific Name	Common Name	Status	Specific Habitat Description	Specific Habitat Present/ Absent	Species Presence/ Absence	Rationale	Potential for Impacts
Dudleya multicaulis	Many-stemmed dudleya	CNPS-1B	Heavy, often clayey soils or grassy slopes within chaparral, coastal scrub and valley and foothill grassland habitats. 0-790m.	A	A	Suitable habitat is not present within project limits.	None
Sidalcea neomexicana	Salt Spring checkerbloom	CNPS-2	Alkali springs and marshes within alkali playas, brackish marshes, chaparral, coastal scrub, lower montane coniferous forest and mojavian desert scrub habitats. 0-1500m.	A	A	Suitable habitat is not present within project limits.	None
Abronia villosa var. aurita	Chaparral sand-verbena	CNPS-1B	Sandy areas within chaparral and coastal scrub habitats. 80-1600m.	A	A	Suitable habitat is not present within project limits.	None
Centromadia parryi ssp. Australis	Southern tarplant	CNPS-1B	Marshes, swamps (margins), valley and foothill grassland and vernal pools. Often in disturbed sites near the coast; also in alkaline soils.	A	A	Suitable habitat is not present within project limits.	None
Nama stenocarpum	Mud nama	CNPS-2	Marshes and swampy areas along lake shores, river banks and intermittantly wet areas. 5-500m.	A	A	Suitable habitat is not present within project limits.	None
Atriplex serenana var. davidsonii	Davidson's saltscale	CNPS-1B	Alkaline soils within coastal bluff scrub and coastal scrub habitats. 3-250m.	A	A	Suitable habitat is not present within project limits.	None
Suaeda esteroa	Estuary seablite	CNPS-1B	Clay, silt and sandy substrates in coastal salt marshes.	A	A	Suitable habitat is not present within project limits.	None
Symphyotrichum defoliatum	San Bernardino aster	CNPS-1B	Vernally mesic grassland or near ditches, streams and springs; disturbed areas. In meadows, seeps, marshes, swamps, coastal scrub, cismontane woodland and lower montane coniferous forest habitats.	Ditches are present along some areas of the freeway.	A	Project area is highly urbanized. Only sightings in CNDDB are from 1930s, located several miles from the project and are identified as "probably extirpated."	None
Cordylanthus maritimus ssp. Maritimus	Salt marsh bird's beak	FE,SE, CNPS-1B	Higher zones of salt marsh habitat in coastal salt marshes and coastal dunes. 0-30m.	A	A	Suitable habitat is not present within project limits.	None

Table 3-19.1 – Project Study Area Sensitive Species continued							
Scientific Name	Common Name	Status	Specific Habitat Description	Specific Habitat Present/ Absent	Species Presence/ Absence	Rationale	Potential for Impacts
Nemacaulis denudata var. denudata	Coast wooly-heads	CNPS-1B	Coastal dunes. 0-100m.	A	A	Suitable habitat is not present within project limits.	None
INVERTEBRATES							
Branchinecta sandiegonensis	San Diego fairy shrimp	FE	Vernal pools on San Diego and Orange county mesas	A	A	Suitable habitat is not present within project limits.	None
Streptocephalus wootoni	Riverside fairy shrimp	FE	Inhabit seasonally astatic pools filled by winter/spring rains. Endemic to Riverside, Orange and San Diego counties.	A	A	Suitable habitat is not present within project limits.	None
Danaus plexippus	Monarch butterfly	None	Roosts in wind-protected groves of eucalyptus, monterey pine and cypress trees with nearby nectar and water sources along Baja, southern and central California coast.	A	A	Suitable habitat is not present within project limits.	None
Cicindela hirticollis gravida	Sandy beach tiger beetle	None	Clean, dry, light-colored sand in the upper zone adjacent to non-brackish water along the coast from northern Mexico to San Francisco Bay.	A	A	Suitable habitat is not present within project limits.	None
Cincindela senilis frosti	Tiger beetle	None	Dark-colored mud in the lower zone and dried salt pans in the upper zone on marine shoreline. Also found at Lake Elsinore.	A	A	Suitable habitat is not present within project limits.	None
AMPHIBIANS							
Spea (=Scaphiopus) hammondii	Western spadefoot	SSC	Grassland and valley-foothill hardwood woodland habitats. Requires vernal pools for breeding.	A	A	Suitable habitat is not present within project limits.	None
REPTILES							
Phrynosoma coronatum (blainvillei)	Coast (San Diego) horned lizard	SSC	Friable, rocky or shallow sandy soils within coastal sage scrub and chaparral habitats under arid or semi-arid conditions.	A	A	Suitable habitat is not present within project limits.	None
Emys (=Clemmys) marmorata pallida	Southwestern pond turtle	SSC	Inhabits permanent or nearly permanent bodies of water in many habitat types below 6000 ft. Requires basking sites and suitable nesting sites.	A	A	Channelized creeks are present but suitable basking and nesting sites are not present.	None

Table 3-19.1 – Project Study Area Sensitive Species continued							
Scientific Name	Common Name	Status	Specific Habitat Description	Specific Habitat Present/ Absent	Species Presence/ Absence	Rationale	Potential for Impacts
BIRDS							
Empidonax traillii extimus	Southwestern willow flycatcher	FE,SE	Nests in riparian woodlands in Southern California.	P	Potentially	Riparian habitat is present within the San Gabriel R..	No work would take place within the San Gabriel R., therefore no impacts would occur.
Haliaeetus leucocephalus	Bald eagle	FT,SE	Nests in large old-growth or dominant live tree w/open branches. Nests and wintersr along ocean shore, lake margins and rivers.	P	Potentially	Trees are present along freeway and adjacent to San Gabriel River.	None. A pre-construction nesting bird survey would be conducted to avoid impacts to all nesting birds.
Polioptila californica californica	Coastal California gnatcatcher	FT	Low, coastal sage scrub in arid washes and on mesas and slopes.	A	A	Suitable habitat is not present within project limits.	None
Vireo bellii pusillus	Least Bell's vireo	FE,SE	Summer resident of Southern California in low riparian growth in vicinity of water or in dry river bottoms, below 2000ft. Usually nests in willow, Baccharis or Mesquite.	P	Potentially	Riparian habitat is present within the San Gabriel R.	No work would take place within the San Gabriel R., therefore no impacts would occur.
Coccyzus americanus occidentis	Western yellow-billed cuckoo	FC,SE	Nests in riparian jungle of willow and cottonwood, w/ understory of blackberry, nettles or wild grape, along broad, lower flood-bottoms of larger river systems.	A	A	Suitable habitat is not present within project limits.	None

Table 3-19.1 – Project Study Area Sensitive Species continued

Scientific Name	Common Name	Status	Specific Habitat Description	Specific Habitat Present/ Absent	Species Presence/ Absence	Rationale	Potential for Impacts
Agelaius tricolor	Tricolor blackbird	SSC	Highly colonial. Requires open water, protected nesting substrate and foraging area with insect prey within a few km of the colony.	A	A	Suitable habitat is not present within project limits.	None
Sterna antillarum browni	California least tern	FE,SE	Colonial breeder on bare or sparsely vegetated flat substrates, sand beaches, alkali flats, land fills or paved areas along CA coast from Baja to San Francisco Bay.	A	A	Suitable habitat is not present within project limits.	None
Passerculus sandwichensis beldingi	Belding's savannah sparrow	SE	Nests in Salicornia on and about margins of tidal flats within coastal salt marshes from Santa Barbara County through San Diego County.	A	A	Suitable habitat is not present within project limits.	None
MAMMALS							
Microtus californicus stephensi	South coast marsh vole	SSC	Tidal Marshes in Los Angeles, Orange and southern Ventura counties.	A	A	Suitable habitat is not present within project limits.	None
Sorex ornatus salicornicus	Southern California Satlmarsh shrew	SSC	Requires dense vegetation and woody debris in coastal marshes located in Los Angeles, Orange and Ventura counties.	A	A	Suitable habitat is not present within project limits.	None
Lasiurus xanthinus	Western yellow bat	None	Roosts in trees, particularly palms. Forages over water and among trees. In valley foothill, riparian, desert riparian, desert wash and palm oasis habitats.	P	Potentially	Riparian habitat is present within the San Gabriel R.	No work would take place within the San Gabriel R., therefore no impacts would occur.
HABITATS							
	Southern coastal salt marsh	None		A		Habitat is not present within project limits.	None

Source: Table X contains a list of all sensitive species identified in the letter obtained from the U.S. Fish and Wildlife Service and from the NDDB (Whittier, Anaheim and Los Alamitos quads).

Notes:

Absent [A] means no further work needed. Present [P] means general habitat is present and species may be present.

Status: Federal Endangered (FE); Federal Threatened (FT); Federal Proposed (FP, FPE, FPT); Federal Candidate (FC), Federal Species of Concern (FSC); State Endangered (SE); State Threatened (ST); Fully Protected (FP); State Rare (SR); State Species of Special Concern (SSC); California Native Plant Society (CNPS), etc.

3-20 THE RELATIONSHIP BETWEEN SHORT-TERM USES OF THE HUMAN ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The proposed project involves tradeoffs between obtaining the long-term benefits of traffic and circulation improvements against short-term impacts to the environment. Construction activities would result in a number of temporary impacts that would cease upon completion of the proposed freeway, ramp and arterial improvements. These impacts would include air quality degradation associated with increased emissions of criteria pollutants; noise impacts generated by heavy equipment operation; biological resource impacts caused by removal of mature trees; socioeconomic and community impacts from construction effects; impacts to utility systems caused by relocation and potential service interruption; generation of hazardous materials and waste from construction; and intermittent roadway obstruction and traffic detours. These impacts would be mitigated to minimize the proposed project impacts during the construction phase.

The proposed project would provide future congestion relief to improve traffic flow on the freeway and arterial transportation system; improve the transportation link between Los Angeles and Orange Counties; and improve Interstate 5 to meet functional and safety standards.

Over the long-term, the proposed project would provide for increased vehicular movement and accessibility in the eastern Los Angeles County/western Orange County area. By increasing accessibility and substantially reducing travel time, the proposed project would enhance long-term economic productivity in the region. The Interstate 5 HOV Improvement Project is proposed in response to existing and projected land development in the Southern California Region. As discussed in Section 3-2, the extent of development occurring outside of the project area would create unacceptable levels of service on existing transportation facilities. Since the proposed project would serve to improve traffic conditions in the region. Local short-term adverse impacts resulting from project development are consistent with the enhancement of long-term productivity.

3-21 ANY IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES WHICH WOULD BE INVOLVED IN THE PROPOSED ACTION

Implementation of the proposed action involves commitment of a range of natural, physical, human, and fiscal resources. Land dedicated for the construction and subsequent operation of the proposed freeway, ramp, and arterial improvements would constitute a semi-permanent commitment for the life of the transportation facility. However, if a greater need arose for use of the land or if the transportation facility becomes obsolete, the land could be converted to another use. Currently, there is no reason to believe such a conversion would ever be necessary or desirable, given that the project corridor has been used for transportation purposes for over 50 years and would continue to be for the foreseeable future.

Construction and operation of the proposed project would also require consumption of fossil fuels, labor, and construction materials. Additionally, the project would require expenditure of labor, and natural resources would be used in the fabrication and preparation of necessary construction materials. These expenditures would be, for the most part, irrecoverable. However, they are not in short supply, and their use would not have an adverse effect upon continued availability of these resources.

Any construction would also require a substantial one-time expenditure of both federal and local funds, which are not retrievable. The proposed project would also require the use of human resources in the fabrication and preparation of construction materials and in the construction of the new highway facilities. Although the expenditure of labor would not be retrievable, the project would not have an adverse impact upon the continued availability of human resources over the long term.

The commitment of these resources is based on the concept that residents in the immediate area, as well as the region, state, and nation, would benefit from the improved transportation system, as well as roadway safety, in this critical transportation corridor. These benefits would consist of improved accessibility and safety, improved traffic and mass-transit service, savings in time, and greater availability of quality services, which are anticipated to outweigh the commitment of these resources.

3-22 UNAVOIDABLE ADVERSE IMPACTS

No Build Alternative
The No-Build alternative would result in increasing traffic congestion. There are unavoidable indirect effects associated with increased traffic congestion including decreasing air quality, increased fossil fuel consumption, and increasing travel time through the corridor.

Alternatives 2 and 3
The TSM/TDM and Transit Enhancement Alternatives would result in only marginal improvements compared to the No-Build Alternative and therefore, are not likely to result in unavoidable adverse impacts.

Alternatives 4 and 5
Widening the freeway facility would unavoidably impact residents and businesses adjacent to the freeway by requiring acquisition of private real property. There are unavoidable indirect effects of the relocation of residents and businesses including neighborhood disruption, and loss of City revenue from property and sales taxes. Increasing the size of the freeway facility would result in an increase in noise levels that cannot be entirely abated. Temporary and permanent loss of parking would be unavoidable. Overall Alternative 5 would have more substantial adverse impacts in most categories than Alternative 4.

All variations of Alternatives 4 and 5 would result in an unavoidable impact to Orr Park and Norwalk Arts and Sports Center/Norwalk Park. The Modified MIS variations (4A and 5A) result in the smallest amount of parkland needed. Of those two, Alternative 4A requires the least amount of both parks.

During construction, occasional elevated noise levels would be unavoidable. In addition, air emissions (NO_X and PM_{10}) from construction activities would constitute an adverse impact on the affected community. Although the air and noise impacts during construction are unavoidable, they would cease at the completion of the project construction.

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CHAPTER 4 – PROJECTS CONSIDERED FOR CUMULATIVE IMPACT ANALYSIS

4-1 INTRODUCTION

The Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) regulations defines cumulative effects as those effects that result from incremental impacts of a proposed action when added to past, present, and reasonably foreseeable future actions regardless of which agency (federal or nonfederal) or person undertakes such actions. Cumulative effects can result from individually minor but collectively significant actions that take place over a period of time (40 CFR 1508.7). They are similarly defined in Section 15355 of the California Environmental Quality Act (CEQA) Guidelines (2005) as follows:

> "Cumulative impacts" refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.
>
> (a) The individual effects may be changes resulting from a single project or a number of separate projects.
>
> (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonable foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

The process used in this Cumulative Impact Analysis follows the guidelines provided in the publication "Considering Cumulative Effects Under the National Environmental Policy Act," (CEQ, January 1997), and the CEQA Guidelines.

This analysis also uses conclusions found in this I-5 Corridor Improvement Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) (Caltrans 2005) to determine the project's contribution to cumulative impacts. Impacts that result from the proposed project that could contribute to cumulative impacts are analyzed in this report.

Impacts associated with cumulative projects were determined utilizing the conclusions of the certified environmental document prepared for those documents.

Cumulative effects were analyzed using three principal steps: (1) scoping; (2) describing the affected environment; and (3) determining the environmental consequences. The scoping process involved contact and coordination with municipal planners and researching each City and the County's General Plans and internet addresses (URLs)[1] to obtain past, present, and reasonably

[1] Uniform Resource Locator

foreseeable future project information. The majority of the projects had some type of State or federal environmental documentation (i.e., Negative Declaration, Finding of No Significant Impact (FONSI), Environmental Assessment (EA), EIS, and EIR), and others were exempt from environmental review due to their limited environmental effects and did not require environmental analysis. The affected environment is described in Chapter 3 and is the foundation for determining the environmental consequences of the proposed action.

The No Build Alternative (Alternative 1) includes the implementation of the I-5 interim HOV lane improvements. The impacts related to the HOV lane improvements are fully disclosed in the I-5 Interim HOV Lane Improvements Land Use and Socioeconomic Technical Study (August 1998). Therefore, Alternative 1 is not further analyzed in this report.

Project Study Area
The I-5 Corridor is located in northwest Orange County and southeast Los Angeles County in Southern California. The southern limit of the I-5 Corridor is located north of SR-91 in the City of Buena Park, and its northern limit is the Lakewood Boulevard interchange in the City of Downey, south of I-605. The primary study area for the project is the I-5 Corridor right-of-way and ultimate footprint.

Cumulative Impact Study Area
Unless otherwise stated under each environmental topic, the geographic boundary for the cumulative impact study is the boundaries of the Cities adjacent to the Corridor: Buena Park, Cerritos, Downey, La Mirada, Norwalk, and Santa Fe Springs. Some environmental topics entail a larger cumulative impact study area. For example, the air quality cumulative impact study area is the South Coast Air Basin.

Criteria for Selection (Based on list of projects)
The projects selected for inclusion in this cumulative impact study are located in one of the six Corridor cities and have environmental impacts. Due to the fully urbanized nature of the study area, the majority of land within the Corridor has been in a developed condition for over 30 years and is considered part of the environmental baseline condition. This cumulative impact analysis focuses on recent development and redevelopment projects that have the potential to result in environmental impacts. All selected projects are currently under review or have been approved and/or constructed since November 1998.

Cumulative Impact Analysis
The potential cumulative impacts of the I-5 improvements, when considered with the applicable projects listed in this Chapter are discussed within the individual topical resource sections in Chapter 3, as applicable.

4-2 PAST PROJECTS

For this study, projects constructed from approximately seven years ago and to the present time are regarded as past projects. Table 4-1 lists the past projects and indicates the year of completion and documented potential environmental impacts. Figure 4-1 plots the past projects that relate to the evaluated project. There are 37 projects in this category.

Figure 4-1 – Past, Present, and Foreseeable Future Projects Location Map

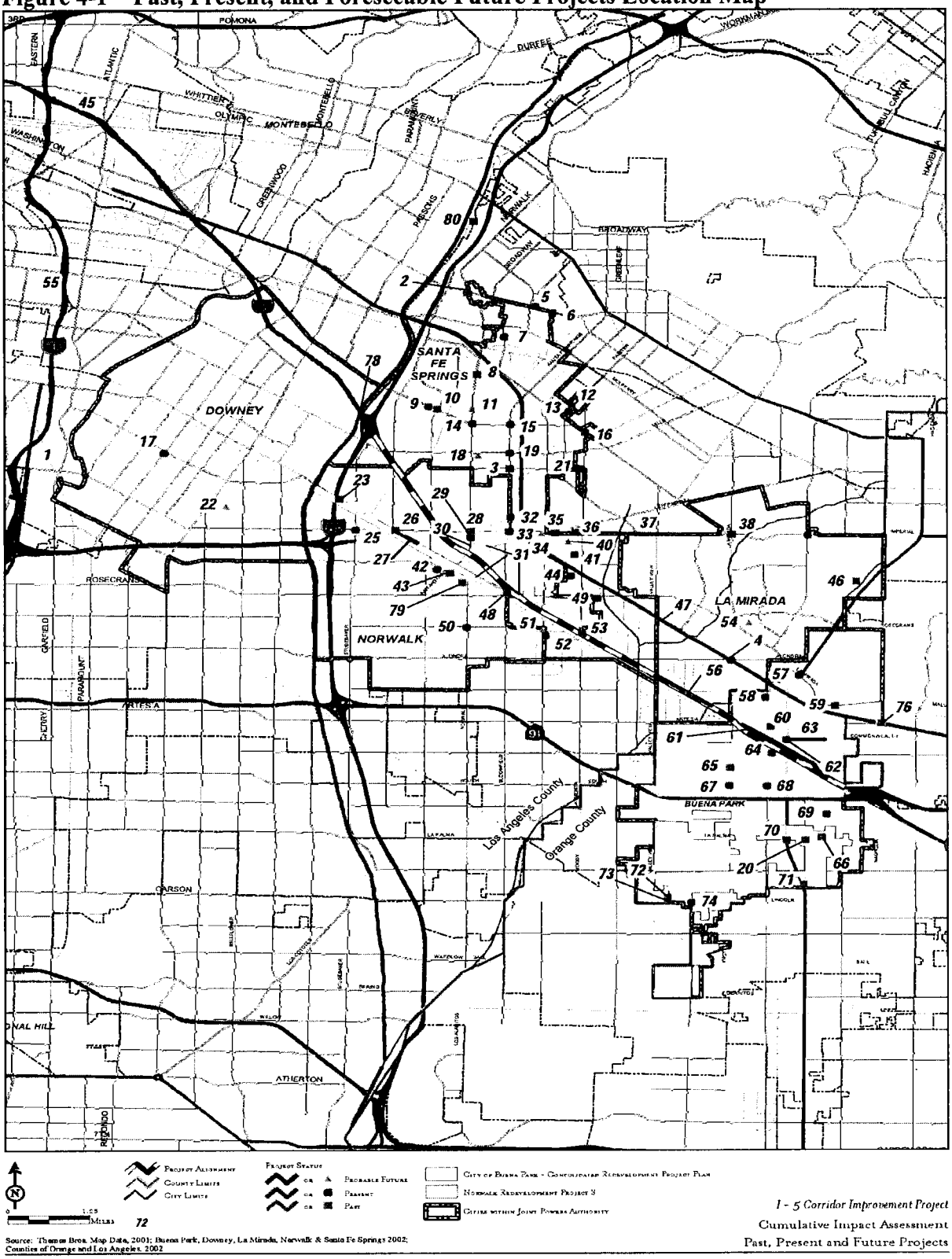

Table 4-1 – Past Projects								
Jurisdiction1	Project Name	Project Number	Description	Location	Size of Project	Construction Status	Environmental Document Date[2]/ Environmental Topics	Comments
Buena Park	Knotts Berry Farm Water Park and New Attraction	4	Construction of Water Park located within Knott's Berry Farm.	Beach Blvd. and Stanton Ave.	15 ac water park	Completed	DEIR: 10/26/99 NOD 02	No significant impacts
Buena Park	Apartments	60	8-unit apartments; existing land use is residential.	5831 Western Ave.	0.37 ac/ 8MFDU	Constructed 2002	No environmental documentation	Previously underutilized property
Buena Park	Single-Family Homes	72	10 single-family homes; existing land use is residential.	8902 Hoffman St.	0.88 ac/ 10 SFDU	Constructed 2002	No environmental documentation	Previously underutilized property
Buena Park	Single-Family Homes	75	10 single-family homes; existing land use is residential.	8912 Hoffman St.	0.88 ac/ 10 SFDU	Constructed 2002	No environmental documentation	Previously underutilized property
Buena Park	Single-Family Homes	70	53 single-family homes; existing land use is residential.	8341 La Palma Ave.	7.50 ac/53 SFDU	Constructed 2002	No environmental documentation	Previously underutilized property
Buena Park	Commerce Center at Buena Park	65	Demolition of existing and construction of new industrial/light industrial uses.	Knott Ave. and Caballero Blvd.	1,394,477 sq ft	Complete	NOP: 3/5/01 DEIR: 7/3/01	Minor clean
Buena Park/Orange County property	University Gables	73	Housing project that goes with Metrolink project	Border of Buena Park and Fullerton	8 ac; 36 attached, 50 detached SF homes	Completed in 2003		No impacts (City 12/04)

1 The Cities of Downey, La Mirada, and Norwalk are in the County of Los Angeles. The Cities of Buena Park and Santa Fe Springs are located in the County of Orange.

2 DEIR = Draft Environmental Impact Report
FEIR = Final Environmental Impact Report
NEG = Negative Declaration
NOD = Notice of Determination
NOP = Notice of Preparation

TABLE 4-1 – PAST PROJECTS CONTINUED

Jurisdiction[1]	Project Name	Project Number	Description	Location	Size of Project	Construction Status	Environmental Document Date[2]/ Environmental Topics	Comments
Buena Park	Buena Park Transportation Facility and Residential Community	59	A text amendment to the City's General Plan to allow 25 percent density bonus for projects providing affordable housing for construction of 90 residential units, a Metrolink station, and a day-care center.	Malvern Ave. and Dale St.	14.09 ac	Construction of homes is almost complete. Metrolink station is now another project. (See Table 5.B.)	DEIR: 6/5/00 NOD: 8/25/00	
Buena Park	The District	74	Built behind the J.C. Penney store at the Buena Park Mall.	Buena Park Mall	200,000 sq ft complex	Built approximately 2002	No known impacts (per City)	Part of Buena Park Central
Buena Park	Buena Park Marketplace	75	Redevelopment of the vacant shopping center across from the Buena Park Mall into a Kohl's department store. Future plans for a Michael's, PetSmart, and Office Depot.	La Palma Ave. and Stanton St.		Complete several approximately 2003–early 2004	Neg Dec	
County of Los Angeles	Busby Drain	37	The construction of 5,390 linear feet of reinforced concrete pipe ranging in size from 60 inches or more in diameter and various appurtenant structures, including manholes and catch basins.	Between Marquardt Ave. and Burgess Ave. in the Cities of Santa Fe Springs and La Mirada	5,390 sq ft	Project completed 4/29/02		No significant impacts

TABLE 4-1 – PAST PROJECTS CONTINUED

Jurisdiction[1]	Project Name	Project Number	Description	Location	Size of Project	Construction Status	Environmental Document Date[2]/ Environmental Topics	Comments
Downey	DM5; Los Angeles River-Rio Hondo Confluence Project by US Army Corps of Engineers	1	Last phase of Los Angeles River Improvements Project; would provide flood protection with a combination of parapet (protective) walls.	The Los Angeles River and the Rio Hondo downstream of Firestone Blvd. to as far south as Rosecrans Ave.	Less than 7 miles in length	Completed approximately 2003	Supplemental Environmental Assessment: 3/6/00 Construction Related Impacts. Implemented mitigation: X carpooling to site X cars and fuel tanks out of channel X staging areas X stop if winds >25 mph X no idling vehicles >5 minutes X water sprayed on ground	Located approximately three miles from I-5 project
La Mirada	Home Depot	38	Redevelopment of the Crossroads Center by Home Depot Corporation; includes a retail store and a garden center.	La Mirada Blvd./Imperial Hwy.	9.32 ac, 130,890 sq ft	Built in 2001–2002	DEIR: 11/3/00 NOD: 1/10/01	
La Mirada	Emery Hills Planned Development Unit (PUD)	46	Centex Homes builds 132 single family residences, a commercial component, and open space.	Beach Blvd. and Hillsborough Dr.	27.8 ac of development and 24.6 ac of open space. 4 acres of retail	Constructed 2002–2003	DEIR: 1/29/01 NOD: 2/26/01	
La Mirada	North Firestone Widening: Phases 1 and 2	56	Widening from Trojan Way to Residence Inn from 35' to 64' width; part of MetroCenter development.	North Firestone Blvd.		constructed 2002-2003		
Norwalk	Target	29	Construction of a new Target store.	Imperial Hwy. and Norwalk Blvd.		Complete: opened 8/02		
Norwalk	3-D (lube/tune shop) Rental Car	26	Construction of a lube and tune shop.	Firestone Blvd. and Imperial Hwy.		Completed in spring 2001		

TABLE 4-1 – PAST PROJECTS CONTINUED

Jurisdiction[1]	Project Name	Project Number	Description	Location	Size of Project	Construction Status	Environmental Document Date[2]/ Environmental Topics	Comments
Norwalk	San Antonio Village	79	Development of a pedestrian-friendly center of community activity, with shops, restaurants, and offices.	Rosecrans Ave., Pioneer Blvd., San Antonio Dr., and Firestone Blvd.		Completed approximately 2001		
Norwalk	Norwalk Transportation and Public Services Facility Upgrade	33	Demolition of the existing buildings; construction of new Administration Building, new Maintenance Facility, and new Public Services Building.	Imperial Hwy. and Bloomfield Ave.	67,653 sq ft of building development and 36,208 sq ft of parking structure	Completed late 2002	NEG: 1999	
Norwalk	Self-Storage	43	Construction of a self-storage facility.	Foster Rd. and San Antonio Dr.		Constructed 2003		Soil issues: remediation (9/02)
Norwalk	Porsche Dealer	23	Construction of a Porsche dealer facility.	Firestone Blvd. and Hoxie Ave.	5,000 sq ft	Construction 2002–2003		
Norwalk	Ramada Inn	48	Construction of a Ramada Inn.	Firestone Blvd. and Bloomfield Ave.	Not available	Built in 2002		
Santa Fe Springs	Golden Springs Bldg. A-1 and A-2	35	Golden Springs Development Project Project Area: Amend #1	13102, 13116, 13128, and 13158 Imperial Hwy.	35,112 and 38,352 sq ft	Complete		
Santa Fe Springs	Golden Springs Bldg. J through Q	41	Golden Springs Development Project Project Area: Amend #1	13000 block of Orden Dr.	10.10 ac/ 219,759 sq ft, 13.01 ac/ 280,208 sq ft, 8.90 ac/ 188,864 sq ft	Complete		
Santa Fe Springs	Crippled Children's Soc.	21	Oil Field Residential	13331 Lakeland Rd.	0.68 ac/ 25 units	Completed 2001		
Santa Fe Springs	Stadium Properties	80	Storage Unit Facility	Off Pioneer, between River and 605	5.76 ac/ 106,150 sq ft	Completed 2002		

TABLE 4-1 – PAST PROJECTS CONTINUED								
Jurisdiction[1]	**Project Name**	**Project Number**	**Description**	**Location**	**Size of Project**	**Construction Status**	**Environmental Document Date[2]/ Environmental Topics**	**Comments**
Santa Fe Springs	Mission Clay	12	Mixed-use Development	Painter Ave. and Barton Ave.	10.50 ac/ 25,646; 52,522; 82,133; 8,881; 11,017; 9,593; and 8,169 sq ft (Spec.)	Completed early 2002		
Santa Fe Springs	Cingular Communications	10	Collocation of Cell Facility; Business at Pioneer and Telegraph Rd.	11921 Telegraph Rd.	cellular site	Completed 2002		
Santa Fe Springs	AT&T Wireless Services	8	Collocation on Oil Field Residential	9500 Norwalk Blvd.	cellular site	Completed 2002		
Santa Fe Springs	AT&T Wireless Services	4	cell site in the Washington project area (TGP.676-G-6)	11038 Washington Blvd.	61 ft Wireless Tower	Completed 2002		
Santa Fe Springs	McDonald's	16	Business (Amend #1 project area), Gateway Plaza	Telegraph Rd. and Carmenita	0.96 ac/ 3,000 sq ft	Completed 2002		
Santa Fe Springs	Sav-On	16	Business (Amend #1 project area), Gateway Plaza	Telegraph Rd. and Carmenita	1.32 ac/ 14,884 sq ft	Completed 2002		
Santa Fe Springs	Salvation Army	6	Use existing buildings for administrative/counseling, ministry, and 35 units of transitional housing.	12000 E. Washington Blvd.	3.22 ac/ 35 Dwelling Unit Capacity	Completed 1997		
Santa Fe Springs	Golden Springs Bldg. B-1	36	Golden Springs Development Project Project Area: Amend No. 1	13238-13248 Imperial Hwy.	6.62 ac/ 6,286	Completed 2002		
Santa Fe Springs	Golden Springs Bldg. B-2	40	Golden Springs Development Project Project Area: Amend No. 1	12610-12618 Leffingwell Rd.	5.62 ac/ 7,086 sq ft	Completed 2002		
Santa Fe Springs	Zucker Family Trust	51	Project Area: Oil Field	10506 Shoemaker Ave.	4.66 ac/ 101,000 sq ft	Completed 2002		
Santa Fe Springs	Clark Management (two buildings)	18	Project Area: Oil Field	12220 Florence Ave.	2.97 ac/ 26,850 and 36,100 sq ft	Completed 2002		

TABLE 4-1 – PAST PROJECTS CONTINUED								
Jurisdiction[1]	**Project Name**	**Project Number**	**Description**	**Location**	**Size of Project**	**Construction Status**	**Environmental Document Date[2]/ Environmental Topics**	**Comments**
Santa Fe Springs	Sares-Regis Project (CENCO)	20	Project Area: Oil Field Office/Wholesale	SEC Bloomfield Ave. and Lakeland	21.30 ac	Completed 2002		
Santa Fe Springs	Farmer Boys	5	Restaurant	11808 Washington Blvd.	0.52 ac/ 2,600 sq ft	Constructed		
Santa Fe Springs	Reinhold Industries	34	East Imperial Hwy.	12827 Imperial Hwy.	7.45 ac/ 49,408 sq ft	Constructed in 2002		
Santa Fe Springs	Fry Steel Co., Inc.	52		13325 Molette St.	2.42 ac/ 44,746 sq ft	Constructed in 2002		

4-3 PRESENT, REASONABLE FORESEEABLE, AND PROBABLE FUTURE PROJECTS

Present and probable future projects within each City and the County are listed in Table 4-2 and shown on Figure 4-1. The project numbers on Tables 4-1 and 5-1 are plotted on Figure 4-1.

Table 4-2 – Present and Foreseeable Future Projects

Jurisdiction[1]	Project Name/Lead Agency	Project Number	Description	Location	Size of Project (i.e., dwelling units [DU], acres [ac], or square feet [sq ft])	Construction Status	Environmental Document[2]/Date/ Environmental Topics	Comments
Orange County	Orange County Facilities Master Plan Program EIR/Orange County Water District		The PEIR would provide a description of the District's existing storage and recharge facilities and address the potential impacts resulting from the implementation of projects identified in the LTFP plan including: (1) modification or expansion of existing recharge facilities; (2) development of new recharge facilities; (3) water supply projects to divert, store and/or recharge additional surface water; (4) projects or operational practices that would modify management of the groundwater basin; and (5) projects that enhance water quality.	Buena Park		Future	NOP distributed on 8/17/04	
Buena Park	Consolidated Redevelopment Project Plan	Identified as an area on Figure 5.1	Consolidate four project areas into a single redevelopment project area; renovate and rehabilitate aging commercial and residential areas of the City. One big planning area.	I-5 and SR-91; Beach Blvd.; Western Ave.; Knott Ave.; Valley View Ave.; Orangethorpe Ave.	3,940 ac	Proposed	SCH No. 2001051065 DEIR: 10/17/01 FEIR 2002 NOD: 5/9/02	

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2 DEIR = Draft Environmental Impact Report
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Table 4-2 – Present and Foreseeable Future Projects continued

Jurisdiction[1]	Project Name/Lead Agency	Project Number	Description	Location	Size of Project (i.e., dwelling units [DU], acres [ac], or square feet [sq ft])	Construction Status	Environmental Document[2]/Date/ Environmental Topics	Comments
Buena Park	Consolidated Redevelopment Project Plan	Identified as an area on Figure 5.1	Consolidate four project areas into a single redevelopment project area; renovate and rehabilitate aging commercial and residential areas of the City. One big planning area.	I-5 and SR-91; Beach Blvd.; Western Ave.; Knott Ave.; Valley View Ave.; Orangethorpe Ave.	3,940 ac	Proposed	SCH No. 2001051065 DEIR: 10/17/01 FEIR 2002 NOD: 5/9/02	
Buena Park	Buena Park Central Project	69	Remodel of the Buena Park Mall; demolition and reconstruction of commercial area.	South side of La Palma Ave. between Dale St. and Stanton St.	175,850 sq ft	Almost complete as of 12/04	SCH No. 2000121062 DEIR: 7/6/01 NOD: 9/28/01	
Buena Park	Commonwealth Avenue Widening	63	Widening from 84 to 100 feet and various improvements to Commonwealth Ave., including right-turn lanes at intersections; otherwise, two lanes in each direction.	Commonwealth Ave. from Beach Blvd. to Indiana Ave.	100 ft wide	Almost complete as of 12/04	NEG: 7/3/01	
Buena Park	Metrolink	59	Metrolink Station at Malvern Ave. and Dale St. (This is part of the Buena Park Transportation Facility project. See Buena Park Transportation Facility, Table 5.A).	Malvern Ave. and Dale St.	(see Table 5.A)	Construction is pending completion of Third Main Track (below). Proposed construction completion in August 2005.	DEIR: 6/5/00	

Table 4-2 – Present and Foreseeable Future Projects continued

Jurisdiction[1]	Project Name/Lead Agency	Project Number	Description	Location	Size of Project (i.e., dwelling units [DU], acres [ac], or square feet [sq ft])	Construction Status	Environmental Document[2]/Date/ Environmental Topics	Comments
Buena Park	Auto Center Specific Plan	61	Development of office and business uses; existing use is mostly auto dealerships. Underutilized businesses are converted to auto sites. Possible future sites: (1) Northwest corner of Orangthorpe Ave. and Western Ave., (2) Northwest corner of Commonwealth Ave. and Beach Blvd., and (3) Knott St. and Orangethorpe Ave., just off the southwest corner	Along Manchester Ave., 6000 to 6800 Manchester Ave., and three satellite areas (see comments)	53.0 ac	Proposed Some dealerships have been built. As anticipated, more to be constructed in the future.	Specific Plan – Sept. 1998	
Buena Park	Lincoln Ave. Planned Development	74	Redevelopment into a residential use. Old farmland/nursing.	Lincoln Ave. and Holder St.	51.1 ac	Very early stages of planning. No applications pending		
Buena Park	Big "T" Development/City of Buena Park	57	117 single-family homes and common area including 7.5 acres preserved for future commercial development within the planned development zone. Conversion of an old golf course.	La Mirada Blvd. at Beach Blvd.	26.5 ac	Started early November 2004	SCH No. 2002091118 DEIR: 3/03 FEIR: 12/03 NOD: 3/15/04 Approval of a Master Plan, Conditional Use Permit, and Tentative Tract Map to develop a +/- 26.5-acre parcel into residential and future commercial	

Table 4-2 – Present and Foreseeable Future Projects continued

Jurisdiction[1]	Project Name/Lead Agency	Project Number	Description	Location	Size of Project (i.e., dwelling units [DU], acres [ac], or square feet [sq ft])	Construction Status	Environmental Document[2]/Date/ Environmental Topics	Comments
Burlington Northern Santa Fe Railroad Company	Third Main Track and Seven Grade Separations Project, BNSF/Caltrans District 7	47	Construction of railroad track improvements (a new third main track and supporting infrastructure) and seven graded separations.	Burlington North Santa Fe Railway Company's East–West Main Line Railroad Track in Buena Park, Commerce, Fullerton, La Mirada, Norwalk	14.7-mile segment	Under construction 12/2004 (per City inspector)	SCH No. 2002041111 NOP: 4/19/02 DEIR: 4/4/03 NOD: 1/6/04 Final (EIR): 1/13/04	
Caltrans District 7 (project in Norwalk)	I-5 at Carmenita Interchange Improvements Project	53	Caltrans is proposing a project to replace the existing interchange on I-5 at Carmenita Road, in the Cities of Norwalk and Santa Fe Springs, Los Angeles County. The proposed project would include realigning the on- and off-ramps and extending the overcrossing to include a railroad grade separation 100 meters south of the freeway. The proposed project would require acquisition of new State right-of-way.	City of Norwalk, I-5, and Carmenita Rd.	Interchange replacement	Project approved 5/3/02 Currently in final design	SCH No. 2001071004 DEIS NOD: 5/3/02	

Table 4-2 – Present and Foreseeable Future Projects continued

Jurisdiction[1]	Project Name/Lead Agency	Project Number	Description	Location	Size of Project (i.e., dwelling units [DU], acres [ac], or square feet [sq ft])	Construction Status	Environmental Document[2]/Date/ Environmental Topics	Comments
County of Los Angeles, Department of Public Works	Maintenance clearing of engineered earth-bottom flood-control channels project; various waters within Los Angeles County	31	Annual vegetation clearing in channels and minor grading.	Los Angeles County channels (around 100 channels)	San Gabriel River Channel	Ongoing	NEG Wetland/Riparian (10.97 ac) in Reaches Nos. 43 and 44; least Bell's vireo found north of Whittier Boulevard (listed as State and federally endangered)	The project does not include the Coyote Creek Channel.
Downey	Downey Landing Specific Plan and EIR	22	Redevelopment of a former NASA site to mixed uses; would include a retail center, film/television production studios, a hospital/medical office complex, and a business park.	Lakewood Blvd./SR-19/Stewart and Gray Rd.; approximately two miles from the I-5 project site	160 ac; maximum development of 3.7 million sq ft		SCH No. 2001031096 DEIR: 8/1/01 Specific Plan: 2/15/02 Final Program EIR: 3/02 Downey Landing Specific Plan (approved by City council)	The movie studios are built and in use (2004).
Downey/ Commerce Unincorp. L.A. County	I-5 Widening (I-605 to I-710)/Caltrans	45	Evaluating widening from 10 to 12 lanes				EIR/EIS	Preliminary design and environmental document is not funded
La Mirada	Biola University Master Plan	54	Increases the amount of development permitted on campus to 1,839,444 sq ft; new building footprints.	La Mirada Blvd. and Rosecrans Ave.	1,839,444 sq ft	Phased out over 20 years	DEIR: 1/31/01 NOD: 7/9/01	

Table 4-2 – Present and Foreseeable Future Projects continued

Jurisdiction[1]	Project Name/Lead Agency	Project Number	Description	Location	Size of Project (i.e., dwelling units [DU], acres [ac], or square feet [sq ft])	Construction Status	Environmental Document[2]/Date/ Environmental Topics	Comments
La Mirada	Alonda Redevel. Project	4	Potential for conversion of existing retail to housing under consideration by City staff. No specific development applications filed.	Alondra and Escalona	N/A	N/A	TBD	
La Mirada	Marshall Center Redevelopment Project	39	Potential for redeveloped/intensification of existing retail centers under consideration by City staff. No specific development application filed.	SEC of Imperial and Santa Gertrudes	N/A	N/A	TBD	
La Mirada	Crossroads Center Redevelopment Project	38	Potential for redeveloped/intensification of existing retail centers under consideration by City staff. No specific development application filed.	La Mirada/ Telegraph/ Imperial	N/A	N/A	TBD	
Various	I-710 Major Corridor Study/ LACMTA	55	Potential for redeveloped/ intensification of existing retail centers under consideration by City staff. No specific development application filed.					Planning level analysis to identify selected alt. for further analysis.

Table 4-2 – Present and Foreseeable Future Projects continued

Jurisdiction[1]	Project Name/Lead Agency	Project Number	Description	Location	Size of Project (i.e., dwelling units [DU], acres [ac], or square feet [sq ft])	Construction Status	Environmental Document[2]/Date/ Environmental Topics	Comments
Norwalk	Norwalk Redevelopment Project Area No. 3 Adoption, Amendment, and Merger	Identified as an area on Figure 5.1	The project involves the adoption of a proposed Redevelopment Plan for Norwalk Redevelopment Project Area No. 3, amendment of the two existing Redevelopment Plans for the two existing project areas to extend certain time limits, and the merger of all three project areas. The primary purpose of the Redevelopment Plan continues to be the elimination of physical and economic blighting conditions that hinder the full development of the Project Areas.	Pioneer, Firestone Blvd., Norwalk Ave., Alondra Blvd., San Antonio Dr., Excelsior Dr., Studebaker Rd.	677 ac	The re-development plan does not specifically result in construction. It only identified a project area	DEIR: 9/14/01	No impacts. The continued implementation of the existing Redevelopment Plan, as well as the proposed Redevelopment Plan, is expected to facilitate commercial, industrial/manufacturing, and residential development in the project areas in conformance with the Norwalk General Plan; to address various environmental issues; and to mitigate existing public infrastructure system deficiencies.
Norwalk	Church	3	Construction of a new church.	12366 Rosecrans Ave. (at Helwig Ave.)	19,962 sq. ft.	Under construction as of 12/04	The project was exempt. Notice of exemption: 11/14/03,CUP No. 822	

Table 4-2 – Present and Foreseeable Future Projects continued

Jurisdiction[1]	Project Name/Lead Agency	Project Number	Description	Location	Size of Project (i.e., dwelling units [DU], acres [ac], or square feet [sq ft])	Construction Status	Environmental Document[2]/Date/ Environmental Topics	Comments
Norwalk	Vacant	25	Underutilized area with a Food for Less, retail and fast food store to be developed; zoned for general commercial use.	Imperial Hwy. and Studebaker Rd.	5 buildings	Nothing is currently proposed, project on hold	Exempt	Project was denied by staff and never adopted by the Planning Commission
Norwalk	Vacant	50	Former USAF fuel storage facility to be developed; zoned for low-density residential use.	Norwalk Blvd. and Excelsior Dr.	50 acre tank farm	No project is proposed yet, nor in the near future according to City planner 12/04	Unknown	Site requires extensive remediation due to the fuel storage facility
Norwalk	Civic Center	28	Opportunity to develop a major civic facility with new office buildings and cultural facilities.	Norwalk Blvd. and Imperial Hwy. Large open area in front of city hall		No current plans for development (12/04)	None	
Santa Fe Springs	Heritage Springs Phase 3	14	Project Area: Norwalk Blvd.	SWC Norwalk Blvd. and Telegraph Rd.	4.60 ac	Plans approved	Unknown	Ongoing; more than 15 buildings
Santa Fe Springs	J&R Investments	44	Project Area: Amend No. 1	13609 Rosecrans Ave.	2.09 ac/ 21,100 sq ft	Plans approved	Unknown	
Santa Fe Springs	O'Donnell Group (three buildings)	29	Project Area: Norwalk Blvd.	10607 Norwalk Blvd.	8.52 ac/ 197,718 sq ft	Plans approved	Unknown	
Santa Fe Springs	Mail Will (Office Addition)	44	Project Area: N/A	13341 Cambridge St.	9.68 ac/ 7,060 sq ft	Pending	Unknown	

Table 4-2 – Present and Foreseeable Future Projects continued

Jurisdiction[1]	Project Name/Lead Agency	Project Number	Description	Location	Size of Project (i.e., dwelling units [DU], acres [ac], or square feet [sq ft])	Construction Status	Environmental Document[2]/Date/ Environmental Topics	Comments
Santa Fe Springs	Cascade Pump Company	11	Project Area: Oil Field	10107 S. Norwalk Blvd.	4.58 ac/ 34,156; 10,803; 14,789; and 12,246 sq ft	Plans approved/ More pending	Unknown	
Santa Fe Springs	Breitburn Development Company	15	Business in Norwalk	Telegraph Rd. and Santa Fe Springs Rd.	20.68 ac/ 21,400; 24,360; 25,870; 46,790; 107,896; 150,160; and 28,77 sq ft (spec.)	Pending building review	Unknown	
Santa Fe Springs	City Church	13	Church near Washington Blvd. area	10135 Painter Ave.	1.86 ac/ 17,136 sq ft	Pending building review	Unknown	
Santa Fe Springs	Western Realco	32	Business	12320 Bloomfield Ave.	121,362 sq. ft. building	Plans approved; awaiting permits	Unknown	
Santa Fe Springs	Wal-Mart with a McDonalds	16	Business (Amend No. 1 project area)	Telegraph Rd. and Carmenita Rd.	12.50 ac/ 141,996 sq ft	Plans approved	Unknown	Gateway Plaza
Santa Fe Springs	Santa Fe Springs Town Center Housing	9	53 townhomes, combined with upgrade of existing shopping center on site.	Telegraph Rd.	3.80 ac/ 53 DU capacity	Plans approved	Buffering and screening from industrial uses; soil testing due to prior industrial uses.	Building Dept. does not know of this; never came to pass?
Santa Fe Springs	Townhomes	7	24 townhomes on abandoned railroad right-of-way.	Burke St. and Dice Rd.	2.20 ac/ 24 DU capacity	Proposed	Unknown	

Table 4-2 – Present and Foreseeable Future Projects continued								
Jurisdiction[1]	**Project Name/Lead Agency**	**Project Number**	**Description**	**Location**	**Size of Project (i.e., dwelling units [DU], acres [ac], or square feet [sq ft])**	**Construction Status**	**Environmental Document[2]/Date/ Environmental Topics**	**Comments**
Santa Fe Springs	Proposed update of the Santa Fe Springs Consolidated Redevelopment Project	19	A subsequent EIR is needed to update the Redevelopment Project EIR of 1981. It would provide the required update to the environmental database and impact assessment.	Florence Ave. and Bloomfield Ave.	Unknown	Proposed	Unknown	No impact data

CHAPTER 5 – CALIFORNIA ENVIRONMENTAL QUALITY ACT EVALUATION

5-1 DETERMINING SIGNIFICANCE UNDER CEQA

The proposed project is a joint project by the California Department of Transportation (Department) and the Federal Highway Administration (FHWA) and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The Department is the lead agency under CEQA and the FHWA is lead agency under NEPA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an EIS, or some lower level of documentation, would be required. NEPA requires that an EIS be prepared when the proposed federal action (project) *as a whole* has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require EIRs to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of mandatory findings of significance, which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

5-2 DISCUSSION OF SIGNIFICANT IMPACTS

Section 15382 of the *State CEQA Guidelines* defines significant effect as "... as substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical and aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant." Section 15064 of the *State CEQA Guidelines* states that: "An ironclad definition for significant effect is not possible because the significance of an activity may vary with the setting. For example, an activity which may not be significant in an urban setting may be significant in a rural area."

5-2.1 Significant Environmental Effects of the Proposed Project

The following impacts are considered significant under CEQA, but are considered less than significant with the implementation of proposed mitigation measures.

Aesthetics

Under CEQA, the following would be considered a significant effect on the environment:

- Creation of a new source of substantial light or glare which would adversely affect day or nighttime views of the area (Section 3-7.3)

Air Quality

Under CEQA, the following would be considered significant effects on the environment:

- Conflict with or obstruct implementation of the applicable air quality plan (Section 3-13.1)
- Expose sensitive receptors to substantial pollutant concentrations (Section 3-13.2)

Geology and Soils

Under CEQA, the following would be considered significant effects on the environment:

- Exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking (Section 3-11.2)
- Exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction(Section 3-11.2)

Hazards and Hazardous Materials

Under CEQA, the following would be considered significant effects on the environment:

- Creation of 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 (Section 3-12.2)
- Project location 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 (Section 3-12.2)
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (Section 3-5.3)

Hydrology and Water Quality

Under CEQA, the following would be considered significant effects on the environment:

- Violation of any water quality standards or waste discharge requirements (Section 3-10.3)
- Creation or contribution to runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff (Section 3-10.3)
- Otherwise substantially degrade water quality (Section 3-10.3)

Public Services

Under CEQA, the following would be considered significant effects on the environment:

- The project would 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 fire protection (Section 3-5.3)

- The project would 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 police protection (Section 3-5.3)
- The project would 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 parks (Section 3-5.3)

Transportation/Traffic

Under CEQA, the following would be considered significant effects on the environment:

- Temporary inadequate emergency access (Section 3-5.3)
- Temporary inadequate parking capacity

Utilities and Service Systems

Under CEQA, the following would be considered significant effects on the environment:

- Exceedance of wastewater treatment requirements of the applicable Regional Water Quality Control Board (Section 3-5.3)
- 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 (Section 3-5.3)

5-2.2 Unavoidable Significant Environmental Effects

The following impacts are considered significant under CEQA and would remain significant with implementation of proposed mitigation measures.

Land Use and Planning

Under CEQA, the following would be considered significant effects on the environment:

- Physical division of established communities (Section 3-4.2)
- 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 (Section 3-1.3)

Noise

Under CEQA, the following would be considered significant effects on the environment:

- 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 (Section 3-14.3)
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels (Section 3-14.3)

- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (Section 3-14.3)
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (Section 3-14.3)

Population and Housing
Under CEQA, the following would be considered significant effects on the environment:
- Displacement of substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere (Section 3-4.1)
- Displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere (Section 3-4.1)

Transportation/Traffic
Under CEQA, the following would be considered significant effects on the environment:
- 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) (Section 3-6.3)
- Exceedance, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways (Section 3-6.3)

Mandatory Findings of Significance
Under CEQA, the following would be considered significant effects on the environment:
- The proposed project would have environmental effects, which would cause substantial adverse effects on human beings either directly or indirectly (Sections 3-4.1, 3-4.2, 3-6.3, and 3-14.3)

5-2.3 Significant Irreversible Environmental Changes

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as a highway improvement that provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Please refer to Section 3-20 regarding the relationship between short-term uses of the human environment and the maintenance and enhancement of long-term productivity. Please refer to Section 3-21 regarding any irreversible and irretrievable commitments of resources which would be involved in the proposed project.

5-2.4 Climate Change

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[1] emissions reduction and climate

1 Greenhouse gases related to human activity include: Carbon dioxide, Methane, Nitrous oxide, Tetrafluoromethane, Hexafluoroethane, Sulfur hexafluoride, HFC-23, HFC-134a*, and HFC-152a*.

change research and policy have increased dramatically in recent years. In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with greenhouse gas (GHG)emissions and climate change at the state level. AB 1493 requires the Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions; these regulations will apply to automobiles and light trucks beginning with the 2009 model year.

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% 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 ARB 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.

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

According to a recent white paper by the Association of Environmental Professionals[1], "An individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases."

The Department 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 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, the Department has created and is implementing the Climate Action Program at Caltrans (December 2006).

One of the main strategies in the Department's 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. Relieving congestion by enhancing operations and improving travel times in high congestion travel corridors will lead to an overall reduction in GHG emissions.

The Department recognizes the concern that carbon dioxide emissions raise for climate change. However, modeling and gauging the impacts associated with an increase in GHG emissions levels, including carbon dioxide, at the project level is not currently possible. No federal, state or

1 Hendrix, Micheal and Wilson, Cori. *Recommendations by the Association of Environmental Professionals (AEP) on How to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), p. 2.

regional regulatory agency has provided methodology or criteria for GHG emission and climate change impact analysis. Therefore, the Department is unable to provide a scientific or regulatory based conclusion regarding whether the project's contribution to climate change is cumulatively considerable.

The Department continues to be actively involved on the Governor's Climate Action Team as ARB works to implement AB 1493 and AB 32. As part of the Climate Action Program at Caltrans (December 2006), the Department 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. The Department is working closely with local jurisdictions on planning activities; however, the Department does not have local land use planning authority. The Department 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. However, it is important to note that the control of the fuel economy standards is held by the United States Environmental Protection Agency and ARB. Lastly, the use of alternative fuels is also being considered; the Department is participating in funding for alternative fuel research at the University of California Davis.

In conjunction with the I-5 Corridor Cities, a sizeable urban reforestation plan will be developed and implemented post-project construction. This tree-planting plan is primarily intended to act as a natural carbon-sink for the operation of the I-5. This re-forestation plan would be on a large scale and not only encompass areas close to the freeway, but also areas further away as determined by Caltrans and each respective corridor city. This tree planting mitigation would create more green areas, provide more natural shade in a heavily urbanized area and enhance the visual character of not only the I-5 corridor, but also the surrounding cities.

5-2.5 Mitigation Measures for Significant Impacts Under CEQA

Mitigation measures for significant impacts under CEQA can be found in Chapter 7, which contains a Mitigation Monitoring and Reporting Record.

CHAPTER 6 – SUMMARY OF PUBLIC/AGENCY INVOLVEMENT PROCESS/NATIVE AMERICAN COORDINATION

6-1 PUBLIC OUTREACH

The environmental scoping process was initiated with the preparation and distribution of a Notice of Preparation (NOP) and the publication of a Notice of Intent (NOI) in the Federal Register. The NOP was circulated to public agencies and other interested parties to inform public agencies and the general public about the project and the environmental review process. In addition, a Notice of Scoping/Initiation of Studies was circulated to organizations, businesses, and residents notifying these interested parties of the scoping process being undertaken and the dates of the scoping meetings. An environmental scoping notice and a news release for the public scoping meetings were sent to several newspapers in the region. Information about the project has been available on an ongoing basis via the Internet at www.dot.ca.gov/dist07/. The Web site provides comprehensive information about the planning process, including the proposed alternatives. The Web site provides an opportunity for the public to e-mail comments and questions directly to the Department of Transportation, District 7.

6-2 FALL 2001 SCOPING MEETINGS

Two sets of public scoping meetings were held in two different locations within the study area in December, 2001. The first set of meetings was held at the La Mirada Activity Center in the City of La Mirada on Monday, December 3, and the second set of meetings was held at the Norwalk Arts and Sports Complex in the City of Norwalk on Wednesday, December 5. The meetings were held from 3:00–5:00 p.m. and 6:00–8:00 p.m. in public facilities to give the agencies and the general public a variety of time and location options. The first meeting on each day was held for local, regional, State, and federal agencies, followed by a second meeting each day for the general public. The meetings were attended by approximately 150 people. Each meeting provided participants with an opportunity to discuss the project, the alternatives being considered, and environmental/community concerns.

The scoping meetings were conducted in an exhibit/presentation/question & answer format. As participants entered the meetings, they were given informational materials on the project and a comment card for the submittal of written comments and questions about the project and the proposed alignments. Several display boards provided information, including an aerial photograph of the proposed alternatives. Representatives of the Department of Transportation, FHWA, JPA, and the project consultants were able to answer individual questions. After allowing sufficient time for participants to review the display boards, participants were invited to be seated for a presentation providing project background, a project overview including alternatives, environmental issues, and schedule, and a question and answer session. After the question and answer period, the meeting was closed, and participants were invited to submit additional comments using the comment cards provided.

Comments made at the scoping meetings and written responses to the Notice of Preparation (NOP) identified a number of key issues addressed in the Final EIR/EIS. A separate Scoping

Summary Report (LSA, 2002) describes comments in detail. A general summary of the key issues to be addressed in the Final EIR/EIS is provided below.

- Identification of transit improvements to complement any freeway widening
- Displacement of homes and businesses and the schedule for relocation and property values of remaining properties
- Provision for adequate pedestrian safety across the facility, including access to schools
- Indirect effects to existing land uses, including noise, air quality, vibration, visual, and property access
- Existing flooding conditions south of the I-5/605 interchange
- Extension of the study limits to include the area between I-605 and I-710.

Results from these meetings and correspondence from community officials reflect community attitudes about the proposed action and alternative alignments.

6-3 NOTICE OF PREPARATION AND NOTICE OF INTENT

A Notice of Preparation was prepared and submitted to the California State Office of Planning and Research State Clearinghouse pursuant to CEQA. The public review period for the NOP commenced November 16, 2001 and ended January 7, 2002.

A Notice of Intent (NOI) was prepared and issued by the Federal Highway Administration (FHWA) on November 16, 2001. The NOI was published in the Nation Register on November 23, 2001.

6-4 NATIVE AMERICAN CONSULTATION

A letter was sent to the Native American Heritage Commission requesting a check of the Sacred Lands Inventory. In a response letter dated May 26, 2005, the Commission stated that there are no known Native American cultural resources in the immediate project area. Letters have been sent to area Native American Groups describing the proposed action. A response from the Native American Heritage Commission has been received declaring that there is no indication of the presence of Native American cultural resources in the immediate project area.

6-5 NEWSLETTERS

The public outreach program includes preparation of a newsletter to notify the public of major issues and upcoming milestones related to the I-5 Corridor Improvement Project. The newsletter explains the environmental review process, provides information on community concerns related to the proposed alternatives, provides a schedule for the proposed project, gives general updates from the Joint Powers Authority (JPA), and provides contact information for questions and/or concerns related to the I-5 Project. The distribution of the newsletter is based upon a mailing list that includes attendees to the scoping meetings, local public officials, interested parties, local libraries, and stakeholders identified by each city within the study area. The first newsletter was distributed in November 2002. State budget problems in 2003 temporarily suspended activities on the CEQA/NEPA public outreach process, however, they commenced again with the second newsletter distributed in November 2005. Newsletters would continue to be distributed periodically throughout the development process.

6-6 COMMUNITY MEETINGS

During the spring 2006 three of the cities within the project area sponsored Community Workshop Meetings. Letters of invitation were prepared and mailed by the individual cities. The meetings were held on April 18, 2006 from 9:00 to 10:00 a.m. at the City of Santa Fe Springs City Hall, from 2:00 to 3:00 p.m. at the Holiday Inn in La Mirada, and on May 9, 2006 from 2:00 to 3:00 p.m. at the City of Norwalk City Hall.

These meetings were intended to inform community members about the project and anticipated right-of-way impacts to private property. The meetings commenced with presentations about the project from City Staff, Caltrans Design, Caltrans Environmental, and Caltrans Right-of-way. After the presentations, community members were able to examine project plans and speak to various City and Caltrans staff to obtain information regarding individual concerns.

6-7 NOTICE OF COMPLETION AND NOTICE OF AVAILABILITY

A Notice of Completion was prepared and submitted to the California State Office of Planning and Research State Clearinghouse pursuant to CEQA. The public review period for the Draft EIR commenced on October 31, 2006 and ended on January 5, 2007.

A Notice of Availability (NOA) was prepared and issued by the Federal Highway Administration (FHWA) on November 1, 2006. The NOA was published in the Federal Register on November 17, 2006.

6-8 PUBLIC CIRCULATION OF DRAFT EIR/EIS

6-8.1 Public Outreach

Letters announcing the availability of the Draft EIR/EIS and public hearing along with an electronic version of the Draft EIR/EIS on CD-ROM and a paper copy of the Summary Chapter was sent to 610 elected officials, Federal, State, and local agencies and interested and impacted individuals. Additionally, announcement letters and paper copies of the Summary Chapter of the Draft EIR/EIS were sent to 461 other interested individuals.

To further expand the reach of the public hearing notice, an advertisement was placed in the newspapers covering the potentially affected areas. (Appendix K) Each publication's print schedule dictated when each advertisement was published; however, the advertisements ran on or about October 30, 2006, and then again during the week of December 4, 2006. The advertisements were published in the following newspapers:

- Los Angeles Times, circulation of 1,172,005
- Orange County Edition of the L.A. Times, circulation 229,500
- Orange County Register, circulation 276,000
- La Opinión, circulation 12,572
- Los Angles Sentinel, circulation 30,000 (Spanish publication)
- Cerritos Community News, circulation 35,000
- Mundo L.A., circulation 485,000 (Spanish publication)
- Watts Times, circulation 25,500

The advertisement was created in a clear, easy-to-read format and was published as a 3½" x 9 ¼" column. The advertisement featured the tag line: "Notice of Public Hearing and Availability of Studies – Interstate 5 Improvements between State Route 91 and Interstate 605." Similar to the public hearing notice, the advertisement provided a brief synopsis of the project and encouraged attendance at the hearing. The advertisement also encouraged the public to submit written comments before or after the public hearing and no later than January 5, 2007. The advertisement also identified 14 locations where the copies of the Draft EIR/EIS could be reviewed, including Caltrans District 7 Headquarters, Caltrans website, and City Halls and Main Libraries in Buena Park, Cerritos, Downey, La Mirada, Norwalk, and Santa Fe Springs.

6-8.2 Public Hearing

The public hearing for the project was held on December 12, 2006, from 6:00 p.m. to 9:00 p.m. Public attendance to the public hearing was 206 people having signed-in. Upon arrival, members of the public were directed to the map viewing area, where they were greeted by a team of Caltrans staff and consultants. The map viewing area provided the public with an opportunity to view the maps of the various alternatives, as well as an opportunity to have their questions and concerns addressed one-on-one by Caltrans staff and project consultants. The public was then directed to the main public hearing room for the formal portion of the public hearing. The formal portion of the public hearing consisted of a presentation by the California Department of Transportation followed by the public comment period.

Based on the demographic composition of the community, both Caltrans and the consultant team provided bilingual Spanish staff. A certified interpreter was also available for the duration of the public hearing. Those community members requiring Spanish interpretation were provided with a headset with which to listen to the simultaneous interpretation of the public hearing.

Following is a list including the Public Hearing Officer, Caltrans staff, and local officials in attendance.

Public Hearing Officer
- Genoveva Arellano

Caltrans Staff/Panel Members
- Ron Kosinski, Environmental Planning
- Emad Gorgy, Project Management
- Teresa Arias, Regional Manager, Right-of-Way
- Asadour Terterian, Design
- Garrett Damrath, Environmental Planning

Local Officials
- The Honorable Jesse Luera, Mayor City of Norwalk
- Ms. Perla Hernandez, Office of United States Representative Grace Napolitano

Handouts

In an effort to disseminate complete project information and to encourage public comments on the Draft EIR/EIS document, Caltrans and the consultant team made available to the public a comprehensive set of public information materials. The materials were distributed during the public hearing at the sign-in area. Those materials (Appendix J) included:

- Meeting Agenda - English/Spanish
- Hearing Hand-Out - English/Spanish
- Question Comment Card – English/Spanish
- Electronic and hard copies of the Draft EIR/EIS

Public Comments, Questions, and Answers

The public hearing included an Open Forum for individuals to come up to the microphone to make a comment. Attendees were also asked to complete a comment card if there was a specific question that needed to be answered by the panel. The following table presents a recap of all comments received, the questions asked and the answers given. All comments and questions below are included in their entirety in the Transcript of Public Hearing (Appendix I). Included here is a recap only.)

Table 6-1 - Oral Comments Presented at the Public Hearing

Name	Comment	Page
Jesse Loera Mayor City of Norwalk 12700 Norwalk Blvd. Nowalk, CA 90650	As the Mayor of Norwalk, I sent out 500 letters to residents for this project. I live very close in that area on Gracebee, where [the project] will affect. I also have a business in that area. Make sure that the seniors and the residents in tat area get the proper value for their homes. Make sure they understand what is really happening. I hope that Caltrans contact all of the people [affected] and does not take advantage of them. Do not quickly pressure them to sell their home. In some cases, even people that are not real estate people [approach the residents]. I want to make sure that everyone is treated equally, including those that do not speak English. In the past, your interpretation was of poor quality. You have upgraded that today. I feel comfortable coming here to express to people that [Caltrans] is trying to do its best to present a project that can be very positive in this community. I want to make sure that people will be heard and are not afraid to express their concerns. We have until March, 2007 to submit our comments. The congestion is very, very bad [on I-5]. This project is needed to make things better.	32

Table 6-1 - Oral Comments Presented at the Public Hearing		
Name	**Comment**	**Page**
Dennis Barnes Traffic and Transportation Manager City of Buena Park 6650 Beach Blvd. Buena Park, CA	We applaud Caltrans and the County of Los Angeles for going forward with this important project. The proposed design for the City of Buena Park impacts one business, which is Ramada America, Inc. at 7025 Firestone Blvd. We are asking Caltrans to re-evaluate the extent of the taking of that property and to work with Ramada America to rectify some of the impacts to its property, including avoiding taking it altogether. We ask that consideration be given to address Firestone Blvd. north of Artesia which needs a smooth solution to accommodate the various trucks that come up to this property. Our contact from the City of Buena Park will be City Manager Rick Worzinski.	36
Robert Duncan Resident 11358 Cecilia Street Norwalk, CA 90650	We have heard a lot of new comments, which we have not heard in the past. We have been attending these meetings for more than 20 years with many planning committees. My expectations will always exceed Caltrans' ability to perform. It just keeps dragging this thing out.	38
James Gosky Resident 13013 Goller Avenue Norwalk, CA 90650	The good thing about this project is that goes "Bloomfield to Bloomfield" on the other side. You will hook up Bloomfield-Firestone-Rosecrans-Bloomfield, which is great. Will the carpool lane become a light rail alternative [in the future]. We don't need any gapping from the carpool lane. The California Highway Patrol should charge $100 per foot for gapping in the lanes, so that they won't go from their lanes anymore. If it's going to be built design-build, it's going to be a lot cheaper. Would it be cheaper to double-deck this freeway without taking any property? *The following comments are not related to this project:* Regarding the SR-91 Freeway, it goes from four lanes down to three lanes. It's a mess, like the I-605 and the I-5. For I-605 Freeway, you should just take out the fourth lane all the way, where Lakewood ends. On I-605, get rid of the 4th lane right at the I-5 Freeway	39
Rosalind Gonzalez Resident 11657 Fenn Street Norwalk, CA 90650	I live right next to the freeway. I am against this project. It is not fair. I am used to the noise and dust. I will fight and find a way to say where I live. There's always traffic. You just have to leave early to get to work.	41

Table 6-2 - Questions Submitted to be Answered at the Public Hearing			
Name	**Question**	**Answer**	**Page**
Elizabeth Urrea 11831 Lyndora Street Norwalk, CA 90650	Is the sound wall going up first to help us with noise and dust?	When it is feasible, this is what Caltrans usually does first.	43
Elizabeth Urrea 11831 Lyndora Street Norwalk, CA 90650	What is going to happen to the homes that are left alone after people move?	Caltrans will do hazardous waste testing on that property and the property will be demolished.	44
Elizabeth Urrea 11831 Lyndora Street Norwalk, CA 90650	What happens to the wash that runs behind Lyndora Street?	The wash area behind the property would be taken, and the freeway would be widened into that property with all of the alternatives.	45
Ronald Axelrod 14849 Firestone Bl. La Mirada, CA	We own the first property north of the Orange County line. When will Caltrans contact concerning its acquisition of the property?	Approximately one year following the completion of the environmental document, Caltrans will start identifying the first segments that will be going out and the right-of-way impacts of these segments.	44
Phil Templeton 12483 Sproul Street Norwalk, CA 90650	How soon can we expect information on acquisition and construction on the Firestone exit north and southbound?	Same as above. Once the design has progressed, Caltrans will identify the segments that will go first, approximately one year following the environmental document.	45
James Gatica 12815 Bombadier Av. Norwalk, CA 90650	Will there be any consideration from either the City of Norwalk or Caltrans or both to allow owners of property to install soundproofing and completely seal windows through some pay-scale plan?	Caltrans will keep this question on the record. Usually, the City has to have a housing program where it does these types of improvements. If the City has this type of program, Caltrans will work with it on these issues. Caltrans would still install soundwalls.	46
Rafay Khalil 14960 Carmenita Rd. Norwalk, CA 90650	How does today's Caltrans hearing impact the already approved Carmenita Road interchange?	That project has been approved and it is moving towards acquiring the property (residences and businesses). That project will widen Carmenita to six or eight lanes so that Caltrans can build a new bridge over the freeway. Caltrans' I-5 (SR-91 to I-605) project would approve eight, 10 or 12 lanes under Carmenita. That is the relationship between these two projects.	47

Table 6-2 - Questions Submitted to be Answered at the Public Hearing			
Name	**Question**	**Answer**	**Page**
Paul Kramer 6811 Lafayette Huntington Beach, CA 92647	Do any of the I-5 alternatives allow for the future connection between I-5 and I-105 either via Metro Rail (Green Line) Extension to the BNSF line, via HOV lanes or via general-purpose lanes?	The transit alternative does provide some bus conductivity if we add additional bus services that would be in this area. For the I-5 freeway, all the freeway construction goes through I-605 interchange and terminates at Rosemead Blvd. We do not really touch the interchange to I-605. In January or February, 2007, Caltrans will be initiating the studies for the next section of I-5, which is from I-605 to I-710.	47
Noemi (no last name) 12338 Brink Avenue Norwalk, CA 90650	What about us people that live close to the freeway project? Noise, dust, traffic. How will you help us?	The Caltrans right-of-way staff will make sure that you get your relocation benefits and you get relocated in a fair and equitable manner. If you house remains, we are going to make sure that you get soundwalls and we will minimize construction impacts to your property. Caltrans may move you temporarily during noisy nights.	48
Noemi (no last name) 12338 Brink Avenue Norwalk, CA 90650	Will taxes go up?	Regarding property taxes, if you move and relocate in the area, you do have Proposition 13 protection. There is a cap on tax increase, which (I believe) is 120% of the base. The Caltrans acquisition agent will give you that information.	49
Saray Del Rio 12511 Sproul Street Norwalk, CA 90650	What is Caltrans' plan to keep the residents around the construction areas informed of schedules and happenings around houses?	Caltrans has community meetings, schedules, work with cities, and cable TV. Some things change last minute, but Caltrans tries to keep people informed on a regular basis as to exactly what is happening and when.	50
Saray Del Rio 12511 Sproul Street Norwalk, CA 90650	I will be impacted with construction and I was not invited to this meeting.	This is an oversight on Caltrans' part. We did send out 4,000 notices with about 50 returned with incorrect addresses. We spent $40,000 on local advertisements.	50

Table 6-2 - Questions Submitted to be Answered at the Public Hearing			
Name	**Question**	**Answer**	**Page**
Richard Brakeman 14014 Alondra Blvd. Santa Fe Springs, CA	As a tenant, would we be eligible for the relocation assistance program if only a portion of the property was taken and left the remaining portion unsuitable for our specific use, i.e. loss or required parking, truck turnaround?	This will need to be assessed by the Caltrans appraiser. If your business cannot operate in the after-condition, you may be entitled to relocation benefits as a business. The relocation agent will discuss these options with you.	51
(no name given) Pioneer Shopping Center 12512 Pioneer Blvd. (no city given)	Please address the leases from the point of view of the landlord.	As the owner of a business, you should encourage your lessees to stay until we make the first written offer. They should not move. But if a lessee needs to move, Caltrans understands that you have a mortgage to pay still as an owner. There is a possibility that we will do a rent-back situation, where Caltrans will lease back that tenant's spot from you.	52
Helen Chuang 12512 Pioneer Blvd. Norwalk, CA 90650	A motel owner, I am in a situation that a major renovation is required. Please tell me if I should go ahead with the plan? And if I do, will all the costs be reimbursed?	It depends on what the renovation is. You will need to continue deferred maintenance. If it's an addition, then you may want to reconsider that.	53
Helen Chuang 12512 Pioneer Blvd. Norwalk, CA 90650	Please address the franchise liability as one choice.	Caltrans will need to talk to you on an individual basis.	54
Pat Salazar 12112 Union Street Norwalk, CA 90650	If planning to knock houses down and when?	Caltrans does not have a specific schedule for knocking down homes, but our policy is once the property owner vacates the property or the tenant has been relocated, then Caltrans can move forward with demolishing the property. It takes Caltrans longer to demolish property than a private owner, due to more process and policies, but it is about three months.	55
Pat Salazar 12112 Union Street Norwalk, CA 90650	Will the city pay what the house is appraised at?	Yes, Caltrans will pay what the house is appraised at or fair market value.	55
Eliseo Bojorquez 12867 Firestone Blvd. Norwalk, CA 90650	I would like to know if we are going to get extra money for the inconvenience of moving, also for the inconvenience of household family, not just the owner, but others that live at the house as well.	No. Caltrans is required to ensure that you get all of your relocation benefits. Inconvenience is not something that is covered.	55

Table 6-2 - Questions Submitted to be Answered at the Public Hearing			
Name	**Question**	**Answer**	**Page**
Dustin Schnakenberg 12021 Dollison Drive Norwalk, CA 90650	Are special government loans available? What happens if loans are not available and loan cannot be granted since the house prices have gone up? Is there a way to find out the exact timeline for the purchase of the houses?	If you are a property owner, you will work at a real estate agent that will assist you in finding a house to relocate. Caltrans does not find the loan; we will work with your real estate agent on documentation. It is Caltrans' goal is to put you in the same situation you are today as later.	55
Dustin Schnakenberg 12021 Dollison Drive Norwalk, CA 90650	Is there a way to find out our exact time line for house purchasing?	We are probably looking at a year from now.	57
Gary Weisberg 2603 Main Street, #1300 Irvine, CA 92614	Is this a project for which hardship acquisition requests will be considered? If so, at what point may such requests be made, assuming the EIR is approved May 2007?	Caltrans will take a look at this.	58
Carlos & Irma Martin Susanna Espinosa 11414 Buell Street Santa Fe Springs, CA 91670	I want to know once the property is appraised and an agreement for purchase has been made, how long do we have to find a place to live?	At a minimum, Caltrans will give you a 90-day notice.	58
Carlos & Irma Martin Susanna Espinosa 11414 Buell Street Santa Fe Springs, CA 91670	Once we find a new place, will the taxes stay the same or go up?	Proposition 13 allows you to keep the same tax base, but there is a maximum. The acquisition agent will explain that process and when is the right time for you to submit that application to the county assessor's office.	59
Anthony Curtis 11813 Spry Street Norwalk, CA 90650	Can all homeowners, very close to the freeway be informed with absolute certainty as to the fate of their homes in a timely manner? (Less than one year from today would be acceptable.)	The entire project will not be under construction at the same time. It will be completed in three segments. If you are in the first segment to be constructed, you will be informed at least one year in advance. For properties near a structure or a utility, where things are not verified. They may take a little longer to determine the impact.	60
Javier Lopez Attorney 11867 Beaty Street Norwalk, CA 90650	Will this be a design build project as far as you know at this point in time?	No.	63
Javier Lopez Attorney 11867 Beaty Street Norwalk, CA 90650	Are the persons affected and that need to be advised already advised?	Yes. It is possible that a parcel was missed, but Caltrans has completed an extensive process to make sure everyone affected was notified.	63
Javier Lopez Attorney 11867 Beaty Street Norwalk, CA 90650	Have other adjacent states been contacted about kicking in money into soundwalls for here?	No. The State of California has secured the adequate funding for the construction of this project.	63

Table 6-2 - Questions Submitted to be Answered at the Public Hearing			
Name	**Question**	**Answer**	**Page**
Javier Lopez Attorney 11867 Beaty Street Norwalk, CA 90650	With regards to the parcels that are businesses, have you marked them as blighted or not blighted? That's an eminent domain question.	They are not any parcels identified as blighted. Please review the Business section of the environmental document.	64
Javier Lopez Attorney 11867 Beaty Street Norwalk, CA 90650	Have title companies already been informed that these properties are under the cloud of condemnation?	No.	64

Table 6-3 - Statements Filed for the Record	
Name	**Comment**
Guillermo Recinos 12002 Mondon Avenue Norwalk, CA 90650	In support of the project.
Bonnie J. Reynolds 11505 Lakeland Road Santa Fe Springs, CA 90670	As a family of six adults, who drive the I-5 and live on top of it, we feel it should be 12 lanes wide. Anything less is a waste of time. We feel it is not fair for a handful of people to decide how many lanes that millions travel each day. It is a moving parking lot peak hours and weekends and some days it doesn't move at all.
Toby Moore 12035 Burke Street, #1 Santa Fe Springs, CA 90670	I represent Gold State Water company, which has extensive infrastructure within the project alignment. Several alternatives severely impact a water supply facility known as our Dace Plant located adjacent to the Marriott Hotel in Norwalk. This facility has a waterwell and treatment facility that would need to be relocated. Loss of this facility would impact water supply to citizens of Norwalk, and the EIR has not adequately addressed impact to water supply. Also, there have been no utility coordination efforts on behalf of Caltrans and Golden State Water Company.
Joe Minnoci Golden State Water Company 1920 W. Corporate Way Anaheim, CA 92801	Impacts on public/private utilities are insufficiently evaluated in the EIR/EIS. A more detailed review of the project's impacts need to be provided. Caltrans needs to contact all of the affected companies to determine local and community impacts. One example is the location of water sources treatment facilities within the proposed right-of-way of several of the alternatives. EIS/EIR appears to be deficient.
Danny Mogg 12501 Sproul Street Norwalk, CA 90650	I own a property, which will be impacted by all four plans, i.e. 4a, 4b, 5a, 5b. The two [MIS] plans are a partial acquisition. The value analysis plans area full take. I am not in the least bit interested in a partial take. My reasons are too involved for this comment card. Strongly urge Caltrans to adapt the VA Plan.
Barbara Duncan 11358 Cecilia Norwalk, CA 90650	Please get on with it! We have been waiting since the 80's you have been "studying" this too many times. You know its necessary, don't do a half job. Go the whole plan, as wide as you can. Update your webpage!
Seyed N. Mirghafouri 6667 lake Springs St. Mira Loma, CA 91752	Please inform me with any new meeting or plan
Joseph A. Moreno 11903 Lyndora Street Norwalk, CA. 90650	For project Caltrans is taking a portion of Imperial Highway and 5 Freeway Eastside of 5 FRWY. South of my property on Zeus Caltrans is taking out all homes along the freeway. When feasible, I would like to know if I could purchase small piece of land that is adjacent to my property. This land, according to the plans is being taken away for the expansion of the I-5, so I would like to know, once again, if I can purchase a part of the land adjacent to my property.

Table 6-3 - Statements Filed for the Record	
Name	**Comment**
Mike Guerin 7025 Firestone Boulevard (no city name)	Please contact me. Thanks Mike

6-8.3 Comments and Responses

Written comment letters were received from the following parties:

- US Environmental Protection Agency
- Native American Heritage Commission
- South Coast Air Quality Management District
- Metropolitan Transportation Authority
- The I-5 Consortium Cities Joint Powers Authority
- City of Buena Park
- City of Downey
- City of Norwalk
- Amada America, Inc.
- Ferguson Case Orr Patterson & Cunningham, LLP
- Law Offices of Kilka, Parrish & Bigelow
- Law Offices Nossaman, Gunther, Knox & Elliot, LLP
- Law Offices of Robert C. Hawkins
- Brian Cannell
- Fran Martin
- Alicia Castellanos
- Hilda Fraticelli
- Ronald L. Webb
- Ron Pilani
- Dora D. McKinn
- Justina M. Pacheco

The following pages contain comment letters received during the public circulation of the Draft EIR/EIS and the corresponding responses to those comments.

This letter is identified as EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

February 23, 2007

Ms. Lisa Cathcart-Randall
Federal Highway Administration
650 Capitol Mall, Suite 4-100
Sacramento, CA 95814

Subject: Draft Environmental Impact Statement for the Interstate 5 Corridor Improvement Project, from State Route 91 to Interstate 605, Los Angeles and Orange Counties, California

Dear Ms. Cathcart-Randall:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the Interstate 5 (I-5) Corridor Improvement Project, from State Route 91 (SR 91) to Interstate 605 (I-605), Los Angeles and Orange Counties, California. Our comments are provided under the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementing Regulations (40 CFR 1500-1508), and Section 309 of the Clean Air Act. Our detailed comments are enclosed.

Based on our review, we have rated the proposed I-5 Corridor Improvement Project DEIS as Environmental Concerns – Insufficient Information (EC-2). A *Summary of EPA Rating Definitions* is enclosed. The DEIS addresses the environmental impacts of the proposed action to reduce existing and forecast traffic congestion on I-5 between SR 91 and I-605 and includes alternatives that expand the 9-mile corridor from an existing six-lane facility to a 10-lane to 12-lane facility. This project is a part of the broader I-5 Major Improvement Project which extends from Interstate 710 to State Route (SR) 91, a length of approximately 16 miles.

EPA's primary concerns are the potential of project segmentation, the lack of analysis for mobile source air toxics (MSATs) hotspots and the inconsistent reporting of potential environmental justice impacts. The absence of MSAT analysis is of concern to EPA because 1) the project is a potentially large expansion of an already major freeway; 2) the proposed project is in close proximity to residences and other sensitive receptors, such as schools and hospitals; 3) there is an increasing public awareness of air quality impacts associated with transportation projects, as reflected in the passage of Proposition 1B, which includes $1 billion in air quality mitigation measures; and 4) there will likely be further expansions along the I-5 corridor, so it is important to establish an appropriate level of analysis. EPA's concerns, and recommendations, are further discussed in the attachment. Our primary recommendations include: 1) quantifying the construction and operational emissions for MSATs, 2) conducting dispersion modeling of the most significant MSATs, and 3) identifying hotspots and appropriate avoidance, minimization, and/or mitigation opportunities. 1

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EPA thanks the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans) for meeting with EPA to discuss MSATs at the Caltrans District 7 Office on February 7, 2007. During this meeting, we agreed that Caltrans would provide documentation on previous work supporting the assertion that MSATs will decline for the proposed build scenarios and documentation supporting the claim that the non-widening alternatives will result in similar emissions as the base-case scenario. FHWA and EPA also agreed to have a conference call to discuss EPA's support of dispersion modeling as an appropriate tool to assess MSAT emissions for this project after FHWA has an opportunity to review EPA's formal comments. EPA will schedule a call with FHWA and Caltrans next week. 1

Thank you for the opportunity to comment on the DEIS. We look forward to working with you to resolve the issues raised in our detailed comments. When the Final Environmental Impact Statement is released for public review, please send two hard copies and two electronic copies to the address above (mail code: CED-2). If you have any questions, please contact me or Susan Sturges, the lead reviewer for this project. Susan can be reached at 415-947-4188 or sturges.susan@epa.gov.

Sincerely,

Nova Blazej, Manager
Environmental Review Office

Attachments:
Summary of EPA Rating Definitions
EPA's Detailed Comments

cc: Jinous Saleh, California Department of Transportation
Ron Kosinski, California Department of Transportation
Garrett Damrath, California Department of Transportation
Jean Mazur, Federal Highway Administration
Steve Healow, Federal Highway Administration

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EPA continued

EPA DETAILED COMMENTS ON THE INTERSTATE 5 CORRIDOR IMROVEMENT PROJECT, FROM STATE ROUTE 91 TO INTERSTATE 605, LOS ANGELES AND ORANGE COUNTIES, CALIFORNIA, FEBRUARY 23, 2007

Project Scope

The proposed project is the first phase of the Interstate 5 (I-5) Major Improvement Project which also includes future improvements to the freeway segment from Interstate 605 (I-605) to Interstate 710 (I-710). According to the Draft Environmental Impact Statement (DEIS), the proposed project would reduce congestion on I-5 south of State Route 91 (SR 91) in Orange County. Northbound I-5 in Orange County to SR 91 has four mixed flow lanes and one high occupancy vehicle (HOV) lane which create a bottleneck when I-5 transitions to three mixed flow lanes in the project corridor. The DEIS indicates that Orange County has plans for a 12-lane freeway to the County line, which further supports the need for the project. North of I-605, I-5 widens to an eight-lane facility (mixed flow). A 1998 Major Investment Study (MIS) identified a locally preferred alternative of 8 mixed flow lanes and 2 high occupancy vehicle (HOV) lanes from State Route 91 (SR 91) to I-710.

If the completion of the proposed action from SR 91 to I-605 triggers the need to improve additional stretches of I-5, such as a shift of this segment's congestion bottleneck to north of I-605, then the project scope may need to be expanded. As a result, the National Environmental Policy Act (NEPA) evaluation should include the full extent of the planned HOV corridor, and how it will operate. The proposed improvements from SR 91 to I-605 would have independent utility if the intended benefit of congestion reduction and the intended need of the project could be met independent of any future planned HOV expansion on I-5 south of SR 91 or north of the project area between I-605 and I-710.

Recommendation:
Clearly demonstrate the independent utility of the project within its current geographic limits as it relates to the need for the project. If the project need cannot be met without future planned improvements, the scope of the project should be expanded accordingly, such as including an analysis of future improvements to I-710 or future improvements south of SR 91, since these would be considered connected and similar actions (40 CFR 1508.25). EPA believes this is the most effective way to address indirect and cumulative environmental impacts, and also ensures that a broader scope is applied in the identification and evaluation of project alternatives that may be less environmentally damaging. Generally, funding or constraints of project staging and construction should not be used as a basis for segmenting the evaluation of environmental impacts under NEPA.

2

Mobile Source Air Toxics

EPA is concerned that the DEIS does not sufficiently disclose the potential mobile source air toxics (MSAT) impacts that may result from the proposed project. The absence of this analysis is of concern to EPA because 1) the project is a potentially large expansion of an already

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EPA-1
The Environmental Protection Agency's rating of the DEIR/EIS and their particular concerns related to the Mobile Source Air Toxics (MSAT) analysis is acknowledged. Please refer to Responses EPA-3 through EPA-12 related to MSAT emissions in the MSAT analysis in the DEIR/EIS.

EPA-2
The limits of this project were determined with specific consideration concerning logical termini and independent utility. The freeway interchanges at State Route 91 and Interstate 605 are locations where Interstate 5 transitions from 6 to 10 lanes to the south and 8 lanes to the north, thus providing logical termini for the proposed project. Completion of this project will bring improvement to congestion in the corridor without any other planned or unplanned project construction, which demonstrates independent utility.

EPA continued

major freeway; 2) the proposed project is in close proximity to residences and other sensitive receptors, such as schools and hospitals; 3) there is an increasing public awareness of air quality impacts associated with transportation projects, as reflected in the passage of Proposition 1B, which includes $1 billion in air quality mitigation measures; and 4) there will likely be further expansions along the I-5 corridor, so it is important to establish an appropriate level of analysis.

The DEIS follows the February 2006 Federal Highway Administration (FHWA) MSAT interim guidance which describes how to assess MSAT impacts for transportation projects during the National Environmental Policy Act (NEPA) process. While there are positive elements to this guidance, especially the willingness to acknowledge potential MSAT concerns, EPA continues to disagree with major elements of this approach nationally. For projects of this type, *i.e.* those with large potential impacts in an already highly impacted area, EPA generally recommends a higher level of analysis than what is found in the DEIS. This is especially important in California, where the awareness of air toxics impacts, the knowledge of background conditions, and the familiarity with tools to assess potential impacts is very high.

Documented Health Effects of Near-Roadway Mobile Source Air Toxics

Many studies have measured elevated concentrations of pollutants emitted directly by motor vehicles near large roadways. These elevated concentrations generally occur within approximately 200 meters of the road, although the distance may vary depending on traffic and environmental conditions, and are hotspot in nature when there are localized concentrations. Pollutants measured with elevated concentrations include benzene, polycyclic aromatic hydrocarbons, carbon monoxide, nitrogen dioxide, black carbon, and coarse, fine, and ultrafine particles. For a thorough review of near-roadway monitoring studies, see Section 3.1.3 of EPA's "Draft Regulatory Impact Analysis: Control of Hazardous Air Pollutants from Mobile Sources" (February 2006, http://www.epa.gov/oms/regs/toxics/ria-sections.htm).

There are also a large number of recent studies that have examined the association between living near major roads and different adverse health endpoints. Several well-conducted epidemiologic studies have shown associations with cardiovascular effects, premature adult mortality, and adverse birth outcomes, including low birth weight and size. Traffic-related pollutants have been repeatedly associated with increased prevalence of asthma-related respiratory symptoms in children. Also, based on toxicological and occupational epidemiologic literature, several of the mobile source air toxics (MSATs), including benzene and 1,3-butadiene, are classified as known and likely human carcinogens. Thus, cancer risk, including childhood leukemia, is a potential concern in near roadway environments. For a more detailed review of public health concerns near roadways, see Section 3.5 of EPA's "Draft Regulatory Impact Analysis: Control of Hazardous Air Pollutants from Mobile Sources" (February 2006, http://www.epa.gov/oms/regs/toxics/ria-sections.htm).

Methodology and Reporting

The DEIS lacks critical documentation and analyses related to MSATs as follows: 1) data, including inputs and detailed results, supporting the conclusion that MSAT emissions will

2

EPA-3
The MSAT Technical Memo fully analyzes the MSAT impacts from all the Build Alternatives compared to the No Build Alternative, both in the operational year of 2013 and the horizon year of 2030. Section 3-13.2 of the DEIR/EIS has been updated to include the same discussion and conclusions.

EPA-4
The revised MSAT Technical Memo discusses all alternatives.

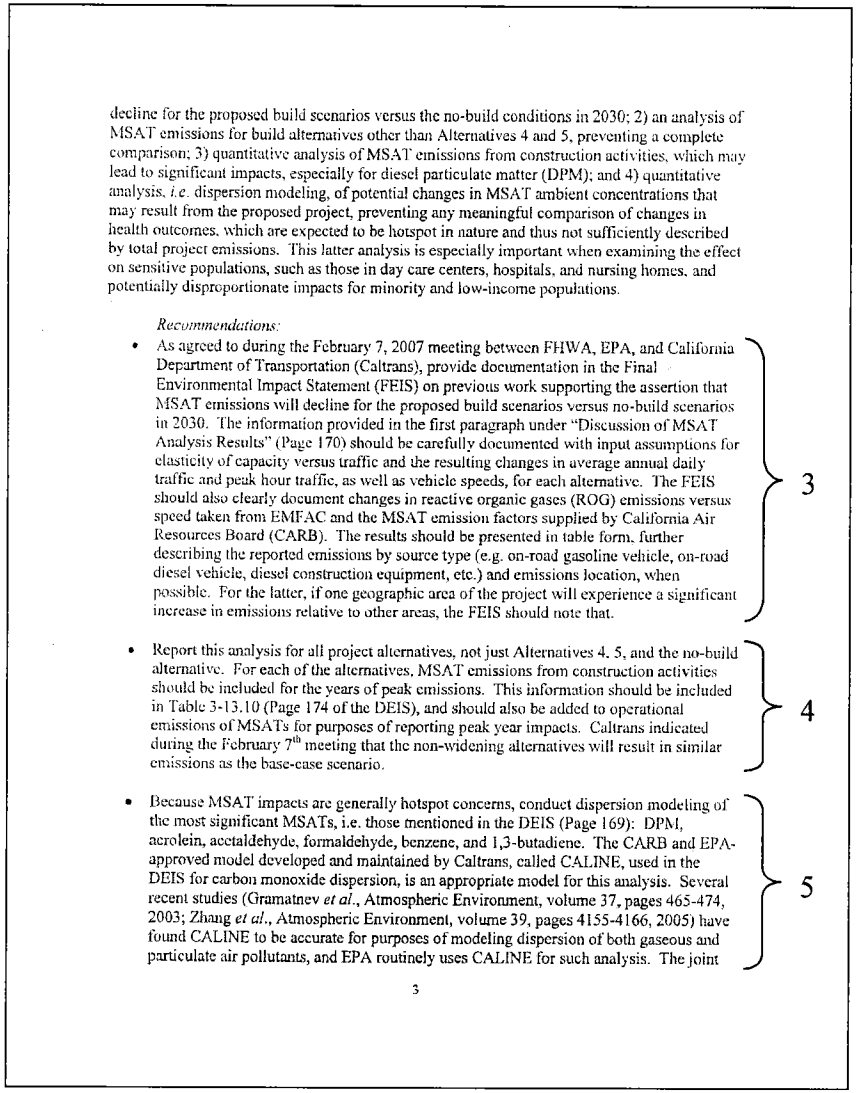
EPA-5
The DEIS discloses the potential for mobile source air toxics impacts to the extent that current scientific information allows. Additional information related to the emissions analysis per EPA's comments has been incorporated into the document. Sensitive receptors are identified and a qualitative assessment of impacts to the sensitive receptors, including low-income and minority communities, was performed.

FHWA does not, however, believe that quantitative analysis (i.e., dispersion modeling) can provide any meaningful comparison of alternatives and, in fact, may provide misleading information as to the current understanding of mobile source air toxics and the capabilities of current tools. There are a number of reasons why, at this time, FHWA does not support dispersion modeling. First, as part of the development of the FHWA interim MSAT guidance, FHWA conducted a thorough review of the scientific information related to mobile source air toxics from transportation sources. As a result of that review, FHWA concluded that the available technical tools do not enable us to reliably estimate pollutant exposure concentrations or predict the project-specific health impacts of the emissions changes associated with transportation project alternatives. EPA's Guidance on Air Quality Models includes the following conclusions on the accuracy and precision of air quality models:

(1) The models are reasonably reliable in estimating the magnitude of the highest concentrations occurring sometime, somewhere within an area—errors of 10–40 are typical.

Estimates of concentrations that occur at a specific time and site are poorly correlated with actually observed concentrations and are much less reliable.

EPA continued



decline for the proposed build scenarios versus the no-build conditions in 2030; 2) an analysis of MSAT emissions for build alternatives other than Alternatives 4 and 5, preventing a complete comparison; 3) quantitative analysis of MSAT emissions from construction activities, which may lead to significant impacts, especially for diesel particulate matter (DPM); and 4) quantitative analysis, *i.e.* dispersion modeling, of potential changes in MSAT ambient concentrations that may result from the proposed project, preventing any meaningful comparison of changes in health outcomes, which are expected to be hotspot in nature and thus not sufficiently described by total project emissions. This latter analysis is especially important when examining the effect on sensitive populations, such as those in day care centers, hospitals, and nursing homes, and potentially disproportionate impacts for minority and low-income populations.

Recommendations:

- As agreed to during the February 7, 2007 meeting between FHWA, EPA, and California Department of Transportation (Caltrans), provide documentation in the Final Environmental Impact Statement (FEIS) on previous work supporting the assertion that MSAT emissions will decline for the proposed build scenarios versus no-build scenarios in 2030. The information provided in the first paragraph under "Discussion of MSAT Analysis Results" (Page 170) should be carefully documented with input assumptions for elasticity of capacity versus traffic and the resulting changes in average annual daily traffic and peak hour traffic, as well as vehicle speeds, for each alternative. The FEIS should also clearly document changes in reactive organic gases (ROG) emissions versus speed taken from EMFAC and the MSAT emission factors supplied by California Air Resources Board (CARB). The results should be presented in table form, further describing the reported emissions by source type (e.g. on-road gasoline vehicle, on-road diesel vehicle, diesel construction equipment, etc.) and emissions location, when possible. For the latter, if one geographic area of the project will experience a significant increase in emissions relative to other areas, the FEIS should note that. 3

- Report this analysis for all project alternatives, not just Alternatives 4, 5, and the no-build alternative. For each of the alternatives, MSAT emissions from construction activities should be included for the years of peak emissions. This information should be included in Table 3-13.10 (Page 174 of the DEIS), and should also be added to operational emissions of MSATs for purposes of reporting peak year impacts. Caltrans indicated during the February 7th meeting that the non-widening alternatives will result in similar emissions as the base-case scenario. 4

- Because MSAT impacts are generally hotspot concerns, conduct dispersion modeling of the most significant MSATs, i.e. those mentioned in the DEIS (Page 169): DPM, acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene. The CARB and EPA-approved model developed and maintained by Caltrans, called CALINE, used in the DEIS for carbon monoxide dispersion, is an appropriate model for this analysis. Several recent studies (Gramatnev *et al.*, Atmospheric Environment, volume 37, pages 465-474, 2003; Zhang *et al.*, Atmospheric Environment, volume 39, pages 4155-4166, 2005) have found CALINE to be accurate for purposes of modeling dispersion of both gaseous and particulate air pollutants, and EPA routinely uses CALINE for such analysis. The joint 5

3

The EPA comment letter references a number of studies that, in the EPA's opinion, demonstrates that these models are accurate for dispersion modeling. However, these studies were designed to investigate particulate matter emissions factors and were not meant to be comprehensive validation studies for particulate matter. The FHWA does not believe that these isolated studies invalidate FHWA's current interim guidance for MSAT analysis.

Second, since FHWA's interim guidance was developed, the EPA has promulgated the final transportation regulations for project-level $PM_{2.5}$ and PM_{10} Hot Spot analyses. For a number of reasons, as described in the preamble to the regulation, those regulations require only a qualitative assessment of PM hot spots at this time. One of the factors included in the EPA decision for qualitative assessment was the insensitivity of the particulate matter emissions to speed in the MOBILE emissions model. While the EMFAC model does contain speed correction factors for particulate matter, at the time the regulations were promulgated, EPA had not yet reviewed those factors. Furthermore, the EPA has not yet incorporated those factors into the MOBILE model. The EPA also concluded that, in order to assure a credible hot spot analysis, quantitative modeling guidance must first be developed by the EPA. Quantitative modeling guidance has not yet been developed by the EPA for MSATs.

EPA continued

University of California, Davis (UC Davis) – California Department of Transportation (Caltrans) report, entitled "A Survey of Air Quality Dispersion Models for Project-Level Conformity Analysis" (June 19, 2006), describes the use of CALINE and other similar models for this purpose. The report notes that models such as CALINE are appropriate for modeling the micro-scale of inert pollutants, which would include direct emission of the above-mentioned MSATs in the near-roadway environment. 5

- Discuss the predicted concentrations and changes in concentrations between alternatives and years (2004, 2013, and 2030, as well as the peak year for construction emissions), in the context of local air toxics monitoring information (accessible via EPA's AirDATA website, http://www.epa.gov/oar/data/), results from EPA's National Air Toxics Assessment (NATA, http://www.epa.gov/ttn/atw/nata1999/), and other similar studies, such as South Coast Air Quality Management District's (SCAQMD) Multiple Air Toxics Exposure Study (MATES, http://www.aqmd.gov/matesiidf/matestoc.htm and http://www.aqmd.gov/prdas/matesIII/matesIII.html). The FEIS should make special note of changes in predicted MSAT ambient concentrations for locations, especially residences and sensitive receptors, that fall nearer to I-5 as a result of the proposed freeway expansion. 6

- With respect to environmental justice, evaluate whether low-income and minority communities would experience an increase in MSAT ambient concentrations. If there is an increase, the impacts of the affected community should be compared to the reference community, defined as those who will benefit from the proposed project. The reference community may potentially be the combination of Los Angeles and Orange Counties, or alternatively a greater area of Southern California. 7

- Identify design and mitigation measures for operational impacts of MSATs. For example, the analysis recommended above should be used to identify hotspot areas where MSAT impacts are expected to increase. Whenever feasible, Caltrans should minimize these increases in hotspot impacts for residences and other sensitive receptors when designing the footprint of the proposed project. To the extent that MSAT impacts are reduced through choice of alternatives, project design, travel demand management, or construction mitigation, the FEIS should quantify and describe these benefits. Many of the recommendations under Construction Mitigation Measures of this letter below will result in decreased impacts for both criteria pollutants and air toxics. 8

Unavailable or Incomplete Information

The discussion of "Information that is Unavailable or Incomplete" (Pages 171-172) has several inaccuracies requiring correction. The section on emissions is irrelevant to the current DEIS, since EMFAC is the preferred model for quantifying project-scale emissions, and EMFAC does have the ability to predict emission factors for varying vehicle speeds. Thus, the analysis that has already been conducted in the DEIS (Pages 169-170) with EMFAC is sufficient for this purpose.

4

EPA-6
The MSAT Technical Memo has been updated to provide the most current predicted future emissions for all alternatives; however, there is no local air toxics monitoring information available.

EPA-7
As discussed in the Response to Comment EPA-5, no meaningful MSAT concentrations can be calculated. No MSAT ambient concentrations are available for any population along the corridor.

EPA-8
The emissions of MSATs are from vehicles and are controlled by the EPA and ARB, so are outside the control of this project. The MSAT analysis concludes that the overall emissions of MSATs will be significantly lower in the future than now regardless of which alternative is implemented. These reductions are principally due to improved technologies controlling and/or eliminating these emissions, such as better emissions controls, cleaner burning fuels, and increased percentages of low- and zero-emission vehicles in the fleet.

EPA continued

Recommendation:
Remove the discussion of uncertainties in "Emissions", as it is not relevant to quantifying emissions in California. } 9

Limitations of dispersion models

The discussion of limitations in the dispersion models, CALINE3 and CAL3QHC, is outdated. While it is true that the CALINE and CAL3QHC were developed and validated a number of years ago, as stated in the DEIS, they continue to undergo validation. A number of recent studies have determined that CALINE, especially "CALINE4," accurately predicts ambient concentrations in near-roadway environments for both gaseous and particulate pollutants (see, for example, Gramatnev *et al.*, Atmospheric Environment, volume 37, pages 465-474, 2003; Zhang *et al.*, Atmospheric Environment, volume 39, pages 4155-4166, 2005). The joint UC Davis - Caltrans report, entitled "A Survey of Air Quality Dispersion Models for Project-Level Conformity Analysis" (June 19, 2006), concluded that available models are appropriate for modeling project-level dispersion of on-road and construction emissions, contradicting the language in the DEIS. Based on these recent studies and report, CALINE4 would be an appropriate tool for dispersion analysis of MSATs within the DEIS. While air toxics monitoring data is always limited, there are sufficient studies, including existing fixed site air toxics monitors, EPA's NATA, and SCAQMD's MATES noted above, that report both monitored and modeled ambient air toxics concentrations in Southern California. Accordingly, it would be straightforward to determine MSAT background concentrations, providing context for the dispersion analysis recommended above.

Recommendation:
Remove the discussion of uncertainties in "Dispersion" and replace it with an updated discussion of the use of CALINE4 in situations similar to the proposed project. The concern about establishing project-specific MSAT background concentrations should be amended to note that Federal Highway Administration (FHWA) and Caltrans will work with EPA and SCAQMD to determine relevant background concentrations. } 10

Exposure Levels and Health Effects

The discussion of "Exposure Levels and Health Effects" is also inaccurate. Both EPA and California Office of Environmental Health Hazard Assessment (OEHHA) have long standing experience and published, peer-reviewed guidance for evaluating long-term health effects, including cancer risk. The concerns raised about estimating exposure over a 70-year lifetime have been addressed extensively by our agencies. Recently, EPA has published an Air Toxics Risk Assessment Reference Library (http://www.epa.gov/ttn/fera/risk_atra_main.html) that addresses the precise concerns raised in this section of the DEIS – namely how to develop appropriate exposure scenarios in a risk assessment. Similarly, California OEHHA has hot spot risk assessment guidance published in support of California's Air Toxics "Hot Spots" Information and Assessment Act of 1987 (a.k.a. AB2588, http://www.oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf). While EPA agrees that there are always uncertainties associated with such an analysis, in this case most of the uncertainties

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EPA-9
The discussion of uncertainties in "Emissions" has been revised to be relevant to quantifying emissions in California. For example, the EMFAC2002 model only has emission factors for an average vehicle operating in a typical manner at a range of discrete speeds. To incorporate these limitations into an analysis of the large amount of traffic on the I-5 freeway, many groupings of vehicles must be done, such as by vehicle type, speeds at various times of the day, etc.

EPA-10
As noted above, FHWA believes that the current interim guidance is still valid and that the studies identified by EPA do not represent comprehensive validation studies. FHWA, in cooperation with EPA, is currently completing studies on mobile source air toxics in near-roadway environments. One goal of the study is to evaluate the analytical tools for MSAT analysis as compared to real-world data. FHWA's guidance will be updated as the science on air toxics analysis to continue evolves. However, the discussion in "Dispersion" has been revised to reflect the modeling tool currently in use in California.

EPA continued

would be consistent across alternatives, and such an analysis would still be sufficient for distinguishing between the impacts among scenarios and informing mitigation.

Recommendation:
Remove the discussion of uncertainties in "Exposure Levels and Health Effects" and replace it with a discussion of possible exposure scenarios typically used by EPA and California OEHHA in air toxics risk assessments. EPA is not recommending that FHWA and Caltrans perform a human health risk assessment. EPA does, however, acknowledge that such an assessment is possible. If a human health risk assessment is pursued in the Final EIS, EPA would be willing to assist FHWA and Caltrans in developing meaningful exposure scenarios. 11

The DEIS provides toxicity information for the six MSATs of most concern. EPA agrees with the need to provide this information in the DEIS, but notes that the primary health concern for acrolein is not cancer, but rather a respiratory endpoint (nasal legions, http://www.epa.gov/iris/subst/0364.htm#refinhal). Similarly, benzene (decreased lymphocyte count, http://www.epa.gov/iris/subst/0276.htm#refinhal), acetaldehyde (degeneration of the olfactory epithelium, http://www.epa.gov/iris/subst/0290.htm#refinhal), formaldehyde (respiratory, http://www.atsdr.cdc.gov/toxprofiles/tp111-c2.pdf), and 1,3-butadiene (ovarian atrophy, http://www.epa.gov/IRIS/subst/0139.htm#refinhal) all have non-cancer health endpoints of potential concern.

Recommendation:
Include health endpoints other than cancer for acrolein, benzene, acetaldehyde, formaldehyde, and 1,3-butadiene in the summary of toxicological endpoints included in the DEIS (Pages 172-173). Cancer is not a known health endpoint for acrolein. Therefore, references to potential carcinogenicity for acrolein should be removed. 12

Air Quality

The proposed project is located in the South Coast Air Basin (SCAB). The SCAQMD implements local air quality regulations in the SCAB to carry out Federal Clean Air Act (CAA) requirements, as authorized by the EPA. The current SCAB nonattainment designations under the Federal CAA are as follows: carbon monoxide - serious nonattainment; 8-hour ozone - severe nonattainment; particulate matter with a diameter of 10 microns or less (PM_{10}) - serious nonattainment; and particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$) - nonattainment. The SCAB has the worst 8-hour ozone and $PM_{2.5}$ problems in the nation, and attainment of these National Ambient Air Quality Standards (NAAQS) will require massive reductions from mobile sources, given the rapid growth in this emissions category and the long lifespan of diesel engines. The DEIS accurately reflects the SCAB nonattainment designations made by EPA for the NAAQS. However, the DEIS contains multiple air documents, updates to the air analysis, and related appendices, making it difficult for reviewers and the public to clearly understand the analysis and the resulting project impacts.

6

EPA-11
EPA and California OEHHA have developed guidance for health risk assessments, but they do not eliminate uncertainties inherent in health risk assessments. The uncertainties associated with performing risk assessments are acknowledged in the introduction of the OEHHA report. The concern with performing these kinds of assessments for highway projects is that the calculated difference in health impacts due to implementation of the project is likely to be much smaller than the uncertainties associated with calculating them, and therefore, these assessments would not result in any meaningful project conclusions.

EPA-12
Section 3-13.2 of the DEIR/EIS has been updated to include chronic and acute health endpoints.

EPA-13
The DEIR/EIS has been updated to accurately refer to all air documents and related appendices.

EPA continued

Recommendation:
Accurately reference all appendices in the FEIS and clarify any discrepancies between text in the DEIS and information given in the appendices. 13

Traffic Analysis

In a conference call on February 7, 2007 with Andrew Yoon of Caltrans, EPA learned that the traffic calculations and associated air quality analyses in the DEIS are currently being revised to address FHWA's comments. The FHWA indicated that the hourly volumes in the revisions to the traffic were too high for the capacity of the roadway. EPA understands that the current revisions to the traffic analysis are aimed at addressing this comment.

Recommendations:

- Clearly explain in the FEIS how the traffic estimates were developed and how these traffic estimates relate to regional transportation estimates from the Southern California Association of Governments (SCAG). If the revised analysis affects the conclusions in the DEIS regarding the significance of impacts or the evaluation of alternatives, these changes should be reflected in the FEIS. 14
- Include in the FEIS whether the average daily volume traffic estimates in both the base and future years are derived from SCAG's network estimates. If not, describe how the traffic projections were estimated. Specifically, EPA understands that in the 2006 revisions to the traffic analysis, significant increases in vehicles miles traveled (VMT) were projected when estimates changed from constrained to demand volumes. 15
- In the new revisions to VMT, discuss if and how the current average daily traffic totals will be spread to reduce high hourly volumes. 16
- Describe how traffic volumes have been increased to account for the removal of the I-5 bottleneck. Disclose if regional traffic shifts to the I-5 corridor are anticipated to result from the removal of the bottleneck in this highway segment. 17

Particulate Matter (PM) Standards

On October 17, 2006, EPA issued a final rule establishing changes to the $PM_{2.5}$ and PM_{10} NAAQS, which was effective on December 18, 2006 (See 71 FR 61144). In this final rule, a new 24-hour standard for $PM_{2.5}$ of 35 micrograms per cubic meter (ug/m^3) replaces the old standard of 65 ug/m^3, and the annual PM_{10} standard of 50 ug/m^3 has been revoked. The PM_{10} 24-hour standard of 150 ug/m^3 has been retained. Transportation conformity for the new 24-hour $PM_{2.5}$ standard of 35 ug/m^3 does not apply until one year after the effective date of nonattainment designations.

Recommendation:

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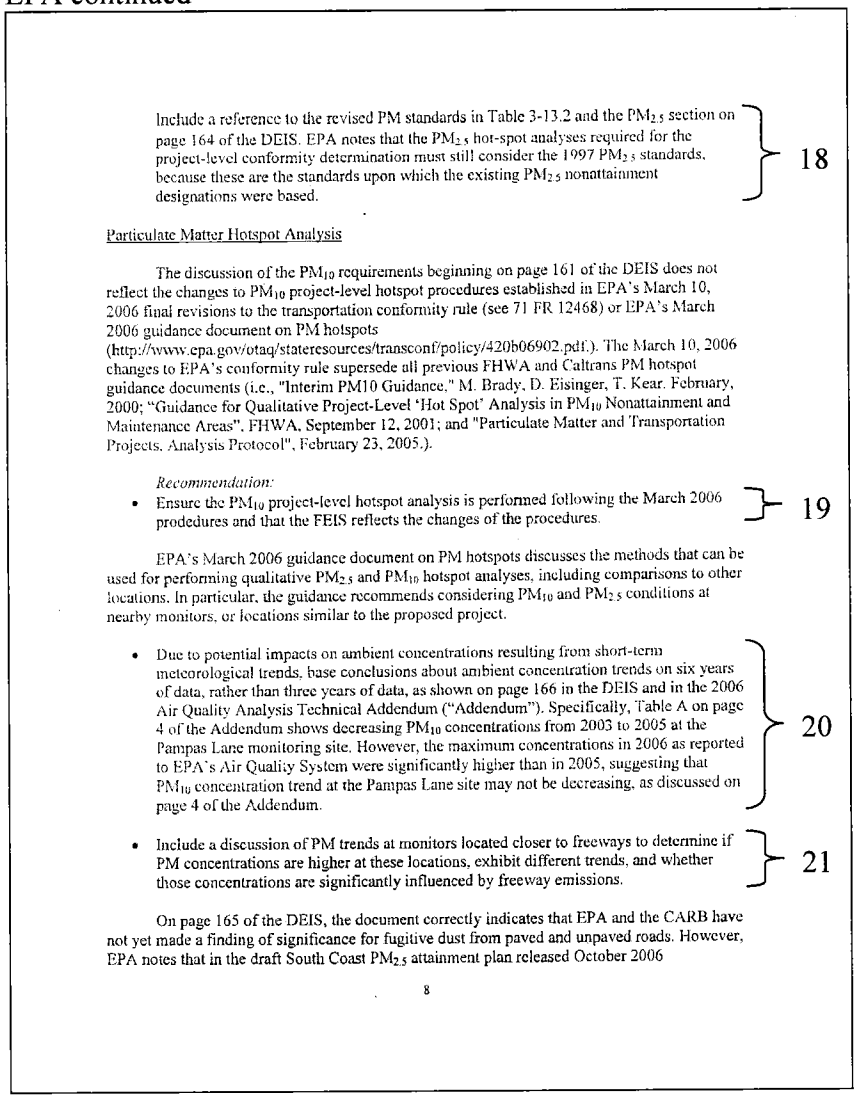
EPA-14
The traffic estimates for future scenarios were developed by applying growth factors to existing freeway counts. Both the existing counts and growth factors were obtained from Caltrans. The counts were based on Caltrans Automatic Traffic Monitoring System (ATMS) while the growth factors were based on the Los Angeles Regional Transportation System (LARTS) model, which is consistent with the Southern California Association of Governments (SCAG) projections. This information has been added to the first paragraph of the "Impacts" section in the DEIR/EIS.

EPA-15
Yes, the volumes are derivatives of the SCAG data. See Response to Comment EPA-14.

EPA-16
With the additional travel lanes planned with the Preferred Alternative, average daily traffic volumes will be spread evenly over the peak periods of travel. Levels of Service will improve, especially for carpools, vanpools and buses using the HOV lanes. Circuitous trips will be reduced, resulting in a reduction in vehicle miles traveled. Commuters will realize that the wider freeway will have reduced periods of congestion and use the more direct route, specifically the I-5 Freeway. Freeway users will also recognize that the reduced periods of congestion will allow them to commute at times more convenient to their trip time desires, thus reducing isolated high hourly volumes.

EPA-17
The existing mainline volumes from the January 2005 traffic study were increased to account for the removal of the I-5 bottleneck by applying a delay calculation method called the "Moskowitz Curve," which is used to balance and recalculate traffic volumes to achieve conservation of flow through the corridor. The existing mainline volumes in the August 2006 study were not adjusted, as these new volumes were derived from AADT as requested by FHWA. The AADT on each segment is an average annual and the peak-hour volumes derived from these AADT volumes reflect the influence of bottlenecks and other friction as well as the general conservation of flow through the corridor.

EPA continued



Include a reference to the revised PM standards in Table 3-13.2 and the $PM_{2.5}$ section on page 164 of the DEIS. EPA notes that the $PM_{2.5}$ hot-spot analyses required for the project-level conformity determination must still consider the 1997 $PM_{2.5}$ standards, because these are the standards upon which the existing $PM_{2.5}$ nonattainment designations were based. 18

Particulate Matter Hotspot Analysis

The discussion of the PM_{10} requirements beginning on page 161 of the DEIS does not reflect the changes to PM_{10} project-level hotspot procedures established in EPA's March 10, 2006 final revisions to the transportation conformity rule (see 71 FR 12468) or EPA's March 2006 guidance document on PM hotspots (http://www.epa.gov/otaq/stateresources/transconf/policy/420b06902.pdf.). The March 10, 2006 changes to EPA's conformity rule supersede all previous FHWA and Caltrans PM hotspot guidance documents (i.e., "Interim PM10 Guidance," M. Brady, D. Eisinger, T. Kear. February, 2000; "Guidance for Qualitative Project-Level 'Hot Spot' Analysis in PM_{10} Nonattainment and Maintenance Areas", FHWA, September 12, 2001; and "Particulate Matter and Transportation Projects, Analysis Protocol", February 23, 2005.).

Recommendation:

- Ensure the PM_{10} project-level hotspot analysis is performed following the March 2006 prodedures and that the FEIS reflects the changes of the procedures. 19

EPA's March 2006 guidance document on PM hotspots discusses the methods that can be used for performing qualitative $PM_{2.5}$ and PM_{10} hotspot analyses, including comparisons to other locations. In particular, the guidance recommends considering PM_{10} and $PM_{2.5}$ conditions at nearby monitors, or locations similar to the proposed project.

- Due to potential impacts on ambient concentrations resulting from short-term meteorological trends, base conclusions about ambient concentration trends on six years of data, rather than three years of data, as shown on page 166 in the DEIS and in the 2006 Air Quality Analysis Technical Addendum ("Addendum"). Specifically, Table A on page 4 of the Addendum shows decreasing PM_{10} concentrations from 2003 to 2005 at the Pampas Lane monitoring site. However, the maximum concentrations in 2006 as reported to EPA's Air Quality System were significantly higher than in 2005, suggesting that PM_{10} concentration trend at the Pampas Lane site may not be decreasing, as discussed on page 4 of the Addendum. 20

- Include a discussion of PM trends at monitors located closer to freeways to determine if PM concentrations are higher at these locations, exhibit different trends, and whether those concentrations are significantly influenced by freeway emissions. 21

On page 165 of the DEIS, the document correctly indicates that EPA and the CARB have not yet made a finding of significance for fugitive dust from paved and unpaved roads. However, EPA notes that in the draft South Coast $PM_{2.5}$ attainment plan released October 2006

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EPA-18
Section 3-13.2 of the DEIR/EIS has been updated to include a discussion of PM standards current as of April 2007.

EPA-19
The PM_{10} project-level hot spot analysis was performed using 2005 PM_{10} protocol and therefore does not need to be updated.

EPA-20
Section 3-13.2 of the DEIR/EIS has been updated to include 6 years of meteorological data. The additional data show that the trends previously shown using 3 years of data were representative of long-term trends.

EPA-21
Due to the length of this project, the data from two air monitoring stations (i.e., the Anaheim-Pampas Lane Station and the Los Angeles-North Main Street Station) were used to represent the air quality in the project vicinity. Both of these are within 0.25 mile of the I-5 freeway and are located at each end of the proposed project area. The next closest stations are more than 5 miles away from the I-5, and there is either terrain, other major freeways, or other factors that make the above two stations the best candidates to represent the ambient air quality in the project vicinity.

EPA continued

(http://www.aqmd.gov/aqmp/07aqmp/07AQMP.html), road dust is a significant portion (approximately 20%) of the inventory.

Recommendation:
Consider the analysis in the South Coast $PM_{2.5}$ attainment plan (or subsequent revisions to this plan) in the development of the FEIS (or $PM_{2.5}$ hotspot analysis) to ensure that the assumptions used are consistent with those in the South Coast $PM_{2.5}$ attainment plan regarding the impacts of paved and unpaved road dust. 22

EPA notes that the section starting on page 166 of the DEIS discusses ambient $PM_{2.5}$ concentrations, although the section is titled "Baseline $PM_{2.5}$ emissions". In addition, the ambient $PM_{2.5}$ concentration trends do not necessarily reflect the trends in emissions from highway traffic.

Recommendations:

- Rename the section accordingly. 23
- Consider including $PM_{2.5}$ emission trends (including precursor trends) in the analysis for the project and/or regional motor vehicles and heavy duty diesel traffic to strengthen the conclusions made in this section. 24

Transportation Conformity

The DEIS references the 2004 Transportation Improvement Plan (TIP) and the 2004 Regional Transportation Plan (RTP). These are no longer the currently conforming documents.

Recommendation:
Since the project needs to come from a conforming RTP and TIP, reference the 2006 TIP to demonstrate that this project meets the transportation conformity requirements. 25

Construction Mitigation Measures

The DEIS includes SCAQMD requirements to reduce emissions. In addition to these measures, EPA recommends the following additional measures to reduce the impacts resulting from future construction associated with this project.

Recommendations:
Due to the serious nature of the PM_{10} and $PM_{2.5}$ conditions in the South Coast air basin (SCAB), EPA recommends that the best available control measures (BACM) for these pollutants be implemented at all times and that the FEIS and Record of Decision (ROD) incorporate the Construction Mitigation Plan. We recommend that (1) all applicable requirements under SCAQMD Rules, (2) the Caltrans Standard Construction Specifications and recommended measures listed on pages 264 and 265 of the DEIS, and (3) the following additional and/or revised measures be incorporated into a Construction Mitigation Plan. 26

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EPA-22
The revised $PM_{2.5}$ Technical Memo is consistent with the 2003 AQMP for the region. The $PM_{2.5}$ Attainment Plan is not due until April 2008. Thus, the project analysis is consistent with all appropriate attainment plans.

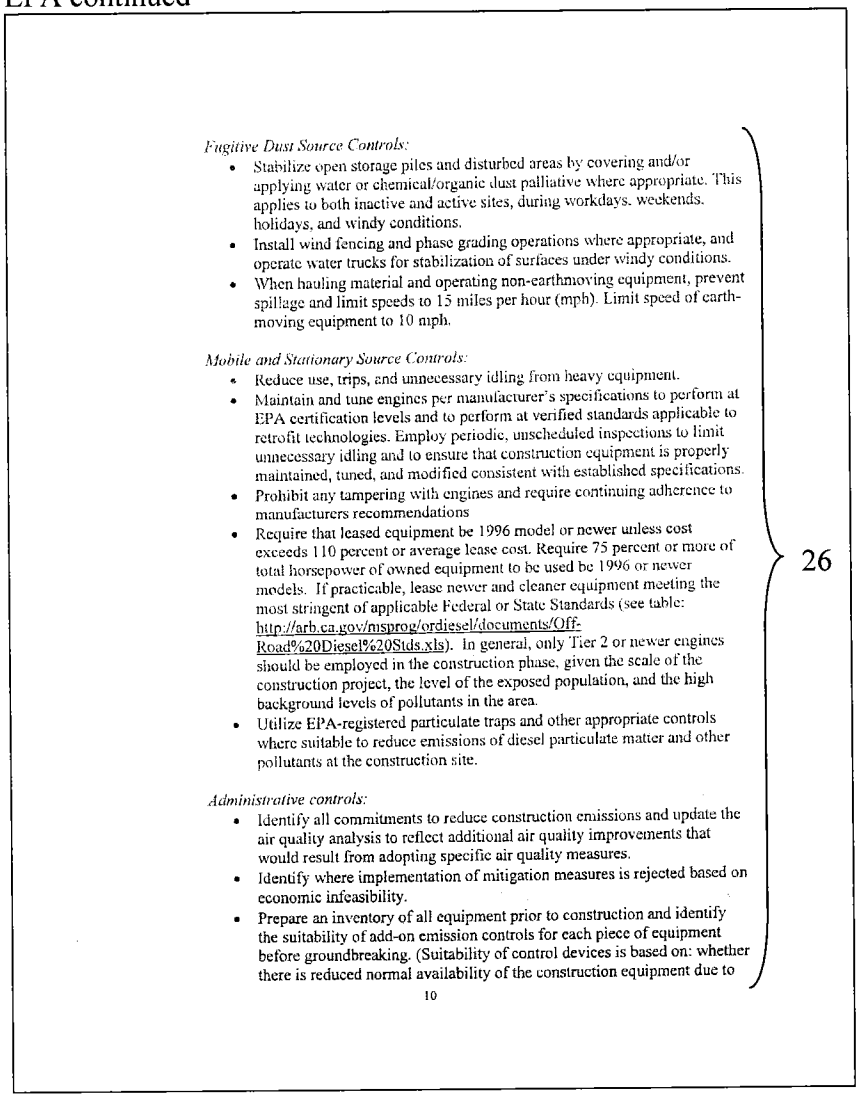
EPA-23
The DEIR/EIS has been updated to use the requested section name.

EPA-24
PM_{10} and $PM_{2.5}$ precursors are not intended to be included in the hot spot analysis. Section 3-13.2 of the DEIR/EIS has been revised to include a discussion of the $PM_{2.5}$ emissions trends and regional effects of the project.

EPA-25
The DEIR/EIS has been updated to include a reference to the 2006 RTP and TIP. The recommended Alternative is 4B, which is consistent with both the RTP and TIP.

EPA-26
The DEIR/EIS already specifies that all construction equipment incorporate BACM technologies and that all fugitive dust control measures specified in SCAQMD Rule 403 be implemented.

EPA continued



Fugitive Dust Source Controls:

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.
- Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage and limit speeds to 15 miles per hour (mph). Limit speed of earth-moving equipment to 10 mph.

Mobile and Stationary Source Controls:

- Reduce use, trips, and unnecessary idling from heavy equipment.
- Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels and to perform at verified standards applicable to retrofit technologies. Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications.
- Prohibit any tampering with engines and require continuing adherence to manufacturers recommendations
- Require that leased equipment be 1996 model or newer unless cost exceeds 110 percent or average lease cost. Require 75 percent or more of total horsepower of owned equipment to be used be 1996 or newer models. If practicable, lease newer and cleaner equipment meeting the most stringent of applicable Federal or State Standards (see table: http://arb.ca.gov/msprog/ordiesel/documents/Off-Road%20Diesel%20Stds.xls). In general, only Tier 2 or newer engines should be employed in the construction phase, given the scale of the construction project, the level of the exposed population, and the high background levels of pollutants in the area.
- Utilize EPA-registered particulate traps and other appropriate controls where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site.

Administrative controls:

- Identify all commitments to reduce construction emissions and update the air quality analysis to reflect additional air quality improvements that would result from adopting specific air quality measures.
- Identify where implementation of mitigation measures is rejected based on economic infeasibility.
- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking. (Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to

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EPA-27

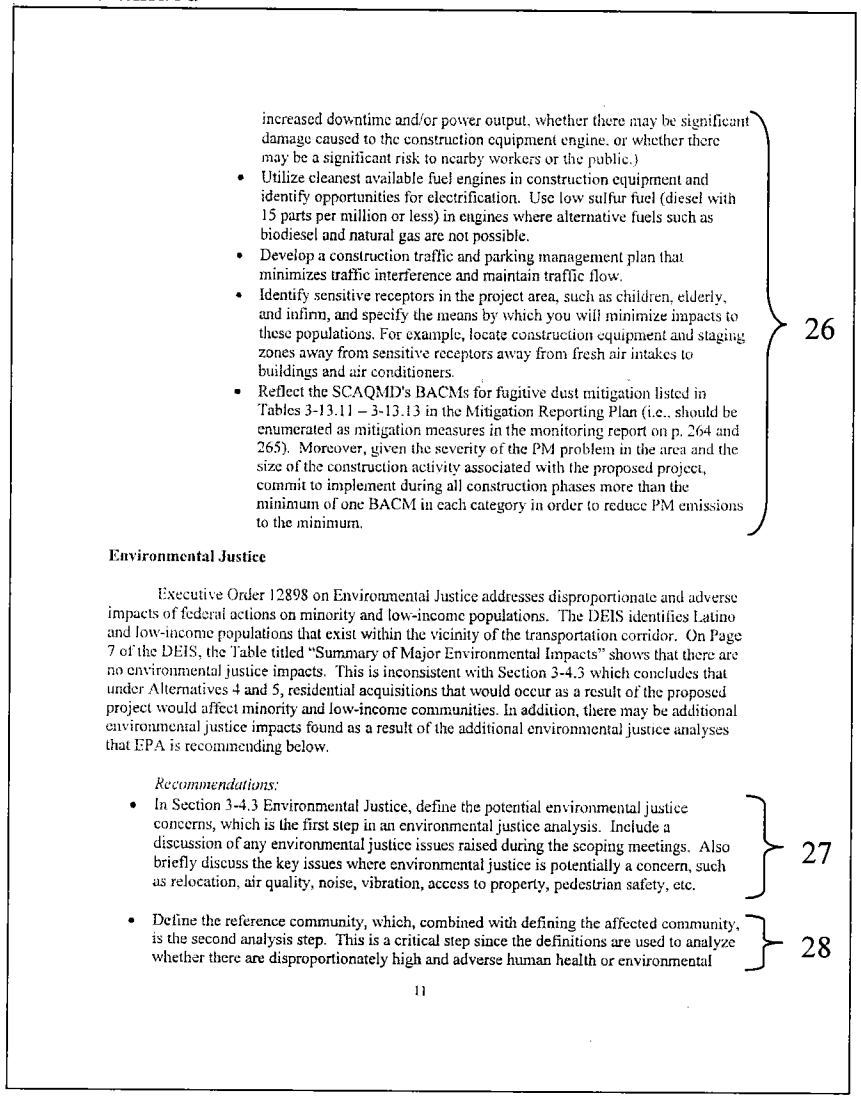
The text of Section 3-4.3 has been revised to include additional discussion of environmental justice issues within the project study area as described below.

Caltrans has evaluated environmental justice impacts for specific populations included in the affected communities under the guidance of the National Environmental Policy Act (NEPA). There is the potential for environmental justice impacts given the presence of minority and low-income populations within the Affected Community. Potential areas of concern for environmental justice include air quality, noise, hazardous materials, property relocations, and property access. Each issue will be discussed in detail in responses for comments listed below.

The following environmental justice concerns that will be addressed in this section include comments that were voiced during the public scoping meeting. These issues include economic impacts, traffic impacts as related to construction activities, parcel acquisition, community impacts, and air and noise impacts.

- Preparation of a comprehensive traffic management plan for the project and consideration of freeway construction alternatives such as constructing the freeway at grade or lowering the freeway
- Maintain business access during construction activities
- Acquire necessary properties and investigate the use of nonstandard elements in order to reduce right-of-way acquisitions
- Provide early disclosure to affected cities and owners of displaced residences/businesses in the corridor
- Decrease in property values from construction-related activities
- Parcel-for-parcel trades for impacted businesses as an alternative to a direct purchase of property
- Security of vacant properties during the construction phase as well as the safety of those property owners whose parcels are not acquired
- Provide pedestrian right-of-way for high school students south of the Florence Avenue/I-5 overcrossing.

EPA continued



increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.)

- Utilize cleanest available fuel engines in construction equipment and identify opportunities for electrification. Use low sulfur fuel (diesel with 15 parts per million or less) in engines where alternative fuels such as biodiesel and natural gas are not possible.
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintain traffic flow.
- Identify sensitive receptors in the project area, such as children, elderly, and infirm, and specify the means by which you will minimize impacts to these populations. For example, locate construction equipment and staging zones away from sensitive receptors away from fresh air intakes to buildings and air conditioners.
- Reflect the SCAQMD's BACMs for fugitive dust mitigation listed in Tables 3-13.11 – 3-13.13 in the Mitigation Reporting Plan (i.e., should be enumerated as mitigation measures in the monitoring report on p. 264 and 265). Moreover, given the severity of the PM problem in the area and the size of the construction activity associated with the proposed project, commit to implement during all construction phases more than the minimum of one BACM in each category in order to reduce PM emissions to the minimum.

26

Environmental Justice

Executive Order 12898 on Environmental Justice addresses disproportionate and adverse impacts of federal actions on minority and low-income populations. The DEIS identifies Latino and low-income populations that exist within the vicinity of the transportation corridor. On Page 7 of the DEIS, the Table titled "Summary of Major Environmental Impacts" shows that there are no environmental justice impacts. This is inconsistent with Section 3-4.3 which concludes that under Alternatives 4 and 5, residential acquisitions that would occur as a result of the proposed project would affect minority and low-income communities. In addition, there may be additional environmental justice impacts found as a result of the additional environmental justice analyses that EPA is recommending below.

Recommendations:

- In Section 3-4.3 Environmental Justice, define the potential environmental justice concerns, which is the first step in an environmental justice analysis. Include a discussion of any environmental justice issues raised during the scoping meetings. Also briefly discuss the key issues where environmental justice is potentially a concern, such as relocation, air quality, noise, vibration, access to property, pedestrian safety, etc.

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- Define the reference community, which, combined with defining the affected community, is the second analysis step. This is a critical step since the definitions are used to analyze whether there are disproportionately high and adverse human health or environmental

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- Request for a pedestrian crossing for the Bloomfield Avenue interchange and to maintain the existing walkway at Silver Bow Avenue
- Freeway noise and vibration levels
- Address air quality impacts to residences, particularly school children
- Address dust, traffic, air pollution, and noise impacts caused by construction.

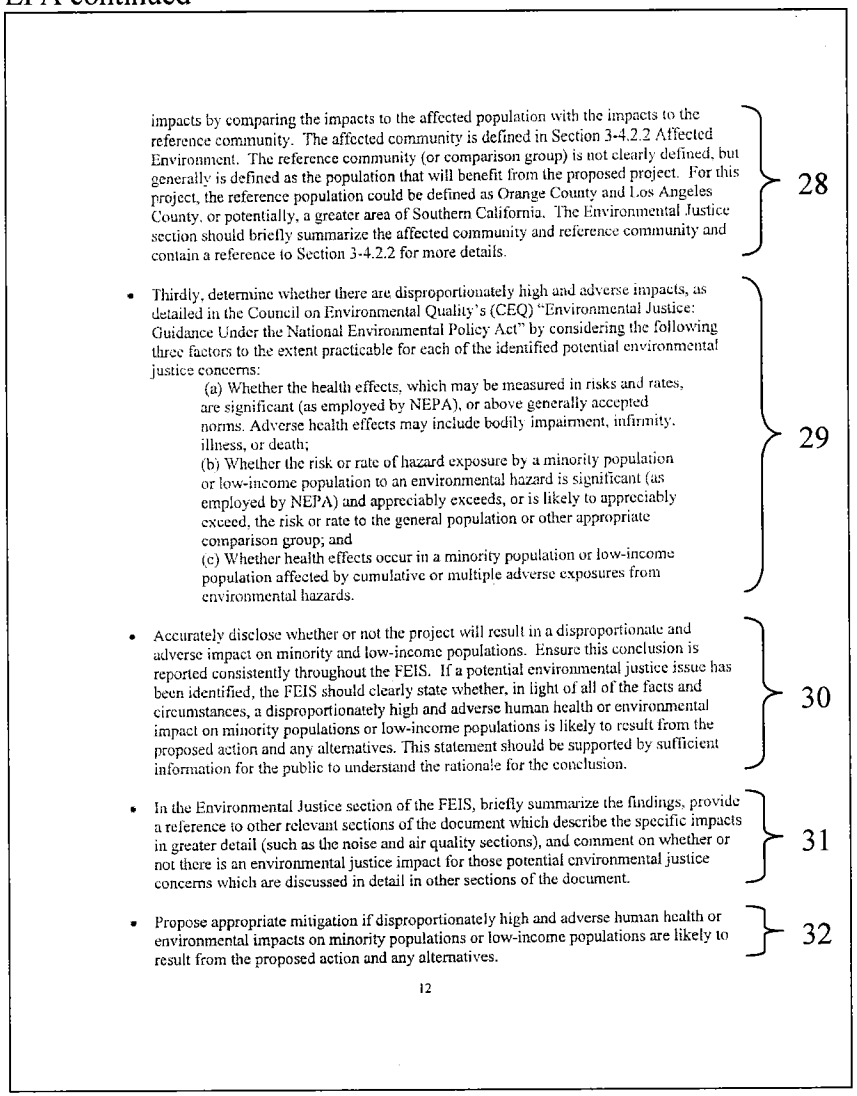
EPA-28

The following text has been added to Section 3-4.3.2 to clarify the Affected and Reference Communities evaluated for environmental justice concerns.

Affected Community and Reference Community

As described above in Section 3-4.2.2, the Affected Communities within the project study area include the Cities of Cerritos, La Mirada, Norwalk, Santa Fe Springs, and Downey (which is located in the County of Los Angeles) and the City of Buena Park (which is located in the County of Orange). To assist in the environmental justice analysis, the Reference Communities have been identified as the Counties of Los Angeles and Orange. As defined, the Reference Communities consist of the population that will benefit from the proposed project and is used in the environmental justice analysis to determine whether there are disproportionately high and adverse human health or environmental impacts by comparing its effects to the Affected Communities effects.

EPA continued



impacts by comparing the impacts to the affected population with the impacts to the reference community. The affected community is defined in Section 3-4.2.2 Affected Environment. The reference community (or comparison group) is not clearly defined, but generally is defined as the population that will benefit from the proposed project. For this project, the reference population could be defined as Orange County and Los Angeles County, or potentially, a greater area of Southern California. The Environmental Justice section should briefly summarize the affected community and reference community and contain a reference to Section 3-4.2.2 for more details. 28

- Thirdly, determine whether there are disproportionately high and adverse impacts, as detailed in the Council on Environmental Quality's (CEQ) "Environmental Justice: Guidance Under the National Environmental Policy Act" by considering the following three factors to the extent practicable for each of the identified potential environmental justice concerns:
  (a) Whether the health effects, which may be measured in risks and rates, are significant (as employed by NEPA), or above generally accepted norms. Adverse health effects may include bodily impairment, infirmity, illness, or death;
  (b) Whether the risk or rate of hazard exposure by a minority population or low-income population to an environmental hazard is significant (as employed by NEPA) and appreciably exceeds, or is likely to appreciably exceed, the risk or rate to the general population or other appropriate comparison group; and
  (c) Whether health effects occur in a minority population or low-income population affected by cumulative or multiple adverse exposures from environmental hazards. 29

- Accurately disclose whether or not the project will result in a disproportionate and adverse impact on minority and low-income populations. Ensure this conclusion is reported consistently throughout the FEIS. If a potential environmental justice issue has been identified, the FEIS should clearly state whether, in light of all of the facts and circumstances, a disproportionately high and adverse human health or environmental impact on minority populations or low-income populations is likely to result from the proposed action and any alternatives. This statement should be supported by sufficient information for the public to understand the rationale for the conclusion. 30

- In the Environmental Justice section of the FEIS, briefly summarize the findings, provide a reference to other relevant sections of the document which describe the specific impacts in greater detail (such as the noise and air quality sections), and comment on whether or not there is an environmental justice impact for those potential environmental justice concerns which are discussed in detail in other sections of the document. 31

- Propose appropriate mitigation if disproportionately high and adverse human health or environmental impacts on minority populations or low-income populations are likely to result from the proposed action and any alternatives. 32

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EPA-29

The DEIR/EIS determined that there are a high number of Hispanic residents, persons living in poverty and households with a lower median income in the Affected Communities than the Reference Communities. Given the presence of low-income and minority populations within the study area, potential for disproportionate and adverse effects on these communities was evaluated in the DEIR/EIS. Environmental justice issues related to air quality, noise, property acquisition, community disruption, and environmental hazards were evaluated in the DEIR/EIS. The DEIR/EIS provides mitigation to minimize short- and long-term impacts associated with the widening.

As described in the DEIR/EIS, the proposed project involves improvements to an existing transportation facility and avoidance of impacts to low-income and minority communities within the limited study area given the linear nature of the freeway. Alternatives to widening the freeway, such as double-decking the freeway in lieu of widening or construction of an entirely new alignment, would result in severe adverse social, economic, environmental, and human health impacts that are more significant and involve increased costs of an extraordinary magnitude compared to the proposed alternatives.

A discussion of each assessment provided in the DEIR/EIS is provided below by topical area.

Air Quality

Temporary air quality impacts from construction equipment will be mitigated by adhering to South Coast Air Quality Management District (SCAQMD) rules and regulations and Caltrans Standard Construction Specifications for equipment emissions and fugitive dust.

Short-term impacts related to construction activities such as roadway and bridge widening and excavation may expose hazardous materials in the soil that may result in intermittent air quality impacts. Temporary air quality impacts will be mitigated by adhering to SCAQMD rules and regulations and Caltrans Standard Construction Specifications for equipment emissions and fugitive dust.

Long-term impacts associated with the proposed project will include air quality impacts from vehicle emissions over time. According to Air Quality Study Technical Memoranda completed by LSA for Caltrans District 7 in April 2007, there will be an overall improvement in air quality over time due to decreasing emission concentrations with the implementation of Alternative 4B.

Three air quality issues were evaluated for long-term air quality impacts. These include:

- **Mobile Source Air Toxics (MSATs)** – Negligible differences in the various MSAT emissions can be expected over time with the implementation of Alternative 4B when compared to the No Build Alternative. Numerous factors will influence these changes to the highway emissions of benzene, formaldehyde, 1.3-butadine, and acetaldehyde through the year 2030. These changes will be influenced by the fact that under the No Build scenario, less traffic on the freeway is accommodated, but this traffic experiences long periods of congestion and the breakdown of travel speeds. Traffic that would use the freeway under Alternative 4B would be taking longer circuitous routes on local streets and Route 91 in an attempt to avoid the congested I-5 Freeway.
- **$PM_{2.5}$ Hot Spot Analysis** – Based on historical 24-hour and annual average $PM_{2.5}$ concentrations and their projections, a constant decrease in concentration is expected over time. Although implementation of Alternative 4B would result in significant increases in traffic volumes along the I-5 Corridor over time, the emission rates of $PM_{2.5}$ would be reduced compared to the No Build Alternative. Historical meteorological and climatic data, monitored $PM_{2.5}$ emissions data and their declining trends, current and project traffic data, and federal regulations and the State's plan support the assertion that the project would not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant AAQS.
- **CO Emissions** – Although there will be increases in traffic volumes along the I-5 Corridor over time, the decrease in emission factors due to improved technology and lower ambient levels would more than offset the slight increase in emissions due to increased traffic volumes. It should also be noted that future projected ambient CO levels will be lower than their corresponding existing levels.

The selection of the Recommended Alternative will decrease emission concentrations overall and will benefit both the Affected Communities and the Reference Communities.

Noise

Temporary noise impacts on a day-to-day basis and more long-term noise impacts from construction activities during the project as a whole will be mitigated through implementation of Caltrans Standard Construction Specifications for noise and noise barrier construction. As discussed in Section 3-14.4 in the DEIR/EIS, a combination of the following abatement and mitigation measures with equipment noise control and administrative measures can be selected to provide the most effective means to minimize effects of proposed construction activity.

Equipment Noise Control

- Proposed sound walls will be constructed prior to the removal of existing sound walls as a means of minimizing any impact on sensitive receptors.
- New equipment with improved noise muffling will be used to minimize noise, as newer equipment is generally quieter than older equipment. Periodic inspection of the equipment will be performed to ensure that all equipment items have manufacturers' recommended noise abatement measures.
- Construction methods or types of equipment that would provide the lowest level of noise and ground vibration impacts will be utilized.
- All idling equipment will be turned off.
- Temporary noise barriers will be used and relocated, as needed, to protect sensitive receptors from noise impacts.

Administrative Measures

- A noise and/or vibration monitoring program will be implemented to limit impacts.

- When possible, Caltrans will comply with relevant construction noise criteria for affected cities, including restrictions in noise levels and hours of the day when construction activities may take place.
- If possible, construction activities will be limited to daytime hours and if nighttime construction is absolutely necessary, the proper permits and variances will be obtained.
- Noise levels will be kept to uniform levels in an attempt to avoid impulsive noise disturbances.
- Good public relations with the community will be maintained to minimize objections to unavoidable construction impacts. Frequent activity updates of all construction activities and schedules will be provided to the public.

Property Acquisitions in Affected Areas

Residential acquisitions would affect minority and low-income populations in the Cities of Norwalk and Downey and may affect a high number of Hispanic and low-income populations in the City of Norwalk. Acquisitions in the City of Downey may affect a high number of persons living in poverty. Mitigation for such acquisitions will be to offer standard relocation assistance in accordance with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) of 1970, which mandates that certain relocation services and payments by Caltrans be made available to eligible residents, businesses, and nonprofit organizations displaced by its projects. The Uniform Act requires that comparable, decent, safe, and sanitary replacement housing that is within a person's financial means be made available before that person may be displaced. Therefore, there will not be a disproportionate amount of minorities, low-income households, or families living in poverty impacted in the Affected Communities.

In the event that replacement housing is not available to "rehouse" persons displaced by the project within their own city, Caltrans may provide Last Resort Housing in a number of prescribed ways, which would eliminate any disproportionate effects regarding the amount of property acquisitions in the City of Santa Fe Springs.

Community Impacts

The proposed project would benefit all study area residents, including minority and low-income populations, by improving mobility and circulation.

The following mitigation measures will be implemented to minimize Community Impacts:

- Neighborhood disruptions will be minimized by attempting to maintain pedestrian access points to business within construction areas. In the event that pedestrian access to affected parcels is not provided, appropriate signage would be placed to inform the public of access to local businesses.
- Construction disruptions will be minimized by coordinating with the local jurisdictions to mitigate parking losses to businesses. A Traffic Management Plan addressing local detours and road closures would be implemented to minimize potential impacts to roadside businesses.
- To prevent consecutive ramp closures, minimize traffic congestion during construction, minimize impacts to the residents and businesses within the communities, and limit the size of construction contracts to a manageable level during the 5.5-year construction period, the project will be constructed in six segments.

With these mitigation measures in place, businesses will be relocated within their respective cities and sales tax revenue losses would only be temporary, occurring only during the period when the business is physically relocating. Therefore, the proposed project would benefit all study area residents, including minority and low-income populations, by improving mobility and circulation with minimal community impacts.

Hazardous Materials

Construction activity such as roadway widening and excavation could expose hazardous materials in the soil. However, contaminated soil would be removed in accordance with standard Department safety procedures. Project construction will be conducted with a contingency plan in place in the event that hazardous materials present in soil or groundwater are encountered during construction activities. Water quality will be preserved by complying with applicable National Pollutant Discharge Elimination System (NPDES) permits

during construction activities. A Storm Water Pollution Prevention Plan (SWPPP) would also be prepared in addition to a monitoring and reporting program to minimize adverse water quality effects associated with construction activities. All structures that will be demolished as part of construction will be evaluated for the presence of asbestos-containing materials and lead-based paints prior to demolition. Solid waste and litter control will also be implemented as an extension of existing maintenance procedures.

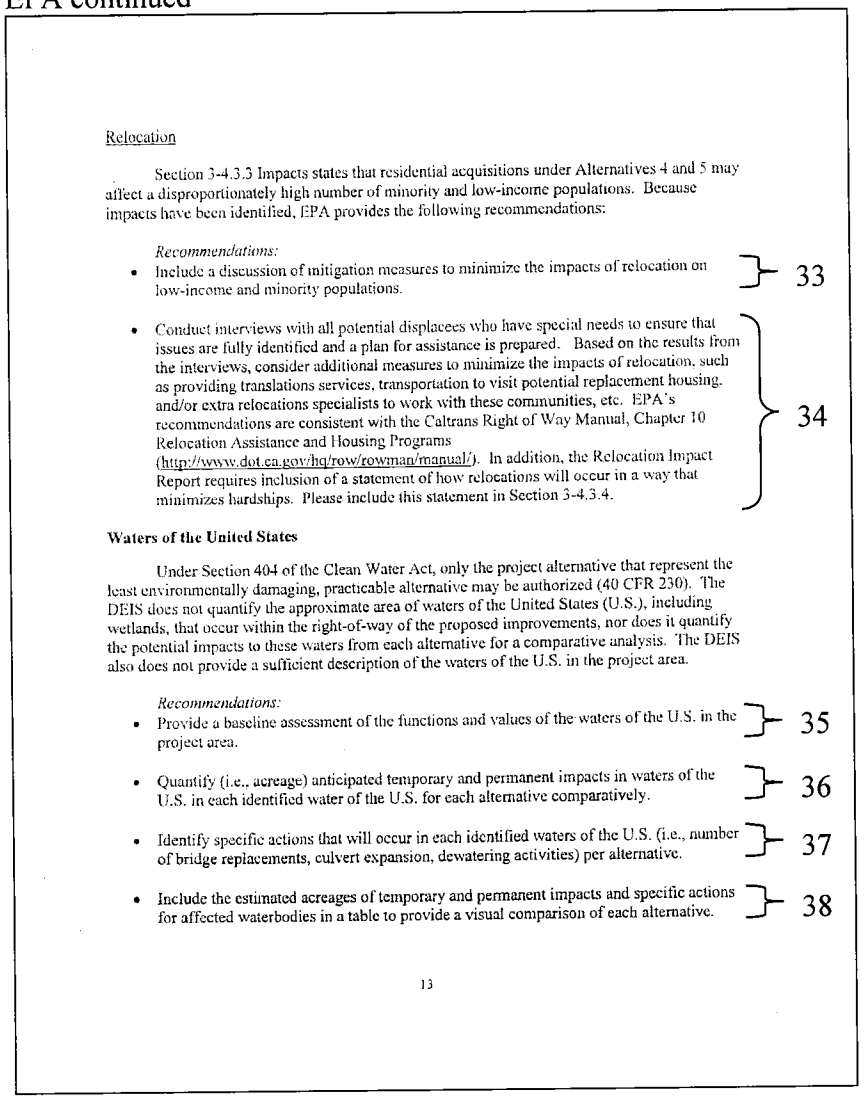
The project involves improvements to an existing linear facility, which limits impacts to low-income and minority communities within the study area. Any other alternatives to ease congestion within the I-5 Corridor (e.g., double-decking the freeway in lieu of widening or construction of an entirely new alignment) would result in severe adverse social, economic, environmental, and human health impacts at a more significant cost than Alternative 4B. Freeway capacity will be enhanced within the limited impact area without dividing existing communities, and air quality is anticipated to improve along the I-5 Corridor over time. Mitigation will be provided to minimize potential short-term construction and long-term operation effects of the Recommended Alternative (Alternative B). These measures have been shown to adequately address environmental effects to the Reference Communities and potential environmental justice effect to the Affected Communities. Therefore, there are no disproportionate or adverse impacts on the Affected Communities with the selection of the Recommended Alternative, and both the Affected Communities and Reference Communities will benefit from Alternative 4B improvements.

EPA-30
With the implementation of the minimization measures identified in the DEIR/EIS, there would be no disproportionately high or adverse effects to minority and low-income populations in the Affected Communities after mitigation. Please refer to Comment ID EPA-29 for further details on environmental justice impacts to the affected communities along the I-5 Corridor.

EPA-31
There are no disproportionate or adverse effects to minority and low-income populations in the affected communities after mitigation. Please refer to Comment EPA-29 for a summary of the environmental justice findings of the DEIR/EIS.

EPA-32
As discussed in Sections 3-4 (Community Impacts), 3-6 (Traffic), 3-7 (Visual/Aesthetics), 3-13 (Air Quality), and 3-14 (Noise), mitigation measures have been identified to minimize potential effects to the Affected Communities. These mitigation measures adequately address the specific environmental impacts and any environmental justice impacts to minority or low-income communities. Thus, the Recommended Alternative would not create disproportionately high or adverse human health or environmental impacts on minority and low-income populations within the Affected Communities that require mitigation beyond what is identified for the project as a whole.

EPA continued



Relocation

Section 3-4.3.3 Impacts states that residential acquisitions under Alternatives 4 and 5 may affect a disproportionately high number of minority and low-income populations. Because impacts have been identified, EPA provides the following recommendations:

Recommendations:

- Include a discussion of mitigation measures to minimize the impacts of relocation on low-income and minority populations. 33
- Conduct interviews with all potential displacees who have special needs to ensure that issues are fully identified and a plan for assistance is prepared. Based on the results from the interviews, consider additional measures to minimize the impacts of relocation, such as providing translations services, transportation to visit potential replacement housing, and/or extra relocations specialists to work with these communities, etc. EPA's recommendations are consistent with the Caltrans Right of Way Manual, Chapter 10 Relocation Assistance and Housing Programs (http://www.dot.ca.gov/hq/row/rowman/manual/). In addition, the Relocation Impact Report requires inclusion of a statement of how relocations will occur in a way that minimizes hardships. Please include this statement in Section 3-4.3.4. 34

Waters of the United States

Under Section 404 of the Clean Water Act, only the project alternative that represent the least environmentally damaging, practicable alternative may be authorized (40 CFR 230). The DEIS does not quantify the approximate area of waters of the United States (U.S.), including wetlands, that occur within the right-of-way of the proposed improvements, nor does it quantify the potential impacts to these waters from each alternative for a comparative analysis. The DEIS also does not provide a sufficient description of the waters of the U.S. in the project area.

Recommendations:

- Provide a baseline assessment of the functions and values of the waters of the U.S. in the project area. 35
- Quantify (i.e., acreage) anticipated temporary and permanent impacts in waters of the U.S. in each identified water of the U.S. for each alternative comparatively. 36
- Identify specific actions that will occur in each identified waters of the U.S. (i.e., number of bridge replacements, culvert expansion, dewatering activities) per alternative. 37
- Include the estimated acreages of temporary and permanent impacts and specific actions for affected waterbodies in a table to provide a visual comparison of each alternative. 38

13

EPA-33

As described in Section 3-4.3.4 of the DEIR/EIS, acquisition of property and the relocation of residences/businesses within low-income and minority populations will be conducted consistent with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) of 1970 (Public Law 91-646, 84 Stat. 1894), which mandates that certain relocation services and payments by Caltrans be made available to eligible residents, businesses, and nonprofit organizations displaced by its projects. The Uniform Act provides for uniform and equitable treatment by federal or federally assisted programs of persons displaced from their homes, businesses, or farms, and establishes uniform and equitable land acquisition policies. Caltrans implements the following procedures to implement the Uniform Act:

- The types of payments available to businesses include moving expenses for the following actual reasonable costs:
  - Moving inventory, machinery, equipment, and similar business-related personal property and dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting personal property;
  - Losing tangible personal property;
  - Locating a new business site; and
  - Reestablishing the new business operation.
- Payment in lieu of moving expenses is available to businesses that are expected to suffer a substantial loss of existing patronage as a result of the displacement or that are unable to find a suitable relocation site.
- Where acquisition and relocation are unavoidable, Caltrans would follow the provisions of the Uniform Act and the 1987 Amendments as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs. In the event that such replacement housing is not available to "rehouse" persons displaced by the project within statutory limits for replacement housing payments, Caltrans may provide Last Resort Housing in a number of prescribed ways.

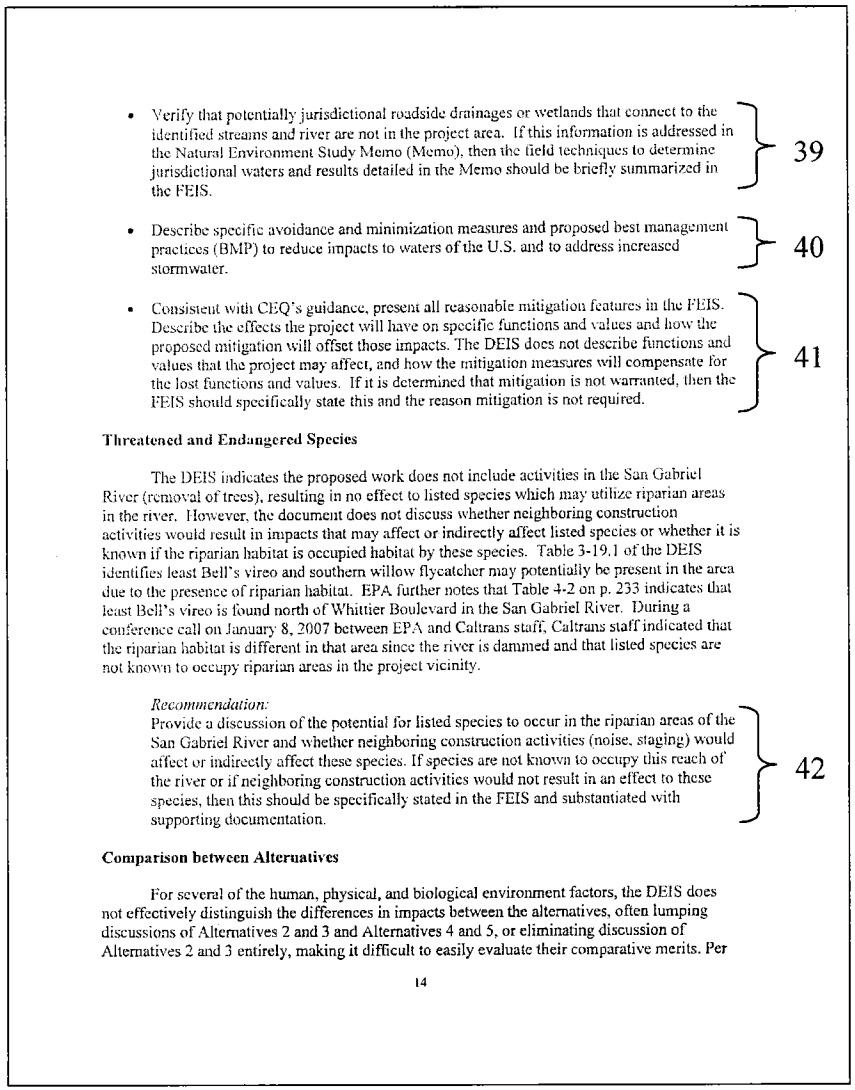
No changes to the text of the DEIR/EIS are warranted.

EPA-34
Chapter 10.02 of the Right-of-Way Manual describes the process for completing Relocation Impact Documents (RIDs) and content for RIDs. As described in Section 10.02.05.00 – Minimum Requirements, interviews with potential displacees would usually be conducted for final RIDs only. Further, Section 10.02.05.03 requires that interviews be conducted when a significant number of displacees have special needs, if identified during preparation of the Draft RIDs. Displacement of a significant number of populations with special needs were not identified in the corridor study area during preparation of the DEIR/EIS and interviews were not required.

Both the DEIR/EIS (in Section 3-4.3 and Appendix D) and Community Impact Assessment provide text similar to that described in the comment.

EPA-35, 36, 37, 38
The three creeks/drainages within the project area (Fullerton Creek, Coyote Creek and North Fork coyote Creek) have all been converted into concrete-lined flood control channels that contain no vegetation to speak of. As such, their aquatic functions and values are extremely compromised and limited only to providing for flood control. It is clear that Alternatives 4 and 5 will directly affect these channels whereas Alternatives 1, 2 and 3 will not. However, the potential impacts of Alternatives 4 and 5 are very minor, and almost identical, because there are no resources present. In this case, in which we're looking only at how many square feet of concrete are disturbed, quantifying potential impacts serves no useful purpose and has been omitted.

EPA continued



- Verify that potentially jurisdictional roadside drainages or wetlands that connect to the identified streams and river are not in the project area. If this information is addressed in the Natural Environment Study Memo (Memo), then the field techniques to determine jurisdictional waters and results detailed in the Memo should be briefly summarized in the FEIS. 39

- Describe specific avoidance and minimization measures and proposed best management practices (BMP) to reduce impacts to waters of the U.S. and to address increased stormwater. 40

- Consistent with CEQ's guidance, present all reasonable mitigation features in the FEIS. Describe the effects the project will have on specific functions and values and how the proposed mitigation will offset those impacts. The DEIS does not describe functions and values that the project may affect, and how the mitigation measures will compensate for the lost functions and values. If it is determined that mitigation is not warranted, then the FEIS should specifically state this and the reason mitigation is not required. 41

Threatened and Endangered Species

The DEIS indicates the proposed work does not include activities in the San Gabriel River (removal of trees), resulting in no effect to listed species which may utilize riparian areas in the river. However, the document does not discuss whether neighboring construction activities would result in impacts that may affect or indirectly affect listed species or whether it is known if the riparian habitat is occupied habitat by these species. Table 3-19.1 of the DEIS identifies least Bell's vireo and southern willow flycatcher may potentially be present in the area due to the presence of riparian habitat. EPA further notes that Table 4-2 on p. 233 indicates that least Bell's vireo is found north of Whittier Boulevard in the San Gabriel River. During a conference call on January 8, 2007 between EPA and Caltrans staff, Caltrans staff indicated that the riparian habitat is different in that area since the river is dammed and that listed species are not known to occupy riparian areas in the project vicinity.

Recommendation:
Provide a discussion of the potential for listed species to occur in the riparian areas of the San Gabriel River and whether neighboring construction activities (noise, staging) would affect or indirectly affect these species. If species are not known to occupy this reach of the river or if neighboring construction activities would not result in an effect to these species, then this should be specifically stated in the FEIS and substantiated with supporting documentation. 42

Comparison between Alternatives

For several of the human, physical, and biological environment factors, the DEIS does not effectively distinguish the differences in impacts between the alternatives, often lumping discussions of Alternatives 2 and 3 and Alternatives 4 and 5, or eliminating discussion of Alternatives 2 and 3 entirely, making it difficult to easily evaluate their comparative merits. Per

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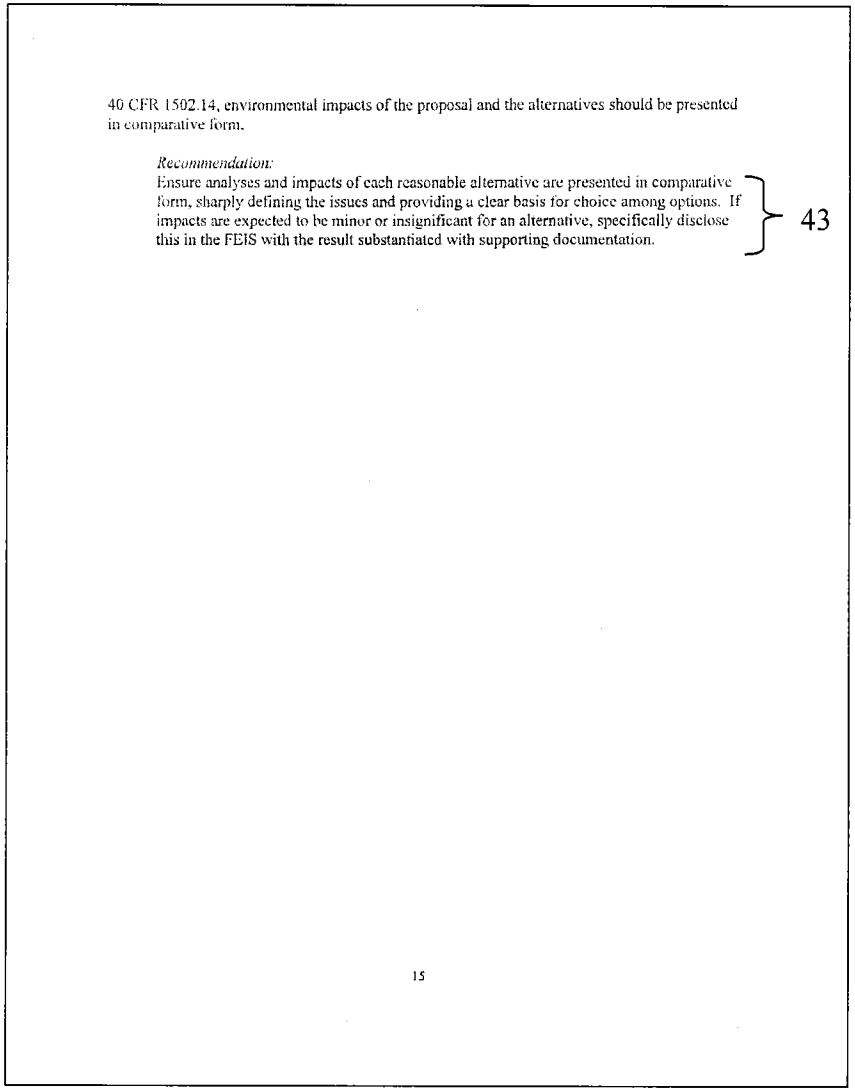
EPA-39
A re-examination of the project area has confirmed that there are no roadside drainages or wetlands that will be affected by this project connecting to the larger creeks/rivers/channels identified in the document.

EPA-40
All Caltrans projects are constructed in adherence with the Department's Storm Water Management Plan, which has been approved by the State Water Resources Control Board. This plan identifies a large range of potential BMPs (including avoidance and minimization measures) that can be used to reduce project-related storm water quality impacts. From this Plan, an appropriate sub-set of BMPs will be drawn and included in the Storm Water Pollution Prevention Plan (SWPPP) for this project; this will include the use of retention basins and bio swales as discussed on page 137 (Section 3-10.4). The SWPPP will be developed at a later stage of the project development process, so the exact BMPs that will be used are not known at this time.

EPA-41
As previously stated, the functions and values of the three concrete-lined channels are limited to their serving as flood control channels. As there are no biological or aquatic resources that will be impacted, no mitigation is warranted. Furthermore, the design of any bridge that results in structures in the channel must be coordinated with and permitted by the Los Angeles Flood Control District. This coordination will ensure that the flood control capacity of the channels is not adversely affected.

EPA-42
At its nearest point, the bank of the San Gabriel River is approximately 1700 feet (1/3 mile) from where freeway widening (not just re-striping) would occur. This is well beyond the area where sensitive species could be impacted by this project. Therefore, a discussion of the potential for listed species to occur in the San Gabriel River and/or be impacted by construction activities is not warranted.

EPA continued



40 CFR 1502.14, environmental impacts of the proposal and the alternatives should be presented in comparative form.

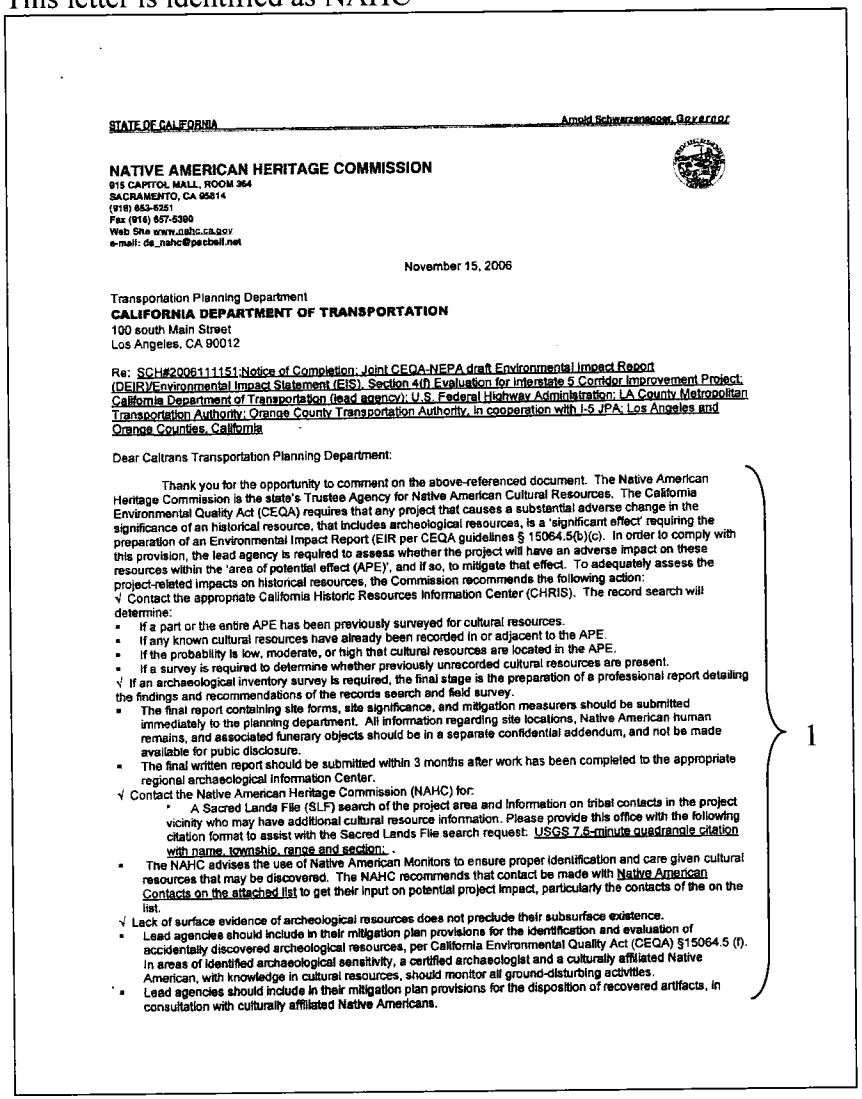
Recommendation:
Ensure analyses and impacts of each reasonable alternative are presented in comparative form, sharply defining the issues and providing a clear basis for choice among options. If impacts are expected to be minor or insignificant for an alternative, specifically disclose this in the FEIS with the result substantiated with supporting documentation. } 43

15

EPA-43

An analysis of impacts is summarized in a table on pages 7 and 8. In many cases, the impacts associated with more than one alternative are very similar. It those cases, it is appropriate to discuss those impacts together. Please see the table titled *Summary of Major Environmental Impacts* in the Summary section of the DEIR/EIS for additional details regarding project alternative comparisons.

This letter is identified as NAHC



STATE OF CALIFORNIA — Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-5251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

November 15, 2006

Transportation Planning Department
CALIFORNIA DEPARTMENT OF TRANSPORTATION
100 south Main Street
Los Angeles, CA 90012

Re: SCH#2006111151;Notice of Completion; Joint CEQA-NEPA draft Environmental Impact Report (DEIR)/Environmental Impact Statement (EIS), Section 4(f) Evaluation for Interstate 5 Corridor Improvement Project; California Department of Transportation (lead agency); U.S. Federal Highway Administration; LA County Metropolitan Transportation Authority; Orange County Transportation Authority, in cooperation with I-5 JPA; Los Angeles and Orange Counties, California

Dear Caltrans Transportation Planning Department:

Thank you for the opportunity to comment on the above-referenced document. The Native American Heritage Commission is the state's Trustee Agency for Native American Cultural Resources. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR per CEQA guidelines § 15064.5(b)(c). In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action:

√ Contact the appropriate California Historic Resources Information Center (CHRIS). The record search will determine:
- If a part or the entire APE has been previously surveyed for cultural resources.
- If any known cultural resources have already been recorded in or adjacent to the APE.
- If the probability is low, moderate, or high that cultural resources are located in the APE.
- If a survey is required to determine whether previously unrecorded cultural resources are present.

√ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
- The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure.
- The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.

√ Contact the Native American Heritage Commission (NAHC) for:
- A Sacred Lands File (SLF) search of the project area and Information on tribal contacts in the project vicinity who may have additional cultural resource information. Please provide this office with the following citation format to assist with the Sacred Lands File search request: USGS 7.5-minute quadrangle citation with name, township, range and section: .
- The NAHC advises the use of Native American Monitors to ensure proper identification and care given cultural resources that may be discovered. The NAHC recommends that contact be made with Native American Contacts on the attached list to get their input on potential project impact, particularly the contacts of the on the list.

√ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.

1

NAHC-1

Please reference Section 3-8 in the DEIR/EIS. In 1998 a Historic Property Survey Report (HPSR) was completed to identify all historic properties that may be affected by the project. A Supplemental HPSR was performed in 2004 to incorporate additional areas in the I-5 Corridor. On August 12, 1998, the State Historic Preservation Office (SHPO) concurred with the findings of the original HPSR, which indicated that none of the 39 structures within the original Area of Potential Effects (APE) were eligible for listing on the National Register of Historic Places. A Supplemental HPSR was completed and submitted to SHPO on April 12, 2005. The Supplemental HPSR indicated that 41 resources were found in the extended APE that were not eligible for listing on the National Register. On July 12, 2005, Caltrans notified the FHWA, the Office of Historic Preservation (OHP), and Caltrans headquarters in Sacramento that because the 30 days allowed for comment have expired per stipulation X.B2.(b) of the 106 Programmatic Agreement, Caltrans would proceed with the project.

As described in Section 6-4 of the DEIR/EIS, Native American Consultation has been performed for the project. The Native American Heritage Commission (NAHC) was contacted requesting a review of the Sacred Lands inventory. The NAHC responded on May 26, 2005, that there are no known Native American cultural resources in the immediate project area and provided a listing of tribal groups to contact directly. These groups were contacted requesting additional information related to known Native American resources in the study area. No Native American resources were identified as part of the consultation with the tribal groups.

NAHC continued

√ Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigation plans.

- CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the Initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens.

√ Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the CEQA Guidelines mandate procedures to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

√ Lead agencies should consider avoidance, as defined in § 15370 of the CEQA Guidelines, when significant cultural resources are discovered during the course of project planning.

1

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Cc: State Clearinghouse

Attachment: List of Native American Contacts

Native American Contacts
Los Angeles County
Orange County
November 15, 2006

T'At Society
Cindi Alvitre
6602 Zelzah Avenue — Gabrielino
Reseda , CA 91335
cimugirl@aol.com
714) 504-2468 Cell

Juaneno Band of Mission Indians Acjachemen Nation
David Belardes, Chairperson
31742 Via Belardes — Juaneno
San Juan Capistrano , CA 92675

(949) 493-0959

(949) 493-1601 Fax

Juaneno Band of Mission Indians
Sonia Johnston, Chairperson
P.O. Box 25628 — Juaneno
Santa Ana , CA 92799
ajuaneno@verizon.
(949) 462-0710
(714) 323-8312 (Cell)
(949) 462-9451 Fax

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Adminstrator
4712 Admiralty Way, Suite 172 — Gabrielino Tongva
Marina Del Rey , CA 90292

310-570-6567

Gabrieleno/Tongva Tribal Council
Anthony Morales, Chairperson
PO Box 693 — Gabrielino Tongva
San Gabriel , CA 91778

(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 Fax

Juaneno Band of Mission Indians
Anita Espinoza
1740 Concerto Drive — Juaneno
Anaheim , CA 92807

(714) 779-8832

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibilitiey as defined in Sec. 7050.5 of the Health & Safety Code, Sec. 5097.94 of the Public Resources Code and Sec. 5097.98 of the Publi Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2001111161; Notice of Completion Joint CEQA-NEPA draft EIR/EIS for Interstate 5 Corridor Improvement Project; Section 4(f) Evaluation; California Department of Transportation (lead agency); U.S. Federal Highway Administration; LA and Orange Counties Transportation Authorities in Coop with I-5 JPA; Los Angeles/Orange Counties, California.

Native American Contacts
Los Angeles County
Orange County
November 15, 2006

Gabrielino/Tongva Counci / Gabrielino Tongva Nation
Sam Dunlap, Tribal Secretary
801 Santa Monica Blvd., Suite 500 — Gabrielino Tongva
Santa Monica , CA 90401-2415

310) 587-2203

310) 587-2281 Fax

Juaneno Band of Mission Indians Acjachemen Nation
Anthony Rivera, Chairman
31411-A La Matanza Street — Juaneno
San Juan Capistrano , CA 92675-2674
arivera@juaneno.com
949-488-3484
949-488-3294 Fax

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Tribal Chair/Cultural Resources
5450 Slauson, Ave. Suite 151 PMB — Gabrielino Tongva
Culver City , CA 90230
gtongva@earthlink.
562-761-6417 - voice

562-920-9449 - fax

Gabrielino Tongva Indians of California Tribal Council
Mercedes Dorame, Tribal Administrator
20990 Las Flores Mesa Drive — Gabrielino Tongva
Malibu , CA 90265
Pluto05@hotmail.com

Juaneno Band of Mission Indians Acjachemen Nation
Joyce Perry , Tribal Manager & Cultural Resources
31742 Via Belardes — Juaneno
San Juan Capistrano , CA 92675

(949) 493-0959

(949) 493-1601 Fax

Juaneno Band of Mission Indians
Alfred Cruz, Culural Resources Coordinator
P.O. Box 25628 — Juaneno
Santa Ana , CA 92799

714-998-0721

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NAHC continued

Native American Contacts
Los Angeles County
Orange County
November 15, 2006

Juaneno Band of Mission Indians
Joe Ocampo, Environmental Coordinator
P.O. Box 25628 Juaneno
Santa Ana , CA 92799

(949) 462-0710

(949) 462-9451 Fax

This list is current only as of the date of this document.

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This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2001111161; Notice of Completion Joint CEQA-NEPA draft EIR/EIS for Interstate 5 Corridor Improvement Project; Section 4(f) Evaluation; California Department of Transportation (lead agency); U.S. Federal Highway Administration; LA and Orange Counties Transportation Authorities in Coop with I-5 JPA; Los Angeles/Orange Counties, California.

This letter is identified as AQMD

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 · www.aqmd.gov

FAXED: JANUARY 5, 2007

January 5, 2007

Mr. Garrett Damrath
CALTRANS District 7
Division of Environmental Planning
100 South Main Street, MS-16A
Los Angeles, CA 90012-3606

Dear Mr. Damrath:

Draft Environmental Impact Report/ Statement/Report (DEIR/S) for the Interstate 5 Corridor Improvement Project (Between SR-91 and I-605) (October 2006)

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the lead agency and should be incorporated in the Final Environmental Impact Report/Statement.

Pursuant to Public Resources Code Section 21092.5, please provide the SCAQMD with written responses to all comments contained herein prior to the certification of the Final Environmental Impact Report/Statement. The SCAQMD would be available to work with the Lead Agency to address these issues and any other questions that may arise. Please contact Charles Blankson, Ph.D., Air Quality Specialist – CEQA Section, at (909) 396-3304 if you have any questions regarding these comments.

Sincerely

Charles Blankson

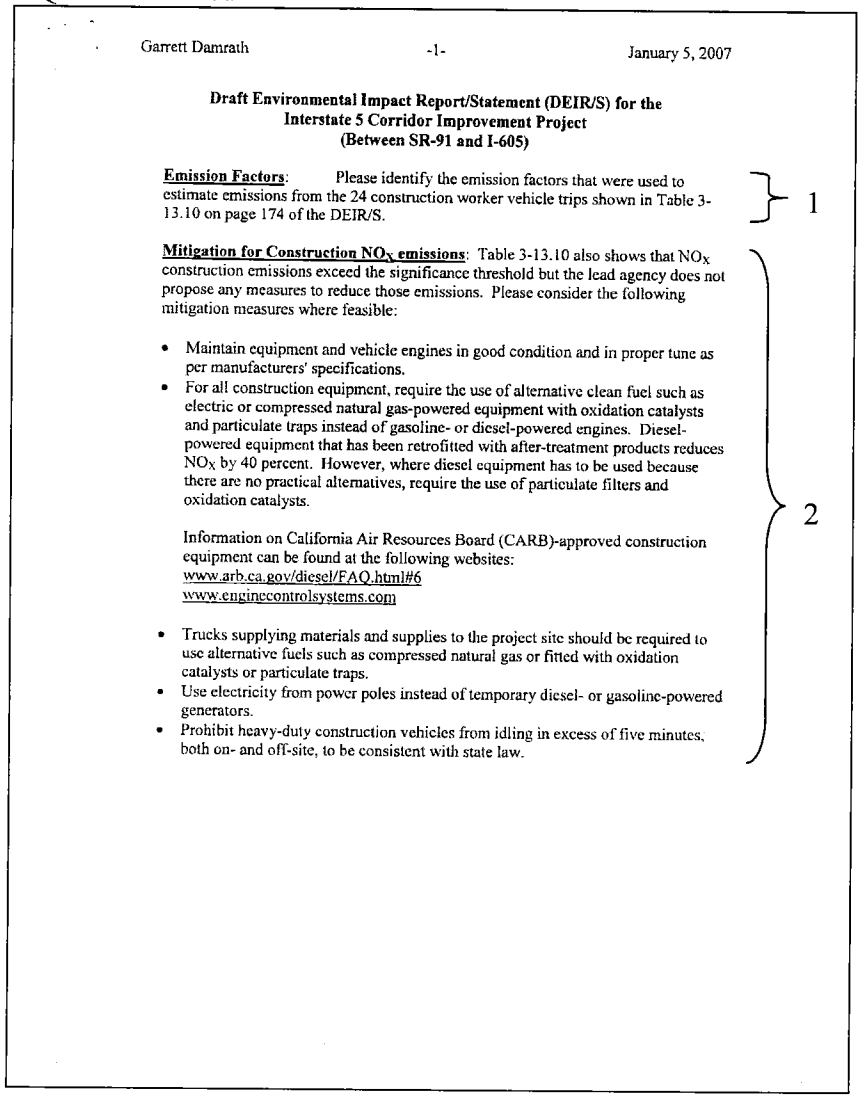
for Steve Smith, Ph.D.
Program Supervisor, CEQA Section
Planning, Rule Development & Area Sources

Attachment

SS: CB

LAC061101-02
Control Number

AQMD continued



Garrett Damrath -1- January 5, 2007

Draft Environmental Impact Report/Statement (DEIR/S) for the Interstate 5 Corridor Improvement Project (Between SR-91 and I-605)

Emission Factors: Please identify the emission factors that were used to estimate emissions from the 24 construction worker vehicle trips shown in Table 3-13.10 on page 174 of the DEIR/S. } 1

Mitigation for Construction NO_X emissions: Table 3-13.10 also shows that NO_X construction emissions exceed the significance threshold but the lead agency does not propose any measures to reduce those emissions. Please consider the following mitigation measures where feasible:

- Maintain equipment and vehicle engines in good condition and in proper tune as per manufacturers' specifications.
- For all construction equipment, require the use of alternative clean fuel such as electric or compressed natural gas-powered equipment with oxidation catalysts and particulate traps instead of gasoline- or diesel-powered engines. Diesel-powered equipment that has been retrofitted with after-treatment products reduces NO_X by 40 percent. However, where diesel equipment has to be used because there are no practical alternatives, require the use of particulate filters and oxidation catalysts.

  Information on California Air Resources Board (CARB)-approved construction equipment can be found at the following websites:
  www.arb.ca.gov/diesel/FAQ.html#6
  www.enginecontrolsystems.com

- Trucks supplying materials and supplies to the project site should be required to use alternative fuels such as compressed natural gas or fitted with oxidation catalysts or particulate traps.
- Use electricity from power poles instead of temporary diesel- or gasoline-powered generators.
- Prohibit heavy-duty construction vehicles from idling in excess of five minutes, both on- and off-site, to be consistent with state law.

} 2

AQMD-1
Apparently, the calculations of the worker commute emissions were in error. The correct values using emission factors from EMFAC2002 and the new total construction emissions are provided in Section 3-13.2 of the DEIR/EIS. The totals do not change significantly, nor do any impacts or conclusions.

AQMD-2
Section 3-13.3 has been revised to include the recommended mitigation measures.

This letter is identified as Metro

Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012-2952
213.922.2000 Tel
metro.net

Metro

January 5, 2007

Mr. Ronald J. Kosinski, Deputy District Director
Division of Environmental Planning
Department of Transportation, District 7
100 S. Main Street MS-16A
Los Angeles, CA 90012

Dear Mr. Kosinski:

Los Angeles County Metropolitan Transportation Authority (Metro) is in receipt of the Draft EIR/EIS for Interstate 5 Corridor Improvement Project. This letter conveys recommendations concerning issues that are germane to Metro's statutory responsibilities in relation to the proposed project.

Referring to page 21, Table 2-1 — No Build and TSM/TDM Alternatives-TSM/TDM Project Elements. This table identifies the completion of the Eastern Extension of the Metro Red Line to Atlantic/Whittier as a No Build Rail Element. 1

1. The table for the Final EIR should be corrected to reflect the construction of the Metro Gold Line Eastside Extension to Pomona/Atlantic. Any future extension of the Metro Gold Line light rail to Atlantic/Whittier is currently under consideration as part of the update to the 2001 Long Range Transportation Plan and funding is not currently programmed.

Referring again to page 21, Table 2-1 — No Build and TSM/TDM Alternatives-TSM/TDM Project Elements - ITS. This table references various Intelligent Transportation Systems efforts and signal synchronization projects. 2

2. The table for the Final EIR should be corrected to read "Southern CA Priority Corridor, Showcase Project; IMAJINE; Caltrans ATMS; Local Traffic Control Systems; Orange County Travel TIP; SELAC Improvements on Arterial Streets".

In the section titled "Commuting Patterns" on page 103, second paragraph, describing nine bus routes in the City of Downey as being provided by the Rapid Transit District (RTD). 3

3. The Final EIR should identify bus service in the city of Downey is primarily provided by Metro, succeeding the RTD in 1993.

Metro-1
The text in Table 2-1 has been revised as requested.

Metro-2
The text in Table 2-1 has been revised as requested.

Metro-3
The text in Section 3-6.2 (page 103) has been revised as requested.

Metro continued

Metro looks forward to reviewing the Final EIR. If you have any questions regarding this response, contact me at 213-922-6908 or by email at chapmans@metro.net. Please send the Final EIR to the following address:

Metro CEQA Review Coordination
One Gateway Plaza MS 99-23-2
Los Angeles, CA 90012-2952
Attn: Susan Chapman

Sincerely,

Susan F. Chapman
Program Manager, Long Range Planning

This letter is identified as JPA

The I-5 Consortium Cities Joint Powers Authority

For the preservation of communities while enhancing freeway capacity

December 14, 2006

Mr. Douglas Failing
District Director
Caltrans, District 7
100 South Main St.
Los Angeles, CA 90012

Member Cities:
Buena Park
Commerce
Downey
La Mirada
Norwalk
Santa Fe Springs

Subject: I-5 Freeway Improvements

Dear Mr. Failing:

On behalf of the cities of the I-5 Joint Powers Authority, I want to congratulate you and your staff on a very successful public hearing for the Environmental Document for the I-5 from the county line to I-605. This is a very real and major milestone for us. We at the I-5 JPA very much appreciate your support for this project, including your support for funding from the State's infrastructure bond measure. Your personnel involvement in working with the I-5 JPA staff has made a tremendous difference.

We would also like to thank the Caltrans staff for their work on Environmental Document. This would include Ron Kosinski, Emad Gorgy, Andy Neirenberg, Terry Arias, Diaa Yassin, Asadour Terterian and Garrett Damrath as some of the key Caltrans personnel from your staff that have worked closely with us during the last year. Please send our congratulations to them along with the rest of the staff who have worked so hard on this. I understand the displays, exhibits and presentations at the public hearing prepared by Caltrans were very well done.

We are also very pleased with the initiation of the Environmental Document for the I-5 between I-605 and I-710 and your recent study of extending the car-pool lane into Los Angeles.

Once again, congratulations on this major milestone and we look forward to working closely with your staff to implement the proposed improvements as soon as possible.

1

With best holiday greetings,

Sincerely,

Michael Mendez
Chairman
I-5 Consortium Cities Joint Powers Authority

cc: I-5 JPA Board Members
I-5 JPA AE Members
Jerry Wood, Executive Director
Mark Watts- Smith, Watts & Co.

DEC 13 2006

12700 Norwalk Boulevard • P.O. Box 1030 • Norwalk, California 90651-1030 • (562) 929-5700 • FAX (562) 929-5780

JPA-1
The I-5 Consortium Cities Joint Power Authority's support for the proposed I-5 Widening Improvement project is acknowledged.

This letter is identified as BP

CITY OF BUENA PARK

OFFICE OF THE MAYOR

December 8, 2006

Mr. Doug Failing, District Director
CalTrans, District No. 7
100 South Main Street
Los Angeles CA 90012

Mr. Roger Snoble, Chief Executive Officer
Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles CA 90012-2952

Dear Mr. Failing and Mr. Snoble:

On behalf of the City of Buena Park, I applaud CalTrans and the County of Los Angeles in moving forward with the I-5 Widening Project. As Orange County forges ahead on the final stage of the I-5 project through Buena Park, we look forward to the regions efforts to improve traffic circulation. } 1

I have reviewed the proposed plans for the project together with our staff and generally agree with the project as discussed. However, the proposed design significantly impacts one property and business within our City (Amada America, 7025 Firestone Boulevard) and circulation on Firestone Boulevard immediately north of Artesia. We are asking that CalTrans reevaluate the extent of taking in this area, or quickly and diligently work with Amada America to rectify impacts to circulation, parking, and landscaping. All efforts should be made to accommodate this business, and avoid a complete taking. Additionally, the circulation design of Firestone Boulevard, north of Artesia should be re-evaluated in order to accommodate smooth truck movements in this area. This situation is marginal at this time and will only get worse with the re-orientation of Firestone in the future. } 2 } 3

We offer to work cooperatively with you on both of these endeavors. Please contact our City Manager Rick Warsinski at 714/562-3555 to discuss this further. Our goal is to help improve our regional circulation together with addressing the needs of our residents and business community.

Thank you in advance for your understanding and cooperation.

Sincerely,

Arthur Brown, Mayor
City of Buena Park

6650 BEACH BOULEVARD, P.O. BOX 5009, BUENA PARK, CA 90622
(714) 562-3754 • FAX (714) 562-3506

BP-1
The City's support for the I-5 Widening Improvement project is acknowledged.

BP-2
Caltrans engineering staff is working with the representatives of the Amada America property to determine if there are geometric refinements that can be done in this location that would be acceptable to the property owner. An agreement on partial or full acquisition of this site will be made after this interaction. At this point, the worst case scenario would mandate the full acquisition of the site and relocation of the Amanda America facility. Caltrans Right of Way specialists will work closely with the businesses along the corridor to assist them in finding an acceptable replacement site. For more details on this site issue please refer to Response AA-1.

BP-3
Caltrans engineering staff will work with City of Buena Park staff during final project design to ensure that the circulation design for Firestone Boulevard in this area will accommodate smooth truck movements.

This letter is identified as D

City of Downey

FUTURE UNLIMITED

January 4, 2006

Mr. Ronald J. Kosinski, Deputy District Director
Division of Environmental Planning
Department of Transportation, District 7
100 S. Main Street MS-16A
Los Angeles, CA 90012

Dear Mr. Kosinski:

The City of Downey has reviewed the draft Environmental Impact Report/Statement and Section 4(f) Evaluation for the Interstate 5 Corridor Improvement Project dated October, 2006. As a result of our review, we wish to provide the following comments:

1. Page 103, 2nd paragraph, 3rd sentence – Replace "Rapid Transit District (RTD)" with the word "Metro". } 1

2. Section 3-6 (Traffic & Transportation/Pedestrian and Bicycle Facilities) – There is no discussion in the document with regard to circulation impacts during construction of the I-5 Freeway. We are concerned that any diversion of traffic on City of Downey streets caused by freeway construction will result in further congestion and deterioration of our streets. Therefore, we request that the document by revised to include such discussion and that Caltrans include within the budget for this project financial resources for congestion mitigation and pavement rehabilitation on adjacent city streets during construction. } 2

If you should have any questions, please contact Ed Norris, Deputy Director of Public Works, at (562) 904-7109.

Sincerely,

Desi Alvarez
Director of Public Works

11111 BROOKSHIRE AVENUE POST OFFICE BOX 7016 DOWNEY, CALIFORNIA 90241-7016 www.downeyca.org

D-1
The text in Section 3-6.1 of the EIR/EIS has been revised as requested.

D-2
Caltrans does not anticipate any extended closures of the I-5 freeway lanes during construction. As a consequence, diversion of traffic during construction onto the streets of the City of Downey are expected to be minimal and during off peak periods. As the project construction timeframe is finalized, a Traffic Management Plan (TMP) will be formalized, in consultation with the local cities. This TMP will establish the working perimeters for the construction activities to ensure that traffic diversion is minimized. The TMP will include adequate budgeting to mitigate costs associated with diversion onto local streets. So the project budget will include financial resources for congestion mitigation and pavement rehabilitation on impacted adjacent city streets, during construction of the project.

This letter is identified as N

JESSE M. LUERA
Mayor
RICK RAMIREZ
Vice Mayor
CHERI KELLEY
Councilmember
MICHAEL MENDEZ
Councilmember
GORDON STEFENHAGEN
Councilmember

ERNIE V. GARCIA
City Manager

City of NORWALK

12700 NORWALK BLVD., P.O. BOX 1030, NORWALK, CA 90651-1030 • PHONE 562/929-5700 • FACSIMILE: 562/929-5773 • WWW.CI.NORWALK.CA.US

January 4. 2007

Mr. Ronald J. Kosinski, Deputy District Director
Division of Environmental Planning
California Department of Transportation, District 7
100 S. Main Street MS-16A
Los Angeles, California 90012

Subject: **Interstate 5 Corridor Improvement Project**
Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) and Section 4(f) Evaluation

Dear Mr. Kosinski:

The City of Norwalk has reviewed the draft EIR/EIS and Section 4(f) Evaluation and has the following comments:

1. On the SUMMARY, PROJECT LOCATION, add City of Norwalk to the cities affected by freeway mainline improvements. 1
2. On Section 3-10, WATER QUALITY AND STORM WATER RUNOFF, project may be subject to Standard Urban Storm Water Mitigation Program (SUSMP) requirements. Although Caltrans is covered by a separate NPDES Permit, the State Water Resources Control Board and Los Angeles Regional Water Quality Control Board are requiring infiltration and filtration structural controls on high priority projects. 2
3. Add mitigation measures to address maintenance of properties acquired by Caltrans to prevent blight (e.g., homes need to be secured to discourage vandalism, properties need to be maintained and kept free of weeds and litter). 3
4. Minimize time lapse between property owner move-out, testing for asbestos containing materials (ACM) and lead based paint (LBP), abatement, demolition and construction phases to prevent long states of disrepair. 4
5. The Traffic Management Plan needs to address coordination with cities and providing proper signage for detours and alternate routes during construction. 5

N-1
The text in the Summary Section of the EIR/EIS has been revised to add the City of Norwalk to the list of Affected Communities.

N-2
Infiltration basins are a part of the proposed project. Please see section 3-10.4.

N-3
Mitigation measures have already been agreed to in the Performance Agreement with JPA.

N-4
Caltrans is committed to minimizing time lapses between all phases of project construction.

N-5
The Traffic Management Plan will be developed in close partnership with the affected cities. Signage for detours and alternate routes during construction will be designed according to Highway Design Manual Standards. Additional signage to further enhance public awareness of alternate routes and detours can be implemented during the TMP development. Up-to-date information regarding construction related detours will also be available on the internet.

N continued

Please do not hesitate to contact me at (562) 929-5727 if you should have any questions.

Very truly yours,

Community Development Department
Engineering Division

Delfino R. Consunji, P.E.
City Engineer

cc: Jerry Wood, JPA

This letter is identified as AA

AMADA® AMERICA, INC.
7025 FIRESTONE BLVD., BUENA PARK, CALIFORNIA 90621 / TELEPHONE: (714) 739-2111 / FAX: (714) 994-2841

December 12, 2006

Emad Gorgy, PE
Office Chief, Route 5
Programs/Project Management
CalTrans, District 7
100 South Main St., Ste. 100
Los Angeles, California 90012

Re: Taking of property – Amada America, Inc.

Dear Mr. Gorgy:

Amada America, Inc. wishes to make known to CalTrans, our serious concerns related to the taking of part or all of Amada's property located in Buena Park, along the I-5 freeway.

Amada's business philosophy and approach to business with our customer is heavily structured to create and develop a strong, personal relationship with the customer. As we tried to convey to Mssrs. Wood, Warsinski and Brown, the process of interacting with the customer begins with the first impression upon entering our property from Firestone Boulevard. From the initial impression the customer is brought into our facility in a way that creates an impression and a mood essential to our customer relationship. The taking of Amada's property as currently proposed will destroy our approach to the customer relationship.

Amada had plans to substantially increase the utilization of the Firestone property, and in view of the pending Freeway plan, we must now re-evaluate our long range plan and re-assess whether or not the Firestone property will fit our strategic long range plan. If it does not fit the plan, Amada will have no use for the land and arrangements must be made for a different location. If Amada decides that the Firestone location is viable with some accommodations we must evaluate that as well.

Under the current plan, part of Amada's building would be cut off, and in our opinion the front entrance must be drastically reconstructed. This will dramatically reduce parking spaces at our facility and require moving the parking entrance to the property. We have no doubt that this will also have a very negative impact on our restaurant business as well. 1

Amada only recently became aware of the plans of CalTrans and has not had sufficient time to evaluate the full impact of the proposed taking of Amada's property. Therefore, the

AA-1
Caltrans acknowledges the potential adverse impact on the Amanda America property as well as the effects of the project on the company's long range plans for this location. A portion of the building would be cut off and parking as well as access to the front of this building would be reduced. Caltrans has commenced a dialogue with Amanda America, per this request and will be working to determine if there are geometric refinements to the I-5 Preferred Alternative and Firestone Boulevard that can be made which are mutually agreeable.

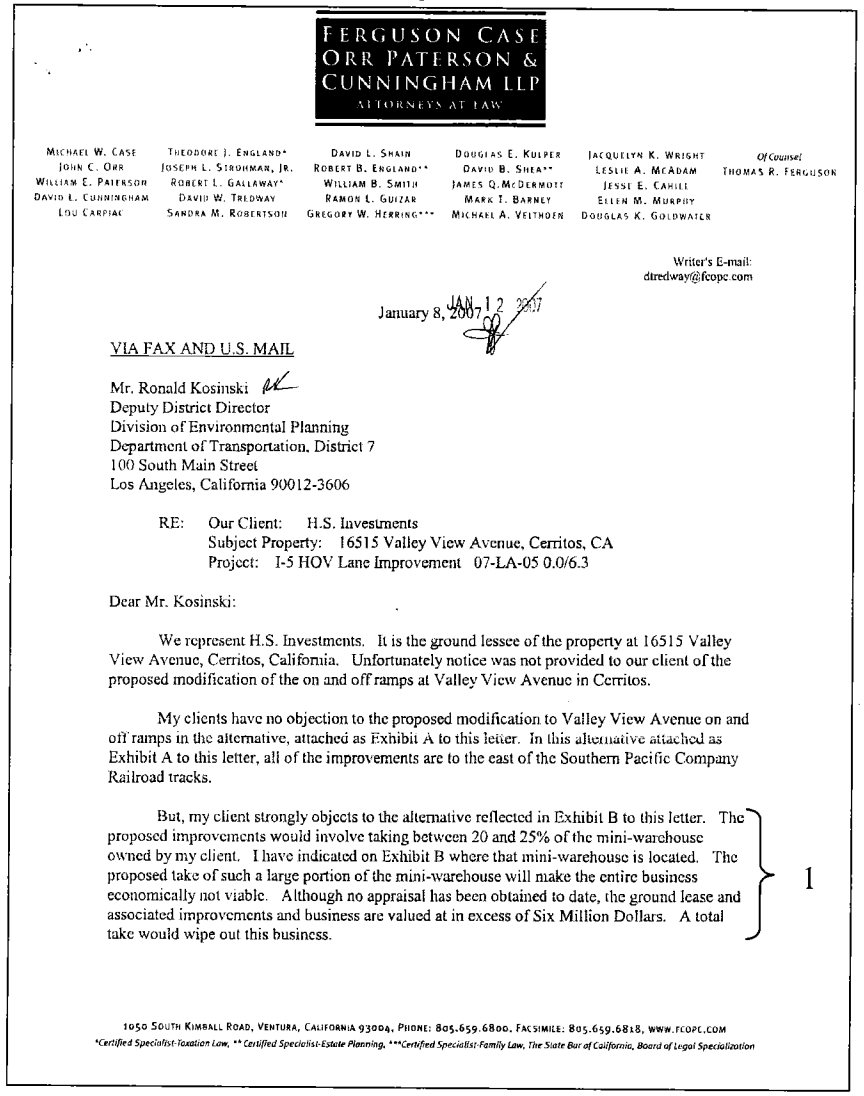
comments here should not be construed as the only impacts upon Amada's business. There may be additional substantial adverse impacts that we are not currently aware of. Amada would like to request a meeting with CalTrans to discuss the adverse impact at your earliest convenience. 1

Very truly yours,

Michael Guerin
C.E.O.

[CalTrans121106.doc]

This letter is identified as FCOPC



FERGUSON CASE ORR PATERSON & CUNNINGHAM LLP
ATTORNEYS AT LAW

MICHAEL W. CASE, JOHN C. ORR, WILLIAM E. PATERSON, DAVID L. CUNNINGHAM, LOU CARPIAC, THEODORE J. ENGLAND*, JOSEPH L. SIROHMAN, JR., ROBERT L. GALLAWAY*, DAVID W. TREDWAY, SANDRA M. ROBERTSON, DAVID L. SHAIN, ROBERT B. ENGLAND**, WILLIAM B. SMITH, RAMON L. GUIZAR, GREGORY W. HERRING***, DOUGLAS E. KULPER, DAVID B. SHEA**, JAMES Q. MCDERMOTT, MARK T. BARNEY, MICHAEL A. VELTHOEN, JACQUELYN K. WRIGHT, LESLIE A. MCADAM, JESSE E. CAHILL, ELLEN M. MURPHY, DOUGLAS K. GOLDWATER, *Of Counsel* THOMAS R. FERGUSON

Writer's E-mail:
dtredway@fcopc.com

January 8, 2007 JAN 12 2007

VIA FAX AND U.S. MAIL

Mr. Ronald Kosinski
Deputy District Director
Division of Environmental Planning
Department of Transportation, District 7
100 South Main Street
Los Angeles, California 90012-3606

RE: Our Client: H.S. Investments
Subject Property: 16515 Valley View Avenue, Cerritos, CA
Project: I-5 HOV Lane Improvement 07-LA-05 0.0/6.3

Dear Mr. Kosinski:

We represent H.S. Investments. It is the ground lessee of the property at 16515 Valley View Avenue, Cerritos, California. Unfortunately notice was not provided to our client of the proposed modification of the on and off ramps at Valley View Avenue in Cerritos.

My clients have no objection to the proposed modification to Valley View Avenue on and off ramps in the alternative, attached as Exhibit A to this letter. In this alternative attached as Exhibit A to this letter, all of the improvements are to the east of the Southern Pacific Company Railroad tracks.

But, my client strongly objects to the alternative reflected in Exhibit B to this letter. The proposed improvements would involve taking between 20 and 25% of the mini-warehouse owned by my client. I have indicated on Exhibit B where that mini-warehouse is located. The proposed take of such a large portion of the mini-warehouse will make the entire business economically not viable. Although no appraisal has been obtained to date, the ground lease and associated improvements and business are valued at in excess of Six Million Dollars. A total take would wipe out this business. 1

1050 SOUTH KIMBALL ROAD, VENTURA, CALIFORNIA 93004, PHONE: 805.659.6800, FACSIMILE: 805.659.6818, WWW.FCOPC.COM

*Certified Specialist-Taxation Law, ** Certified Specialist-Estate Planning, ***Certified Specialist-Family Law, The State Bar of California, Board of Legal Specialization

FCOPC-1
The commenter's support for the Alternative 4A and opposition to Alternative 4B is acknowledged.

Alternative 4B has been selected as the Preferred Alternative. One of the factors in selecting Alternative 4B as the Preferred Alternative was the impacts to residential and business acquisitions compared to the other Alternatives. Alternative 4B has the least amount of full and partial property acquisitions overall of Alternatives 4B, 5A and 5B.

It is acknowledged that Alternative 4B would require a partial acquisition of land from the commenter's property. As described in Section 3-4.2.4, Caltrans will continue to work with the current property owners to minimize impacts to the existing business, which includes methods to minimize interruptions in operations.

On behalf of H.S. Investments, we request CalTrans not adopt the improvements shown in Exhibit B. Instead, CalTrans should adopt the improvements shown in Exhibit A. } 1

Please add our firm name as a party entitled to notice of these proceedings as the attorneys for the owner of the leasehold.

Sincerely,

DAVID W. TREDWAY

DWT:emb
cc: Dr. & Mrs. William L. Hebard

FCOPC continued

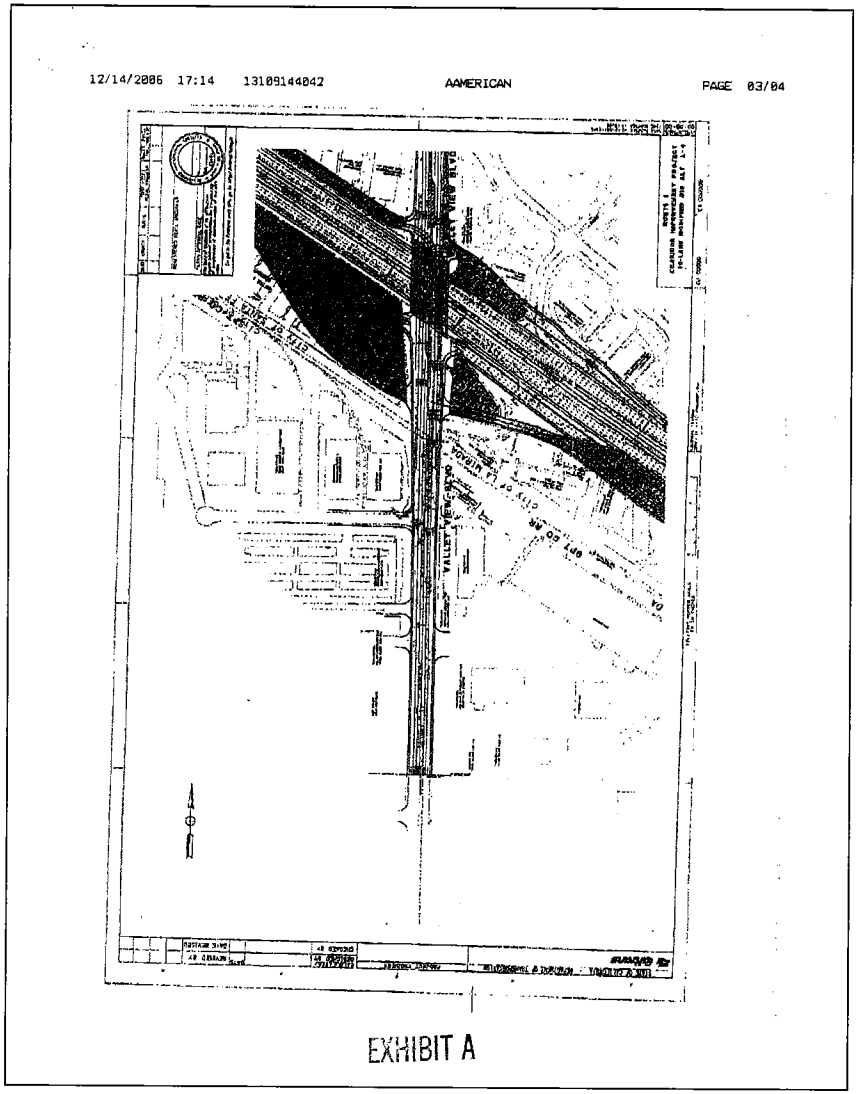


EXHIBIT A

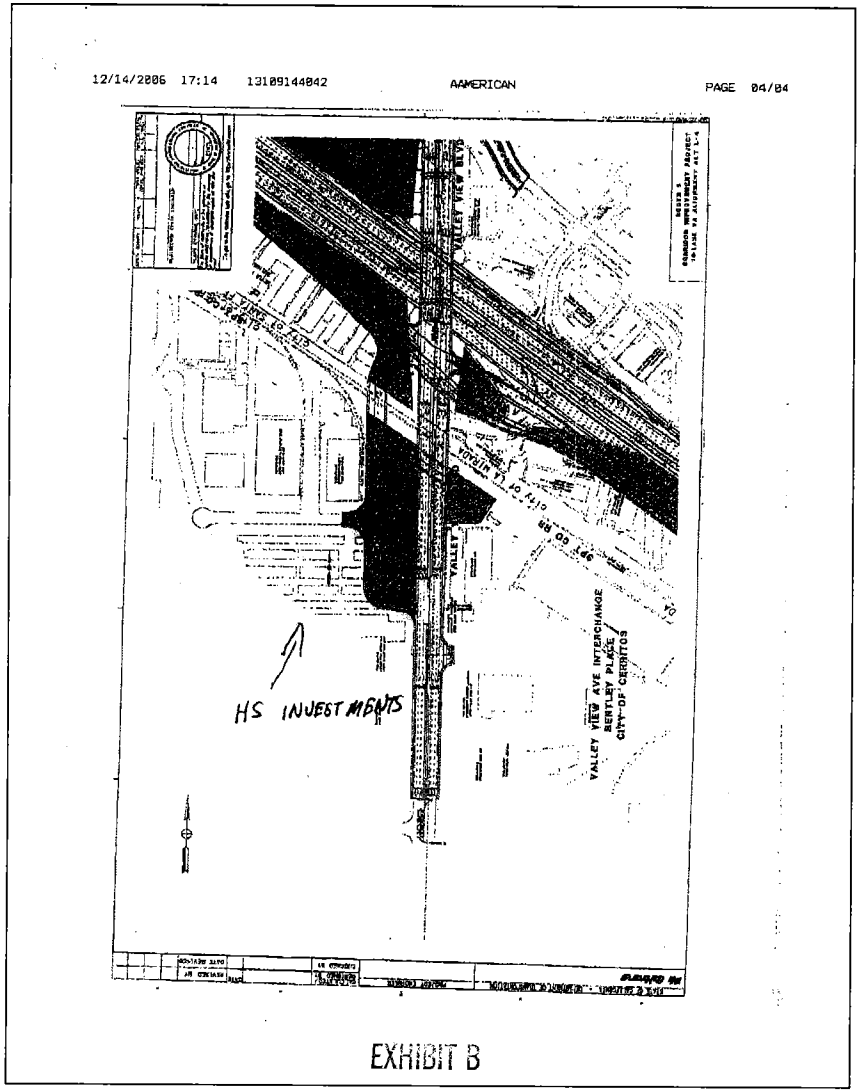


EXHIBIT B

This letter is identified as KPB

LAW OFFICES OF
KLIKA, PARRISH & BIGELOW
kpblaw.com

PETER KLIKA
PAIGE R. PARRISH
FRANKLIN T. BIGELOW, JR.

301 E. COLORADO BLVD.
SUITE 501
PASADENA, CALIFORNIA 91101
TELEPHONE (626) 796-9996
FACSIMILE (626) 796-9992

Via Overnight Delivery

January 4, 2007

Mr. Ronald Kosinski
Deputy District Director
Division of Environmental Planning
CALTRANS District 7
100 N. Main Street
Los Angeles, Ca 90012

Re: *Draft EIR/EIS Interstate 5 Improvements between Route 91 and Interstate 605*

Dear Mr. Kosinski:

Please be advised that the firm represents the Edloft Corporation, ("Edloft"), the owners of certain real property located at 12800 Rosecrans Avenue, Norwalk, California. The property is located at the intersection of Firestone Blvd. and Rosecrans Ave., on the east side of Interstate 5 ("the Property").

On behalf of Edloft, the following are their concerns regarding the draft EIR/EIS regarding the I-5 project:

1. Caltrans should consider the design which has the lowest impact on businesses which benefit the freeway user. For example, alternatives 4A, 4B, 5A, and 5B all have relatively similar impacts for commercial parcels. However, care must be taken to assure that those commercial parcels that benefit the freeway user, ie., gas stations, convenience stores, shopping centers, are not severely affected. } 1
2. To that end, Edloft's property contains a gas station, market, restaurant, and other businesses that benefit the freeway traveler. Present designs have an on ramp/off ramp at Rosecrans and Firestone which will be crucial for commercial business } 2

KPB-1
It is acknowledged that effects to businesses adjacent to the freeway and areas utilized by motorists on the freeway should be minimized to the extent feasible during and after construction of the proposed improvements. Caltrans has selected Alternative 4B as the Preferred Alternative, which has the least amount of commercial acquisitions within the affected communities. Additionally, Caltrans will implement a Transportation Management Plan during construction, the intent of which is to minimize potential impacts to residences and businesses in the project area during construction.

KPB-2
Roadway features proposed by project are based on considering safety of the commuter, improving traffic flow, and minimizing impacts to all properties. During detailed design opportunities may arise to improve the suggested ingress and Egress to Edloft's business property.

KPB continued

such as our client to survive the impact of a larger freeway. Easy ingress/egress is a must. } 2

3. In addition, Caltrans must consider working with the impacted cities to assure those businesses which will be affected will continue to have full access to their premises. In our client's case, access to the southern portion of its parcel will be eliminated by the taking of a portion of Firestone Blvd. necessary for the right of way. Present plans which show a cul de sac being constructed at the southern terminus of Firestone, south of Rosecrans Blvd. This design must be preserved so that adequate access remains for the shopping center tenants. } 3

4. Finally, while soundwalls are of benefit to residential parcels affected by the expansion, soundwalls which block views of commercial businesses who depend on freeway consumers cause a negative effect. Caltrans should review the design to make sure that soundwalls are minimized for the benefit of those businesses that are affected. This is also important in that our client's parcel currently has a large billboard sign visible from the freeway, which will need to be relocated outside of the right of way which will be acquired. } 4

Thank you for your attention to these concerns. Should you have any further questions, please do not hesitate to contact us.

Very Truly Yours,

Paige R. Parrish

Cc: Edward Loftus

KPB-3

Caltrans has selected Alternative 4B as the Recommended Alternative. There would be no direct acquisition of the Edloft property with construction of the Recommended Alternative. Access from Roscrans Avenue will be unaffected by the proposed project.

During the final design phase of the project, Caltrans will continue to cooperate with the City of Norwalk and potentially affected businesses adjacent to the freeway and Firestone Boulevard to ensure that access to these businesses is maintained during construction and after completion of the widening project. As described in Section 3-4.2.4, Caltrans will continue to work with the current property owners to minimize impacts to the existing business, which includes methods to minimize interruptions in operations and may include relocation measures. The following mitigation measures will be implemented to minimize Community Impacts during construction activities:

- Neighborhood disruptions will be minimized by attempting to maintain pedestrian access points to businesses within construction areas. In the event that pedestrian access to affected parcels is not provided, appropriate signage would be placed to inform the public of access to local businesses.
- Construction disruptions will be minimized by coordinating with the local jurisdictions to mitigate parking losses to businesses. The Traffic Management Plan addressing local detours and road closures would be implemented to minimize potential impacts to roadside businesses.

KPB-4

According to Figure G-2 in Appendix G, no noise walls will be constructed directly adjacent to the Edloft Property. Standard Caltrans policy does not provide for soundwalls for most commercial uses. The Edloft property however is located in mixed land use area with residential land uses on either side of the property. Those residential land uses do require that Caltrans construct noise abatement soundwalls. Caltrans, in constructing soundwalls for this purpose, does not anticipate that these walls will decrease the visibility from the freeway.

This letter is identified as NGKE

LAW OFFICES
NOSSAMAN, GUTHNER, KNOX & ELLIOTT, LLP

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SUITE 100
1100 DEXTER AVENUE N
SEATTLE, WA 98109
(206) 285-5888

January 4, 2007

REFER TO FILE NUMBER
070329-0007

VIA OVERNIGHT MAIL

Mr. Ronald Kosinski
Deputy District Director
Division of Environmental Planning
Caltrans, Division 7
100 South Main Street
Los Angeles, CA 90012

Re: Comments on the Interstate 5 Corridor Improvement Project Draft EIR

Dear Mr. Kosinski:

We represent Garfield Developments Ltd., which owns two adjacent commercial parcels in Santa Fe Springs; one is located at 14014 Alondra Boulevard and the other at 14044 Freeway Drive (together "Garfield Property"). Garfield Developments appreciates this opportunity to comment on the Interstate 5 Corridor Improvement Project Draft EIR.

We believe that the project may have significant effects on the environment, as well as have severe physical and economic impacts on the Garfield Property and on the neighboring commercial properties in the vicinity of the Valley View interchange. The Draft EIR significantly underestimates, or even fails to consider, a number of significant impacts from the Project on the Garfield Property and neighboring parcels. These impacts, in turn, will likely result in other significant environmental impacts. } 1

More specifically:

1. Impacts to the Garfield Property: At a minimum, the project will have the following impacts on the Garfield Property:

- Parking and Loading Impacts: In some of the alternative alignments, the parking and loading areas on the Garfield Property are significantly reduced. For example, the 10-lane UA Alignment Alternative L-6 results in the loss of as much as 47 percent of the } 2

269448_1.DOC

NGKE-1
The commenter's statements regarding potential effects on the Garfield Property and other properties in the vicinity of the Valley View interchange is acknowledged.

NGKE-2
Caltrans acknowledges the potential adverse impact on the Garfield Property parking and loading areas. There will be a reduction in parking spaces and loading dock access. These impacts may require the full acquisition of this property and the relocation of the businesses. Caltrans has commenced a dialogue with representatives of the Garfield Property to determine if there are geometric refinements to the parking and access areas to mitigate project impacts. There is a potential for replacement parking at the end of the planned Freeway Drive cul-de-sac identified in this EIR/EIS. (see Plan Sheet L-7 in Appendix F-2). If there is an agreement that the Garfield Property cannot continue to function efficiently, Caltrans Right of Way specialists will assist the businesses in finding a suitable replacement site.

NGKE continued

parking spaces on the 14044 Freeway Drive property. Similarly, the loading areas on the 14014 Alondra Boulevard parcel will be reduced 60 percent. Also, the area used to maneuver trucks so they can align with the truck doors on the south side of the Garfield Property is completely eliminated. The Draft EIR does not discuss how this loss of parking and loading will impact the businesses conducted on the Garfield Property nor does it address how this loss of parking and loading can be mitigated. We anticipate that this loss of parking and loading will mean that these businesses cannot continue to operate on the Garfield Property. As discussed further below, this may well require these businesses to move, costing their employees their jobs. And the loss of parking and loading may prevent Garfield Developments from attracting new business tenants. 2

- Safety of the Buildings: Several of the alignments, and especially the 10-lane UA Alignment Alternative L-6, place the freeway within just a few feet of the south side of the buildings. The proximity of the freeway may impact the buildings' structural integrity, something the Draft EIR does not address. Further, Fire Department access to the south of the building will be impaired (1) by this proximity of the freeway and (2) by Freeway Drive's being turned into a dead-end at approximately the middle of the 14014 Alondra Boulevard parcel. Again, the Draft EIR does not address these safety concerns. 3

- Loss of Use: The loss of parking, loading, and/or the safety concerns will have significant physical impacts on the Garfield Property, which the Draft EIR does not adequately consider. For example, on the 14044 Freeway Drive parcel, the loss of parking means the parcel will have a 36 percent excess floor area over that allowed by the zoning. For the 14014 Alondra Boulevard parcel, the loss of allowed floor area is at least 15 percent, and potentially more due to relocation of trash and storage enclosures that will be necessary. The loss of loading area and truck-maneuvering area will likewise curtail the usability of the Garfield Property. 4

- Business Impacts: The above-described impacts mean that the existing tenants may not be able to operate their businesses, forcing them to relocate. And it seems unlikely that any new business tenants could be found who could put the Garfield Property to a viable use. If this happens, the Garfield Property will 5

NGKE-3
Caltrans engineers do not anticipate any impacts on the structural integrity of the Garfield Building. Prior to freeway construction, Caltrans Structural engineers will examine the buildings structural integrity as it relates to the proximity of the freeway. Fire access is an issue and Caltrans acknowledges some impairments of access. As a part of Caltrans dialogue with the property owner, potential solutions to fire access, consistent with local and state fire code regulations, will be implemented.

NGKE-4
Caltrans acknowledges the potential adverse impacts identified that are related to the loss of parking and loading. As noted in Response NGKE-3, Caltrans will work with the property owner and local fire department to address safety concerns. Fire access via the new Freeway Drive cul-de-sac will continue. Refer to Response NGKE-2 regarding mitigation options.

NGKE-5
Section 3-4.1.3 discusses the impacts associated with employee relocation and tax revenue losses anticipated under the various alternatives. These impacts were determined considering only full commercial acquisitions. The loss of tax revenue and jobs in the community that may occur due to partial acquisitions are minor in light of the project impacts as a whole. Caltrans acknowledges the potential adverse impacts on the existing tenants of the Garfield Property. Full acquisition of the property, including the relocation of the tenants is a possibility, if solutions to their business operations cannot be addressed. If this worst case scenario occurs, it is anticipated that this property would be acquired and the tenants relocated within the area, if possible. After the freeway construction is completed, the building would be sold and reoccupied, reestablishing jobs and tax revenues within the community.

NGKE continued

NOSSAMAN, GUTHNER, KNOX & ELLIOTT, LLP

Ronald Kosinski
January 4, 2007
Page 3

have to be put to different uses. This will result in job losses in the community, as well as a loss of tax revenue from the properties in this area. The Draft EIR does not adequately discuss these impacts with respect to the specific alternative alignments. 5

2. Broader Environmental Impacts: All of the specific impacts on the Garfield Property, when combined, suggest that the property will cease to be viable for the operations of the businesses that currently occupy that property. This, in turn, will likely result in a number of significant environmental effects. Among them are:

- Impacts on Traffic Patterns: Currently, the Garfield Property is utilized primarily for distribution purposes. If those uses cease to be viable after the Interstate 5 widening project, it seems likely that some alternative use of the Garfield Property will be the natural outcome. Yet, the EIR does not analyze what the potential likely re-use of the Garfield Property might be or what impacts that might have on the environment. It seems immediately clear that a change in use -- for example, from distribution to manufacturing -- will have a significant impact on traffic patterns in or around Alondra Boulevard. Likewise, the change in use could result in a greater or lesser number of employees working on the Garfield Property. Any such change would result in changes in traffic patterns and resulting changes in automobile and truck emissions. 6
- Impacts on Greenhouse Emissions: The likely changes in traffic patterns resulting in a re-use of the Garfield Property will have obvious impacts on emissions, which in turn are potentially significant in light of the current concerns about greenhouse gases and global warming. 7
- Impacts on Land Use Patterns: A change in the use of the Garfield Property, and in surrounding properties, could well drive changes in the land-use patterns in and around Alondra Boulevard. None of this has been adequately evaluated in the draft EIR. 8

We request that the EIR more fully and accurately analyze the impacts of the different alignments on the Garfield Property and surrounding area, with particular attention to the environmental and economic impacts of each alignment.

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NGKE-6
The area that the Garfield Property is located is presently a mixture of manufacturing, distribution and commercial land uses. If the use of the Garfield Property changes from distribution businesses to manufacturing or commercial businesses, the resulting traffic patterns would not be demonstrably different than currently observed.

NGKE-7
See the response to Comment RH-1. Additionally, while there is uncertainty about the impact the entire project will have on global warming, the changes in traffic patterns as they relate to GHG emissions due to the re-use of the Garfield Property, or any other single property, are extremely small compared to the levels of GHG emissions involved in global warming.

NGKE-8
Land use and zoning patterns are governed by local jurisdictions (cities or counties) and influenced by numerous factors. The Preferred Alternative is only one of the factors influencing local decision-makers. We anticipate that the present land uses will remain the same with or without the project, i.e., commercial/industrial land uses will remain commercial/industrial and residential land uses will remain residential in this area for the foreseeable future.

Thank you for the opportunity to comment on the Draft EIR.

Very truly yours,

K. Erik Friess
of NOSSAMAN, GUTHNER, KNOX & ELLIOTT, LLP

KEF/KAC

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This letter is identified as RH

LAW OFFICES OF ROBERT C. HAWKINS

JAN 10 2007

January 5, 2007

Via e-mail (Ron.Kosinski@dot.ca.gov), Facsimile and U.S. Mail

Ron Kosinski, Deputy District Director
Division of Environmental Planning
Department of Transportation, Division Seven
100 South Main St., Ste. 100
Los Angeles, California 90012

Re: **The California Department of Transportation's ("Caltrans" or the "Department") and the Federal Highway Administration's (the "Administration") Draft Environmental Impact Report and Environmental Impact Statement ("DEIR/DEIS" or the "Environmental Document") and Section 4(f) Evaluation for proposed Interstate 5 Corridor Improvement Project (the "Project")**

Greetings:

Thank you for the opportunity to provide these comments on the captioned document for the Project. This Firm represents residents, businesses, interested parties, and interested groups in the Project area.

On behalf of these residents, businesses, interested parties, and interested groups, we offer the following comments on the DEIR/DEIS. We offer the following summary of concerns, a summary of the legal standards for the DEIR/DEIS, and then a detailed discussion of the critical problems with the DEIR/DEIS.

I. Summary of Concerns: The Department and the Administration Should Revise and Re-circulate the DEIR/DEIS.

For the reasons discussed below and identified in this section, the City should revise the DEIR to address the following issues which are discussed fully below: BASELINE; NO PROJECT ALTERNATIVE; PIECEMEALING;

1. The DEIR/DEIS fails to discuss the proper existing baseline conditions which failure completely undercuts the DEIR/DEIS' impacts analysis.

1

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RH-1
See the Response to Comment RH-28.

RH continued

2. The Project Description is flawed and inadequate in that it fails to analyze the complete project–the expansion of the I-5 through District 7, it fails to analyze a single project, and it fails to discuss the full details of the Project.

3. The analysis of the Project impacts on land use, growth, communities, traffic and transportation, aesthetic resources, hydrology, and noise is incomplete and truncated and fails to provide adequate mitigation including mitigation of light and glare impacts.

4. The DEIR/DEIS should be revised to discuss and fully analyze the Project' impacts on global warming and climate change and propose any necessary mitigation.

1

Because revising the DEIR/DEIS to address these issues and others will result in substantial changes in the DEIR/DEIS and consideration of significant new information, the Department and the Administration should re-circulate the revised DEIR/DEIS for public review and comment. California Environmental Quality Act ("CEQA") Guidelines section 15088.5.

II. Introduction: EIR Standards.

An EIR constitutes the heart of CEQA, Public Resources Code sections 21000 et seq.: An EIR is the primary environmental document which:

> ". . serves as a public disclosure document explaining the effects of the proposed project on the environment, alternatives to the project, and ways to minimize adverse effects and to increase beneficial effects."

CEQA Guidelines section 15149(b). See California Public Resources Code section 21003(b) (requiring that the document must disclose impacts and mitigation so that the document will be meaningful and useful to the public and decision-makers.)

Further, CEQA Guidelines section 15151 sets forth the adequacy standards for an EIR:

> "An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which takes account of the environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith attempt at full disclosure."

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Further, "the EIR must contain **facts and analysis**, not just the agency's bare conclusions or opinions." Concerned Citizens of Costa Mesa, Inc. v. 32nd District Agricultural Association. (1986) 42 Cal. 3d 929, 935 (Emphasis supplied.).

An agency's determination in connection with an EIR must be supported by substantial evidence. Public Resources Code sections 21168 and 21168.5. "[S]ubstantial evidence includes fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact." Public Resources Code section 21080(e)(1). However, "[r]elevant personal observations such as [personal observations about noise] can constitute substantial evidence." Oro Fino Gold Mining Corp. v. County of Del Oro (1990) 225 Cal. App. 3d 872, 882.

In addition, an EIR must specifically address the environmental effects and mitigation of the Project. But "[t]he degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR." CEQA Guidelines section 15146. The analysis in an EIR must be specific enough to further informed decision making and public participation. The EIR must produce sufficient information and analysis to understand the environmental impacts of the proposed project and to permit a reasonable choice of alternatives so far as environmental aspects are concerned. See Laurel Heights Improvement Association v. Regents of the University of California (1988) 47 Cal. 3d 376.

Also, to the extent that an EIR proposes mitigation measures, it must provide specific measures. It cannot defer such measures until some future date or event. "By deferring environmental assessment to a future date, the conditions run counter to that policy of CEQA which requires environmental review at the earliest feasible stage in the planning process." Sundstrom v. County of Mendocino (1988) 202 Cal. App. 3d 296, 308. See Bozung v. Local Agency Formation Com.(1975) 13 Cal.3d 263, 282 (holding that "the principle that the environmental impact should be assessed as early as possible in government planning."); Mount Sutro Defense Committee v. Regents of University of California (1978) 77 Cal. App. 3d 20, 34 (noting that environmental problems should be considered at a point in the planning process "where genuine flexibility remains"). CEQA requires more than a promise of mitigation of significant impacts: mitigation measures must really minimize an identified impact.

"Deferral of the specifics of mitigation is permissible where the local entity commits itself to mitigation and lists the alternatives to be considered, analyzed and possibly incorporated in the mitigation plan. (Citation omitted.) On the other hand, an agency goes too far when it simply requires a project applicant to obtain a biological report and then comply with any recommendations that may be made in the report. (Citation omitted.)" Defend the Bay v. City of Irvine (2004) 119 Cal. App. 4th 1261, 1276.

However, even if the lead agency finds that significant impacts remain after consideration of all mitigation measures, it may approve the project as follows:

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RH continued

> "If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered 'acceptable.'"

CEQA Guidelines section 15093. Regardless of whether the lead agency approves such a project with remaining significant impacts, it nonetheless must compensate property owners whose properties are injured by such significant and unmitigated project related impacts. See United States Constitution, Fifth Amendment; California State Constitution, Section 19, Article 1.

III. The Summary: Project Description Problems and Lack of Project Objectives.

The Summary attempts to summarize the Environmental Document. The Summary includes discussion of the "Environmentally Superior Alternative" and "Areas of Controversy."

Under the "Environmentally Superior Alternative," the DEIR/DEIS recognizes that CEQA Guidelines Section 15126.6(e)(2) provides:

> "CEQA states that if the No-Build Alternative does not meet the project objectives, an Environmentally Superior Alternative is identified from the build alternatives."

This section states that the No-Build Alternative would ". . . not fulfill the projects objectives or provide the benefits the build alternatives would." However, the DEIR/DEIS provides no precise, concise statement of the Project's Objectives. The DEIR/DEIS generally states that the the purpose of the Project is "to enhance [transportation] capacity within the corridor." 2

This statement is too general to evaluate the Project Alternatives including the No-Build Alternative. The No-Build Alternative "includes construction of the I-5 Interim HOV Lane Improvement Project [the 'HOV Project']" which was originally designed to enhance corridor transportation capacity. DEIR/DEIS, 11. The DEIR/DEIS should be revised to provide a clear statement of the Project Objectives and analyze the ability of the various alternatives to meet such objectives.

As to "Areas of Controversy," the DEIR/DEIS recognizes several such areas including recent litigation regarding another part of the Project: the "Interstate 5 at Carmenita Interchange Improvement Project." As a result of this litigation, "some concessions regarding project design were made regarding the cross-section width of the proposed median." This is an artful and incomplete statement: the settlement limited the size of the right-of-way acquisition for the Project. As discussed below, this Carmenita Project is a piece of the Project, and CEQA forbids piecemeal project analysis. 3

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RH-2

The "Purpose" of the project described on Page 1 and Section 1-3 of the DEIR/EIS meets the requirements for project objectives set forth in 40 CFR 1502.13, the FHWA Technical Advisory 6640.8A "Guidance for Preparing and Processing Environmental and Section 4(f) Documents", Section 15124(b) of the CEQA Guidelines and the Caltrans Standard Environmental Reference, as applicable. As described in 40 CFR 1502.13, TA 6640.8A and Section 15124(b), project objectives are meant to assist the Lead Agencies (FHWA and Caltrans) in developing a range of reasonable alternatives to evaluate in the EIR and aid decision makers in weighing the positive and negative effects of the alternatives. The purpose of the project outlined in the DEIR/EIS fulfills the requirements set forth in 40 CFR 1502.13, TA 6640.8A and Section 15124(b) since it provides a basis for establishing the range of alternatives and evaluation of potential environmental effects of the proposed project.

RH-3

The removal of the CHP enforcement are within the Carmenita project limits was the result of the settlement agreement between the State and I-5 JPA. This revision to the proposed plans did in effect reduce the extent of right-of-way impacts associated with the Carmenita Project. Any reduction in right-of-way impacts associated with proposed project(s) is considered beneficial. The environmental impacts of the I-5/Carmenita interchange are included in the assessment of environmental effects of the proposed project conducted in the DEIR/EIS; therefore, claims by the commenter of "piecemealing" of project components are inaccurate.

RH continued

At various points in this section, the DEIR/DEIS discusses mitigation measure. However, such discussion raises problems. For instance, in discussion of Alternatives 4 and 5, the DEIR/DEIS states:

> "These alternatives proposes (sic) 30-foot-wide median, (22-foot-wide medians are proposed within the Carmenita segment, as per Agreement with the JPA, Joint Powers Authority). Use of 22-foot medians at other locations for specific impact mitigation is also being considered."

DEIR/DEIS 3. Or again,

> "Caltrans is continuing coordination with Norwalk Parks and Recreation Department and Little Lake School District to develop mitigation measures to minimize impacts to 2 Section 4(f) resources within their jurisdictions."

DEIR/DEIS 10. It appears that mitigation measures are still being considered even though the DEIR/DEIS is complete. Resolution of these and other mitigation measure will constitute substantial and new information which will require re-circulation of the DEIR/DEIS. The Department and the Administration should develop such mitigation measures now, revise the DEIR/DEIS and recirculate it for public review and comment.

4

IV. Chapter 1: The Purpose and Need of the Project Without a Statement of Objectives.

Chapter 1 discusses generally the background and history of the Project including the 1998 Major Investment Study ("MIS") and the HOV Project. It is clear that the Project is only a piece of a larger overall project to improve the capacity of I-5 through District 7. However, no environmental document or programmatic environmental impact report or statement has analyzed this overall project. This Chapter also discusses the "Purpose of the Project" and "Need for the Project." Neither contains a clear statement of Project Objectives. The purpose of the Project is ". . . to reduce existing and forecast traffic congestion on I-5 between SR 91 and I-605." DEIR/DEIS 14. However, this is too general to evaluate the Alternatives.

5

V. Chapter 2: The Project Description Is Flawed and Inadequate.

The Project description is one of the key parts of any environmental document. As the County of Inyo Court noted long ago,

> "Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the 'no project' alternative) and weigh other alternatives in the balance. An

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RH-4

The DEIR/EIS adequately describes the extent of mitigation known at the time of the circulation of the DEIR/EIS for public review. It is acknowledged that mitigation may be refined as a result of comments on the DEIR/EIS and further project design. The DEIR/EIS identifies mitigation for the known impacts and addresses these effects conservatively, or on a "worst case" basis.

The discussion of median widths and impacts to Section 4(f) provided in the comment relates to refinements to the project design features and mitigation measures that could result in reduced and beneficial effects from that identified in the DEIR/EIS. Additionally, because the impacts to those Section 4(f) resources affect marginal areas of the resource, the impacts to these resources are considered *de mimimis*. The mitigation measures for impacts to the Section 4(f) resources are generally aesthetic in nature and dependent on input from the City of Norwalk and are on-going through the Interstate 5 Aesthetic Subcommittee. It is expected that these refinements/clarifications would not alter the conclusions of the Final EIR/EIS (FEIR/EIS). If there are changes to the project or mitigation that meets the tests set forth in NEPA and CEQA, the FEIR/EIS could be recirculated for public review consistent with these regulations.

RH-5

Please refer to Response RH-2 regarding project objectives and to Response EPA-2 (page 262) regarding independent utility and logical termini.

RH continued

accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR."

County of Inyo v. City of Los Angeles (1977) 71 Cal. App. 3d 185, 199. In addition, the CEQA Guidelines section 15124 requires that an EIR describe the project "in a way that will be meaningful to the public, to the other reviewing agencies, and to the decision-makers." Discussion, Guidelines section 15124. However, the DEIR fails all of these metrics.

First, the Project Description is really non-existent: Chapter 2 describes various alternatives including

CEQA requires a discussion of Project alternatives. CEQA Guidelines section 15126.6 provides:

"An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."

However, the DEIR/DEIS contains no discussion of a single project, or a preferred project or alternative, but rather simply a range of alternatives without designating a preferred alternative. These alternatives include:

1. The No Build Alternative which includes the HOV Project;
2. The Transportation System Management/Transportation Demand Management;
3. The Transit Enhancement;
4. The Ten Lane Facility;
5. The Twelve Lane Facility.

6

The real Project description is found in Section 2-1.6 which is misleadingly titled "Project Design Features. Section 2-1.6 fails to discuss the meaning of such design features. Apparently, these are features common to all alternatives except for the alignment, cross-section and profile which vary between alternatives. These design features include roadway width, profile, HOV lanes, ramp and interchange modifications, right of way acquisition, landscaping, sound walls and other features. Right of way acquisitions is estimated to constitute 50% of Project costs.

However, the Project description fails to discuss the nature of such design features and how this may change from the existing conditions. The DEIR/DEIS should be revised to explain the impacts of the Project on the existing environment.

Section 2-1.4 discusses the need for mitigation of noise impacts. It notes: 7

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RH-6

The project description was developed consistent with both the requirements of CEQA and NEPA. Pursuant to 40 CFR 1502.14, and the FHWA TA 6640.8A, all alternatives that meet the project purpose shall be considered equally throughout the FEIR/EIS. As described at the beginning of Section 2-1, selection of a Preferred Alternative would not be made until consideration of public comments on the DEIR/EIS and the FEIR/EIS is approved. Neither CEQA nor the CEQA Guidelines requires evaluation of a Preferred Alternative unless one has been publicly identified by the Lead Agency as delineated in Section 15126.6(e)(2) of the CEQA Guidelines. The alternatives discussion meets the intent of Section 15124(c) of the CEQA Guidelines, which requires "a general description of the project's technical, economic and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities." This level of documentation has been provided in Section 2-1 of the DEIR/EIS for each of the alternatives under consideration, and the discussion clearly states that all of the alternatives will be considered equally throughout the document. CEQA does not limit the project description to one project design. The DEIR/EIS actually provides a more detailed evaluation of the environmental effects of each alternative under consideration since it assesses all environmental effects rather than focusing on significant environmental effects as required under CEQA.

RH-7

Final determinations regarding the location of noise walls are dependent on the selection of a Prefererd Alternative. Once a Preferred Alternative is identified, public comments on noise barriers received during the review of the DEIR/EIS are considered, additional technical evaluation of the noise is conducted, and a final determination regarding noise barriers is prepared. Table 3-14.3 of the DEIR/EIS identifies noise barriers at sensitive receptor locations along the project alignment. Recommended noise barriers that meet the feasibility requirements of the Caltrans Noise Analysis Protocol have been preliminarily identified in Table 3-14.3 for review by the public.

RH continued

"New soundwalls would be constructed concurrently with the proposed project where noise levels approach or exceed federal noise abatement criteria in residential areas **if said mitigation is reasonable and feasible.**"

DEIR/DEIS 23 (Emphasis supplied.) The DEIR/DEIS should have already decided this issue regarding the reasonableness and feasibility of the sound walls. This should not remain a question after the DEIR/DEIS is circulated for comment. 7

Section 2-2 discusses alternatives not considered in detail or "withdrawn." These include two different sets. The first alternative is the MIS Locally Preferred Alternative with non-standard features which was proposed by the I-5 Consortium Cities Joint Powers Authority ("I-5 JPA"). This preferred alternative was a 10-lane alternative which included non-standard features such as lane widths and median widths. The DEIR/DEIS states that this alternative was rejected for these non-standard features.

The other set of alternatives were alternatives considered in the MIS and withdrawn during that process. Obviously, this again suggests that the DEIR/DEIS depends upon other unanalyzed projects.

More importantly, the DEIR/DEIS should be revised to discuss the character of these rejected alternatives and discuss the reasons for rejection in detail. 8

Finally, the Project Description is also inadequate because it fails to analyze the full Project including all aspects of the Project. Since its inception, CEQA has forbid "piecemeal" review of the significant environmental impacts of a project. Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 Cal.3d 376, 391, fn. 2. This prohibition stems in part from CEQA itself: Public Resources Code section 21002.1(d) requires that an environmental document "consider[] the effects, both individual and collective, of all activities involved in [the] project." Courts have recognized that:

"A curtailed or distorted project description may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal ... and weigh other alternatives in the balance. An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR."

Sacramento Old City Assn. v. City Council (1991) 229 Cal.App.3d 1011, 1023 [280 Cal.Rptr. 478], original italics; Stanislaus Natural Heritage Project v. County of Stanislaus (1996) 48 Cal.App.4th 182, 201.

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RH-8

Section 2-2 of the DEIR/EIS describes each of the alternatives withdrawn from further consideration. As described in Section 2-2, the MIS Locally Preferred Alternative was not rejected for merely excessive nonstandard design features. Additionally, it notes lack of operational improvements, poor geometrics, lack of space for future freeway expansion capabilities and local opposition to access road cross-sections as other reasons for rejecting this alternative. Similarly, other alternatives evaluated in the MIS were identified and their reasons for rejection summarized. The DEIR/EIS appropriately incorporates the information and findings of the MIS by reference consistent with Section 15150 in addition to 40 CFR 1502.21.

RH continued

Further, CEQA Guidelines Section 15165 provides that:

"Where individual projects are, or a phased project is, to be undertaken and where the total undertaking comprises a project with significant environmental effect, the lead agency shall prepare a single program EIR for the ultimate project as described in Section 15168 . . .."

Under the Guidelines, the term "project" is defined as "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably indirect physical change in the environment . . . ." Id. at CEQA Guidelines section 15378(a). At the other end of the spectrum, long-range planning proposals are exempt from EIR requirements: "A project involving only feasibility or planning studies for possible future actions which the agency, board, or commission has not approved, adopted, or funded does not require the preparation of an EIR ...." CEQA Guidelines section 15262. 9

The Project is not simply the proposed widening between SR 91 and I-605. Some of this work was done in the Carmenita Project; other parts were done in the HOV Project; still other parts will be done north of the I-605. The Department and the Administration should perform an overall, programmatic review of the I-5 widening project and then analyze various project specific proposals, e.g. the Project at issue, to understand the full scope of the programmatic and project level impacts.

VI. Chapter 3: Environmental Impact Analysis Requires Extensive Revision and Must be Re-Circulated for Public Comment and Review.

A. Chapter 3 Fails to Discuss Adequately the Existing Environment.

CEQA Guidelines section 15125(a) requires:

"An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published . . ..This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to an understanding of the significant effects of the proposed project and its alternatives.

Chapter 3 contains no global description of the Project's environmental setting. Rather, it discusses the Project's environmental setting through various environmental categories, e.g. land use, transportation or air quality, without providing an overall discussion of the Project's existing environment. 10

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RH-9

Please refer to Response EPA-2 regarding independent utility and logical termini, and to Response RH-3 regarding piecemealing of the I-5/Carmenita interchange. HOV lanes identified as part of the Interim HOV project has been included in the alternatives under review in the DEIR/EIS and is not being implemented separately from the proposed project. Improvements on the freeway mainline, north of the I-605, are limited to modifications necessary to transition the widened freeway to the south with the existing lanes north of the I-5/I-605 interchange. No capacity improvements to the I-605 are considered as part of the proposed project evaluated in the DEIR/EIS.

RH-10

Chapter 3 provides an evaluation of the environmental setting consistent with the requirements set forth in 40 CFR 1502.14, the FHWA TA 6640.8A, and Section 15125(a) of the CEQA Guidelines. The setting descriptions provide the reader with an understanding of the baseline conditions by which the Lead Agency is assessing the environmental effects of the Build Alternatives. Section 15125(a) does not specifically require the preparation of a single global description of the environmental setting.

RH continued

B. Chapter 3 Fails to Analyze Adequately Project Impacts and Propose Necessary, Adequate and Feasible Mitigation.

1. Section 3-1 Fails to Analyze the Project's Land Use Impacts Properly and Fails to Propose Adequate and Feasible Mitigation Measures.

Section 3-1 addresses the Project's impact on land use within the Project study area, analyzes the need for mitigation, and discusses the Project's cumulative impacts. However, it fails on both counts.

Section 3-1.3, the impacts analysis, fails for several reasons. First, it fails to address the impacts, if any, of the No Build Alternative. Second, although the analysis of General Plan consistency indicates that Alternative 4 and 5 are inconsistent with the General Plans for various area cities, the DEIR/DEIS fails to recognize any such impacts. Third, the analysis of Redevelopment Plan consistency recognizes some impacts from various alternatives, again the DEIR/DEIS fails to address such impacts. Fourth, although each alternative is inconsistent physically for each jurisdiction, the DEIR/DEIS fails to appreciate such inconsistency. 11

Section 3-1.4 is entitled "Avoidance, Minimization and Compensation Measures." It purports to mitigate the Project's land use impacts. It fails: it simply promises further study, consultation and meetings. As indicated above, this deferral of mitigation of the Project's land use impacts is improper deferral. CEQA requires real mitigation measures which address real impacts. The DEIR/DEIS fails to discuss feasible and adequate real mitigation of the Project's land use impacts.

Section 3-1.5 discusses "Cumulative Impacts." This section states that the Project study area is largely built out and urbanized. "Parcels that may end up unusable may be rezoned as open space." DEIR/DEIS 48. Without more discussion, such is a significant impact. As for the Project's contribution to the cumulative impacts, Section 3-1.5 recognizes that the Project will create land use impact but concludes that the Project's contribution is insignificant. The DEIR/DEIS should be revised to discuss fully the Project's contribution to cumulative land use impacts and, if necessary, propose adequate mitigation. 12

2. Section 3-2 Fails to Analyze the Project's Growth Inducing Impacts Properly and Fails to Propose Adequate and Feasible Mitigation Measures.

Section 3-2 addresses the Project's potential to affect the environment adversely by inducing detrimental growth. The DEIR/DEIS recognizes: 13

"In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public

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RH-11

As described in the Community Impact Assessment, the No Build Alternative includes the Interim HOV improvements. The potential land use impacts of the No Build Alternative were previously addressed in the MND/FONSI for that project. The appropriate discussion from the MND/FONSI has been incorporated into Section 3-1.3. The inclusion of this information provides clarification of previously analyzed impacts and does not alter the conclusions of the DEIR/EIS.

Section 3-1.3 describes how the Build Alternatives are consistent or inconsistent with the adopted General Plans and redevelopment plans and identifies minimization measures to alleviate these inconsistencies. As acknowledged in Section 5-2.2 of the DEIR/EIS, these conflicts cannot be completely mitigated and are considered unavoidable significant impacts under CEQA.

RH-12

As described in Section 3-1.3 in the DEIR/EIS, the project would result in a one-time conversion of land use and would not cause other projects to convert land use to transportation facilities. The widening project, however, would allow for redevelopment of land adjacent to the freeway due to consolidation of remnant parcels or improved access and visibility. The contribution of the Recommended Alternative and other project alternatives to cumulative land use effects is not considered substantial.

In addition, the cities within the I-5 Corridor are urban, mature, and predominantly built out, particularly within the study area. The most common purpose of the project is to redevelop underutilized or blighted areas. It does not appear that small strips of land located immediately adjacent to the I-5 freeway and rezoned as "open space" would be classified as a "significant impact." Caltrans would continue to coordinate with the I-5 JPA, local cities, and affected property owners regarding utilization/redevelopment of properties affected by the widening. Through this coordination, it is expected that property owners adjacent to the right-of-way will retain proper access to their parcels and that remnant property is appropriately consolidated to minimize the creation of unusable parcels that would be economically unviable and could result in blighted conditions.

RH continued

services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way."

DEIR/DEIS 49.

Section 3-2.3 attempts to analyze the Project's growth inducing impacts. However, it fails to consider the appropriate study area: the JPA corridor cities. However, the Project serves the region– Orange and Los Angeles Counties. The Project will facilitate growth within this region. The DEIR/DEIS should be revised to analyze the Project's growth inducing impacts in the Study Area as well within the region.

The DEIR/DEIS states:

"Traditionally, there is a general perception that freeway widening promotes or influences urban growth. This perception is difficult to substantiate in areas that are fully developed in contrast to rural or underdeveloped land areas."

DEIR/DEIS 53. However, this applies only to growth with the Study Area. As indicated above, the Project's impacts on growth will affect the region. More importantly, this ignores the current trend toward re-use or redevelopment. The City of Irvine has recently begun converting its fully developed Irvine Business Complex into several residential villages with the obvious growth. The Project may do the same in the Study Area.

The DEIR/DEIS concludes that:

"The results of our examination of the possible growth inducing impacts of this project were conclusive. There is no supply of developable land in the study area; demand for the development in the study area will remain stable; and there will be a minimal amount of land use intensification with or without widening the freeway."

DEIR/DEIS 53. Based upon this examination, the DEIR/DEIS concludes that the Project will have not significant growth inducing impacts, would require no mitigation and would not contribute to cumulative impacts.

However, as indicated above, the above considerations are incomplete: re-use and redevelopment caused by the Project result in significant growth. Such impact may require mitigation and may contribute to and create cumulatively significant impacts. The DEIR/DEIS should be revised to address such issues and if necessary, propose adequate mitigation.

13

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The construction of the 10-lane facility would be consistent with goals stated in the General Plan for the Cities of Buena Park, Norwalk, and La Mirada. The project is not consistent with the goals stated in the General Plan for the Cities of Downey and Santa Fe Springs, which are not in support of the 10-lane facility with property acquisitions. Caltrans has selected Alternative 4B as the Recommended Alternative, a 10-lane facility that is consistent with the General Plans for Buena Park, Norwalk and La Mirada. Although the Recommended Alternative would be inconsistent with the Downey and Santa Fe Springs General Plans, it has the least property acquisitions of the Alternatives considered in the DEIR/EIS. In particular, 9 full acquisitions and 9 partial acquisitions are planned for the City of Downey, and 14 full acquisitions and 15 partial acquisitions are planned for the City of Santa Fe Springs.

As discussed in Chapter 5 of the DEIR/EIS, both the displacement of substantial numbers of existing housing (which would necessitate the construction of replacement housing elsewhere) and the displacement of substantial numbers of people (which would necessitate the construction of replacement housing) are considered Unavoidable Significant Environmental Effects. Even after the implementation of suggested mitigation measures referenced in Chapter 7 of the DEIR/EIS, these two issues are still considered significant impacts. No other mitigation efforts that will alter the determination as issues with Unavoidable Significant Environmental Effects are recognized at this time.

RH-13
Section 3-2 of the DEIR/EIS addresses the potential growth inducement effects of the Build Alternatives on both a regional and local context. With the exception of the City of Commerce, located north of the project study area, all of the member cities have been identified specifically in the discussion of growth inducement. As discussed in Section 3-2, implementation of any of the Build Alternatives would provide for additional capacity on the freeway through congestion management solutions, changes to the distribution of transit routes and frequency, or additional lanes on the mainline facility.

Future growth within the study area, SR-91 to I-605, and regionally within Los Angeles and Orange Counties is expected to occur and would not be substantially altered from the regional and local growth projections developed by the Southern California Association of Governments by any of the Build Alternatives. Rather, the Build Alternatives would maintain or improve the economic vitality of the cities adjacent and proximate the project study area through: the elimination of the existing bottleneck at the Orange/Los Angeles County line; provision of additional capacity to address current and forecasted freeway demand; improvement in the level of service (LOS) on the freeway mainline in the a.m. and p.m. peak hours; improvement in the design speeds on the mainline from 50 to 70 miles per hour (mph); improvement of the performance of major intersections and interchanges in the corridor; improvement of access to and connectivity with regional transmit and HOV facilities; and reconstruction of roadway over and undercrossings with new signalization and ramp metering that would improve freeway and arterial operation. These improvements to the operation of the freeway and local arterials will provide adequate capacity for existing businesses to retain/expand their customer base and ease implementation of development and redevelopment activities anticipated by the cities in their General Plans and redevelopment plans. As described in Section 3-2.3, based on discussions with local agencies within the study corridor, it is not expected that there would be a substantial change in the existing or planned growth pattern or intensity beyond what is identified in the existing city plans. Any redevelopment within the project study area beyond what is currently anticipated would require review of environmental effects by the applicable Lead Agency and appropriate mitigation identified. Without knowledge of the proposed location, type, or intensity of any such future development, potential growth-inducing effects of the Build Alternatives related to such projects would be speculative.

The commenter describes the urban redevelopment in the City of Irvine as an example of infill redevelopment. The DEIR/EIS identifies this current trend in the City of Irvine. These redevelopment efforts are the result of other factors (e.g., economic conditions and public perceptions) rather than the expansion of an existing freeway.

RH continued

3. Section 3-4 Fails to Analyze the Project's Impacts on Existing Communities, Relocation, Cohesion and Environmental Justice Properly and Fails to Propose Adequate and Feasible Mitigation Measures in any Meaningful Manner.

Section 3-4 discusses the Project's Community Impacts including relocations, character and cohesion, and environmental justice. The analysis falls far short of that required under CEQA.

Regarding Project impacts requiring relocation, Section 3-4 recognizes that virtually all of the alternatives will have such impacts. However, as before, the discussion of mitigation measures is incomplete. State law requires relocation benefits for displaced businesses and residents to the extent feasible. The DEIR/DEIS's analysis of mitigation for relocation stops there. Unfortunately, this is incomplete.

As indicated above, to the extent that property is injured or taken, compensation as well as relocation may be necessary. Where relocation is not feasible, compensation increases.

As to fiscal impacts to local districts and cities as a result of such displacement or relocation, Section 3-4 concludes that relocation benefits do not mitigate the loss of such tax revenue or economic loss. Again, although correct, this is incomplete. If the Department and/or the Administration provide complete relocation for all displaced as a result of the Project, long term revenue and economics will be preserved. 14

To the extent that such relocation is infeasible, the Department and/or the Administration should consider design changes which could serve to balance–in a rough and ready fashion– such losses. For instance, the Project could include more opportunities for commercial development along the Project and more access to such development.

Regarding the Project's impacts on community character and cohesion, Section 3-4.3 recognizes that, with the exception of Alternative 2, the Project has the potential to create significant impacts and disruption of the community character and cohesion both during construction and during the operation of the Project. This disruption includes displacement of existing businesses and residences.

However, Section 3-4.2.4 fails to provide adequate and feasible mitigation of such impacts. First, it fails to address displacement of businesses and residences. Second, it offers only general and cursory mitigation measures which would provide information about dealing with the disruptions. Such information will not mitigate the disruption. Third and importantly, prior to and during construction, Section 3-4.2.4 requires that Caltrans will meet with businesses and residential owners to learn about their operations and needs, and to develop construction management plans and construction traffic management plans. Those plans can and should be 15

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RH-14
Where acquisition of property cannot be avoided, Caltrans will follow the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) of 1970 and the 1987 Amendments as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs. Compliance with the Uniform Act requires relocation and appropriate compensation.

It is true that displacement of businesses would affect the local tax revenue, particularly if these businesses are relocated outside the city in which they currently reside in the study corridor. The Preferred Alternative results in the least full and partial business acquisitions of the Build Alternatives under review. As part of the relocation process, Caltrans will work to retain these businesses within their current city or the project study area. It is acknowledged that redevelopment of remnant parcels and other parcels adjacent or proximate to the freeway may occur providing there are additional opportunities to relocate businesses within their communities.

RH-15
As discussed in Section 3-1.3, the Preferred Alternative (Alternative 4B) would require the removal of 12 commercial properties on Firestone Boulevard on the south side of I-5. This would create an approximately 1.1-kilometer (km) (0.7-mile [mi]) long stretch of vacant land between Coyote Creek on the east and Valley View Avenue on the west. This stretch of vacant land includes the full acquisition of all of the businesses within the La Mirada Business Center at 14670 Firestone Boulevard. West of Valley View Avenue, Alternative 4B would also require the full acquisition of the Meyer Properties Business Park (14060 Firestone Boulevard), creating an additional approximately 0.4 km (0.25 mi) long stretch of vacant land along Firestone Boulevard. The properties on Firestone Boulevard adjacent to I-5 are located within areas designated for commercial freeway development. Many of the properties are large and can be reconfigured and resold after construction of the project, maintaining the pattern of commercial freeway development on Firestone Boulevard. If not resold for private development, the land could be used as a community amenity for landscaping, etc. Therefore, it is not anticipated that these full acquisitions would result in long-term land use impacts through the creation of incompatible vacant land. In addition,

Alternative 4B will have full acquisitions of 33 single-family residences in the City of Norwalk on the east side of I-5 between Dinard Street and the Ranch Market Strip Mall at Rosecrans Boulevard that would create a strip of vacant land between the single-family neighborhood and the freeway. If the parcels were reconfigured and resold after project completion, the acquisitions would not alter the existing land use pattern.

As discussed in Section 3-4.2.4, prior to and during construction, Caltrans staff will contact and interview individual businesses potentially affected by construction activities to assess specific needs for normal business activities. Information gathered from interviews would be used to develop the construction traffic control plans and alternate access routes during construction activities. Caltrans plans to inform potentially affected parties of its progress in implementing the measures selected in the traffic control plan through periodic project newsletters sent to businesses, residents, and property owners within close proximity to the project. Additional mitigation measures will be implemented to minimize Community Impacts during construction activities. These mitigation measures include:

- Neighborhood disruptions would be minimized by attempting to maintain pedestrian access points to businesses within construction areas. If normal access points are lost, an alternative access to the affected parcel will be provided. Appropriate signage would be placed to inform the public of access to local businesses, and temporary sidewalks, if necessary, will be installed during the construction phase. Disabled access shall be maintained during construction activities.
- During construction, a field office will be established near the construction site. The field office will assist the community and businesses with a physical location within which information pertaining to construction can be exchanged, to aid Caltrans staff in a better understanding of community and business needs during construction activities, to notify appropriate parties regarding major construction activities, to respond to phone inquiries, and to coordinate business outreach programs.
- Construction disruptions would be minimized by coordinating with the local jurisdictions to mitigate parking losses to businesses. Caltrans will consult with businesses whose parking would be affected during construction. If space is available in another location, alternative parking spaces may be provided as mitigation. Access to off-street parking would be maintained. If parking areas are sufficiently distant from businesses or if there is a temporary closure of a pedestrian overcrossing (e.g., the Silverbow Avenue pedestrian overcrossing), a shuttle service may be provided to transport community residents to and from their desired locations.
- As stated above, a Traffic Management Plan addressing local detours and road closures would be implemented to minimize potential impacts to roadside businesses. To prevent consecutive ramp closures, minimize traffic congestion during construction, minimize impact to the residents and businesses within the communities, and limit the size of construction contracts to a manageable level during the 5.5-year construction period, the project will be constructed in six segments.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) of 1970 (Public Law 91-646, 84 Stat. 1894) mandates that certain relocation services and payments by Caltrans be made available to eligible residents, businesses, and nonprofit organizations displaced by its projects. The Uniform Act provides for uniform and equitable treatment by federal or federally assisted programs of persons displaced from their homes, businesses, or farms, and establishes uniform and equitable land acquisition policies.
- The types of payments available to businesses include moving expenses for the following actual reasonable costs:
    - Moving inventory, machinery, equipment, and similar business-related personal property and dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting personal property;
    - Losing tangible personal property;
    - Locating a new business site; and
    - Reestablishing the new business operation.
- Payment in lieu of moving expenses is available to businesses that are expected to suffer a substantial loss of existing patronage as a result of the displacement or that are unable to find a suitable relocation site.

- Where acquisition and relocation are unavoidable, Caltrans would follow the provisions of the Uniform Act and the 1987 Amendments as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs.
- In the event that such replacement housing is not available to "rehouse" persons displaced by the project within statutory limits for replacement housing payments, Caltrans may provide Last Resort Housing in a number of prescribed ways.
- As discussed in Section 3-4.3, the project would be constructed in six segments to minimize Community Impacts during construction activities. The mitigation measures related to construction management and construction traffic management within the study area adequately describe the strategies that will be employed to address construction-related issues. The specifics of the Construction Management and Construction Traffic Management Plan would be developed once the Recommended Alternative is identified and final design is initiated.

RH continued

developed now; the DEIR/DEIS should include such plans for public review, analysis and comment. 15

As to the Project's impacts on environmental justice or on minority and low income communities, Section 3-4.3.3 recognizes that the Project will significantly affect these groups by displacing such groups in Downey and Norwalk. Unfortunately, the DEIR/DEIS offers no mitigation for such impacts.

Section 3-4.3.3 offers mitigation for the Project's impacts on minorities and low income communities including relocation assistance. However, this section recognizes that, in Santa Fe Springs, no relocation opportunities were available but it notes that fortunately the dislocation would affect less than 10 residences. It is far from clear whether this impact on 10 residences in Santa Fe Springs constitutes a significant impact on minorities and low income communities. 16

Section 3-4.3's discussion of impacts and mitigation must be revised to analyze fully Project impacts on the community and to provide adequate and feasible mitigation.

4. Section 3-6 Fails to Analyze Properly the Project's Impacts on Traffic and Transportation including Pedestrians and Bicyclists, and Fails to Propose Meaningful Mitigation.

Section 3-6 analyzes the Project's impacts on traffic and transportation. Most of the analysis focuses upon the current and projected traffic demands in and along the I-5 corridor and provides little analysis of the Project's actual traffic impacts with one exception. Section 3-5 recognizes that Alternative 1, the No Build Alternative with the HOV Project, will create traffic problems throughout the corridor because project (and maybe current) traffic demand exceeds the capacity of this Alternative.

One would expect that mitigation for such impact would be to conclude that other alternatives, e.g. Alternatives 4 or 5 with their increased capacity, could and would mitigate such impacts. Such analysis could lead to the determination of a preferred alternative. However, the DEIR/DEIS fails to draw this conclusion. The DEIR/DEIS should be revised to address these issues and propose actual and feasible mitigation. 17

Section 3-6.1 discusses the existing environment including existing traffic volumes. Under existing conditions, Section 3-6.1 notes that the January 2005 Traffic and Transportation Study was updated using more current traffic volumes. However, this is incomplete.

The Administration commented on the 2005 Study and stated:

"The existing traffic analysis is based on constrained volume, rather than demand volume. Thus traffic counts are artificially low. According to the published

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RH-16

As discussed in Chapter 5 of the DEIR/EIS, both the displacement of substantial numbers of existing housing (which would necessitate the construction of replacement housing elsewhere) and the displacement of substantial numbers of people (which would necessitate the construction of replacement housing) are considered Unavoidable Significant Environmental Effects. Even after the implementation of suggested mitigation measures referenced in Sections 3-4, 3-6, 3-12, 3-13, and 3-14 of the DEIR/EIS, these two issues are still considered significant impacts. No other mitigation efforts have been identified that will alter this significance determination. For additional discussion on mitigation measures to prevent environmental justice impacts within the affected population, please refer to Response EPA-29.

Please refer to Responses RH-14 and RH-15, which address the concerns raised by the commenter on the DEIR/EIS assessment of community impacts and mitigation.

Since the project proposes redevelopment, displacement of existing uses is not anticipated for this project. Therefore, the I-5 Widening Improvement project Build Alternative 4B, when considered with other projects, would not contribute to substantial cumulative adverse impacts related to Environmental Justice in the study area.

RH-17

The proposed project would not generate traffic, but would facilitate the redistribution of existing and future traffic demand to a proposed enhanced-capacity regional facility. Impacts that have been disclosed in the Traffic and Transportation Study (LSA, January 2005) are a result of regional traffic growth and are not directly attributable to project implementation. Table 3-6.18 in the DEIR/EIS shows a comparison of amount of impacts to freeway segments and ramp terminal/adjacent intersections between Alternatives. None of the Alternatives will mitigate impacts to an acceptable LOS and there are no mitigation measures for mainline congestion besides the improvements proposed as part of the project. The recommended alternative is 4+1. Although this Alternative does not provide the best overall traffic operations, it was selected based on numerous factors, including community impacts in addition to traffic improvements.

RH continued

guidance in Caltrans' *Base Design Principles*, dated January 2000, page 8 . . . ". . . on urban freeways, the two-way Design Hourly Volume (DHV) ranges from 7 to 18 percent of Average Annual Daily Traffic (AADT) with an average of about 11 percent." We request that the traffic volumes at all locations reflect 11% of 2004 AADT."

The Department's 2006 update notes that:

"Although the FHWA comment requested 11 percent of the AADT be used, application of 11 percent AADT resulted in unrealistically high existing traffic volumes when compared to existing traffic counts taken on I-5 just south of the project. . . . Caltrans District 7 presented this data to FHWA at the Project Development Team meeting of May 9, 2006; FHWA agreed that 8.5 percent was a more realistic value." .

None of this is clear: Is the area south of the Project the appropriate study area to determine demand volume? If 11% is too high, how did the Department and the Administration arrive at the compromise percentage of 8.5%? This value remains in the low range established by the Department. What other factors went into the Department's and the Administration's agreement that 8.5% was appropriate? 17

Much of the impacts analysis discusses the tremendous traffic demand and limited traffic capacity along the I-5 corridor. Section 3-6.4 discusses this problem as well. However, very little discussion in Section 3-6.4 addresses and/or attempts to mitigate the Project's traffic impacts, e.g. operational impacts or construction impacts.

Further, Section 3-6.4 recognizes that the Project will create a potentially significant impact on pedestrians by eliminating during a period of construction the Silverbow Avenue pedestrian overcrossing. Ultimately, this impact is only temporary because the Project includes construction of an alternative overcrossing at Buell and Cecilia. Mitigation for this impact is to provide special buses or shuttles to carry pedestrians and others across the freeway right of way.

However, other more feasible and less expensive mitigation should be considered. For instance, the DEIR/DEIS should be revised to consider construction phasing of these overcrossings so that one will always be operational as proposed in connection with the demolition and reconstruction of soundwalls along the corridor or consider the installation of an undercrossing during the construction process.

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As discussed in the Traffic and Transportation Study Technical Addendum, August 2006, the peak-hour volume of 8.5 percent of AADT was concurrently accepted to be a more realistic value by all the representative members from Caltrans as well as FHWA at the Project Development Meeting (PDT) on May 9, 2006.

The peak-hour volume factor of 8.5 percent of the AADT was estimated based on actual counts conducted along the I-5 freeway segment collected by Caltrans. The section of the freeway (I-5) just south of the project was selected because it is a widened section with greater capacity and less capacity constraint. Review of existing traffic counts taken along these widened freeway segments (unconstrained capacity) showed that the peak-hour volume was between 6 percent and 7 percent of the AADT.

Based on the peak-hour volume percent estimates along the I-5 freeway, the members of the Project Development Team (including Caltrans and FHWA) decided to adopt a peak-hour factor of 8.5 percent of AADT, which is a conservative factor considering the fact that it was being applied to a capacity-constrained freeway segment (project).

Impacts to vehicles and pedestrian traffic will be addressed in the Traffic Management Plan.

RH continued

5. Section 3-7 Does not Fully Assess and Evaluate the Project's Aesthetic Impacts and Does Not Provide Adequate Mitigation.

Section 3-7.3 recognizes that, although few scenic resources exist in the Study Area, the Project may nonetheless create aesthetic impacts including remnant parcels which could create blight and construction light and glare. However, it states:

> "None of the proposed alternatives would have long-term adverse visual impacts, based on an analysis of the effects of property acquisitions on the landscape and the changes in key views due to project components."

DEIR/DEIS 129.

Nonetheless, Section 3-7.4 which addresses mitigation measures states:

> "The proposed project would create a transportation structure that may be up to twice as large as the existing system. In order to minimize the adverse visual impact, landscaping would be important in providing screen, buffer and visual interest for viewers. A comprehensive aesthetic treatment and design plan covering soundwalls, median barriers and structures would help improve visual impact."

Id.

This is inconsistent with the DEIR/DEIS' statement that "[n]one of the proposed alternatives would have long-term adverse visual impacts." The DEIR/DEIS should be revised to discuss fully the Project's visual impacts and provide necessary mitigation including providing a mature landscape palette. 18

As for visual impacts due to remnant parcels, Section 3-7.4 states that these will be "absorbed" by adjacent parcels. It is unclear that state law allows this absorption. The Eminent Domain Law authorizes the sale of excess acquisitions but it is unclear that such sales will occur.

The DEIR/DEIS should be revised to prepare a discussion and evaluation of the size and nature of such excess parcels and provide some idea of pricing. Perhaps, such parcels could be offered to adjacent landowners in mitigation for Project related impacts. Or, such parcels could be offered to the various cities for small pocket parks with suitable protection from the Project impacts including air quality impacts. 19

As for visual impacts due to construction light and glare, Section 3-7.4 states that the Project will employ appropriate screening during construction. However, this fails to address the full light and glare impacts. 20

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RH-18
A corridor aesthetic master plan was developed for the I-5 corridor entitled," Aesthetic Themes and Concepts I-5 Corridor Improvement Project" the plan details bridge aesthetics, wall aesthetics and landscape treatment, etc., for the corridor. The aesthetic master plan is the result of three years inter-governmental, inter-agency and public/private effort. The plan represents the community's values toward aesthetics. This comprehensive aesthetic master plan when implemented will enhance the special identity of the corridor, with unique patterns for walls, bridges, fences and landscaping to mitigate the impact of widening the freeway.

Add some language of operational light and glare impacts.

RH-19
Excess land that is acquired will be sold off in accordance with California Law. Parcels are offered for sale at market prices. Excess may be exchanged with impacted properties to offset (mitigate) the project impacts. Park uses may be established though a "Porter Bill Lease", in accordance with California Law.

RH-20
Caltrans contractors engaged in nighttime construction work must comply with California Division of Occupational Safety and Health Construction Safety Orders, Subchapter 4. Construction Safety Orders Article 3. General (b) which states," *Nighttime highway construction work lighting shall be provided within the work zone to illuminate the task(s) in a manner that will minimize glare to work crews and not interfere with the vision of oncoming motorists (e.g. providing screens, mounting lamps below the top edge of the barrier wall, varying the beam angle, etc.)"*

RH continued

Section 3-7.3 discusses such impacts and notes that construction lighting could shine into adjacent residences. However, as also noted above, some of the alternatives may double the size of the freeway. The result will be new and adverse light and glare impacts from motorists and others on residences which will now abut the freeway. That is, the Project will result in significant light and glare impacts in its operation as well as during construction. Section 3-7.4 should be revised to mitigate the light and glare impacts as a result of the operation of the Project. 20

6. Section 3-9 on Hydrology Does not Fully Assess and Evaluate the Project's Impacts on Hydrology and Does Not Provide Adequate Mitigation.

Section 3-9 discusses the Project's impacts on hydrology and water resources. Section 3-9.2 states that the Project lies within

> "[T]he Central Basin of the Los Angeles Coastal Plain and the Santa Ana Pressure groundwater sub-basin of the Lower Santa Ana Watershed groundwater basins."

DEIR/DEIS 132. The Central Basin is an adjudicated basin and it is unclear whether the Santa Ana River sub-basin lies within the control or authority of the Orange County Water District. The DEIR/DEIS should be revised to locate and characterize the relevant groundwater basin. 21

Setion 3-9.3 states that "[t]he risk associated with the proposed project is low." DEIR/DEIS 133. This section continues that localized flooding may occur during heavy rainfall. It further states:

> "It is anticipated that the groundwater levels would be high (shallow). However, construction of this project should not have an impact on groundwater."

Section 3-9.4 which addresses mitigation contradicts this conclusion. First, it states that: 22

> " In areas of shallow groundwater, the placing of subdrains or utilizing groundwater pumps would drain freestanding water."

DEIR/DEIS 133. Further, it notes:

> "For construction purposes, any intercepted groundwater flow would require the construction of a system to collect and dispose of the water in an appropriate and approved way."

At the very least, Section 3-9.4 recognizes and attempts to mitigate the Project's impacts on groundwater: both construction de-watering activities as well as de-watering activities associated with the operation of the Project. 23

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RH-21
Comment noted

RH-22
This statement has been revised to clarify the fact that there is no change in groundwater levels as a result of the Preferred Alternative. The proposed subdrains would contribute to improving drainage and this is not a substantive contradiction.

RH-23
This project will incorporate de-watering improvements to enhance the existing and well-established drainage problems in this very flat area which has high groundwater levels. Section 3-9.4, when reviewed in its entirely, documents the Caltrans conclusions regarding the low risk associated with the project as it relates to impacts to groundwater levels. No revised analysis is necessary.

RH continued

Unfortunately, these mitigation measure–the de-watering– create their own impacts: the Department and/or the Administration will be producing groundwater in an area where it is unclear it can do so lawfully and without any impact to adjacent water producers.

The DEIR/DEIS should be revised to discuss and analyze fully the character of the groundwater resources in the Study Area, determine any and all restrictions and limitations to such Project related activities and, if necessary, produce necessary and feasible mitigation measures. 23

Section 3-9.5 discusses cumulative impacts. It states:

"Recent regulations require certain categories of redevelopment projects to implement best management practices (BMPs) to reduce storm water runoff and treat it before its discharge to receiving waters or the storm drain system. These regulations benefit hydrology of an area by reducing peak storm flows."

DEIR/DEIS 134. This discussion is confusing. It is true that storm water regulations increasingly require initial storm flows to be retained on site and some flows be treated before discharge. However, in larger storm events, such measures will not reduce peak storm flows and may even exacerbate such flows if such features fail at the height of a storm event. This discussion should be revised to discuss and analyze fully the cumulative impacts of the development in the Study Area and the Project for creating cumulative hydrologic adverse effects on the Study Area. 24

7. The DEIR/DEIS Does not Fully Assess and Evaluate the Project's Noise Impacts and Does Not Provide Adequate Mitigation.

Section 3-14 discusses the Project's potential noise impacts. Section 3-14.2 recognizes that the Study Area is primarily residential with commercial and other uses interspersed. It notes that: "[e]xisting peak-hour noise levels along the project alignment range from 59 to 77 dBA." Unfortunately, Section 3-14.2 fails to discuss the source of this noise, although Section 3-14.3 states that this noise may come from the freeway operating at LOS F. 25

Section 3-14.3 discusses the nature of the noise impacts from the Project. It recognizes that the Project will create significant noise impacts due to construction of the Project and the operation of the Project.

Second 3-14.4 proposes mitigation for the operational impact by proposing installing soundwalls at appropriate locations. It concludes: 26

"A final decision on the installation of abatement measures would be made upon completion of the design process and the public involvement process."

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RH-24

Caltrans stands by the conclusions of Section 3-9.5 related to cumulative impacts. Caltrans Hydraulics Engineering Specialists will be working closing with the corridor cities and the local drainage agencies to upgrade drainage facilities on an as needed basis, to prevent localized flooding. The Preferred Alternative will not have a cumulative impact on the area hydrology or floodplains. Additional analysis would not contribute any meaningful information to this EIR/EIS decision making process.

RH-25

Please refer to Response RH-7 regarding final noise barrier locations. Depression of the mainline freeway facility to reduce potential noise impacts is not considered feasible as it would require substantial excavation of soil and retention of slopes to limit the impacts to adjacent properties, both of which would significantly increase the cost of the project.

RH-26/27

Please refer to Response RH-7 regarding final noise barrier locations. This Final EIR/EIS is a decision making document that anticipates that all the proposed soundwalls will be constructed. No noise abatement mitigation has been identified as infeasible. No additional compensation to property owners for noise impacts is contemplated or mandated. If, during the subsequent completion of the design and public involvement process, occupants of noise sensitive receptors decide that they do not want a soundwall because of visual or other conflicts at a particular location, there is a potential that some soundwalls may be deleted from the project. This is a very unlikely possibility, given the topography of the area.

RH continued

DEIR/DEIS 192. This raises several problems. First, as indicated above, CEQA requires that all feasible mitigation measures appear in the DEIR. To delay until some future event impermissibly defers mitigation.

Second, it is unclear that this final decision or other standards will mitigate all noise impacts by application of the Department's standards for soundwalls. If various areas fall short, they will not receive appropriate mitigation and must bear the noise impacts. Of course, as noted above, such property owners may receive compensation for these significant and unmitigated noise impacts. 26

Moreover, mitigation is feasible and available. The DEIR/DEIS should consider other design features including placing the Project significantly below grade so that the noise would not escape the right of way and spill on adjacent residences and businesses.

The DEIR/DEIS should be revised to discuss and consider these impacts and mitigation measures. 27

C. The DEIR/DEIS Does not Assess and Evaluate the Project's Impacts on Global Warming.

The DEIR/DEIS fails to discuss or even consider the Project potential to create significant impacts on global warming. In March 2006, the California Attorney General submitted comments on the Orange County Transportation Authority's Draft Program Environmental Impact Report for OCTA's 2006 Long Range Transportation Plan and argued that the Program EIR needed to address the Program's potential to affect global warming. Ultimately, the parties resolved their dispute and OCTA agreed to include discussion of their Program's potential to affect global warming. See Exhibit "A."

Here, the Department and the Administration make the same mistake: the DEIR/DEIS contains no discussion of the Project's potential to affect or impact climate change and global warming. The DEIR/DEIS should be revised to consider and discuss this issue, and if necessary, propose adequate mitigation. 28

VII. Conclusion: The DEIR/DEIS is Seriously Flawed; It Must be Revised and Re-Circulated for Public Review and Comment.

As indicated throughout, the DEIR/DEIR is inadequate for a whole host of reasons: it fails to explain the full Project; it fails to analyze the impacts of the full Project on land use, growth, communities, traffic and transportation, aesthetic resources, hydrology, noise and global warming. In addition, we reserve the right to supplement these comments in the hearing process on the DEIR. 29

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RH-28

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. In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and proactive approach to dealing with GHG emissions and climate change at the State level. AB 1493 requires the Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions; these regulations will apply to automobiles and light trucks beginning with the 2009 model year.

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 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 ARB create a plan that includes market mechanisms and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-17-06 further directs State agencies to begin implementing AB 32, including the recommendations made by the State's Climate Action Team.

According to the IPCC report, Climate Change 2007: The Physical Science Basis: Summary for Policymakers (February 2007), there is no doubt that the climate system is warming. Global average air and ocean temperature as well as global average sea levels are rising. Of the last 12 years, 11 years have ranked as among the warmest on record since 1850. While some of the increase is explained by natural occurrences, the 2007 report asserts that the increase in temperatures is very likely (> 90 percent) due to human activity, most notably the burning of fossil fuels.

RH continued

Ron Kosinski, Deputy District Director - 18 - January 5, 2007

For all of these reasons and others that may be presented at the hearings on the DEIR/DEIS, it should be totally revised to address these and other concerns and then re-circulated for public comment. } 29

Again, thank you for the opportunity to comment on the captioned DEIR/DEIS for the captioned Project. We look forward to participating the in the public hearing process, receiving responses to these and other comments, and commenting on those responses at the appropriate public hearings. Of course, should you have any questions, please do not hesitate to contact us.

Sincerely,

LAW OFFICES OF ROBERT C. HAWKINS

By: Robert C. Hawkins

RCH/kw

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For California, similar effects are described in the California Climate Change Center report, Our Changing Climate: Assessing the Risks to California (July 2006). Based on projections using state-of-the-art climate modeling, the temperatures in California are expected to rise between 3°F to 10.5°F by the end of the century depending on how much California is able to reduce its GHG emissions. The report states that these temperature increases will negatively impact public health, water supply, agriculture, plant and animal species, and the coastline.

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 emission reductions and climate change. According to a recent white paper by the Association of Environmental Professionals, "an individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases."

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 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, Caltrans has created and is implementing the Climate Action Program at Caltrans (December 2006).

One of the main strategies 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 mph) and speeds over 55 mph. Relieving congestion by enhancing operations and improving travel times in high congestion travel corridors will lead to an overall reduction in GHG emissions. The proposed I-5 Widening Improvement project is designed to reduce congestion and/or vehicle time delays as described in the DEIR/DEIS.

RH continued

EXHIBIT "A"

Table A shows the existing (2000), Opening Year (2013) and Horizon Year (2030) vehicle hours traveled (VHT) for the No Build and various Build Alternatives both for the I-5 freeway and for major and mixed roadways in the vicinity of the I-5 freeway.

Table A: Project and Regional VHT

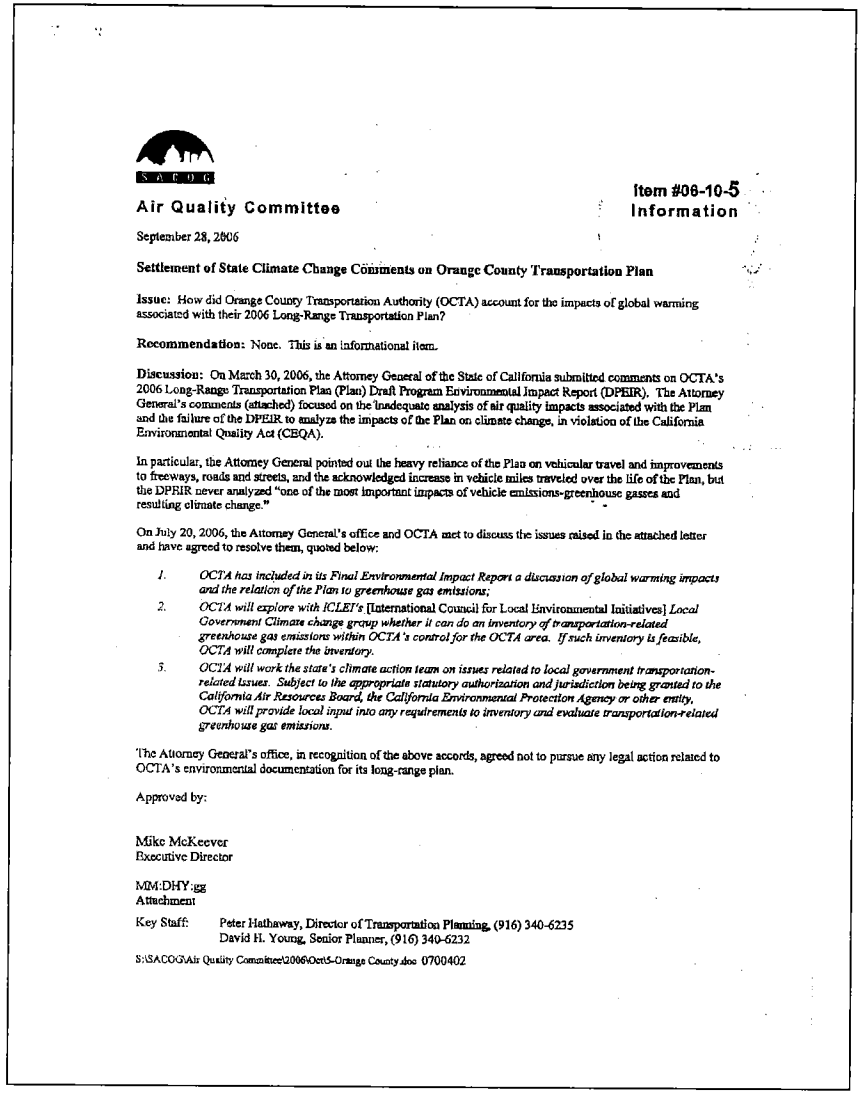
VHT				
I-5	No Build	Alt 4A	Alt 4B	Alt 5A
2000	38,976	38,976	38,976	38,976
2013	42,667	42,601	41,882	41,741
2030	47,494	47,341	45,681	45,358
Other Facilities				
Major	**No Build**	**Alt 4A**	**Alt 4B**	**Alt 5A**
2000	172,692	172,692	172,692	172,692
2013	198,210	195,818	195,548	195,146
2030	231,579	226,060	225,437	224,509
Mixed	**No Build**	**Alt 4A**	**Alt 4B**	**Alt 5A**
2000	278,557	278,557	278,557	278,557
2013	292,061	290,446	290,486	290,130
2030	309,719	305,994	306,086	305,263

Source: Caltrans Traffic Data, March 2007.

Note that all the Build Alternatives show a reduction in VHT over the No Build Alternative on the I-5 freeway and also show a reduction on the surrounding roadways. Due to this reduction in VHT and improved traffic flow, carbon dioxide emissions would be reduced despite what may be an increase in vehicle miles traveled (VMT).

Emissions modeling conducted for this project shows increased emissions of carbon dioxide in all Build Alternatives compared to the No Build Alternative due to the large increases in VMT as a result of the improved traffic operations. Caltrans recognizes the concern that carbon dioxide emissions raise for climate change. However, modeling and gauging the impacts

RH continued



SACOG

Air Quality Committee

Item #06-10-5
Information

September 28, 2006

Settlement of State Climate Change Comments on Orange County Transportation Plan

Issue: How did Orange County Transportation Authority (OCTA) account for the impacts of global warming associated with their 2006 Long-Range Transportation Plan?

Recommendation: None. This is an informational item.

Discussion: On March 30, 2006, the Attorney General of the State of California submitted comments on OCTA's 2006 Long-Range Transportation Plan (Plan) Draft Program Environmental Impact Report (DPEIR). The Attorney General's comments (attached) focused on the inadequate analysis of air quality impacts associated with the Plan and the failure of the DPEIR to analyze the impacts of the Plan on climate change, in violation of the California Environmental Quality Act (CEQA).

In particular, the Attorney General pointed out the heavy reliance of the Plan on vehicular travel and improvements to freeways, roads and streets, and the acknowledged increase in vehicle miles traveled over the life of the Plan, but the DPEIR never analyzed "one of the most important impacts of vehicle emissions-greenhouse gasses and resulting climate change."

On July 20, 2006, the Attorney General's office and OCTA met to discuss the issues raised in the attached letter and have agreed to resolve them, quoted below:

1. *OCTA has included in its Final Environmental Impact Report a discussion of global warming impacts and the relation of the Plan to greenhouse gas emissions;*
2. *OCTA will explore with ICLEI's* [International Council for Local Environmental Initiatives] *Local Government Climate change group whether it can do an inventory of transportation-related greenhouse gas emissions within OCTA's control for the OCTA area. If such inventory is feasible, OCTA will complete the inventory.*
3. *OCTA will work the state's climate action team on issues related to local government transportation-related issues. Subject to the appropriate statutory authorization and jurisdiction being granted to the California Air Resources Board, the California Environmental Protection Agency or other entity, OCTA will provide local input into any requirements to inventory and evaluate transportation-related greenhouse gas emissions.*

The Attorney General's office, in recognition of the above accords, agreed not to pursue any legal action related to OCTA's environmental documentation for its long-range plan.

Approved by:

Mike McKeever
Executive Director

MM:DHY:gg
Attachment

Key Staff: Peter Hathaway, Director of Transportation Planning, (916) 340-6235
David H. Young, Senior Planner, (916) 340-6232

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associated with an increase in GHG levels, including carbon dioxide, and the effect on climate change would be purely speculative. No federal, State or regional regulatory agency has provided methodology or criteria for GHG emission and climate change impact analysis. Therefore, Caltrans is unable to provide a conclusion regarding the project's contribution to climate change. Additional discussion regarding GHG emissions has been added to Section 3-13.2 of the DEIR/EIS. This text clarifies the information in the DEIR/EIS and does not alter the conclusions of the DEIR/EIS.

Two of the most effective means to reduce GHG emissions from transportation are outside of the direct control of Caltrans. The most direct approach to improving the energy efficiency of the transportation sector is to increase vehicle fuel economy in new cars, and light- and heavy-duty trucks. Caltrans does not control the fuel economy standards; the EPA and ARB have that control. Caltrans does, however, continue to be actively involved on the Governor's Climate Action Team as ARB works to implement AB 1493 and AB 32. The second approach is to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, transit-oriented development, and high density housing along transit corridors. As part of the Climate Action Program at Caltrans (December 2006), Caltrans will work closely with local jurisdictions on planning activities; however, Caltrans does not have local land use planning authority.

Caltrans and its parent agency, the Business, Transportation, and Housing Agency, will continue to address GHG emission reductions through the following strategies in the Climate Action Program:

- **Improve Transportation Energy Efficiency.** Builds on current efforts to provide a framework for expanded and new initiatives including incentives, tools, and information that advance cleaner transportation and reduce climate change emissions.

- **Smart Land Use and Intelligent Transportation Systems (ITS).** Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced

RH continued

LAW OFFICES OF ROBERT C. HAWKINS

January 12, 2007

Via e-mail (Ron.Kosinski@dot.ca.gov), Facsimile and U.S. Mail

Ron Kosinski, Deputy District Director
Division of Environmental Planning
Department of Transportation, Division Seven
100 South Main St., Ste. 100
Los Angeles, California 90012

Re: **The California Department of Transportation's ("Caltrans" or the "Department") and the Federal Highway Administration's (the "Administration") Draft Environmental Impact Report and Environmental Impact Statement ("DEIR/DEIS" or the "Environmental Document") and Section 4(f) Evaluation for proposed Interstate 5 Corridor Improvement Project (the "Project")**

Greetings:

Thank you for the opportunity to provide these further and supplemental comments on the captioned document for the Project. As we indicated in our January 5, 2007 comment letter on the captioned DEIR/DEIS for the Project, this Firm represents residents, businesses, interested parties, and interested groups in the Project area. This letter adds to and supplements our January 5, 2007 comments.

I. For Additional Reasons, Chapter 3: Environmental Impact Analysis Requires Extensive Revision and Must be Re-Circulated for Public Comment and Review.

A. Section 3-12 Fails to Analyze the Project's Hazardous Materials Impacts Properly and Fails to Propose Adequate and Feasible Mitigation Measures.

Section 3-12 addresses the Project's impact on hazardous waste and materials. Based upon an initial site assessment conducted in 2004, Section 3-12 .2 discusses the Study Area and notes that various parcels may be affected lead, lead paint, asbestos, and commercial and industrial contaminants. } 30

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technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods, and services. Governor Schwarzenegger is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote—through state investments, incentives and technical assistance—land use and technology strategies that provide for a prosperous economy, social equity, and a quality environment. Smart land use, demand management, ITS, and value pricing are critical elements in this plan for improving mobility and transportation efficiency. Specific strategies include: promoting jobs/housing proximity and transit-oriented development; encouraging high-density residential/commercial development along transit/rail corridors; valuing and congestion pricing; implementing intelligent transportation systems, traveler information/traffic control, and incident management; accelerating the development of broadband infrastructure; and comprehensive, integrated, multimodal/intermodal transportation planning.

RH-29

The comment is a summary of issues discussed in detail later in the comment letter. Please refer to Response RH-2 regarding project baseline and project description/objectives information. Please refer to Response RH-10 through RH-20 regarding land use, growth, communities, traffic, aesthetics, hydrology, and noise. Please refer to Response RH-28 regarding global warming issues. As described in the responses, none of the comments raised new issues or modifications to existing data or analyses that require recirculation of the DEIR/EIS.

RH-30

The DEIR/DEIS, according to the ISA prepared for the project, identifies properties that currently have the potential to be contaminated with hazardous materials, including hazardous materials that may affect groundwater. The exact sources of contamination are not known at this time and will require further investigation through a Phase II Site Investigation. A Phase II Site Investigation will be performed once a preferred alternative has been approved.

RH continued

However, Section 3-12.3 which discusses Project impacts notes that "[r]egional groundwater contamination may affect the project area." DEIR/DEIS 145. However, Section 3-12.2 which discusses the Project setting or environment fails to mention or discuss this regional groundwater contamination or its constituent contaminates. 30

Moreover, Section 3-12.4 further identifies over twenty parcels which may be affected by some form of hazardous waste or contamination. It also notes recommendations for further study. Much of this material is not for "further study" but rather for mitigation. For instance, Site S-4 in Santa Fe Springs is Santa Fe Nissan. For this site, Table 3-12.2 states that "[r]esidual soil contamination may be encountered." It recommends: "Perform further SI. Conduct further inquiry into pipeline leak." Or again, for Site C-6, Table 3-12.2 states that: "Moderate amounts of residual contamination exist at the site, and may be encountered during construction." For Site C-6, the table recommends:

> "SI [site investigation] may be necessary to adequately define the limits of contamination. It is also recommended, that if an SI is not performed, environmental monitoring be implemented during construction." 31

DEIR/DEIS 147. Table 3-12.2 is replete with similar notations and recommendations.

This is inadequate. As indicated above, for mitigation, CEQA requires more than investigation and/or monitoring. Rather, it requires concrete and enforceable measures which will mitigate any such impacts.

The DEIR/DEIS fails to provide such mitigation. Further, as discussed below, the DEIR/DEIS fails to discuss fully any mitigation measures. Rather, it includes forms which attempt to discuss such measures as part of the mitigation monitoring program in Chapter 7. Under CEQA, this list of measures in the mitigation monitoring program is inadequate because it fails to discuss how such mitigation will actually address, alleviate or lessen such impacts. 32

B. Section 3-13 Fails to Analyze Adequately the Project's Impacts on Air Quality and Fails to Discuss Adequate and Feasible Mitigation Measures.

Section 3-13 discusses the Project's impacts on air quality within the Study Area. Section 3-13.2 recognizes that the Project Study Area lies within the South Coast Air Basin which is in non-attainment for carbon monoxide (CO), Ozone (1-hour and 8-hour), particulate matter ($PM_{2.5}$), and particulate matter (PM_{10}).

Section 3-13.3 discusses the Project's air quality impacts. It concludes that the Project will not create significant air quality impacts. For CO, it states:

> "It should be noted that although traffic volumes are expected to increase from their existing levels, the decrease in emission factors due to improved technology 33

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RH-31

For the purposes of this environmental document, identification of possible contamination sources is adequate. Once a preferred alternative is approved and the exact nature of the right-of-way requirements is known, Phase II Site Investigations on the identified properties will be performed to determine the extent of contamination on soil, soil vapor, and groundwater. Site remediation shall be performed prior to and/or during project construction.

RH-32

Acquisition of property is a normal function of many highway improvement projects. Avoidance of acquiring contaminated properties for transportation projects is the Department's policy; however, acquisition of contaminated properties may be required if it is determined to be necessary based on selection of a viable project alternative. The State is often required to acquire property that contains hazardous material contamination due to past and current uses prior to acquisition. The mitigation measures proposed are the State's policies for determining the extent of contamination and to evaluate the appropriate remediation measures. The initial site assessment, site investigation, and site remediation must occur prior to State certification that the right-of-way required for the project is owned in fee by the State and is free of hazardous materials. After a preferred alternative is approved, a Phase II Site Investigation will be performed. Any property identified as being contaminated must be remediated either by the property owner prior to acquisition or the State can acquire the property for the amount of the appraised value of the property less the amount required for remediation.

RH-33

The improved technologies referenced in the DEIR/EIS are built into the air quality models used in the analysis, and those models do not elaborate what those technologies are. The principal model used for this portion of the analysis is the EMFAC2002 model from ARB. Probable improvements built into the model might include improved emissions controls, new cleaner burning fuels, and a larger percentage of the vehicle fleet switching to very-low emission and zero-emission vehicles.

RH continued

and lower ambient levels would more than offset the increase in CO emissions from increased traffic volumes. Therefore, future projected CO levels would be lower than their corresponding existing levels."

DEIR/DEIS 159. However, Section 3-13.3 fails to discuss the nature and extent of the improved technology. Indeed, it is silent on what technology is improved and would lessen CO generation: automobile technology; industrial improved technology; roadway technology; or some other improved technology. 33

The DEIR/DEIS should be revised to substantiate and discuss what improvements will create lower CO generation and how this balances with the Project's increase in traffic volumes. Indeed, it should also discuss the impacts of the limitations of such improvements when most of the vehicles along the Project alignment will be old vehicles with old technology.

For particulate matter, Section 3-13.3 also concludes that the Project will have no impact on particulate matter including $PM_{2.5}$ and PM_{10} within the Basin or the Study Area. Section 3-13.3 states that the Project alternatives except for the No Build Alternative will lessen $PM_{2.5}$ and PM_{10} emission rates due to improved circulation and lessened congestion:

"Improved traffic flow efficiency is directly related to vehicle engine operating efficiency, which directly affects pollutant emission rates, including $PM_{2.5}$ and PM_{10}."

DEIR/DEIS 167. However, although most of the Project Alternatives will improve traffic flow in the near term, this improved traffic flow is likely short lived and with its attendant increase in traffic volume will likely increase pollutant emission rates. Indeed, the Department and/or the Administration need only look at each end of the Project Study Area where the freeway is widened: these areas themselves suffer from lack of capacity from time to time; this problem will increase over time. 34

The DEIR/DEIS should be revised to discuss the Project's impact on increased emission rates due to the Project's mid-term congestion and lessened traffic flow.

In addition, Section 3-13.3 discusses mobile source air toxics. Notwithstanding the common sense recognition that poor air quality adversely affects human health, the DEIR/DEIS states:

"Some recent studies have reported that proximity to roadways is related to adverse health outcomes -- particularly respiratory problems. Much of this research is not specific to MSATs, instead surveying the full spectrum of both criteria and other pollutants. The FHWA cannot evaluate the validity of these studies, but more importantly, they do not provide information that would be 35

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RH-34
The traffic study analyzed both the project opening year of 2013 and a long-term scenario of 2030. Both show the decreases described in this section of the DEIR/EIS. Neither the traffic nor the air quality analysis attempted to analyze project impacts further into the future than 2030, an appropriate planning horizon. It is unclear what the commenter refers to when requesting mid-term emissions. See the response to Comment RH-33 for an answer to the question of what technological improvements are anticipated.

RH-35
See the responses to EPA Comments 3,4,5,6,7,8,9, and 10 (pages 263-266).

RH continued

useful to alleviate the uncertainties listed above and enable us to perform a more comprehensive evaluation of the health impacts specific to this project."

DEIR/DEIS 173. Further, Section 3-13.3 also recognizes that information regarding MSATs is incomplete or unavailable. Without attempting to fill this void, the DEIR/DEIS concludes that:

"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.'"

Id. The conclusion is incredible, and conflicts with scientific data, common sense and CEQA: poor air quality adversely affects the human environment. Increased traffic due to the Project will generate more MSATs which will increase contaminant emissions and will adversely affect the human environment.

35

II. Chapter 7 Regarding Mitigation and Monitoring Requirements Is Inadequate and Should be Revised.

Chapter 7 is entitled "Mitigation and Monitoring Commitments; Mitigation Reporting Plan For the Interstate 5 Corridor Improvement Project Mitigation Monitoring Program." This tile raises several concerns. First, the DEIR/DEIS fails to explain the nature and importance of the "Mitigation Report Plan." Second, it is unclear that this plan will ensure mitigation of Project related impacts.

As indicated above, the DEIR/DEIS contains no precise discussion of the nature and extent of mitigation. Rather, it includes general statements about mitigation of various recognized (or unrecognized) Project related impacts.

Chapter 7 does not specifically discuss mitigation measures or enforcement but contains simply reporting forms. This is inadequate: It is unclear what the import of the forms is. Further, the forms do not specifically reference impacts recognized in the DEIR/DEIS. Also, the forms are not organized at all: it requires the public and regulators to hunt through Chapter 7 in its entirety in order to determine the nature of mitigation and the nature of the impact mitigated.

The DEIR/DEIS must be revised to discuss fully Project related impacts, mitigation measures for each such impact and any mitigation monitoring program.

36

III. Conclusion: The DEIR/DEIS is Further and Seriously Flawed; It Must be Revised and Re-Circulated for Public Review and Comment.

As indicated throughout these supplemental comments as well as our January 5, 2007 Comments, the DEIR/DEIR is inadequate for a whole host of reasons: it fails to analyze the impacts of the full Project on hazardous waste and materials and air quality; and it fails to discuss and explain fully all Project mitigation measures, the nature and extent of such mitigation and how such

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RH-36

As shown in the Mitigation Monitoring Reporting forms provided in Chapter 7, the topical area addressed by the mitigation is identified in the box titled "Mitigation Log Name." The Mitigation Reporting Plan provides a systematic method for documenting the implementation of mitigation measures identified for the proposed project. The MRP includes mitigation for all alternatives under consideration in the DEIR/EIS and will be finalized based on selection of the Recommended Alternative and response to comments on the DEIR/EIS.

The commenter's request for revisions to the DEIR/EIS impact analysis and mitigation measures is acknowledged. Please refer to Responses RH-11 through RH-38.

RH-37

Please refer to Responses RH-2 through RH-28 and RH-30 through RH-38. As described in the responses, none of the comments raised new issues or modifications to existing data or analyses that require recirculation of the DEIR/EIS.

RH continued

mitigation lessens Project related impacts, and the nature and extent of the mitigation monitoring program.

As we indicated earlier, for all of these reasons and others that may be presented at the hearings on the DEIR/DEIS, it should be totally revised to address these and other concerns and then re-circulated for public comment. } 37

Again, thank you for the opportunity to comment on the captioned DEIR/DEIS for the captioned Project. We look forward to participating the in the public hearing process, receiving responses to these and other comments, and commenting on those responses at the appropriate public hearings. Of course, should you have any questions, please do not hesitate to contact us.

Sincerely,

LAW OFFICES OF ROBERT C. HAWKINS

By: Robert C. Hawkins

RCH/kw

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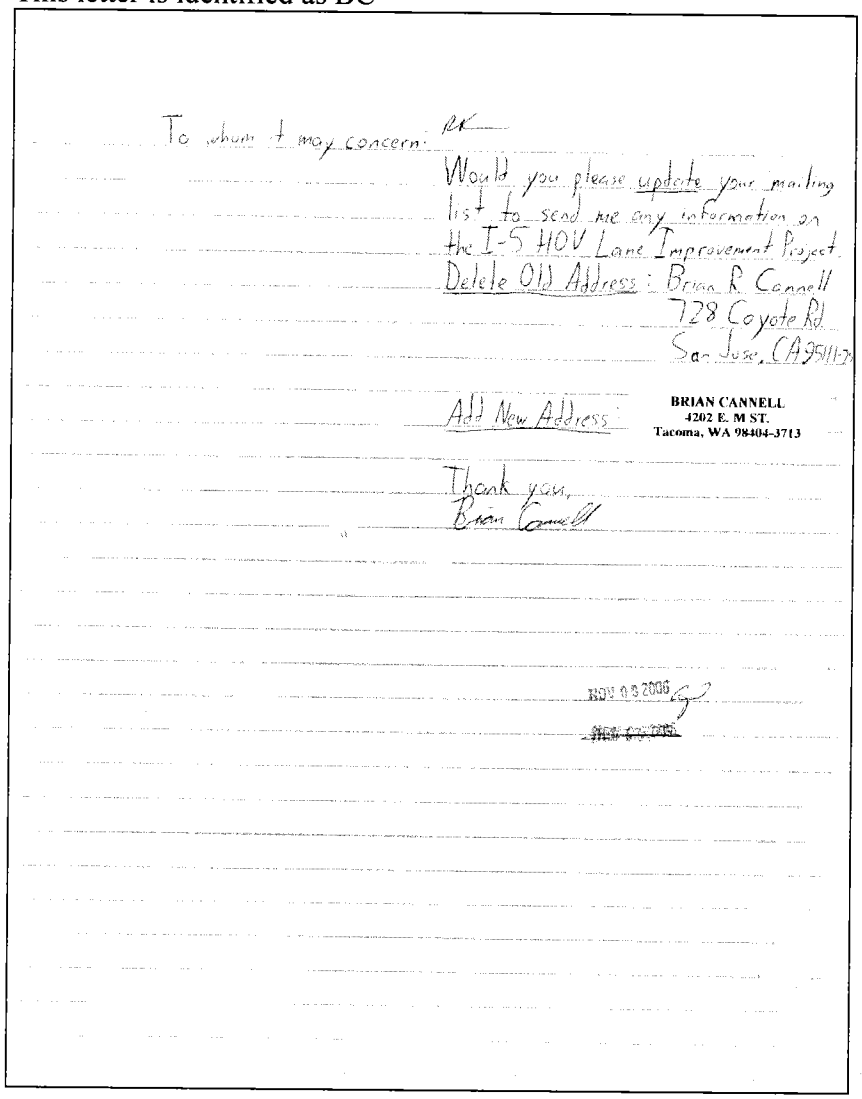
This letter is identified as BC



To whom it may concern: RK

Would you please update your mailing list to send me any information on the I-5 HOV Lane Improvement Project.

Delete Old Address: Brian R. Cannell
728 Coyote Rd
San Jose, CA 95111-2

Add New Address:

BRIAN CANNELL
4202 E. M ST.
Tacoma, WA 98404-3713

Thank you,
Brian Cannell

NOV 06 2006

Your information on the mailing list has been revised as requested.

This letter is identified as FM

Fran Martin
11871 Lyndora St.
Norwalk, CA 90650

November 2, 2006

Ronald J. Kosinski
Deputy District Director
Division of Environmental Planning
Department of Transportation, District 7
100 S. Main Street MS-16A
Los Angeles, CA 90012

Hello Ron:

After reviewing the materials I received in the mail yesterday regarding the I-5 Corridor Improvement Project, I spoke with Garrett today and he advised that I send this letter.

My property is listed on the impacted properties list, but with X's in each scenario – meaning, of course, no impact to my property. I want to take this opportunity to let you know that this is in error. The 3,825 sq. ft. of property behind my block wall fence, known as a flood channel or storm drain, is in fact my property. It is actually about 1/3 of my total property which I have been paying taxes on for the last 21+ years. I have enclosed a drawing just obtained from the Dept. of Building and Safety at City Hall today. 1

No doubt, Garrett is already taking steps to rectify the records and plans.

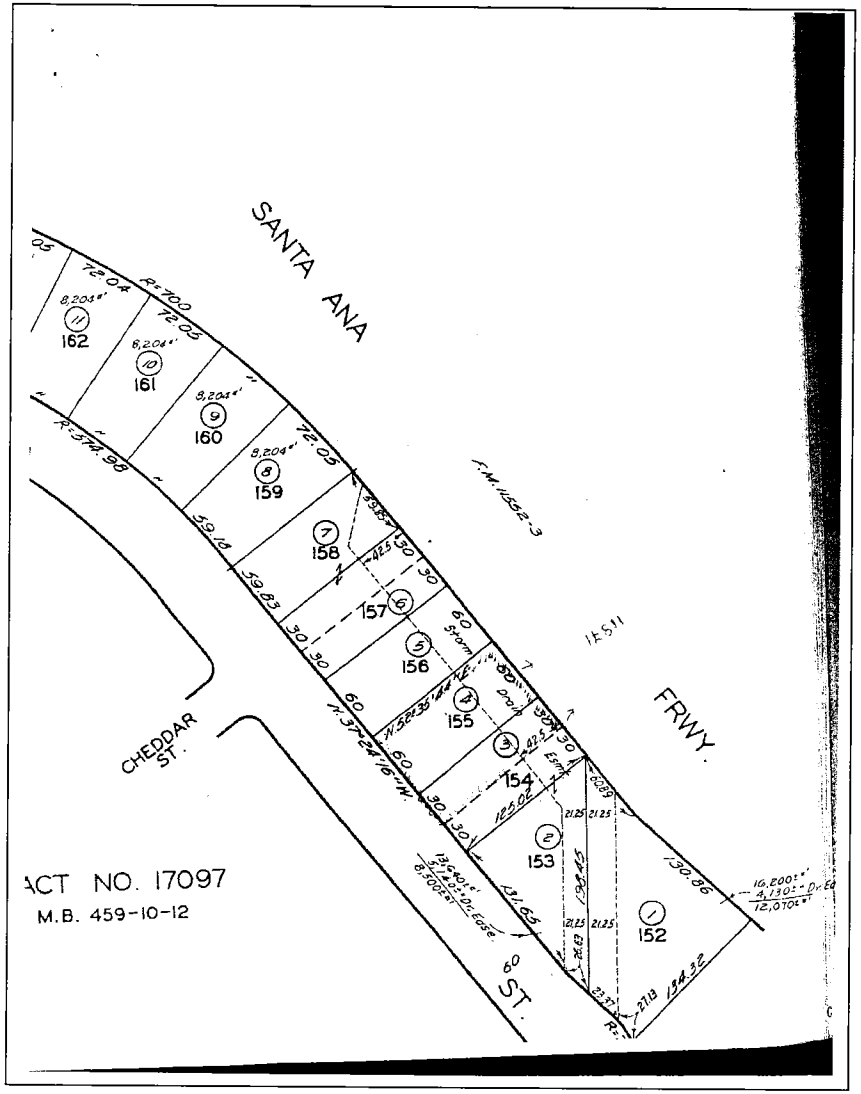
Thank you,

Fran Martin
310.709.3726

Attachment

NOV 07 2006

FM-1
The table in Appendix E has been revised to reflect the anticipated impacts to the properties that are adjacent to the flood control easement.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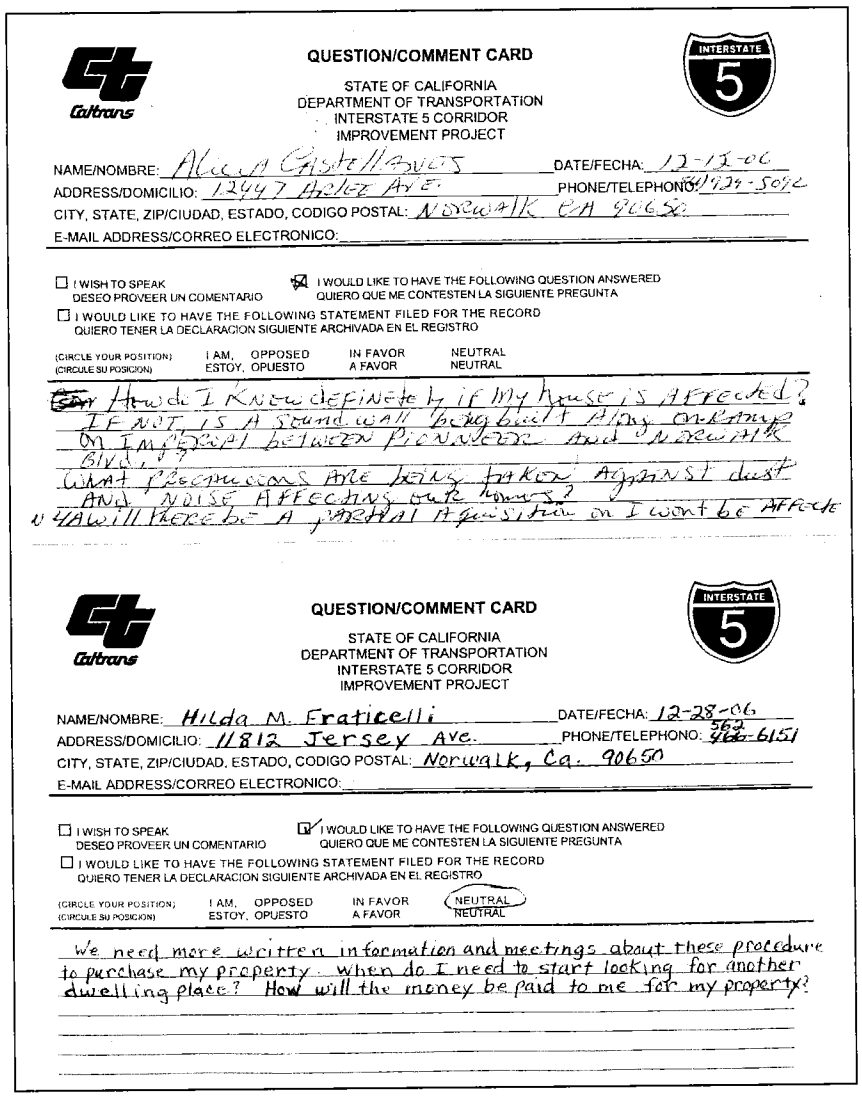

QUESTION/COMMENT CARD

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
INTERSTATE 5 CORRIDOR
IMPROVEMENT PROJECT

NAME/NOMBRE: Alicia Castellanos DATE/FECHA: 12-12-06
ADDRESS/DOMICILIO: 12447 Arlee Ave. PHONE/TELEPHONO: 561 929-5092
CITY, STATE, ZIP/CIUDAD, ESTADO, CODIGO POSTAL: Norwalk CA 90650
E-MAIL ADDRESS/CORREO ELECTRONICO:

☐ I WISH TO SPEAK / DESEO PROVEER UN COMENTARIO
☒ I WOULD LIKE TO HAVE THE FOLLOWING QUESTION ANSWERED / QUIERO QUE ME CONTESTEN LA SIGUIENTE PREGUNTA
☐ I WOULD LIKE TO HAVE THE FOLLOWING STATEMENT FILED FOR THE RECORD / QUIERO TENER LA DECLARACION SIGUIENTE ARCHIVADA EN EL REGISTRO

(CIRCLE YOUR POSITION) / (CIRCULE SU POSICION) I AM, OPPOSED / ESTOY, OPUESTO IN FAVOR / A FAVOR NEUTRAL / NEUTRAL

How do I know definetely if my house is affected? If not, is a sound wall being built along on-ramp on Imperial between Pioneer and Norwalk Blvd.? What precautions are being taken against dust and noise affecting our homes? Will there be a partial aquisition on I wont be affecte

QUESTION/COMMENT CARD

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
INTERSTATE 5 CORRIDOR
IMPROVEMENT PROJECT

NAME/NOMBRE: Hilda M. Fraticelli DATE/FECHA: 12-28-06
ADDRESS/DOMICILIO: 11812 Jersey Ave. PHONE/TELEPHONO: 562 ~~466~~-6151
CITY, STATE, ZIP/CIUDAD, ESTADO, CODIGO POSTAL: Norwalk, Ca. 90650
E-MAIL ADDRESS/CORREO ELECTRONICO:

☐ I WISH TO SPEAK / DESEO PROVEER UN COMENTARIO
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☐ I WOULD LIKE TO HAVE THE FOLLOWING STATEMENT FILED FOR THE RECORD / QUIERO TENER LA DECLARACION SIGUIENTE ARCHIVADA EN EL REGISTRO

(CIRCLE YOUR POSITION) / (CIRCULE SU POSICION) I AM, OPPOSED / ESTOY, OPUESTO IN FAVOR / A FAVOR NEUTRAL / NEUTRAL

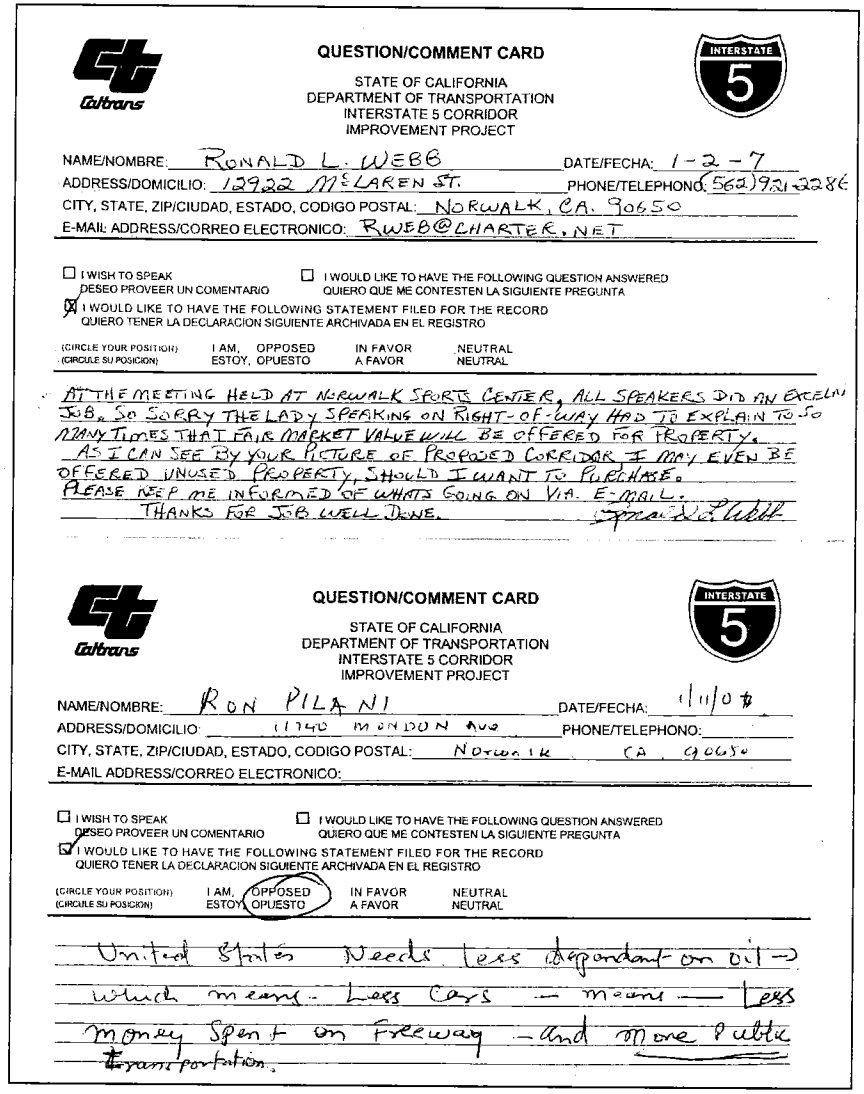
We need more written information and meetings about these procedure to purchase my property. When do I need to start looking for another dwelling place? How will the money be paid to me for my property?

Alicia Catellanos

The property located at 12447 Arlee will not be directly affected by the recommended alternative of the proposed project. A soundwall is proposed for the Imperial Highway to northbound Interstate 5 on-ramp. To minimixe construction noise impacts, the soundwall will be the first thing to be constructed. Table 3-13.11 of the EIR/EIS describes the various methods of fugitive dust impacts from construction activities.

Hilda Fraticelli

We have sent a brochure describing the Relocation Assistance Program to you via US Mail. As the right-of-way process begins in your neighborhood, Caltrans will provide for informational meetings to be held with affected property owners. There is no need to begin looking for relocation housing until you have been contacted by Caltrans initiating the right-of-way acquisition process. The money will be paid to you through an escrow account similar to the normal sale of real estate process.



QUESTION/COMMENT CARD

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
INTERSTATE 5 CORRIDOR
IMPROVEMENT PROJECT

NAME/NOMBRE: RONALD L. WEBB DATE/FECHA: 1-2-7
ADDRESS/DOMICILIO: 12922 MCLAREN ST. PHONE/TELEPHONO: (562) 921-2286
CITY, STATE, ZIP/CIUDAD, ESTADO, CODIGO POSTAL: NORWALK, CA. 90650
E-MAIL ADDRESS/CORREO ELECTRONICO: RWEB@CHARTER.NET

☐ I WISH TO SPEAK / DESEO PROVEER UN COMENTARIO
☐ I WOULD LIKE TO HAVE THE FOLLOWING QUESTION ANSWERED / QUIERO QUE ME CONTESTEN LA SIGUIENTE PREGUNTA
☒ I WOULD LIKE TO HAVE THE FOLLOWING STATEMENT FILED FOR THE RECORD / QUIERO TENER LA DECLARACION SIGUIENTE ARCHIVADA EN EL REGISTRO

(CIRCLE YOUR POSITION) / (CIRCULE SU POSICION): I AM, ESTOY, OPUESTO — IN FAVOR, A FAVOR — NEUTRAL, NEUTRAL

AT THE MEETING HELD AT NORWALK SPORTS CENTER, ALL SPEAKERS DID AN EXCELLENT JOB, SO SORRY THE LADY SPEAKING ON RIGHT-OF-WAY HAD TO EXPLAIN TO SO MANY TIMES THAT FAIR MARKET VALUE WILL BE OFFERED FOR PROPERTY. AS I CAN SEE BY YOUR PICTURE OF PROPOSED CORRIDOR IT MAY EVEN BE OFFERED UNUSED PROPERTY, SHOULD I WANT TO PURCHASE. PLEASE KEEP ME INFORMED OF WHATS GOING ON VIA. E-MAIL. THANKS FOR JOB WELL DONE. Ronald L. Webb

QUESTION/COMMENT CARD

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
INTERSTATE 5 CORRIDOR
IMPROVEMENT PROJECT

NAME/NOMBRE: RON PILANI DATE/FECHA: 1/11/07
ADDRESS/DOMICILIO: 11740 MONDON AVE PHONE/TELEPHONO:
CITY, STATE, ZIP/CIUDAD, ESTADO, CODIGO POSTAL: NORWALK CA 90650
E-MAIL ADDRESS/CORREO ELECTRONICO:

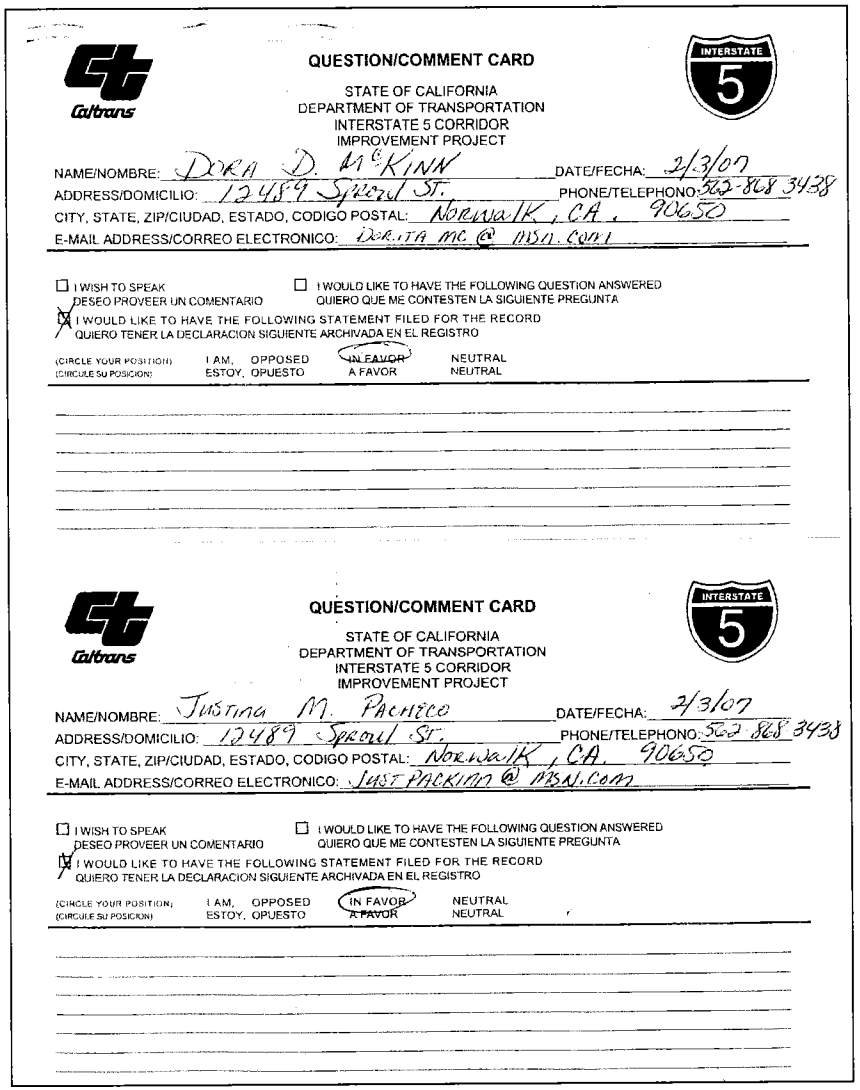
☐ I WISH TO SPEAK / DESEO PROVEER UN COMENTARIO
☐ I WOULD LIKE TO HAVE THE FOLLOWING QUESTION ANSWERED / QUIERO QUE ME CONTESTEN LA SIGUIENTE PREGUNTA
☑ I WOULD LIKE TO HAVE THE FOLLOWING STATEMENT FILED FOR THE RECORD / QUIERO TENER LA DECLARACION SIGUIENTE ARCHIVADA EN EL REGISTRO

(CIRCLE YOUR POSITION) / (CIRCULE SU POSICION): I AM, ESTOY, (OPPOSED, OPUESTO) — IN FAVOR, A FAVOR — NEUTRAL, NEUTRAL

United States Needs less dependant on oil → which means - Less Cars → means → less money Spent on Freeway - And more Public transportation.

Ronald L. Webb
Your support for the proposed Interstate 5 Corridor Improvement Project is acknowledged.

Ron Pilani
Your opposition to the Interstate 5 Corridor Improvement Project is acknowledged.



QUESTION/COMMENT CARD

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
INTERSTATE 5 CORRIDOR
IMPROVEMENT PROJECT

NAME/NOMBRE: DORA D. McKINN DATE/FECHA: 2/3/07
ADDRESS/DOMICILIO: 12489 Sproul ST. PHONE/TELEPHONO: 562-868 3438
CITY, STATE, ZIP/CIUDAD, ESTADO, CODIGO POSTAL: Norwalk, CA. 90650
E-MAIL ADDRESS/CORREO ELECTRONICO: DORITA MC @ MSN.COM

☐ I WISH TO SPEAK / DESEO PROVEER UN COMENTARIO
☐ I WOULD LIKE TO HAVE THE FOLLOWING QUESTION ANSWERED / QUIERO QUE ME CONTESTEN LA SIGUIENTE PREGUNTA
☒ I WOULD LIKE TO HAVE THE FOLLOWING STATEMENT FILED FOR THE RECORD / QUIERO TENER LA DECLARACION SIGUIENTE ARCHIVADA EN EL REGISTRO

(CIRCLE YOUR POSITION) (CIRCULE SU POSICION) I AM, ESTOY, OPPOSED ~~IN FAVOR~~ A FAVOR NEUTRAL NEUTRAL

QUESTION/COMMENT CARD

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
INTERSTATE 5 CORRIDOR
IMPROVEMENT PROJECT

NAME/NOMBRE: JUSTINA M. PACHECO DATE/FECHA: 2/3/07
ADDRESS/DOMICILIO: 12489 Sproul ST. PHONE/TELEPHONO: 562 868 3438
CITY, STATE, ZIP/CIUDAD, ESTADO, CODIGO POSTAL: Norwalk, CA. 90650
E-MAIL ADDRESS/CORREO ELECTRONICO: JUSTPACKIM @ MSN.com

☐ I WISH TO SPEAK / DESEO PROVEER UN COMENTARIO
☐ I WOULD LIKE TO HAVE THE FOLLOWING QUESTION ANSWERED / QUIERO QUE ME CONTESTEN LA SIGUIENTE PREGUNTA
☒ I WOULD LIKE TO HAVE THE FOLLOWING STATEMENT FILED FOR THE RECORD / QUIERO TENER LA DECLARACION SIGUIENTE ARCHIVADA EN EL REGISTRO

(CIRCLE YOUR POSITION) (CIRCULE SU POSICION) I AM, ESTOY, OPPOSED IN FAVOR A FAVOR NEUTRAL NEUTRAL

Dora D. McKinn
Your support for the proposed Interstate 5 Corridor Improvement Project is acknowledged.

Justina M Pacheco
Your support for the proposed Interstate 5 Corridor Improvement Project is acknowledged.

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CHAPTER 7 – MITIGATION AND MONITORING COMMITMENTS

MITIGATION REPORTING PLAN FOR THE INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT MITIGATION MONITORING PROGRAM

INTRODUCTION

In accordance with section 21081.6 of the California Environmental Quality Act (CEQA), Caltrans Division of Environmental Planning (DEP) adopted a Mitigation Monitoring Program (MMP). The MMP is to ensure implementation of measures that would avoid or mitigate significant effects of the project. This Reporting Plan builds on the MMP, it provides a systematic method by which Caltrans DEP can document the implementation of each mitigation measure that has been monitored and completed during the associated stage of the project. The reporting Plan also includes mitigation measures, which have been developed during the CEQA/National Environmental Policy Act (NEPA) certification. These measures include those, which were described in the Final Initial Study/Environmental Assessment (IS/EA), March 2002.

The Reporting Plan creates a simple procedure with minimal paperwork that would provide concise yet sufficient documentation that all mitigation measures have been implemented. Its simple steps would result in the production of **one reporting form for each mitigation measure and a summary table for all measures**, as described below.

STEP 1: DESIGNATE PROGRAM COORDINATOR

Given that a number of people would be involved in the mitigation monitoring process, it is important to designate one person, however the DEP would have ultimate responsibility for ensuring that all mitigation measures are monitored and that a complete, updated report documenting such activities is filled. For purposes of this plan the designated person would be the Project Manager. The Project Manager would have a central role in the activities described in the following steps.

STEP 2: ASSEMBLE TEAM OF MONITORS

The first task of the Project Manager would be to assemble the personnel capable of monitoring all mitigation measures included in the MMP. Monitors may include Resident Engineer, Design Engineer, Landscape Architect, and other members of the departments or contractors, etc. responsible for overseeing specific mitigation measures.

The Project Manager should assign specific mitigation measures to each of the monitors. The monitoring activities provided in the attached summary table should be self-explanatory. However, the Project Manager should make sure the monitors understand what is required.

STEP 3: ONGOING REPORTING

During the course of the design, construction, and operational stages of the project, the Project Manager would maintain contact with the monitors to ensure that their activities have been completed at the appropriate time.

Monitors would fill out a **Mitigation Monitoring Report** form for each of their assigned mitigation measures as these measures are monitored and completed. A sample of this form is attached. The form summarizes the monitoring activities undertaken and documents that the mitigation measure was or was not carried out. To support the conclusion on this form references to other project documents, such as engineering drawings or contract documents, may be made. Typically, this report would be filled out when the mitigation measure is implemented. However, there may be some cases where a mitigation measure was not implemented, for example if the mitigation measure applied to a contingency situation that did not occur. There may be other cases in which reports would be required on a periodic basis, until such time as the measure is completed. It is important that a form be filled out for all measures, completed or not.

The Environmental Planner would collect and review the reporting forms for each mitigation measure, keep a file of all reporting forms and supporting documentation, and update a summary table for all mitigation measures. A summary log for this project's mitigation measures is attached. This log assigns a name to each mitigation measure required for the project in order to assist in tracking the monitoring process; lists monitoring activities and frequencies for each mitigation measure; the last column provides a space to be filled in upon completion of the reporting forms. As each form is completed, its completion date can be entered in this column, providing a master log or summary of the status of all mitigation measures.

STEP 4: REPORT PROGRESS TO DEP

The Division of Environmental Planning should be updated as to the progress of the mitigation monitoring and reporting on a regular basis. This can be done at regular scheduled meetings.

INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Water	Party Responsible for Mitigation Monitoring: Design Engineer, RE, & Maintenance	
Required Monitoring/Reporting Frequency: 65 & 90%PS&E, Construction & Operation	**Implementation/Monitoring Phase:** (circle) (Design Construction Operation)	
Mitigation Measure: For both short-term (construction) and long-term (operational) water quality impacts, temporary, as well as permanent Best Management Practices (BMPs) would be identified during the project's final design stage, when there is sufficient engineering details available to warrant competent analysis. Caltrans is committed to implementing cost-effective temporary and permanent BMPs as identified during final design.		
Mitigation Monitoring Action Performed:		
Mitigation Complete? Yes ❑ No ❑ If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable. If no, itemize outstanding mitigation and reasons why measures were not implemented.		
In accordance with the California Public Resources Code Section 21081.1, I hereby certify under penalty that the information contained herein is true and correct to the best of my knowledge.		
Name/Title/Agency of Person Completing Report:		
Signature:	Date:	
Signature of Project Manager:	Date:	
Environmental Oversight:	Date:	

INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Land Use	Party Responsible for Mitigation Monitoring: Design Engineer & RE	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) (Design Construction) Operation	

Mitigation Measure:
Prior to and during construction, Caltrans staff would contact and interview individual businesses potentially affected by construction activities. Information gathered from these interviews would be used to develop the construction traffic control plans and alternate access routes to maintain critical business activities. Caltrans staff would inform the public of its progress in implementing the measures selected through periodic project newsletters sent to businesses, residents, and property owners within close proximity to the project. Prior to and during construction, ongoing coordination between Caltrans and the Joint Powers Authority (JPA)/individual cities would minimize any General Plan/Redevelopment Plan inconsistencies that may result during implementation of the proposed project. Parcels subject to full acquisition shall be reconfigured or combined with adjacent parcels to allow for development commensurate with previous land uses. Commercial and industrial land uses subject to partial acquisitions should be reconfigured on site in such a manner as to remain in operation.

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

In accordance with the California Public Resources Code Section 21081.1, I hereby certify under penalty that the information contained herein is true and correct to the best of my knowledge.

Name/Title/Agency of Person Completing Report:

Signature:	Date:
Signature of Project Manager:	Date:
Environmental Oversight:	Date:

INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Community Impacts - Relocations	Party Responsible for Mitigation Monitoring: Right-of-Way RAP	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) (Design) Construction Operation	

Mitigation Measure:

Public agencies responsible for the acquisitions are required to provide relocation assistance to displaced residents and businesses and compensate the property owners for the sale of the property in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1974, revised effective January 1, 1991 (Public Law 91-646 & 49 CFR Part 24) (see Appendix D). To minimize the impact on cities due to loss of property and sales tax, efforts would be made to find suitable replacement housing or business locations within the community if the displacees desire to remain.

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

In accordance with the California Public Resources Code Section 21081.1, I hereby certify under penalty that the information contained herein is true and correct to the best of my knowledge.

Name/Title/Agency of Person Completing Report:

Signature:	Date:
Signature of Project Manager:	Date:
Environmental Oversight:	Date:

INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Community Impacts: Community Character & Cohesion	Party Responsible for Mitigation Monitoring: Design Engineer, RE	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) Design Construction Operation	

Mitigation Measure:

Neighborhood Disruptions:
Pedestrian access points to businesses within the construction area would be maintained throughout the construction period. If usual access points are lost, provisions for alternative access to the affected parcels would be made. Appropriate signage would be placed to inform pedestrians of access to local businesses. Temporary sidewalks, if necessary, would be installed during the construction phase. Disabled access shall be maintained during construction where feasible. During construction, Caltrans staff would establish one or more information field office(s) near the construction site(s). Information and field office telephone numbers would be available to provide community members and businesses a means of direct communication regarding construction activities.

Construction Impacts:
Advance notification of temporary parking loss and, where necessary, identification of temporary replacement parking or alternative adjacent parking would be made. Where possible, temporary parking could be provided on either or both ends of the immediate construction areas to serve adjacent uses. If parking areas are sufficiently distant from businesses, shuttle service may be provided. Caltrans would coordinate with the local jurisdictions to mitigate parking losses to businesses. Caltrans would consult with those businesses whose parking would be affected during construction. If space is available in another location, alternative parking spaces may be provided as mitigation. To mitigate the temporary closure of the Silverbow Avenue pedestrian over-crossing, special busses or similar shuttle service would have to be provided to transport students who normally use the Silverbow Avenue pedestrian overcrossing to get to and from school. Prior to and during construction, Caltrans staff would contact and interview individual businesses potentially affected by construction activities. Information gathered from these interviews would be used to develop the construction traffic control plans and alternate access routes to maintain critical business activities. Caltrans staff would inform the public of its progress in implementing the measures selected through periodic project newsletters sent to businesses, residents, and property owners within close proximity to the project. Staff would be assigned to work directly with the public to provide project information and resolve construction-related problems.

Mitigation Monitoring Action Performed:
Mitigation Complete? Yes ❑ No ❑ If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable. If no, itemize outstanding mitigation and reasons why measures were not implemented.
In accordance with the California Public Resources Code Section 21081.1, I hereby certify under penalty that the information contained herein is true and correct to the best of my knowledge.
Name/Title/Agency of Person Completing Report:

Signature:	Date:
Signature of Project Manager:	Date:
Environmental Oversight:	Date:

INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Environmental Justice	Party Responsible for Mitigation Monitoring: Right-of-Way, RE, Design Engineer, Maintenance	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) Design Construction Operation	

Mitigation Measure:
Short-term construction-related air quality impacts would be mitigated by adhering to South Coast Air Quality Management District rules and regulations and Department Standard Construction Specifications for equipment emission and fugitive dust. Temporary noise impacts would be mitigated through implementation of Department Standard Construction Specifications for noise. Standard relocation assistance (as detailed in Appendix D) would be provided to all displacees, in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Any increase in noise above the Noise Abatement Criteria (NAC) would be minimized by implementing mitigation measures such as noise barrier construction.

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

In accordance with the California Public Resources Code Section 21081.1, I hereby certify under penalty that the information contained herein is true and correct to the best of my knowledge.

Name/Title/Agency of Person Completing Report:

Signature:	Date:
Signature of Project Manager:	Date:
Environmental Oversight:	Date:

INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Utilities & Emergency/Community Services	Party Responsible for Mitigation Monitoring: Design Engineer, RE, Maintenance	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) Design Construction Operation	

Mitigation Measure:
Utility infrastructures that are impacted by project construction would be relocated before construction, relocated during construction, protected in place, or abandoned. Those utilities that must be relocated as a part of project construction would be relocated in such a manner as to minimize any disruption of service those utilities provide. The impact to fire, police and emergency services response times would be minimized by implementation of a traffic management plan (TMP) that would contain detailed plans of access routes and detours during construction. The TMP should be reviewed and approved by the County Fire Department and any potentially affected fire or law enforcement agency. Caltrans would maintain contacts with the community, police and fire protection services through public outreach during the construction phase.

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

In accordance with the California Public Resources Code Section 21081.1, I hereby certify under penalty that the information contained herein is true and correct to the best of my knowledge.

Name/Title/Agency of Person Completing Report:

Signature:	Date:
Signature of Project Manager:	Date:
Environmental Oversight:	Date:

INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Traffic & Transportation/Pedestrian & Bicycle Facilities	Party Responsible for Mitigation Monitoring: Design Engineer, RE, Maintenance	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) Design Construction Operation	

Mitigation Measure:

Freeway and HOV Segments:
In the 2013 horizon, almost every freeway segment is forecast to operate at LOS F in the No Build Condition (two segments are forecast to operate at LOS E). With implementation of the 4 + 2 and 5 + 1 Alternatives, every freeway and HOV segment would operate at LOS E or better. With the 4 + 1 Alternative, one freeway and one HOV segment would continue to operate at LOS F. However, the duration of time that LOS F would occur would be reduced when compared to the No-Build Alternative. In the 2030 horizon, every freeway segment is forecast to operate at LOS F in the No Build condition. Implementation of the 4 + 1 Alternative would result in eight segments and seven HOV segments operating at LOS F. The 4 + 2 Alternative is forecast to result in three freeway segments and no HOV segments operating at LOS F. The 5 + 1 Alternative would result in two freeway and three HOV segments operating at LOS F. Again, the duration of time that LOS F would occur would be reduced when compared to the No-Build Alternative.

Ramp Meters:
The overall maximum queue for all alternatives on the on-ramp is approximately seven vehicles except at Valley View Avenue, where the queue is forecast to increase throughout the peak period. Valley View Avenue has a total of two on-ramp lanes, one metered lane, and one HOV bypass lane. To avoid impacts to the downstream intersection due to the ramp meter at the Valley View Avenue on-ramp, the meter rate should be increased from 900 vehicles per hour to at least 1,150 vehicles per hour; or, the HOV bypass lane should be converted to a metered lane, resulting in two metered on-ramp lanes.

Intersections:
Direct project impacts to ramp terminals and adjacent intersections for each scenario in the 2013 and 2030 horizons have been shown in Tables 3-6.11 and 3-6.16 respectively. To mitigate these impacts, intersection improvements have been investigated at these intersections to achieve LOS D or better operations where feasible. Even with implementation of the project alternatives and intersection capacity improvements, a substantial number of intersections would operate unsatisfactorily. To achieve satisfactory LOS at these locations, signal coordination and optimization should be considered. Signal coordination and optimization can provide substantial benefits to the study area intersections within the I-5 corridor. Caltrans

shall, in coordination with local municipalities, plan and implement a signal coordination program, such as a simple TRANSYT 7-F application or a complex ATSAC system, as indicated by future progression analysis to improve future traffic flow and reduce congestion and delay attributable to both growth in regional traffic volumes and any effects of the freeway widening project. Pedestrian/Bicycle Access: The pedestrian overcrossing that is removed at Silverbow Avenue would be replaced and an additional pedestrian overcrossing would be constructed at Buell Street/Cecilia Street. To mitigate the temporary closure of the Silverbow Avenue pedestrian over-crossing, special busses or similar shuttle service would have to be provided to transport students who normally use the Silverbow Avenue pedestrian overcrossing to get to and from school. The Southeast Area Bicycle Master Plan includes several Class II bike routes within the project corridor. Currently, there is insufficient room on the existing arterial overcrossings to accommodate the planned bike routes. To improve the safety of both motorists and bicyclists, the designed overcrossings and undercrossings at Valley View Avenue, Bloomfield Avenue, Pioneer, and Florence Avenues, for all of the build alternatives, have cross section widths to accommodate Class II the proposed regional bike routes. In most cases, this involves a striped 1.5 m bike lane including a gutter or a striped 1.2 m bike lane without a gutter in the shoulder area.
Mitigation Monitoring Action Performed:
Mitigation Complete? Yes ❑ No ❑ If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable. If no, itemize outstanding mitigation and reasons why measures were not implemented.
In accordance with the California Public Resources Code Section 21081.1, I hereby certify under penalty that the information contained herein is true and correct to the best of my knowledge.
Name/Title/Agency of Person Completing Report:

Signature:	Date:
Signature of Project Manager:	Date:
Environmental Oversight:	Date:

INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Cultural Resources	Party Responsible for Mitigation Monitoring: Environmental Planning, RE	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) Design (Construction) Operation	

Mitigation Measure:
None Required. However, should buried cultural materials be encountered during construction, it is Caltrans policy that work in that area must stop until a qualified archaeologist can evaluate the nature and significance of the find (Environmental Handbook, Volume 2, Chapter 7, Section 7-8).

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

In accordance with the California Public Resources Code Section 21081.1, I hereby certify under penalty that the information contained herein is true and correct to the best of my knowledge.

Name/Title/Agency of Person Completing Report:

Signature:	Date:
Signature of Project Manager:	Date:
Environmental Oversight:	Date:

INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Visual/Aesthetics	Party Responsible for Mitigation Monitoring: Design engineer, RE, Maintenance	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) Design Construction Operation	
Mitigation Measure: In order to minimize the adverse visual impact, landscaping would be important in providing screen, buffer and visual interest for viewers. A comprehensive aesthetic treatment and design plan covering soundwalls, median barriers and structures would help improve visual impact. Remaining properties after acquisition should be absorbed by adjacent properties or zoning variance should be obtained to allow redevelopment to occur.		
Mitigation Monitoring Action Performed:		
Mitigation Complete? Yes ❑ No ❑ If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable. If no, itemize outstanding mitigation and reasons why measures were not implemented.		
In accordance with the California Public Resources Code Section 21081.1, I hereby certify under penalty that the information contained herein is true and correct to the best of my knowledge.		
Name/Title/Agency of Person Completing Report:		
Signature:	Date:	
Signature of Project Manager:	Date:	
Environmental Oversight:	Date:	

INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Hydrology & Floodplains	Party Responsible for Mitigation Monitoring: Design Engineer, RE, Maintenance	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) (Design Construction Operation)	

Mitigation Measure:
Appropriate drainage and/or pumping systems would be incorporated into the design of the project to control localized flooding or ponding on the freeway. In areas of shallow groundwater, the placing of subdrains or utilizing groundwater pumps would drain freestanding water. Construction activities in flood control channels would only be scheduled to occur during the dry season (April 1-October 31). If construction during that time is not possible, a suitable water diversion plan must be developed and implemented to minimize impact to water quality. Permits would be obtained prior to construction in the channels. A 1601 Streambed Alteration Agreement would be obtained from CDFG. In addition, a 404 permit from the U.S. Army Corps of Engineers and a 401 Certification/Waiver from the Regional Water Quality Control Board may be required. For engineering purposes, groundwater can be mitigated by adoption appropriate foundation design practices for the new structures (retaining wall, tunneling, extension of the existing structure, etc). For construction purposes, any intercepted groundwater flow would require the construction of a system to collect and dispose of the water in an appropriate and approved way.

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

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Signature of Project Manager:	Date:
Environmental Oversight:	Date:

INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Water Quality & Storm Water Run-Off	Party Responsible for Mitigation Monitoring: Design Engineer, RE, Maintenance	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) (Design Construction Operation)	

Mitigation Measure:
For areas outside of the flood control channels, construction of the 10 and 12 lane alternatives would require construction of an area greater than 5 acres and would therefore be subject to the NPDES permitting process. To address storm water discharges from construction, the permits contain standard provisions that are intended to provide a required level of storm water pollution prevention. A construction SWPPP would be prepared prior to the start of construction to ensure compliance with existing NPDES permits. Caltrans would conduct additional inspections or analysis if required by the RWQCB, inspect construction sites prior to anticipated storm events and after actual events in order to identify areas contributing to storm water discharge pollutants in order to evaluate the adequacy of the control measures identified in the SWPPP, certify annually that construction is in compliance with the applicable NPDES permit and SWPPP, and retain the monitoring records for at least three years following completion of construction.

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

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Signature of Project Manager:	Date:
Environmental Oversight:	Date:

INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Geology/Soils	Party Responsible for Mitigation Monitoring: Design Engineer, RE, Maintenance	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) (Design Construction Operation)	

Mitigation Measure:
To mitigate against liquefaction, new piles required for structural support would be placed to a depth below the zones of potential liquefaction to protect structures from liquefaction. Insufficiently compacted native material in the immediate area of construction would be removed and re-compacted to 90 percent in cut areas and replaced with an imported sub-base in structural sections. In fill areas above natural ground, the natural material would be removed until dense material is reached and replaced as a compacted fill. It is recommended that fill slopes be treated immediately after construction with planting, hydroseeding or paving to reduce erosion.

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

In accordance with the California Public Resources Code Section 21081.1, I hereby certify under penalty that the information contained herein is true and correct to the best of my knowledge.

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Environmental Oversight:	Date:

INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Aerially Deposited Lead	Party Responsible for Mitigation Monitoring: Hazardous Waste, Design Engineer, RE, Maintenance	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) Design Construction Operation	

Mitigation Measure:
If excavated soil at the site is to be reused within the Caltrans rights-of-way, any portion of the upper 0.9m of soil should be placed under pavement and at least 1.5m above the maximum groundwater elevation in accordance with the DTSC Lead Variance. If any portion of the upper 0.9m of soil excavated at the site is to be disposed, it should be handled as a hazardous material with respect to total and soluble lead content. Caltrans would notify contractors performing the construction activities that hazardous concentrations of lead may be present in on-site soil and that appropriate health and safety measures should be taken to minimize exposure to lead

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

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INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Hazardous Waste/Materials	Party Responsible for Mitigation Monitoring: Hazardous Waste, Design Engineer, RE, Maintenance	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) Design Construction Operation	

Mitigation Measure:
Project construction would be conducted with a contingency plan in place in the event that unidentified underground storage tanks, hazardous materials, petroleum hydrocarbons, or hazardous or solid wastes are unexpectedly encountered during construction. This contingency plan would address underground storage tank decommissioning, field screening and materials testing methods, mitigation and contaminant management requirements, and health and safety requirements for construction workers. In addition, all structures that would be demolished as part of construction would undergo an evaluation for the presence of asbestos-containing materials and lead-based paint prior to demolition. Solid waste and litter control would be carried out as an extension of existing maintenance procedures.

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

In accordance with the California Public Resources Code Section 21081.1, I hereby certify under penalty that the information contained herein is true and correct to the best of my knowledge.

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INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Asbestos and Lead Paint	Party Responsible for Mitigation Monitoring: Hazardous Waste, Design Engineer, RE, Maintenance	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) (Design Construction Operation)	

Mitigation Measure:
Barrier railing shims and thread sealant on bridges 53-1658 and 53-1657 should be treated as Category II, non-friable asbestos-containing material. It is recommended that a licensed and certified asbestos abatement contractor remove and dispose of the barrier rail shims and thread sealant prior to any activities that would disturb the material.

Structures 53-631, 53-630 and 53-214 and 53-1015 had peeling/flaking paint that should be removed and disposed of as hazardous waste prior to planned retrofit or demolition activities.

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

In accordance with the California Public Resources Code Section 21081.1, I hereby certify under penalty that the information contained herein is true and correct to the best of my knowledge.

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INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Construction Air Quality	Party Responsible for Mitigation Monitoring: RE, Contractor	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) Design (Construction) Operation	

Mitigation Measure:

To reduce fugitive dust emissions the construction contractor shall adhere to the requirements of SCAQMD Rule 403. The Best Available Control Measures (BACMs) and Reasonably Available Control Measures (RACMs) specified in SCAQMD's Rule 203 Implementation Handbook shall be incorporated into the project construction.

In addition to the SCAQMD standard measures to reduce construction emissions, Caltrans Standard Construction Specifications shall be adhered to in order to reduce emissions. The following is a list of Caltrans standard measures provided to reduce the emission of fugitive dust.

A. All disturbed areas, including storage piles, that are not being actively utilized for construction purposes shall be effectively stabilized for dust emissions using water, chemical stabilizers/suppressants, or vegetative ground cover.

B. All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized for dust emissions using water or chemical stabilizers/suppressants.

C. All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled for fugitive dust emissions by utilizing applications of water or by presoaking.

D. When materials are transported off site, all material shall be covered or effectively wetted to limit visible dust emissions, or at least six inches of freeboard space from the top of the container shall be maintained.

E. All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. The use of blower devices is expressly forbidden.

F. Following the addition of materials to or the removal of materials from the surface of outdoor storage piles, said piles shall be effectively stabilized for fugitive dust emissions utilizing sufficient water or chemical stabilizers/suppressants.

G. Traffic speeds on unpaved roads shall be limited to 24 kph (15 mph).

H. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than 1 percent.

I. Wheel washers for all exiting trucks shall be installed, or all trucks and equipment shall be washed off before leaving the site.

J. Wind breaks shall be installed at windward side(s) of construction areas.

K. Excavation and grading activity shall be suspended when winds exceed 32 kph (20 mph).

L. Area subject to excavation, grading, and other construction activity shall be limited at any one time.

The following measures are recommended for implementation to reduce air pollutants generated by vehicle and equipment exhaust during the project construction phase:

- The construction contractor shall select the construction equipment used on site based on low emission factors and high energy efficiency. The construction contractor shall ensure that construction grading plans include a statement that all construction equipment would be tuned and maintained in accordance with the manufacturer's specifications.
- The construction contractor shall utilize electric or diesel powered equipment in lieu of gasoline powered engines where feasible.
- The construction contractor shall ensure that construction grading plans include a statement that work crews would shut off equipment when not in use.
- The construction contractor shall time the construction activities so as not to interfere with peak hour traffic and to minimize obstruction of through traffic lanes adjacent to the site; if necessary, a flagperson shall be retained to maintain safety adjacent to existing roadways.

The construction contractor shall support and encourage ridesharing and transit incentives for the construction crew.

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

In accordance with the California Public Resources Code Section 21081.1, I hereby certify under penalty that the information contained herein is true and correct to the best of my knowledge.

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INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Operational Noise Abatement	Party Responsible for Mitigation Monitoring: Design Engineer, RE	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) Design Construction Operation	

Mitigation Measure:

Soundwalls shall be constructed according to the I-5 Corridor Improvement Project Noise Study Report and Section 3-14 of the EIR/EIS.

A final decision on the installation of abatement measures would be made upon completion of the design process and the public involvement process.

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

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INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Construction Noise	Party Responsible for Mitigation Monitoring: Design Engineer, RE	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) Design Construction Operation	

Mitigation Measure:

Equipment Noise Control

- Where practical, feasible and reasonable, proposed soundwalls shall be constructed prior to the removal of existing soundwalls in the beginning of the project as a mean of minimizing any impact on the sensitive receptors.
- Use newer equipment with improved noise muffling and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine enclosures, and engine vibration isolators intact and operational. Newer equipment would generally be quieter in operation than older equipment. All construction equipment should be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding, etc.).
- Utilize construction methods or equipment that would provide the lowest level of noise and ground vibration impact such as alternative low noise pile installation methods.
- Turn off idling equipment.
- Temporary noise barriers should be used and relocated, as needed, to protect sensitive receptors against excessive noise from construction activities. Noise barriers can be made of heavy plywood, or moveable insulated sound blankets.

Administrative Measures

- Implement a construction noise and/or vibration monitoring program in or limit the impacts.
- Comply, when possible, with relevant construction noise criteria of affected cities, i.e., Santa Fe Springs, Downey, and Norwalk. The City of Norwalk restricts construction to daytime hours between 7 am and 6 pm. Santa Fe Springs restricts construction activities to daytime hours between 7 am and 7 pm. The City of Downey imposes a maximum sustainable noise limit of 85 dBA, and allows construction activity to occur during daytime hours of 7 am to 7 pm, Monday to Saturday; construction activity is prohibited on Sundays.
- Limit construction activities to daytime hours, if possible. If nighttime construction is absolutely necessary, obtain the proper permits and variances.
- Keep noise levels relatively uniform and avoid impulsive noises.
- Maintain good public relations with the community to minimize objections to unavoidable construction impacts. Provide frequent activity updates of all construction activities and schedules.

A combination of abatement/mitigation techniques with equipment noise control and administrative measures can be selected to provide the most effective means to minimize effects of the construction activity. Application of these abatement/mitigation would reduce construction related noise impacts; however, a temporary increase in noise and vibration over the existing ambient levels may still occur.

Mitigation Monitoring Action Performed:	
Mitigation Complete? Yes ❑ No ❑ If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable. If no, itemize outstanding mitigation and reasons why measures were not implemented.	
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INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Wetlands	Party Responsible for Mitigation Monitoring: RE, Maintenance	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) Design Construction Operation	

Mitigation Measure:
A Section 404 permit from the U.S. Army Corps of Engineers may be required prior to project construction. A Section 401 permit from the California Regional Water Quality Control Board would be needed for this project. For areas outside of the flood control channels, construction of the 10 and 12 lane alternatives would require construction of an area greater than 1 acre and would therefore be subject to the NPDES permitting process. To address storm water discharges from construction, the permits contain standard provisions that are intended to provide a required level of storm water pollution prevention. A construction SWPPP would be prepared prior to the start of construction to ensure compliance with existing NPDES permits. The SWPPP would be kept on site during construction and made available upon request to the RWQCB, responsible local agencies, and the public. The SWPPP would identify potential sources of pollutants, describe erosion and sediment controls, contain non-storm water provisions, describe post-construction storm water management, describe waste management activities, include a maintenance and inspection component, include a list of contractors, incorporate other storm water related plans if applicable, and would list the name of the preparer. Caltrans would conduct additional inspections or analysis if required by the RWQCB; inspect construction sites prior to anticipated storm events and after actual events in order to identify areas contributing to storm water discharge pollutants in order to evaluate the adequacy of the control measures identified in the SWPPP, certify annually that construction is in compliance with the applicable NPDES permit and SWPPP, and retain the monitoring records for at least three years following completion of construction.

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

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INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Vegetation	Party Responsible for Mitigation Monitoring: Environmental Planning, RE, Maintenance, Design Engineer	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) Design Construction Operation	

Mitigation Measure:
In order to help avoid or minimize impacts to vegetation, the area of disturbance should be kept to the minimum required to construct the project. The removal of trees and other vegetation should be scheduled to occur between September 16 and March 1 to avoid the bird nesting season. If this is not possible, a pre-construction survey would be required one to two weeks prior to the vegetation removal. If nesting birds are present, construction activities in the vicinity of the nest (within 500 feet for raptors, 100 feet for other birds) would be delayed until nesting is completed and all young have left the nest. New landscaping should be installed in areas where space permits to allow for the re-establishment of wildlife habitat. A large amount of existing landscape vegetation would be removed by this project and would need to be replaced following construction. It is strongly recommended that a minimum of 10 percent of the replacement plantings consist of native species. In addition, no species identified on the California Exotic Pest Plant Council's list of invasive exotic species should be planted anywhere within the project limits.

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

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Environmental Oversight:	Date:

INTERSTATE 5 CORRIDOR IMPROVEMENT PROJECT
MITIGATION MONITORING REPORT

Project/Component: Interstate 5 Corridor Improvement Project	**EA:** 2159A	**PM:** LA 0.0/6.3 ORA 42.2/44.4
Mitigation Log Name: Wildlife	Party Responsible for Mitigation Monitoring: Environmental Planning, Landscape Designer, Design Engineer, RE, Maintenance	
Required Monitoring/Reporting Frequency:	**Implementation/Monitoring Phase:** (circle) Design Construction Operation	

Mitigation Measure:
The removal of trees and other vegetation should be scheduled to occur between September 16 and March 1 to avoid the bird-nesting season. If this is not possible, a pre-construction survey would be required one to two weeks prior to the vegetation removal. If nesting birds are present, construction activities in the vicinity of the nest (within 500 feet for raptors, 100 feet for other birds) would be delayed until nesting is completed and all young have left the nest. If work at Coyote Creek and North Fork Coyote Creek is scheduled to begin between March 15 and September 30, periodic surveys of these areas should be conducted between March 15 and the start of construction to determine if bats and/or swallows are present. If there is evidence that roosting/nesting behavior is beginning, removal of partially completed nests or installation of exclusionary devices should be performed to prevent occupation of the bridge. If this is not accomplished, construction would have to be delayed until all roosting/nesting activities are completed. New landscaping should be installed in areas where space permits to allow for the re-establishment of wildlife habitat. A large amount of existing landscape vegetation would be removed by this project and would need to be replaced following construction. It is strongly recommended that a minimum of 10 percent of the replacement plantings consist of native species. In addition, no species identified on the California Exotic Pest Plant Council's list of invasive exotic species should be planted anywhere within the project limits.

Mitigation Monitoring Action Performed:

Mitigation Complete? Yes ❑ No ❑
If yes, reference any supporting documentation such as engineering drawings, contract documents, or other reports as applicable.
If no, itemize outstanding mitigation and reasons why measures were not implemented.

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Signature of Project Manager:	Date:
Environmental Oversight:	Date:

CHAPTER 8 – LIST OF PREPARERS

CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)

Ronald Kosinski – Deputy District Director, Division of Environmental Planning; BA Geography California State University Long Beach, MA Urban and Regional Planning California Polytechnic University Pomona; 30 years experience writing reviewing and managing environmental documents; Responsible for management of environmental document preparation.

Jinous Saleh – Senior Environmental Planner; MA Urban and Regional Planning, University of Southern California; 13 years experience in transportation environmental planning; Responsible for document review.

Garrett Damrath – Associate Environmental Planner; BA Environmental Studies, BA Geography, California State University San Bernardino; 8 years experience in environmental document preparation; Responsible for EIR/EIS preparation and environmental project management.

Diaa Yassin – Project Manager; MS Civil Engineering, California State University Sacramento, BS Civil Engineering, California State University Long Beach; 15 years experience in civil engineering including 5 years experience in project management; Responsible for project management and document review.

Jason Roach – Associate Environmental Planner; BS Environmental Science, University of California at Riverside; 8 years experience in transportation environmental planning; Responsible for consultant coordination, document review, circulation preparation.

Diane Jacobs – PE Transportation Engineer; BA, Brown University, BS, California State University Los Angeles; 7 years experience with microsimulation; Responsible for traffic data coordination.

Karl Price – Senior Environmental Planner; BS Biological Sciences, California State Polytechnic University Pomona; 8 years experience in environmental planning and biological impact assessment; Responsible for Natural Environment Study Report preparation and resource agency coordination.

Gustavo Ortego – Caltrans District Geologist; BS Geology National Polytechnic Institute Mexico City; MS Geology National Polytechnic Institute Mexico City, 20 years experience in geological engineering; Prepared Geotechnical Report.

Haiching Pan – Landscape Architect; MS Landscape Architecture, Cal Poly Pomona; 25 years experience in landscape architecture; Responsible for Visual Impact Study preparation.

Lorna Foster – Associate Right-of-way Agent, MPA, University of Southern California; 15 years experience in transportation; Responsible for Draft Relocation Impact Study preparation.

Ralph Sasaki – Senior Transportation Engineer; BS, Civil Engineering, Washington State University Pullman; 26 years experience in hydraulics engineering; Responsible for Location Hydraulics Study preparation.

Claudia Harbert – Associate Environmental Planner, Architectural Historian; MA Architectural History, University of Pennsylvania; 8 years experience in transportation environmental planning; Responsible for Historic Property Survey Report and Environmental Document review.

Alex Kirkish – Associate Environmental Planner, Archaeologist; MA Archaeology, University of California Riverside, BA Archaeology, University of California Santa Barbara; 25 years experience in archaeology; Responsible for Archaeology Survey Report preparation.

FEDERAL HIGHWAY ADMINISTRATION (FHWA)

Bob Cady – Field Operations Engineer; BS and MS Civil Engineering, West Virginia University; 40 years experience in transportation engineering; Responsible for document review for Federal compliance with NEPA.

Steve Healow – Transportation Engineer PE; MS Civil Engineering, University of Nevada Reno, BS Civil Engineering, Coast Guard Academy; 24 years experience in civil engineering, 5 years experience in project development and environmental analysis; Responsible for document review for Federal compliance with NEPA.

LSA ASSOCIATES, INC.

Deborah Pracilio – Principle, LSA Associates Inc.; BA, Social Ecology, University of California, Irvine. Ms. Pracilio has over 19 years of experience in the preparation and project management of CEQA and NEPA mandated environmental documents; Responsible for management of the Community Impact Assessment, Cumulative Impact Assessment and Transit Enhancement Alternative, Traffic and Air Quality Analyses.

Andrea Zullo – Environmental Planner; BS Geography/Anthropology, California State Polytechnic University, Pomona; 6 years experience in environmental planning; Responsible for Cumulative Impact Assessment preparation.

Edward Alegre – Senior Transportation Planner; BA, Environmental Analysis and Design, BA, Sociology (Minor: Urban and Regional Planning) University of California at Irvine; 3 years experience in traffic and transportation analysis; Assisted in the preparation of the Traffic and Transportation Study.

Keith Lay – Senior Air Quality/Noise Specialist; BS, Civil Engineering, University of Manitoba; 7 years experience preparing air quality and noise studies; Assisted in the preparation of the air quality study.

Les Card – CEO LSA Associates, Inc.; Degree(s), School(s); years experience in field; Responsible for Traffic and Transportation Study preparation.

Lisa Williams – Senior Environmental Specialist; BS Biological Sciences University of California Irvine, MS Environmental Studies California State University Fullerton; 13 years experience; Responsible for Cumulative Impact Report.

Meghan Macias – Associate Environmental Planner; BA Geography California State University Fullerton, MA Urban and Regional Planning University of California Irvine; 7 years experience; Task manager for Traffic and Transportation Study.

Noel Legaspi – Environmental Planner; BA Environmental Analysis and Design University of California Irvine; 4 years experience in environmental document preparation; Assisted in preparation of Community Impact Assessment.

Pete Pang – Senior GIS Specialist; BA Geography University of California Santa Barbara; 8 years Experience in GIS; Coordinated and produced GIS aspects.

Ron Brugger – Air Quality Analyst, BS Mechanical Engineering University of Wisconsin Madison; 13 years experience in air emission modeling; Responsible for air quality modeling of I-5.

Rob McCann – President LSA Associates, Inc.; BA Geography California State University; 23 years experience in environmental document and technical study preparation; Responsible for implementation of the public participation program, development of a transit enhancement alternative to be evaluated in the EIR/EIS; preparation of traffic/circulation, impact studies, and community impact, and cumulative impact assessments.

Tony Chung, PhD – Principal Director of Acoustical and Air Quality Services; BS Mechanical Engineering National Tsing-Hua University Taiwan, MS Mechanical Engineering University of Mississippi Oxford, MS Mechanical Engineering University of California Los Angeles, PhD Mechanical Engineering University of California Los Angeles; 18 years experience in air quality Analysis; Task Manger for the Air Quality Analysis.

MYRA FRANK & ASSOCIATES

Rick Starzak – Senior Architectural Historian; BS Architecture, Brown University, MA Architecture: History, Criticism & Analysis, UCLA; 27 years experience in architectural history; Responsible for Historic Property Survey Report Preparation.

Alma Carlisle – Architectural Historian IV; BA Architecture, Howard University; 31 years experience in architectural history and architecture; Responsible for Historic Property Survey Report Preparation.

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Director of Recreation and Park Services
City of Norwalk
Parks & Recreation
12700 Norwalk Blvd.
Norwalk, CA 90650

Mr. Desi Alvarez
Director/ TAC Member
City of Downey
Public Works Department
11111 Brookshire Avenue
Downey, CA 90241

Mr. Steve Forster
Director/ TAC Member
City of La Mirada
Public Works
13700 La Mirada Blvd.
La Mirada, CA 90638

Ms. Sandra Shewry
Director
Department of Health and Human Services
Office of Environmental Affairs
200 Independence Avenue, SW, Room 537F
Washington, DC 20201

Mr. Roger Yoh
Division 3 Director
Orange County Water District
P.O. Box 8300
Fountain Valley, CA 92728-8300

Ms. Felicia Marcus
EIS Coordinator
Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105-3901

Ms. Frannie Donoghue
Executive Director
Buena Park Convention and Visitors Office
6280 Manchester Blvd., Suite 103
Buena Park, CA 90621

Mr. Kathy Fink
Executive Director
City of Santa Fe Springs Chamber of Commerce
12016 E. Telegraph Road, Suite 100
Santa Fe Springs, CA 90670

Mr. Steve Larson
Executive Director
Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Ms. Sue Nordin
Executive Director
Downey Chamber of Commerce
11131 Brookshire
Downey, CA 90241

Ms. Vivian Hansen
Executive Director
Norwalk Chamber of Commerce
12040 Foster Road
Norwalk, CA 90650

Mr. Carlos Jackson
Executive Director
Los Angeles County Community Development Commission (LACDC)
2 Coral Circle
Monterey Park, CA 91755

Ms. Laurie Rios
Commissioner
City of Santa Fe Springs Planning Commission
11710 E. Telegraph Road
Santa Fe Springs, CA 90670-3679

Mr. Don Drachane
Chief
California Air Resources Board
9528 Telstar Ave.
El Monte, CA 91734

Ms. Katherine Perez
Executive Director
Southern California Transportation and Land Use Coalition
623 N. Azusa Avenue
Azusa, CA 917022910

Mr. Tim Carmichael
Executive Director
Coalition for Clean Air
10780 W. Santa Monica Blvd., #210
Los Angeles, CA 90025

Mr. Tom Lynch
Executive Director
City of Norwalk
Redevelopment Department
12700 Norwalk Blvd.
Norwalk, CA 90650

Col. Alex C. Dornstauder
District Commander
U.S. Army Corps of Engineers
915 Wilshire Blvd. #980
Los Angeles, CA 90017

Ms. Arcelia Valenzuela
Commissioner
City of Santa Fe Springs Traffic Commission
11710 Telegraph Road
Santa Fe Springs, CA 90670

Mr. Michael Murray
Commissioner
City of Downey Planning Commission
12236 Eastbrook Avenue
Downey, CA 90242

Mr. Roger Brossmer
Commissioner
City of Downey Planning Commission
12744 Parrot Avenue
Downey, CA 90242

Mr. Ron Boatright
Commissioner
City of La Mirada Planning Commission
13700 La Mirada Blvd.
La Mirada, CA 90638

Mr. Mark Tieger
Commissioner
City of Buena Park Planning Commission
6650 Beach Boulevard First Floor
Buena Park, CA 90622

Ms. Stephanie Stoermer
Environmental Specialist
FHWA
980 Capitol Mall, Suite 4-100
Sacramento, CA 95814

Mr. Robert Orpin
Director
City of Santa Fe Springs
Planning and Development Department
11710 E. Telegraph Road
Santa Fe Springs, CA 90670

Ms. Roxanna Grassfield
Commissioner
City of Buena Park Planning Commission
6650 Beach Boulevard First Floor
Buena Park, CA 90622

Mr. Michael Madrigal
Commissioner
City of Santa Fe Springs Planning Commission
11710 E. Telegraph Road
Santa Fe Springs, CA 90670-3679

Mr. Stephen Allen
Commissioner
City of Downey Planning Commission
7539 Quill Drive
Downey, CA 90241

Mr. Gus Velasco, Jr.
Commissioner
City of Santa Fe Springs Traffic Commission
11710 Telegraph Road
Santa Fe Springs, CA 90670

Ms. Kim Zollman
Commissioner
City of Santa Fe Springs Traffic Commission
11710 Telegraph Road
Santa Fe Springs, CA 90670

Ms. Sarah Garcia
Commissioner
City of Santa Fe Springs Traffic Commission
11710 Telegraph Road
Santa Fe Springs, CA 90670

Mr. Raymond L. Orbach
Director
U.S. Department of Energy
Office of Environmental Compliance
1000 Independence Avenue, SW, Room 4G-064
Washington, DC 20585

Mr. Fernando Tarin
Director
City of Santa Fe Springs
Police Services Department
11576 Telegraph Road
Santa Fe Springs, CA 90670-9928

Mr. Joseph Zagami
Community Library Manager
Norwalk Regional Library
12350 Imperial Hwy.
Norwalk, CA 90650

Mr. Jim Parker
Director
City of Norwalk
Transit Department
12501 E. Imperial Hwy. #130
Norwalk, CA 90650

Ms. May Wong Hui
Director
City of Buena Park
Economic Development
6650 Beach Boulevard First Floor
Buena Park, CA 90622

Ms. Ana Alvarez
Director
City of Santa Fe Springs
Community Services Department
11710 E. Telegraph Road
Santa Fe Springs, CA 90670

Mr. Esteban Almanza
Deputy Director, Administration
Governor's Office of Planning & Research
1400 Tenth Street
Sacramento, CA 95814

Mr. Rick Warsinski
Director
City of Buena Park Community Development
6650 Beach Boulevard First Floor
Buena Park, CA 90622

Mr. Alex Garcia
Department of Regional Planning
County of Los Angeles
320 W. Temple Street, Rm. 1360
Los Angeles, CA 90012

Ms. Margaret Donnellan-Todd
County Librarian
County of Los Angeles Public Library
7400 E. Imperial Highway
Downey, CA 90241

Other Interested Parties

Mr. Michael Popwill
Consultant
Los Angeles County Community Development
Commission (LACDC)
2 Coral Circle
Monterey Park, CA 91755

Owner
11246 Mondon Avenue
Santa Fe Springs, CA 90670

Property Owner
10981 Davenrich Street
Santa Fe Springs, CA 90670

Property Owner
11402 Muller Street
Santa Fe Springs, CA 90670

Property Owner
10984 Davenrich Street
Santa Fe Springs, CA 90670

Property Owner
10977 Davenrich Street
Santa Fe Springs, CA 90670

Property Owner
14251 Firestone Blvd.
La Mirada, CA 90638

Owner
11551 Dollison Drive
Norwalk, CA 90650

Owner
12804 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
11528 Thomas Place
Norwalk, CA 90650

Owner
11534 Thomas Place
Norwalk, CA 90650

Owner
12104 Union Street
Norwalk, CA 90650

Owner
12106 Union Street
Norwalk, CA 90650

Resident
12721 Paddison Avenue
Norwalk, CA 90650

Owner
11402 Asmussen Avenue
Norwalk, CA 90650

Owner
12112 Union Street
Norwalk, CA 90650

Owner
12848 Firestone Blvd
Santa Fe Springs, CA 90670

Resident
12651 Zeus Avenue
Norwalk, CA 90650

Resident
12655 Zeus Avenue
Norwalk, CA 90650

Resident
12867 Firestone Blvd.
Norwalk, CA 90650

Owner
14632 Gracebee Ave
Norwalk, CA 90650

Owner
13601 Silverbow Avenue
Norwalk, CA 90650

Resident
12727 Paddison Avenue
Norwalk, CA 90650

Resident
12733 Paddison Avenue
Norwalk, CA 90650

Resident
12873 Firestone Blvd.
Norwalk, CA 90650

Resident
12635 Zeus Avenue
Norwalk, CA 90650

Resident
12903 Firestone Blvd.
Norwalk, CA 90650

Property Owner
11412 Cecilia Street
Santa Fe Springs, CA 90670

Resident
12645 Zeus Avenue
Norwalk, CA 90650

Resident
14739 Dinard Avenue
Norwalk, CA 90650

Resident
14736 Dinard Avenue
Norwalk, CA 90650

Resident
12495 Sproul Street
Norwalk, CA 90650

Resident
12943 Firestone Blvd.
Norwalk, CA 90650

Property Owner
11510 Lakeland Road
Santa Fe Springs, CA 90670

Property Owner
13565 Freeway Drive
Santa Fe Springs, CA 90670

Resident
12879 Firestone Blvd.
Norwalk, CA 90650

Owner
10816 Longworth Avenue
Downey, CA 90241

Owner
14637 Fidel Ave
Norwalk, CA 90650

Owner
14621 Painter Ave
Norwalk, CA 90650

Owner
14633 Gracebee Ave
Norwalk, CA 90650

Owner
13601 Silverbow
Norwalk, CA 90650

Owner
12126 Union St
Norwalk, CA 90650

Owner
11353 Cecilia St
Downey, CA 90241

Owner
14622 Painter Ave
Norwalk, CA 90650

Owner
12662 Zeus Ave
Norwalk, CA 90650

Owner
11402 Asmussen Ave
Norwalk, CA 90650

Owner
11344 Buell Street
Downey, CA 90241

Owner
10810 Longworth Avenue
Downey, CA 90241

Resident
12607 Zeus Avenue
Norwalk, CA 90650

Resident
13641 Markdale Avenue
Norwalk, CA 90650

Owner
11274 Quinn Street
Downey, CA 90241

Owner
11333 Muller Street
Downey, CA 90241

Owner
14612 Maryton Ave
Norwalk, CA 90650

Owner
12054 Union St
Norwalk, CA 90650

Owner
13400 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14653 Maryton Ave
Norwalk, CA 90650

Owner
14014 Alondra Blvd
Santa Fe Springs, CA 90670

Owner
13505 Delavan Ave
Norwalk, CA 90650

Owner
12457 Sproul St
Norwalk, CA 90650

Owner
12453 Sproul St
Norwalk, CA 90650

Owner
14636 Fidel Ave
Norwalk, CA 90650

Owner
13712 Belmart Ave
Norwalk, CA 90650

Owner
11434 Cresson St
Norwalk, CA 90650

Owner
14622 Shoemaker Ave
Norwalk, CA 90650

Owner
11907 Lyndora St
Norwalk, CA 90650

Owner
14518 Loch Nevis
Norwalk, CA 90650

Owner
11528 Thomas Pl
Norwalk, CA 90650

Owner
11534 Thomas Pl
Norwalk, CA 90650

Owner
11551 Dollison Dr
Norwalk, CA 90650

Owner
14634 Firestone Blvd
La Mirada, CA 90638

Owner
12443 Sproul St
Norwalk, CA 90650

Resident
13535 Markdale Avenue
Norwalk, CA 90650

Resident
13803 Araby Avenue
Norwalk, CA 90650

Resident
13706 Belmart Avenue
Norwalk, CA 90650

Resident
13635 Markdale Avenue
Norwalk, CA 90650

Resident
13619 Markdale Avenue
Norwalk, CA 90650

Resident
13615 Markdale Avenue
Norwalk, CA 90650

Resident
13611 Markdale Avenue
Norwalk, CA 90650

Resident
13629 Markdale Avenue
Norwalk, CA 90650

Resident
13539 Markdale Avenue
Norwalk, CA 90650

Resident
12473 Sproul Street
Norwalk, CA 90650

Resident
13525 Markdale Avenue
Norwalk, CA 90650

Resident
13515 Markdale Avenue
Norwalk, CA 90650

Resident
13509 Markdale Avenue
Norwalk, CA 90650

Resident
13427 Markdale Avenue
Norwalk, CA 90650

Resident
13423 Markdale Avenue
Norwalk, CA 90650

Resident
13419 Markdale Avenue
Norwalk, CA 90650

Resident
13605 Markdale Avenue
Norwalk, CA 90650

Resident
14659 Maryton Avenue
Norwalk, CA 90650

Ms. Ana L. Derey Trust
11473 Elizabeth Street
Norwalk, CA 90650

Owner
11339 Buell Street
Downey, CA 90241

Resident
12403 Arlee Avenue
Norwalk, CA 90650

Resident
12339 Arlee Avenue
Norwalk, CA 90650

Resident
12329 Arlee Avenue
Norwalk, CA 90650

Resident
14643 Fidel Avenue
Norwalk, CA 90650

Resident
13804 Araby Avenue
Norwalk, CA 90650

Resident
14658 Maryton Avenue
Norwalk, CA 90650

Resident
12467 Sproul Street
Norwalk, CA 90650

Resident
13404 Esmond Avenue
Norwalk, CA 90650

Resident
13403 Esmond Avenue
Norwalk, CA 90650

Resident
13703 Belmart Avenue
Norwalk, CA 90650

Resident
13606 Silverbow Avenue
Norwalk, CA 90650

Resident
12483 Sproul Street
Norwalk, CA 90650

Resident
12477 Sproul Street
Norwalk, CA 90650

Resident
13329 Markdale Avenue
Norwalk, CA 90650

Resident
14637 Gracebee Avenue
Norwalk, CA 90650

Resident
12937 Firestone Blvd.
Norwalk, CA 90650

Resident
13413 Markdale Avenue
Norwalk, CA 90650

Resident
11926 Mondon Avenue
Norwalk, CA 90650

Resident
11703 Hercules Street
Norwalk, CA 90650

Resident
12002 Mondon Avenue
Norwalk, CA 90650

Resident
12016 Mondon Avenue
Norwalk, CA 90650

Resident
11824 Alburtis Avenue
Norwalk, CA 90650

Resident
13703 Markdale Avenue
Norwalk, CA 90650

Resident
14628 Shoemaker Avenue
Norwalk, CA 90650

Resident
13709 Markdale Avenue
Norwalk, CA 90650

Resident
12919 Firestone Blvd.
Norwalk, CA 90650

Resident
12909 Firestone Blvd.
Norwalk, CA 90650

Resident
14527 Loch Nevis Avenue
Norwalk, CA 90650

Resident
14627 Painter Avenue
Norwalk, CA 90650

Resident
14642 Fidel Avenue
Norwalk, CA 90650

Resident
14628 Painter Avenue
Norwalk, CA 90650

Resident
12951 Firestone Blvd.
Norwalk, CA 90650

Resident
11703 Cyclops Street
Norwalk, CA 90650

Resident
11734 Mondon Avenue
Norwalk, CA 90650

Resident
12613 Zeus Avenue
Norwalk, CA 90650

Resident
13317 Markdale Avenue
Norwalk, CA 90650

Resident
13313 Markdale Avenue
Norwalk, CA 90650

Resident
13307 Markdale Avenue
Norwalk, CA 90650

Resident
13233 Markdale Avenue
Norwalk, CA 90650

Resident
13227 Markdale Avenue
Norwalk, CA 90650

Resident
11918 Mondon Avenue
Norwalk, CA 90650

Resident
11828 Mondon Avenue
Norwalk, CA 90650

Resident
13407 Markdale Avenue
Norwalk, CA 90650

Resident
11802 Mondon Avenue
Norwalk, CA 90650

Resident
11603 Bayla Street
Norwalk, CA 90650

Resident
11434 Mondon Avenue
Norwalk, CA 90650

Resident
11426 Mondon Avenue
Norwalk, CA 90650

Resident
11418 Mondon Avenue
Norwalk, CA 90650

Resident
11551 Tina Street
Norwalk, CA 90650

Resident
13717 Markdale Avenue
Norwalk, CA 90650

Resident
11529 Thomas Place
Norwalk, CA 90650

Ms. Eva Ramos
11448 Cresson
Norwalk, CA 90650

Mr. Ismael Castillo
11403 Buell Street
Santa Fe Springs, CA 90670

Mr. & Mrs. Henry and Kathi Serna
11501 Lakeland Road
Santa Fe Springs, CA 90670

Mr. Gilbert Sandoval
11545 Beaty Street
Norwalk, CA 90650

Geneva Debuhr
12003 Adorea St.
Norwalk, CA 90650

Mr. Gary Skeen
Carmenita Truck Leasing
13124 Firestone Blvd.
Santa Fe Springs, CA 90670

Ms. Gabriela Ortega
12810 Zeus Avenue
Norwalk, CA 90650

Ms. Marilyn Perez
13519 Markdale Avenue
Norwalk, CA 90650

Ms. Florence Starow
14370 Firestone Blvd.
La Mirada, CA 90638

Ms. Janet Lance
11716 Mondon Ave.
Norwalk, CA 90650

Mr. Eric Hittelman
Roll Properties
13360 Firestone Blvd.
Santa Fe Springs, CA 90670

Engler Rentals
Santana Apartments
12025 Pioneer Blvd.
Norwalk, CA 90650

Ms. Elsie Sanchez
11438 Cresson Street
Norwalk, CA 90650

Mr. Edward Castillo
12617 Zeus Avenue
Norwalk, CA 90650

Mr. Eduardo Hernandez
12804 Zeus Avenue
Norwalk, CA 90650

Ms. Dora McKinn
12489 Sproul Street
Norwalk, CA 90650

Frances Earhart
10825 Orr & Day Road
Santa Fe Springs, CA 90670

Mr. Juan Tovar
14735 Dinard Avenue
Norwalk, CA 90650

Armida Rosario
11408 Buell Street
Santa Fe Springs, CA 90670

Ms. Ling-Huei Lin
Comfort Inn
12512 Pioneer Blvd.
Norwalk, CA 90650

Mr. Lester Gatewood
11340 Muller Street
Downey, CA 90241

Mr. Larry Flood
12323 Arlee Avenue
Norwalk, CA 90650

Ms. Kendra Lee
13333 Markdale Avenue
Norwalk, CA 90650

Mr. Keith Mogg
12501 Sproul Street
Norwalk, CA 90650

Mr. & Mrs. James and Tammy Etier
13403 Markdale Avenue
Norwalk, CA 90650

Mr. Juvenal Barrios
13213 Markdale Avenue
Norwalk, CA 90650

Mr. James K. Martin
12335 Arlee Avenue
Norwalk, CA 90650-2402

Mr. John Windle
Chevron
14240 Firestone Blvd.
La Mirada, CA 90638

Mr. Joel Sharin
Vend Catering Supply
13560 Firestone Blvd.
Santa Fe Springs, CA 90670

Mr. Jim Newton
Fugi Trucolor Photo
13320 E. Firestone Blvd.
Santa Fe Springs, CA 90670

Mr. Jessie Burke
11645 Hercules Street
Norwalk, CA 90650

Mr. & Mrs. Jesse & Mary Luera
Luera's Cleaners
12836 Rosecrans Avenue
Norwalk, CA 90650

Mr. Jesse Smith
12008 Mondon Avenue
Norwalk, CA 90650

Ms. Diana Rosas
13504 Delavan Avenue
Norwalk, CA 90650

Mr. Keith Gawith
13531 Markdale Avenue
Norwalk, CA 90650

Property Manger
12732 Paddison Ave
Norwalk, CA 90650

Mr. Donney Chaney
Kosmo Investment Corp.
10821 Orr & Day Road
Santa Fe Springs, CA 90670

Andrew and Jessica Sanchez
12317 Arlee Avenue
Norwalk, CA 90650

Resident
12419 Arlee Avenue
Norwalk, CA 90650

Ms. Alice Clark
11442 Cresson Street
Norwalk, CA 90650

Mr. Alex Lynn
Material Handling Supply Inc.
12900 Firestone Blvd.
Santa Fe Springs, CA 90670

Mr. Ken Ryan
Statewide Environmental Chair
Sierra Club
484 Lake Park Avenue, Suite 282
Oakland, CA 94610

Mr. & Mrs. Bob & Barbara Duncan
11358 Cecilia Street
Norwalk, CA 90650

Property Owner
14626 Firestone Blvd.
La Mirada, CA 90638

Mr. Carlos Martin
11414 Buell Street
Santa Fe Springs, CA 90670

Property Manager
12732 Paddison Ave
Norwalk, CA 90650

Mr. Lawrence Bruenecke
President
Ideal Engraving Co.
15401-A Carmenita Road
Santa Fe Springs, CA 90670

Mr. David Frederickson
PM
General Motors World Wide Real Estate
515 Marin Street, Suite 211
Thousand Oaks, CA 91360

Occupant
16700 Valley View Blvd., #160
La Mirada, CA 90638

General Manager
Norwalk Marriott Hotel
13111 Sycamore Drive
Norwalk, CA 90650

Mr. Bob Brenvza
Director of Facility Development
BN&SF Railway Company
740 East Carnegie
San Bernardino, CA 92408

Mr. George A. Ray
CEO
Le Fiell Manufacturing Co.
13700 Firestone Blvd.
Santa Fe Springs, CA 90670

Mr. John R. Zeigler
Senior Transportation Engineer
Automobile Club of Southern California
P.O. Box 25001
Santa Ana, CA 92799-5001

Claudia Monterrosa
11558 Tina Street
Norwalk, CA 90650

Ms. Marina Recendez
13223 Markdale Avenue
Norwalk, CA 90650

Ms. Dawn Walsh
11403 Cecilia Street
Santa Fe Springs, CA 90670

Mr. Daryl McCullough
Innovation Quality Center (Smurfit & Stone)
13833 Freeway Drive
Santa Fe Springs, CA 90670

Daniel R. & Charles F. Moothart
P.O. Box 4528
Laguna Beach, CA 92651

Mr. & Mrs. Daniel H & Diana J Traen
13060 Firestone Blvd.
Santa Fe Springs, CA 90670

Mr. Daniel Walker
Sierra Club, Angeles Chapter Transportation Committee
7416 W. 82nd Street
Los Angeles, CA 90045

Bhula Bhai & Kamuben B Patel
13530 Firestone Blvd.
Santa Fe Springs, CA 90670

Mr. & Mrs. Clint & Elizabeth Meche
11409 Buell Street
Santa Fe Springs, CA 90670

Ms. Diane Plotkin
Karney Management Co.
12011 San Vicente Blvd., #700
Los Angeles, CA 90049

Ms. Cindy Salry
13433 Markdale Avenue
Norwalk, CA 90650

Mr. Chris Brown
13715 Markdale Avenue
Norwalk, CA 90650

Mr. & Mrs. Charles Pierce
13711 Bechard Al
Norwalk, CA 90650

Ms. Catherine Cardona
11422 Mondon Avenue
Norwalk, CA 90650

Ms. Carolyn Young
Norwalk Village
12737 Rosecrans Avenue
Norwalk, CA 90650

Mr. Carmen R Diaz
13625 Excelsior Drive
Santa Fe Springs, CA 90670

Ms. Carmen Padilla
912 Summitview Court
Walnut, CA 91789

Ms. Cristina La Borde
McDowell-Craig Mfg. Co.
13146 Firestone Blvd
Norwalk, CA 90650

Industrial Threaded Products I
13580 Firestone Blvd.
Santa Fe Springs, CA 90670

Norwalk United Methodist Church
12111 Olive Street
Norwalk, CA 90650

National Engineering Tech.
14320 Firestone Blvd. #100
La Mirada, CA 90638

Mike Thompson Recreational Vehicle
13846 Firestone Blvd.
Santa Fe Springs, CA 90670

Mack Sales Of So. California
14800 Firestone Blvd.
La Mirada, CA 90638

Lowe's Home Improvement
14809 Carmenita Rd
Norwalk, CA 90650

Owner
La Fiell Manufacturing Co
13770 Firestone Blvd
Santa Fe Springs, CA 90670

Mr. Margo Scott
11702 Mondon Avenue
Norwalk, CA 90650

Innovation Quality Center (Smurfit & Stone)
13833 Freeway Drive
Santa Fe Springs, CA 90670

Outback Steakhouse
12850 Norwalk Blvd.
Norwalk, CA 90650

Home Furnishing Centers
14575 Firestone Blvd.
La Mirada, CA 90638

Hayes Lemmerz Intl.
14500 Firestone Blvd.
La Mirada, CA 90638

Glendon Company, Inc.
14670 Firestone Blvd.
La Mirada, CA 90638

Furniture Gallery
14447 Firestone Blvd.
La Mirada, CA 90638

Fujita Calif. Partner III (Komatsu Forklifts)
14131 Freeway Drive
Santa Fe Springs, CA 90670

Foodmarket Inc.
13369 E. Firestone Blvd.
Norwalk, CA 90650

Inter Satellite Productions Inc.
14111 E. Freeway Drive
Santa Fe Springs, CA 90670

Southwest Industrial Properties
13525 Freeway Drive
Santa Fe Springs, CA 90670

Occupant
14104 E. Firestone Blvd.
Santa Fe Springs, CA 90670

Norwalk Resident
12820 Zeus Avenue
Norwalk, CA 90650

Owner
Warehouse
13539 Freeway Dr
Santa Fe Springs, CA 90670

Volvo Trucks
13443 Freeway Drive
Santa Fe Springs, CA 90670

Owner
Vista Metropolitan Media
14400 Firestone Blvd
La Mirada, CA 90638

The Piano Wholesale
14849 Firestone Blvd. #101
La Mirada, CA 90638

Norwalk Village Corp
13030 Firestone Blvd.
Santa Fe Springs, CA 90670

Southwest Industrial Properties
13525 Freeway Drive
Santa Fe Springs, CA 90670

Nu-Line Industries
14535 Firestone Blvd.
La Mirada, CA 90638

SIF FREEWAY DRIVE LLC
13767 Freeway Drive
Santa Fe Springs, CA 90670

Schork Family Partnership
12818 Firestone Blvd.
Santa Fe Springs, CA 90670

Owner
Ryder Truck Rental
13650 Firestone Blvd
Santa Fe Springs, CA 90670

Paintball Players Club
14525 Firestone Blvd.
La Mirada, CA 90638

Pacific Gear/PTO Sales
14815 Firestone Blvd.
La Mirada, CA 90638

Outbreak Graphics
14652 Firestone Blvd.
La Mirada, CA 90638

Countrywide Commerce Inc.(Denny's #6982)
14300 Firestone Blvd.
La Mirada, CA 90638

Texaco
14210 Firestone Blvd.
La Mirada, CA 90638

Otilia Trujillo
11466 Cresson Street
Norwalk, CA 90650

Elephant Bar & Restaurant
14303 Firestone Blvd.
La Mirada, CA 90638

Mr. & Mrs. Robert E & Sharon F Cox
SUNSET BUS SALES
12940 Firestone Blvd.
Santa Fe Springs, CA 90670

Mr. Robert Tillman
Lowe's Home Improvement Warehouse
14873 Carmenita Road
Norwalk, CA 90650

Mr. Richard Balderrama
11412 Mondon Avenue
Norwalk, CA 90650

Mr. Richard Russell
Newport Federal
4425 Jamboree Road, Suite 250
Newport Beach, CA 92660

Mr. Ralph Robles
13303 Markdale Avenue
Norwalk, CA 90650

Mr. Ron Casin
Center Line Wheel
13521 Freeway Dr.
Santa Fe Springs, CA 90670

Mr. & Mrs. Paul & Joseph Garrett Trust
12011 Adorea Street
Norwalk, CA 90650

Ms. Rosie Rojas
14638 Gracebee Avenue
Norwalk, CA 90650

Ms. Norma Arellanes
13501 Delavan Avenue
Norwalk, CA 90650

Mr. & Mrs. Ning & Yean Yen
14655 Firestone Blvd.
La Mirada, CA 90638

Mr. Muhammad Sharif
Union 76
14960 Carmenita Rd.
Norwalk, CA 90650

Mr. Mike Sacry
13433 Markdale Avenue
Norwalk, CA 90650

Mr. & Mrs. Michael R. & Ligaa A. Sultze
13103 San Antonio Drive
Norwalk, CA 90650

Mr. Michael N. Diamond
13113 San Antonio Drive
Norwalk, CA 90650

Mr. & Mrs. Mark R. & Teresa J. Consiglio
12136 Union Street
Norwalk, CA 90650

Mr. & Mrs. Paul and Marilyn Johnson
12915 Firestone Blvd.
Norwalk, CA 90650-5126

Mr. Victor Starow
Starow Metal
14334 E. Firestone Blvd.
La Mirada, CA 90638

Occupant
11329 Muller Street
Downey, CA 90241

Clearman's North Woods Inn
14305 Firestone Blvd.
La Mirada, CA 90638

Choc Thrift Stores
13635 Freeway Dr.
Santa Fe Springs, CA 90670

Property Owner
Carmenita Ford Truck Sales
13407 Freeway Drive
Santa Fe Springs, CA 90670

Career Staff Unlimited
14241 Firestone Blvd. #220
La Mirada, CA 90638

Camping World, Inc.
14900 Firestone Blvd.
La Mirada, CA 90638

Mr. Rogelio Granady
13223 Markdale Avenue
Norwalk, CA 90650

Mr. Victor Soto
11847 East Lyndora Street
Norwalk, CA 90650

El Pollo Loco, Inc. El Pollo Loco #5542
12551 Rosecrans Avenue
Norwalk, CA 90650

Mr. & Mrs. Trinidad H. Vargas
13645 Markdale Avenue
Norwalk, CA 90650

Thania Soto
13723 Markdale Avenue
Norwalk, CA 90650

Tess Santiago
12639 Zeus Avenue
Norwalk, CA 90650

Stuart A. Harvey
1049 N. Glenhaven Ave.
Fullerton, CA 92835

Mr. Sergio Cruz
13625 Markdale Avenue
Norwalk, CA 90650

Ms. Sandra Vargas
11232 Orr and Day Road
Norwalk, CA 90650

Mr. & Mrs. Rudy and Jenny Cano
12857 Firestone Blvd.
Norwalk, CA 90650

Auto Club of Southern California
18642 S. Gridley Road
Norwalk, CA 90650

Resident
11226 Orr And Day Road
Norwalk, CA 90650

Resident
11903 Lyndora Street
Norwalk, CA 90650

Resident
11522 Thomas Pl.
Norwalk, CA 90650

Resident
11541 Dollison Drive
Norwalk, CA 90650

Resident
11531 Dollison Drive
Norwalk, CA 90650

Resident
11516 Dollison Drive
Norwalk, CA 90650

Resident
11515 Dollison Drive
Norwalk, CA 90650

Resident
11476 Elizabeth Street
Norwalk, CA 90650

Resident
11354 Cecilia Street
Norwalk, CA 90650

Resident
11406 Asmusen Avenue
Norwalk, CA 90650

Resident
12313 Arlee Avenue
Norwalk, CA 90650

Resident
11238 Orr And Day Road
Norwalk, CA 90650

Resident
11244 Orr And Day Road
Norwalk, CA 90650

Resident
11454 Cresson Street
Norwalk, CA 90650

Resident
13505 Markdale Avenue
Norwalk, CA 90650

Resident
12884 Sycamore Drive
Norwalk, CA 90650

Resident
12109 Adoree Street
Norwalk, CA 90650

Resident
12601 Zeus Avenue
Norwalk, CA 90650

Resident
11461 Elizabeth Street
Norwalk, CA 90650

Resident
11837 Lyndora Street
Norwalk, CA 90650

Resident
12413 Arlee Avenue
Norwalk, CA 90650

Resident
12409 Arlee Avenue
Norwalk, CA 90650

12117 Adoree St.
Norwalk, CA 90650

11265 Quinn Street
Downey, CA 90241

13767 Freeway Drive
Santa Fe Springs, CA 90670

Mr. & Mrs. Serrata
11402 Mondon Avenue
Norwalk, CA 90650

Resident
12009 Dollison Dr.
Norwalk, CA 90650

Resident
11554 Tina Street
Norwalk, CA 90650

Resident
12122 Union Street
Norwalk, CA 90650

Resident
14652 Maryton Avenue
Norwalk, CA 90650

Resident
11899 Lyndora Street
Norwalk, CA 90650

Resident
12802 Zeus Avenue
Norwalk, CA 90650

Resident
12816 Zeus Avenue
Norwalk, CA 90650

Resident
11841 Lyndora Street
Norwalk, CA 90650

Resident
11851 Lyndora Street
Norwalk, CA 90650

Resident
11857 Lyndora Street
Norwalk, CA 90650

Resident
11895 Lyndora Street
Norwalk, CA 90650

Resident
11554 Beaty St.
Norwalk, CA 90650

Resident
11342 Mondon Avenue
Norwalk, CA 90650

Resident
13323 Markdale Avenue
Norwalk, CA 90650

Resident
13219 Markdale Avenue
Norwalk, CA 90650

Resident
11818 Mondon Avenue
Norwalk, CA 90650

Resident
11728 Mondon Avenue
Norwalk, CA 90650

Resident
11810 Mondon Avenue
Norwalk, CA 90650

Resident
11604 Bayla Street
Norwalk, CA 90650

Resident
12435 Arlee Avenue
Norwalk, CA 90650

Resident
11348 Mondon Avenue
Norwalk, CA 90650

Resident
11338 Mondon Avenue
Norwalk, CA 90650

Resident
11332 Mondon Avenue
Norwalk, CA 90650

Resident
13733 Markdale Avenue
Norwalk, CA 90650

Resident
13729 Markdale Avenue
Norwalk, CA 90650

Resident
12431 Arlee Avenue
Norwalk, CA 90650

Resident
12648 Rexton Street
Norwalk, CA 90650

Resident
12116 Union Street
Norwalk, CA 90650

Resident
12425 Arlee Avenue
Norwalk, CA 90650

Resident
11406 Mondon Avenue
Norwalk, CA 90650

Resident
11657 Gem Street
Norwalk, CA 90650

Resident
12453 Arlee Avenue
Norwalk, CA 90650

Resident
12447 Arlee Avenue
Norwalk, CA 90650

Resident
11326 Mondon Avenue
Norwalk, CA 90650

Resident
12623 Zeus Avenue
Norwalk, CA 90650

Resident
12644 Rexton Street
Norwalk, CA 90650

Resident
12021 Dollison Drive
Norwalk, CA 90650

Resident
12003 Dollison Drive
Norwalk, CA 90650

Resident
11646 Hercules Street
Norwalk, CA 90650

Resident
11831 Dollison Drive
Norwalk, CA 90650

Resident
11812 Jersey Avenue
Norwalk, CA 90650

Resident
14595 Firestone Blvd.
La Mirada, CA 90638

Resident
11822 Mondon Avenue
Norwalk, CA 90650

Resident
11616 Allard Street
Norwalk, CA 90650

Resident
11615 Allard Street
Norwalk, CA 90650

Resident
11841 Dollison Drive
Norwalk, CA 90650

Resident
11835 Dollison Drive
Norwalk, CA 90650

Resident
11913 Dollison Drive
Norwalk, CA 90650

Resident
11363 Lakeland Street
Norwalk, CA 90650

Inco Commercial Broker
14700 Firestone Blvd., #111
La Mirada, CA 90638

In-N-Out Burgers #105
14341 Firestone Blvd.
La Mirada, CA 90638

International Multifoods
16424 Valley View Blvd.
La Mirada, CA 90638

J & J America
14130 Firestone Blvd., Ste B
Santa Fe Springs, CA 90670-5845

Owner
J.E. Shull & Son Mfg Reps
14152 Firestone Blvd
Santa Fe Springs, CA 90670

JRJ Express, Inc.
14849 Firestone Blvd. #202
La Mirada, CA 90638

JJJJQ, LLC Quetzalcoatl Insurance Marketing
12840 Rosecrans Avenue
Norwalk, CA 90650

Owner
Howard Koenig Plumbing
14182 Firestone Blvd
Santa Fe Springs, CA 90670

Extended Stay America #3
14775 Firestone Blvd.
La Mirada, CA 90638

Kimeco
14849 Firestone Blvd. #202
La Mirada, CA 90638

Kim's Furniture Gallery
14447 Firestone Blvd.
La Mirada, CA 90638

Kimeprint
14849 Firestone Blvd. #202
La Mirada, CA 90638

Paul Davis Restoration
14670 Firestone Blvd.
La Mirada, CA 90638

Owner
Hose-Man
14142 Firestone Blvd
Santa Fe Springs, CA 90670

Holiday Inn
14299 Firestone Blvd.
La Mirada, CA 90638

Holbrook Construction
14730 Firestone Blvd., #309
La Mirada, CA 90638

H & R Block Premium
16700 Valley View Blvd., #162
La Mirada, CA 90638

Group Ex Financial Corp.
14849 Firestone Blvd. #202
La Mirada, CA 90638

GJB Remainder LLC
13412 Excelsior Drive
Santa Fe Springs, CA 90670

Extra Hands Advertising
14700 Firestone Blvd., #104/105
La Mirada, CA 90638

Expert Calsun, Inc
14770 Firestone Blvd., #203
La Mirada, CA 90638

Excel Plus Professional
14700 Firestone Blvd., #110
La Mirada, CA 90638

Excel Plus Home Health
14700 Firestone Blvd., #110
La Mirada, CA 90638

King Express Travel
14849 Firestone Blvd. #202
La Mirada, CA 90638

Montgomery Investment Company
13221 Arctic Cir.
Santa Fe Springs, CA 90670

ESA 0355 INC.
14775 Firestone Blvd.
La Mirada, CA 90638

El Pollo Loco
16410 Valley View Blvd.
La Mirada, CA 90638

G.F. Galaxy Corporation
600 Wilshire Blvd., Suite 1410
Los Angeles, CA 90017

Met-Co-Aire
14656 1/2 Firestone Blvd.
La Mirada, CA 90638

American Controls
14770 Firestone Blvd., #207
La Mirada, CA 90638

Eagle Properties
14849 Firestone Blvd. #201
La Mirada, CA 90638

Panacea, Inc
14700 Firestone Blvd., #118
La Mirada, CA 90638

Pacific Pioneer Ins.
16700 Valley View Blvd. #Pent
La Mirada, CA 90638

Orange Coast Title Co
14320 Firestone Blvd. #300
La Mirada, CA 90638

Occupant
15055 Spring Avenue
Santa Fe Springs, CA 90670

Nikou Ltd.
434 S. Euclid
Norwalk, CA 92802

Nikon Inc.
19601 Hamilton Ave.
Torrance, CA 90502

New Continental Auto
14640 Firestone Blvd.
La Mirada, CA 90638

Music Information System
14730 Firestone Blvd., #318
La Mirada, CA 90638

MSI International
16702 Valley View Blvd.
La Mirada, CA 90638

Mike Thompson Recreational Vehicle
14000 Firestone Blvd.
Santa Fe Springs, CA 90670

Mike Thompson Recreational Vehicle
13910 Firestone Blvd.
Santa Fe Springs, CA 90670

Owner
Metrology Labs
14096 Firestone Blvd
Santa Fe Springs, CA 90670

L.A. County Fire Dept. Station 49
13820 La Mirada Blvd.
La Mirada, CA 90638

Metal Depot, Inc.
14334 Firestone Blvd.
La Mirada, CA 90638

Mejico Express
14849 Firestone Blvd. #202
La Mirada, CA 90638

Mechanic Refrigeration
14770 Firestone Blvd., #211
La Mirada, CA 90638

Mayako Japanese Restaurant
16560 Valley View Blvd.
La Mirada, CA 90638

Owner
Mako Company
14120 Firestone Blvd
Santa Fe Springs, CA 90670

Magic Store Fixture Inst
14770 Firestone Blvd., #206
La Mirada, CA 90638

Loftus Land Company
13601 Whittier, #211
Whittier, CA 90608

Owner
Linear Logic, Inc.
14072 Firestone Blvd
Santa Fe Springs, CA 90670

Liberty Vegetable Oil Co
P.O. Box 4207
Cerritos, CA 90703

Lens Technology
14256 Firestone Blvd.
La Mirada, CA 90638

LC Industries LLC
14949 Firestone Blvd.
La Mirada, CA 90638

L.F.G. Construction
14640 Firestone Blvd.
La Mirada, CA 90638

Mike Thompson Recreational
13940 Firestone Blvd.
Santa Fe Springs, CA 90670

Allen-Fry Steel Company
13325 Molette Street
Santa Fe Springs, CA 90670

Owner
Barbecues Galore
14040 Firestone Blvd
Santa Fe Springs, CA 90670

B & H Distributors
14655 Firestone Blvd.
La Mirada, CA 90638

Owner
Atlas Safe Co.
14106 Firestone Blvd
Santa Fe Springs, CA 90670

Atlantic Richfield Co
13460 Firestone Blvd.
Santa Fe Springs, CA 90670

Picture Perfect Video
14670 Firestone Blvd., #405
La Mirada, CA 90638

API Properties Associates I
11444 W. Olympic Blvd., #10Fl
Los Angeles, CA 90064

Unico Insurance Agency
16700 Valley View Blvd. #Pent
La Mirada, CA 90638

Owner
American Blinds & Carpets
14086 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
Alpha Laser-Laser Engineering
14164 Firestone Blvd
Santa Fe Springs, CA 90670

Alpha Electric Service
14730 Firestone Blvd., #304
La Mirada, CA 90638

Alondra Library
11949 E. Alondra Blvd.
Norwalk, CA 90650

ASAP Services
14670 Firestone Blvd., #414
La Mirada, CA 90638

Alloy Tool Steel
13525 Freeway Drive
Santa Fe Springs, CA 90670

Buena Park Library
7150 La Palma Avenue
Buena Park, CA 90622

All Star Systems Inc.
14700 Firestone Blvd., #113
La Mirada, CA 90638

Ajit S. Randahava & Assoc.
16700 Valley View Blvd., #270
La Mirada, CA 90638

Owner
Adair Office
14078 Firestone Blvd
Santa Fe Springs, CA 90670

Action Power Service
14730 Firestone Blvd., #304
La Mirada, CA 90638

3D Auto Club
14210 Firestone Blvd.
La Mirada, CA 90638

Mr. William Ferguson
The Ferguson Group
1130 Connecticut Ave., N.W. Suite 300
Washington, DC 20036

Mr. Wes Lefler
Ryder Truck
13630 Firestone Blvd.
Santa Fe Springs, CA 90760

Mr. Wayne Yamano
CB Richard Ellis, Inc.
990 W. 190th Street, Suite 100
Torrance, CA 90502

Mr. Wahbah Wahbah
W.W. Mobil Service, Inc.
12800 Rosecrans Avenue
Norwalk, CA 90650

Mr. Virgil A. Rogers
Cal Labs
14747 Artesia
La Mirada, CA 90638

Uka Solanki
Uka's Big Saver Foods
12832 Rosecrans Avenue
Norwalk, CA 90650

Mr. Tung Nguyen
Pioneer Nail & Hair
11831 Imperial Hwy.
Norwalk, CA 90650

All-Tex Inks Corp.
14650 1/2 Firestone Blvd.
La Mirada, CA 90638

Cheng Hsin Investment, Inc.
2595 Lombardy Road
San Marino, CA 91108

Dolex Dollar Express
12832 Rosecrans Avenue
Norwalk, CA 90650

Diamond Construction
14620 Firestone Blvd.
La Mirada, CA 90638

Denny's , Inc. Denny's Restaurant #1300
12616 Pioneer Blvd.
Norwalk, CA 90650

Defense Contract Audit
16700 Valley View Blvd., #300
La Mirada, CA 90638

D Estrin Enterprises
14670 Firestone Blvd., #410
La Mirada, CA 90638

Coyle Reproductions Inc
14949 Firestone Blvd.
La Mirada, CA 90638

Cook Chevron Food Mart
14240 Firestone Blvd.
La Mirada, CA 90638

Consensus Planning Group, Inc.
444 S. Flower Street, Suite 1300
Los Angeles, CA 90071

Con's Beauty Salon
12838 1/2 Rosecrans Avenue
Norwalk, CA 90650

Owner
Compose International, Inc.
14130 Firestone Blvd
Santa Fe Springs, CA 90670

Communications World
14700 Firestone Blvd., #102
La Mirada, CA 90638

CLP Resources, Inc.
9221 Venice Blvd.
Los Angeles, CA 90034

BJO Partners
15215 Marquardt Avenue
Santa Fe Springs, CA 90670

CHINA Pac Foods Inc
13660 Excelsior Drive
Santa Fe Springs, CA 90670

Borden Chemical
14700 Firestone Blvd., #107
La Mirada, CA 90638

Century Paving, Inc.
14630 Firestone Blvd.
La Mirada, CA 90638

CB Richard Ellis
16700 Valley View Blvd.
La Mirada, CA 90638

Castillo's Crankshaft
14654 Firestone Blvd.
La Mirada, CA 90638

Owner
Carmenita Office Park, LLC
13353 Alondra Blvd., Suite 200L
Santa Fe Springs, CA 90670

California Wildlife Federation
PO Box 1527
Sacramento, CA 95812

California Portland Cement Co.
13846 Firestone Blvd.
Santa Fe Springs, CA 90670

California Ink Printing
14730 Firestone Blvd., #313
La Mirada, CA 90638

C.M.T. Precision
P.O. Box 1321
Norwalk, CA 90651

Owner
C&E Laboratory
14148 Firestone Blvd
Santa Fe Springs, CA 90670

Buso Constructors, Inc
14700 Firestone Blvd., #103
La Mirada, CA 90638

Buena Park Lincoln/Mercury/Isuzu
6692 Manchester Blvd.
Buena Park, CA 90621

Dynasty Suites
13500 Firestone Blvd.
Santa Fe Springs, CA 90670

Owner
Clean Tex Industries
14174 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14102 Firestone Blvd
Santa Fe Springs, CA 90670

Ultimate Source
14700 Firestone Blvd., #112
La Mirada, CA 90638

Owner
14156 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14154 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14140 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14138 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14136 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14128 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14124 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14098 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14094 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14114 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14112 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14160 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14108 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14162 Firestone Blvd
Santa Fe Springs, CA 90670

Owner
14100 Firestone Blvd.
Santa Fe Springs, CA 90670

Owner
11267 Ringwood Avenue
Santa Fe Springs, CA 90670

Owner
14141 Alondra Blvd
Santa Fe Springs, CA 90670

Occupant
13201 Arctic Cir.
Santa Fe Springs, CA 90670

Occupant
14106 Firestone Blvd.
Santa Fe Springs, CA 90670

Occupant
14146 Firestone Blvd.
Santa Fe Springs, CA 90670

Occupant
14150 Firestone Blvd.
Santa Fe Springs, CA 90670

Occupant
14070 Firestone Blvd.
Santa Fe Springs, CA 90670

Occupant
14134 Firestone Blvd
Santa Fe Springs, CA 90670

Occupant
14132 Firestone Blvd
Santa Fe Springs, CA 90670

Occupant
14068 Firestone Blvd
Santa Fe Springs, CA 90670

Occupant
13031 San Antonio Drive #220
Norwalk, CA 90650

Owner
14110 Firestone Blvd
Santa Fe Springs, CA 90670

Property Owner
14770 Firestone Blvd., #209
La Mirada, CA 90638

13767 Freeway Drive
Santa Fe Springs, CA 90670

Resident
11766 Mondon Avenue
Norwalk, CA 90650

Resident
13620 Excelsior Drive
Santa Fe Springs, CA 90670

Resident
15636 Clanton Cir.
Santa Fe Springs, CA 90670

Resident
13207 Markdale Avenue
Norwalk, CA 90650

Resident
13369 Firestone Blvd.
Norwalk, CA 90650

Resident
11603 Pantheon Street
Norwalk, CA 90650

Resident
11707 Gem Street
Norwalk, CA 90650

Resident
12661 Zeus Avenue
Norwalk, CA 90650

Resident
12023 Adoree Street
Norwalk, CA 90650

Owner
14158 Firestone Blvd
Santa Fe Springs, CA 90670

Property Owner
14780 Firestone Blvd.
La Mirada, CA 90638

Occupant
12791 Western Ave., Suite J
Garden Grove, CA 92841

Property Owner
14730 Firestone Blvd., #306
La Mirada, CA 90638

Property Owner
14730 Firestone Blvd., #317
La Mirada, CA 90638

Property Owner
14730 Firestone Blvd., #316
La Mirada, CA 90638

Property Owner
14700 Firestone Blvd., #126
La Mirada, CA 90638

Property Owner
14700 Firestone Blvd., #101
La Mirada, CA 90638

Property Owner
14700 Firestone Blvd., #127
La Mirada, CA 90638

Property Owner
14700 Firestone Blvd., #109
La Mirada, CA 90638

Property Owner
14670 Firestone Blvd., #412
La Mirada, CA 90638

Property Owner
14670 Firestone Blvd., #404
La Mirada, CA 90638

Property Owner
14670 Firestone Blvd.
La Mirada, CA 90638

Property Owner
14650 Firestone Blvd.
La Mirada, CA 90638

Property Owner
14351 Firestone Blvd.
La Mirada, CA 90638

Property Owner
11729 Imperial Hwy.
Norwalk, CA 90650

Samsung America Inc.
14251 Firestone Blvd. #200
La Mirada, CA 90638

Owner
System Group Company
14172 Firestone Blvd
Santa Fe Springs, CA 90670

Star Scrap Metal Co.
14372 Firestone Blvd.
La Mirada, CA 90638

Staples The Office Super
14345 Firestone Blvd.
La Mirada, CA 90638

St. Joseph Heritage Heal
14241 Firestone Blvd.
La Mirada, CA 90638

Spherion
16550 Valley View Blvd.
La Mirada, CA 90638

Spectra Dyestuffs Inc.
14700 Firestone Blvd., #124
La Mirada, CA 90638

Sparre Williams Doroty
13560 Firestone Blvd.
Santa Fe Springs, CA 90670

Southwest Forest Industries Inc.
15300 Marquardt Avenue
Santa Fe Springs, CA 90670

Shangri La Apartments
16985 Sausalito Drive
Whittier, CA 90603

Service Kraft
5650 Dolly Avenue
Buena Park, CA 90621

Owner
Scooter Landscape
14170 Firestone Blvd
Santa Fe Springs, CA 90670

SAV-MOR Thrift
16500 Valley View Blvd.
La Mirada, CA 90638

Occupant
13031 San Antonio Drive #116
Norwalk, CA 90650

Samsung Pacific Construction
14251 Firestone Blvd. #101
La Mirada, CA 90638

The Major Assoc. Partnership
13635 Freeway Drive
Santa Fe Springs, CA 90670

Sam's Texaco
14220 Firestone Blvd.
La Mirada, CA 90638

Safia Sambos Investment Co.
13500 Firestone Blvd.
Santa Fe Springs, CA 90670

Saddleback Rv Inc.
14850 Firestone Blvd.
La Mirada, CA 90638

S & G Vending, Inc.
14849 Firestone Blvd.
La Mirada, CA 90638

Rotary Club
P.O. Box 5423
Buena Park, CA 90620

Richie's Installations
14670 Firestone Blvd.
La Mirada, CA 90638

RHS Properties LLC
15125 Marquardt Avenue
Santa Fe Springs, CA 90670

Owner
Retail Mgmt Systems
14116 Firestone Blvd
Santa Fe Springs, CA 90670

Residence Inn By Marriott
14419 Firestone Blvd.
La Mirada, CA 90638

Red Robin
14299 Firestone Blvd.
La Mirada, CA 90638

Recycling Center
14334 Firestone Blvd.
La Mirada, CA 90638

RECO Investors
13201 Arctic Cir.
Santa Fe Springs, CA 90670

Sanchez Machine Co.
14654 Firestone Blvd.
La Mirada, CA 90638

Occupant
13541 Alondra Blvd
Santa Fe Springs, CA 90670

Precision Risk Mgmt.
16700 Valley View Blvd. #Pent
La Mirada, CA 90638

Occupant
16700 Valley View Blvd. #130
La Mirada, CA 90638

Occupant
16700 Valley View Blvd. #250
La Mirada, CA 90638

Occupant
16700 Valley View Blvd. #140
La Mirada, CA 90638

Occupant
16700 Valley View Blvd.
La Mirada, CA 90638

Occupant
16610 Valley View Blvd.
La Mirada, CA 90638

Occupant
16570 Valley View Blvd.
La Mirada, CA 90638

Occupant
16550 Valley View Blvd.
La Mirada, CA 90638

Occupant
14770 Firestone Blvd., #201
La Mirada, CA 90638

Occupant
14770 Firestone Blvd., #209
La Mirada, CA 90638

Occupant
14700 Firestone Blvd., #128
La Mirada, CA 90638

Occupant
14655 Firestone Blvd.
La Mirada, CA 90638

Texaco Express Auto
14220 Firestone Blvd.
La Mirada, CA 90638

Occupant
12411 Slauson Ave
Whittier, CA 90606

The Astrup Company
13137 Arctic Cir.
Santa Fe Springs, CA 90670

Occupant
10811 Orr & Day Road
Santa Fe Springs, CA 90670

Vons Companies Inc.
12801 Excelsior Drive
Norwalk, CA 90650

Von Arland Inc.
15310 Spring Avenue
Santa Fe Springs, CA 90670

Valley View Medical
16700 Valley View Blvd.
La Mirada, CA 90638

University of Phoenix
14320 Firestone Blvd. #150
La Mirada, CA 90638

Mr. Raub Mathias
816 Coronado Dr.
Arcadia, CA 91007

Underground Sales
14730 Firestone Blvd., #306
La Mirada, CA 90638

Mr. Tucker Brown
CB Richard Ellis
2125 E. Katella Ave., Suite 100
Anaheim, CA 92806

UCA General Insurance
16700 Valley View Blvd. #Pent
La Mirada, CA 90638

U.S. Bank
16420 Valley View Blvd.
La Mirada, CA 90638

Tuneup Masters, Inc. #57
12605 Rosecrans Avenue
Norwalk, CA 90650

Tosco Corp.
14960 Carmenita Road
Norwalk, CA 90650

Occupant
12791 Western Ave., Suite J
Garden Grove, CA 92841

Occupant
14535 Firestone Blvd.
La Mirada, CA 90638

Mr. David B. Cosgrove
Rutan & Tucker, LLP
611 Anton Blvd., 14th Floor
Costa Mesa, CA 92626-1988

Ms. Christine Billings
U.S. Amada
7025 Firestone Blvd.
Buena Park, CA 90621

Ms. E. Juan Guzman
6039 Bartmus Street
Commerce, CA 90040

Mr. & Mrs. E William & Dorothy Sparr
13560 Firestone Blvd.
Santa Fe Springs, CA 90670

Dwight McMillan
Frigid Coil
13711 Freeway Drive
Santa Fe Springs, CA 90670

Mr. Drew Sasser
Buena Park Lumber
6586 Beach Blvd.
Buena Park, CA 90620

Mr. Dow Goins
11426 E. Mclaren Street
Norwalk, CA 90650

Mr. Douglas A Danielson
13141 Molette Street
Santa Fe Springs, CA 90670

Mr. Don Capelle
Parsons, Brinckerhoff, Quade & Douglas, Inc.
505 S. Main Street, Suite 900
Orange, CA 92668

Ms. Diane Otani
13521 Freeway Drive
Santa Fe Springs, CA 90670

Ms. Diane Milam
1223 Miramar Drive
Fullerton, CA 92831

Mr. Dennis Johnson
13716 Markdale Avenue
Norwalk, CA 90650

Mr. Dennis Adame
Century 21
12839 Dilworth Street
Norwalk, CA 90650

Ms. Emily Eastman
2761 Bayshore Drive
Newport Beach, CA 92663-5610

Mr. David M. Jordan
201 Laguna Street, Number 13
San Francisco, CA 94102

Ms. Francis Martin
11871 Lyndora Street
Norwalk, CA 90650

Mr. David Gallegos
13211 Silverbow Avenue
Norwalk, CA 90650

Mr. David Freytag
Parsons, Brinckerhoff, Quade & Douglas, Inc.
505 S. Main Street, Suite 900
Orange, CA 92668

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Interstate 5 Corridor Improvement Project

Los Angeles and Orange Counties, California

FINAL EIR - EIS

SANTA ANA FREEWAY

INTERSTATE CALIFORNIA 5

91 to INTERSTATE CALIFORNIA 605

Caltrans

DEPARTMENT OF TRANSPORTATION · UNITED STATES OF AMERICA

Interstate 5 Corridor Improvement Project

Final EIR/EIS

Volume II - Appendices

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APPENDIX A

California Environmental Quality Act
Environmental Significance Checklist

CEQA ENVIRONMENTAL SIGNIFICANCE CHECKLIST

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included in Chapter 3 of the EIR/EIS. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts.

	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?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐
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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
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)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒
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.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
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?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☒	☐	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
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?	☐	☐	☐	☒

VIII. HYDROLOGY AND WATER QUALITY -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
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)?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☒	☐	☐
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
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?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
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?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	☒	☐	☐	☐
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?	☒	☐	☐	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☒	☐	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☒	☐	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☒	☐	☐	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☒	☐	☐	☐
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?	☐	☒	☐	☐
Police protection?	☐	☒	☐	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☒	☐	☐
Other public facilities?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?	☒	☐	☐	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☒	☐	☐	☐
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?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☒	☐	☐
f) Result in inadequate parking capacity?	☐	☒	☐	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒
XVI. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☒	☐	☐
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?	☐	☐	☒	☐
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?	☐	☒	☐	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☒	☐	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

APPENDIX B

Section 4(f) De Minimis Finding
City of Norwalk Concurrence Letters

RICK RAMIREZ
Mayor
MICHAEL MENDEZ
Vice Mayor
CHERI KELLEY
Councilmember
JESSE M. LUERA
Councilmember
GORDON STEFENHAGEN
Councilmember

ERNIE V. GARCIA
City Manager

City of NORWALK

12700 NORWALK BLVD., P.O. BOX 1030, NORWALK, CA 90651-1030 * PHONE 562/929-5700 * FACSIMILE: 562/929-5773 * WWW.CI.NORWALK.CA.US

April 25, 2007

Mr. Ron Kosinski
Deputy District Director
Caltrans District 7
Division of Environmental Planning
100 South Main Street
Los Angeles, CA 90012

Subject: **Interstate 5 Corridor Improvement Project**
Concurrence with Caltrans and FHWA *De Minimis* Findings

Dear Mr. Kosinski:

The City of Norwalk has reviewed the preliminary plans for the Interstate 5 Corridor Improvement Project, specifically how the proposed improvements will impact Norwalk Park, including the Norwalk Arts & Sports Complex, and has made the following determinations:

1. The proposed project alternatives will not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f). Furthermore, close coordination between City staff and Caltrans Design staff has been conducted to ensure that the proposed improvements to Interstate 5 have been designed to accommodate future plans adopted by the City. The City plans to construct a municipal groundwater well, pump station, and potable water reservoir within the park property and adjacent excess land.

2. The public circulation of the Draft Environmental Impact Report/Environmental Impact Statement and Section 4(f) Evaluation and public hearing for the proposed project on December 12, 2006 has afforded the public an opportunity to review and comment on the effects of the proposed project on the protected activities, features, and attributes of the Section 4(f) resource. During the public comment period, no comments were received from agencies or the public regarding impacts that the proposed project would have on Norwalk Park and Norwalk Arts and Sports Complex.

3. As the official with jurisdiction over the property, I have been informed of Caltrans' and FHWA's intent to make a *de minimis* finding that the proposed project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f). The City of Norwalk concurs with Caltrans' and FHWA's finding of *de minimis* impact to this property.

The City of Norwalk is fully supportive of Caltrans' and FHWA's efforts to improve Interstate 5. If you have any questions or need further information, please do not hesitate to contact Kurt Anderson, Director of Community Development at (562) 929-5744 or myself at (562) 929-5772.

Sincerely,

Ernie V. Garcia
City Manager

cc: Kurt Anderson, Director of Community Development

RICK RAMIREZ
Mayor
MICHAEL MENDEZ
Vice Mayor
CHERI KELLEY
Councilmember
JESSE M. LUERA
Councilmember
GORDON STEFENHAGEN
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City of NORWALK

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April 25, 2007

Mr. Ron Kosinski
Deputy District Director
Caltrans District 7
Division of Environmental Planning
100 South Main Street
Los Angeles, CA 90012

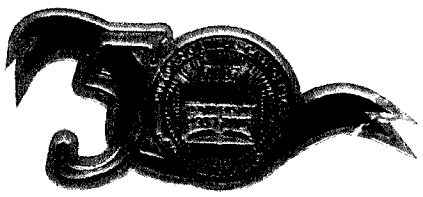
Subject: Interstate 5 Corridor Improvement Project
Concurrence with Caltrans and FHWA *De Minimis* Findings

Dear Mr. Kosinski:

The City of Norwalk has reviewed the preliminary plans for the Interstate 5 Corridor Improvement Project, specifically how the proposed improvements will impact Orr Park in the City of Norwalk, and has made the following determinations:

1. The proposed project alternatives will not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f). Furthermore, close coordination between City staff and Caltrans Design staff has been conducted to ensure that the proposed improvements to Interstate 5 have been designed to accommodate future plans adopted by the City. The City is currently constructing improvements to Orr Park consisting of a new community center, interactive water play area, parking lot, and landscaping and irrigation improvements.

2. The public circulation of the Draft Environmental Impact Report/Environmental Impact Statement and Section 4(f) Evaluation and public hearing for the proposed project on December 12, 2006 has afforded the public an opportunity to review and comment on the effects of the proposed project on the protected activities, features, and attributes of the Section 4(f) resource. During the public comment period, no comments were received from agencies or the public regarding impacts that the proposed project would have on Orr Park.



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The City of Norwalk is fully supportive of Caltrans' and FHWA's efforts to improve Interstate 5. If you have any questions or need further information, please do not hesitate to contact Kurt Anderson, Director of Community Development at (562) 929-5744 or myself at (562) 929-5772.

Sincerely,

Ernie V. Garcia
City Manager

cc: Kurt Anderson, Director of Community Development

APPENDIX C

Title VI Statement

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
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SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY (916) 653-4086

Flex your power!
Be energy efficient!

January 14, 2005

TITLE VI
POLICY STATEMENT

The California 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, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

WILL KEMPTON
Director

APPENDIX D

Summary of Relocation Benefits

APPENDIX D: SUMMARY OF RELOCATION BENEFITS AVAILABLE TO DISPLACED PARTIES

D-1 RELOCATION ASSISTANCE ADVISORY SERVICES

The California Department of Transportation will provide relocation advisory assistance to any person, business, farm or non-profit organization displaced as a result of the Department's acquisition of real property for public use. The Department will assist displacees in obtaining replacement housing by providing current and continuing information on the availability and prices of houses for sale and rental units that are comparable, "decent, safe and sanitary." Non-residential displacees will receive information on comparable properties for lease or purchase. For information on business, farm and non-profit organization relocation, refer to Section D-3, "Business and Farm Relocation Assistance Program."

Residential replacement dwellings will be in equal or better neighborhoods, at prices within the financial means of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, comparable replacement dwellings will be offered to displacees that are fair housing open to all persons regardless of race, color, religion, sex, national origin, and consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include supplying information concerning federal and state assisted housing programs and any other appropriate services being offered by public and private agencies in the area.

D-2 RESIDENTIAL RELOCATION PAYMENTS PROGRAM

The Relocation Payments Program will help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for, or incidental to, purchasing or renting the replacement dwelling and actual reasonable moving expenses to a new location within 50 miles of the displacees' property. Any actual moving costs in excess of the 50-mile limit will be the responsibility of the displacees. The Residential Relocation Program is summarized below:

Moving Costs

Any displaced person, who was lawfully in occupancy of the acquired property regardless of the length of occupancy in the acquired property, will be eligible for reimbursement of the moving costs. Displacees will receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 50 miles, or a fixed payment based on a fixed moving cost schedule which is determined by the number of furnished or unfurnished rooms in the displacement dwelling.

Purchase Supplement

In addition to moving and related expense payments, eligible homeowners may be entitled to payments for increased costs of replacement housing.

Homeowners who have owned and occupied their properties for 180 days prior to the date of the first written offer to purchase the property, may qualify to receive a price differential payment and may qualify to receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An interest differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate. Also, the interest differential must be based upon the lower of either: 1) the loan on the displacement property, or 2) the loan on the replacement property. The maximum combination of these supplemental payments that the owner-occupants can receive is $22,500. If the total entitlement (without the moving payments) is in excess of $22,500, the Last Resort Housing Program will be applied. Refer to synopsis of Last Resort Housing below.

Rental Supplement

Tenants who have occupied the property to be acquired by Caltrans for 90 days or more and owner-occupants of 90 to 179 days *prior to the date of the of the first written offer to purchase* may qualify to receive a rental differential payment. This payment is made when the department determines that the cost to rent a comparable "decent, safe and sanitary" replacement dwelling would be more than the present rent of the acquired dwelling. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to certain limitations noted under the "Down Payment" section below. The maximum payment to any tenant of 90 days or more and any owner-occupant of 90 to 179 days, in addition to moving expenses, will be $5,250. If the total entitlement for rental supplement exceeds $5,250, the Last Resort Housing Program will be used. Please refer to Last Resort Housing clarification below.

The displaced person must rent and occupy a "decent, safe and sanitary" replacement dwelling within one year from the date the department takes legal possession of the property, or from the date the displacee vacates the department-acquired property, whichever is later.

Down Payment

The down payment option has been designed to aid owner-occupants of 90 to 179 days and tenants with no less than 90 days of continuous occupancy prior to the Department's first written offer. The down payment and incidental expenses cannot exceed the maximum payment of $5,250. The one year eligibility period during which to purchase and occupy a "decent, safe and sanitary" replacement dwelling will apply.

Last Resort Housing

Federal regulations (49 CFR 25) contain the policy and procedure for implementing the Last Resort Housing Program on federal aid projects. Caltrans, in order to maintain uniformity in the program, has also adopted these federal guidelines on non-federal-aid projects. Last Resort Housing benefits are, except for the amounts of payments and the methods in making them, the same as those benefits for standard relocation as explained above. Last Resort Housing has been designed primarily to cover situations where available comparable replacement housing, or when their anticipated replacement housing payments exceed the $5,250 and $22,500 limits of standard relocation procedures. In certain exceptional situations, last resort housing may also be used for tenants of less than 90 days.

After the first written offer to acquire the property has been made, the Department will, within a reasonable length of time, personally contact the displacees to gather important information relating to: preferences in areas of relocation; the number of people to be displaced and the distribution of adults and children (according to age and gender); location of schools and employment; special arrangements necessary to accommodate disabled family members; and the financial ability to relocate to a comparable replacement dwelling which will house all members of the family decently.

The above explanation is general in nature and is not intended to be a complete explanation of relocation regulations. Any questions concerning relocation should be addressed to Caltrans. Any persons to be displaced will be assigned to a relocation advisor, who will work closely with each displaced household in order to see that all payments and benefits are fully utilized, and that all regulations are observed, thereby avoiding the possibility of displacees jeopardizing or forfeiting any of their benefits or payments.

D-3 BUSINESS AND FARM RELOCATION ASSISTANCE PROGRAM

The Business and Farm Relocation Program provides for aid in locating suitable replacement property and reimbursement for certain costs involved in relocation. The Relocation Advisory Assistance Program will provide current lists of properties offered for sale or rent, suitable for specific relocation needs.

There are different types of payments available to businesses, farms and non-profit organizations. These include: moving expenses, which consist of actual reasonable costs (as listed) for:

- The relocation of inventory, machinery, office equipment, and similar business-related personal property; dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting personal property.

- Loss of tangible personal property provides payment to relocate for "actual direct" losses of personal property that the owner elects not to move.

- Expenses related to searching for a new business site can be reimbursed up to $1,000 for actual reasonable cost incurred.

- Reestablishment expenses relating to the new business operation.

Payment "in lieu" of moving expense is available to businesses which are expected to suffer a substantial loss of existing patronage as a result of the displacement, or if certain other requirements such as inability to find a suitable relocation site are met. This payment is an amount equal to the average annual net earnings for the last two taxable years prior to relocation. Such payment may not be less than $1,000 or no more than $20,000.

D-4 ADDITIONAL INFORMATION

Reimbursement for moving costs and replacement housing payments are not considered income for the purpose of the Internal Revenue Code of 1954, or sources for the purpose of determining the extent of eligibility of the displacees for assistance under the Social Security Act, local Section 8 housing programs, or other federal assistance programs.

Persons who are determined to be eligible for relocation payments, and are legally occupying the property required for the project will not be asked to move without being given at least 90 days advance notice, in writing. Occupants of any type of dwelling eligible for relocation payments will not be required to move unless at least one comparable "decent, safe and sanitary" replacement residence, open to all persons, regardless of race, color, religion, sex or national origin, is available or has been made available to them by the state.

Any person, business, farm or non-profit organization which has been refused a relocation payment by Caltrans, or believes that the payments made are inadequate, may appeal for a special hearing of the complaint. No legal assistance is required. Information about the appeal procedure is available from Caltrans Relocation Advisors.

The information above is not intended to be a complete statement of all of the Department's laws and regulations. At the time of the first written offer to purchase, owner-occupants are given a more detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted immediately after the first written offer to purchase, and also given a more detailed explanation of the Department's relocation programs.

APPENDIX E

Right-of-way Impacts

Appendix E – Right-of-way Impacts

City	APN	Address	Street	Description	R/C	Alternatives			
						4A	4B	5A	5B
LM	7001-013-029	14447	FIRESTONE BLVD.	FURNITURE GALLERY	C	F	X	F	X
LM	7001-013-030	14535	FIRESTONE BLVD.	PAINTBALL PLAYERS CLUB	C	F	X	F	X
LM	7001-013-097	15910	VALLEY VIEW AVE.	WAREHOUSE INVESTMENT PARTNERS	C	P	X	P	X
LM	7001-013-099	14241	E. FIRESTONE BLVD.	CT GATEWAY LLC (BANK)	C	P	P	P	P
LM	7001-013-100	14251	FIRESTONE BLVD.	SAMSUNG AMERICA INC. (GATEWAY MEDICAL CENTER)	C	F	X	P	X
LM	7001-013-108	14303	FIRESTONE BLVD.	ELEPHANT BAR RESTAURANT	C	P	X	P	X
LM	7001-013-114	14305	FIRESTONE BLVD.	CLEARMAN'S NORTHWOOD INN	C	F	X	F	X
LM	7001-013-115	14419	FIRESTONE BLVD.	MARRIOTT	C	P	X	P	X
LM	7001-013-116	14341	FIRESTONE BLVD.		C	P	X	P	X
LM	7001-013-121			STAPLES OFFICE SUPERSTORE	C	P	X	P	X
LM	7001-014-014	14575	FIRESTONE BLVD.	HOME FURNISHING CENTERS	C	F	X	F	X
LM	7001-014-015	14595	FIRESTONE BLVD.	SCHULSINGER DINA R	C	P	X	P	X
LM	7001-014-016	14595	FIRESTONE BLVD.	SCHULSINGER DINA R	C	P	X	P	X
LM	7001-014-030	14775	FIRESTONE BLVD.		C	P	P	P	P
LM	7001-014-031	X	X	LA MIRADA METROCENTER ASSOC.	C	P	P	P	P
LM	7001-014-032	X	X	VACANT LAND R&D WAREHOUSE	C	P	P	P	P
LM	7001-014-033	14655	FIRESTONE BLVD.	YEN NING & YEAN (VACANT BUILDING)	C	F	X	F	X
LM	7001-014-900	X	FIRESTONE BLVD.	LA COUNTY FLOOD CONTROL	C	F	F	F	F
LM	7001-014-907	X	FIRESTONE BLVD.	LA CO FLOOD CONTROL DIST.	C	P	P	P	P
LM	7001-016-002	14815	FIRESTONE BLVD.	LEAF SPRING SUPPLY	C	F	F	F	F
LM	7001-017-024	14815	FIRESTONE BLVD.		C	F	F	F	F
LM	7001-017-040	14849	FIRESTONE BLVD.	MEXICO EXPRESS	C	F	F	P	F
LM	7001-018-005	14949	FIRESTONE BLVD.	COYLE REPRODUCTIONS	C	P	F	F	F
LM	7003-006-001	14210	FIRESTONE BLVD.	THREE D DETAIL SUPPLIES	C	F	F	F	F
LM	7003-006-002	16340	VALLEY VIEW AVE.	TEXACO	C	F	F	F	F
LM	7003-006-003	14240	FIRESTONE BLVD.	CHEVRON	C	P	P	F	P
LM	7003-006-007	14370	FIRESTONE BLVD.	STAROW FLORENCE & STAROW V/TR	C	F	F	F	F
LM	7003-006-010	14334	FIRESTONE BLVD.	STAR SCRAP METAL	C	F	F	F	F
LM	7003-006-016	16700	VALLEY VIEW AVE.	PRAEDIUM PARKWAY ASSOC. LLC	C	P	P	P	P
LM	7003-006-018	16610	VALLEY VIEW AVE.	ACCORDANCE PROPERTY LTD	C	P	P	P	P
LM	7003-006-019	X	X	AMBER MIRADA LLC	C	P	P	P	P
LM	7003-006-020	X	X	PACIFIC INVESTMENT INC.	C	P	P	P	P
LM	7003-006-021	14300	FIRESTONE BLVD.	COUNTRY WIDE COMMERCE INC. (DENNY'S)	C	F	F	F	F
LM	7003-006-023	14320	FIRESTONE BLVD.	NEW ORANGE COAST TITLE	C	F	F	F	F
LM	7003-007-002	14508	FIRESTONE BLVD.	DRESDNER KLEINWORTH BENSON	C	P	F	P	F
LM	7003-007-003	14500	FIRESTONE BLVD.	HAYES & LEMMERY INTIL INC	C	F	F	F	F
LM	7003-007-004	14400	FIRESTONE BLVD.	BERG REYNOLDS (VISTA MEDIA)	C	F	F	F	F
LM	7003-008-003	14634	FIRESTONE BLVD.		C	P	F	P	F

Appendix E – Right-of-way Impacts

City	APN	Address	Street	Description	R/C	Alternatives			
						4A	4B	5A	5B
LM	7003-008-004	14634	FIRESTONE BLVD.	CAMPBELL CHARLES K	C	F	F	F	F
LM	7003-008-005	14626	FIRESTONE BLVD.	DOWNEN TONI M ESPOITO TRUST	C	F	F	F	F
LM	7003-008-007	14658	FIRESTONE BLVD.	PLATT WARREN 7 FAMILY TRUST	C	F	F	F	F
LM	7003-008-008	14654	FIRESTONE BLVD.		C	X	X	X	X
LM	7003-008-009	14650	FIRESTONE BLVD.		C	X	X	X	X
LM	7003-008-013	14585	INDUSTRY CR.	MOOTHART DANIEL R & CHARLES F	C	F	F	F	F
LM	7003-009-005	14670	E. FIRESTONE BLVD.	PACIFIC GULF PROP. INC. (RIGHT BUILDING)	C	F	F	F	F
LM	7003-009-903	X	X	LA CO FLOOD CONTROL DIST.	C	P	P	P	P
LM	7003-010-025	15000	E. FIRESTONE BLVD.	RANCHO MIRADA CHEVROLET MOTOR CO.	C	P	X	P	X
LM	7003-010-028				C	P	X	P	X
LM	7003-010-900	14920	E. FIRESTONE BLVD.	REDEVELOPMENT AGENCY OF LA MIRADA	C	F	X	F	X
LM	7003-010-905	X		REDEVELOPMENT AGENCY OF LA MIRADA	C	F	X	F	X
LM	7003-015-001	14800	FIRESTONE BLVD.	LA MIRADA AUTO CENTER	C	P	X	P	X
LM	7003-015-002	14900	E. FIRESTONE BLVD.	CAMPING WORLD	C	P	X	P	X
SFS	7001-012-030	14050	FREEWAY DR.	INDUSTRIAL COMMERCIAL	C	X	P	X	P
SFS	7001-012-031	14111	E. FREEWAY DR.	INTER SATELITE PRODUCTIONS INC.	C	F	F	F	F
SFS	7001-012-032	16105	VALLEY VIEW AVE	MCGULLOCK SUSAN G	C	P	F	P	F
SFS	7001-012-033	14131	FREEWAY DR.	FUJITA CALIF. PARTNER III (KOMATSU FORKLIFTS)	C	F	F	F	F
SFS	7001-012-036	14014	ALONDRA BLVD.	SAUN PIEVAC COMPANY INC.	C	P	P	P	P
SFS	7001-012-038	16021	VALLEY VIEW AVE	WILSON, GEORGE, AND FRANCES	C	F	P	F	P
SFS	7001-012-902	X	X	LA CO FLOOD CONTROL DIST.	C	P	P	P	P
SFS	7003-001-005	13910	FIRESTONE BLVD.	MIKE THOMPSON RECREATIONAL VEHICLE	C	P	X	F	X
SFS	7003-001-013	14000	E. FIRESTONE BLVD.	MIKE THOMPSON RECREATIONAL VEHICLE	C	P	X	P	X
SFS	7003-001-014	13940	E. FIRESTONE BLVD.	MIKE THOMPSON RECREATIONAL VEHICLE	C	P	X	P	X
SFS	7003-001-018	14040	FIRESTONE BLVD.	BBQ GALORE	C	F	F	F	F
SFS	7003-001-018	14060	FIRESTONE BLVD.	MEYER PROPERTIES BUSINESS PARK	C	F	F	F	F
SFS	7003-001-020	13846	FIRESTONE BLVD.	MIKE THOMPSON RECREATIONAL VEHICLE	C	P	X	P	X
SFS	7003-001-021	13846	FIRESTONE BLVD.	MIKE THOMPSON RECREATIONAL VEHICLE	C	P	X	P	X
SFS	7003-001-035		FIRESTONE BLVD.	MIKE THOMPSON RECREATIONAL VEHICLE	C	P	X	P	X
SFS	7003-001-901	X	X	LA CO FLOOD CONTROL DIST.	C	P	P	P	P
SFS	7003-001-904		FIRESTONE BLVD.	REDEVELOPMENT AGENCY OF SANTA FE SPRINGS	C	P	X	P	X
SFS	7005-001-006*	13124	FIRESTONE BLVD.		C	X	X	X	X
SFS	7005-001-017*	13100	FIRESTONE BLVD.		C	X	X	X	X
SFS	7005-001-018*	13050	FIRESTONE BLVD.	USA AUTO BODY	C	X	X	X	X
SFS	7005-001-019*	13060	FIRESTONE BLVD.		C	X	X	X	X
SFS	7005-001-023*	13146	FIRESTONE BLVD.	MCDOWELL-CRAIG FUNITURE	C	X	X	X	X
SFS	7005-001-029*	14932	SHOEMAKER AVE.	API PROPERTIES ASSOC II	C	X	X	X	X
SFS	7005-001-030*	14932	SHOEMAKER AVE.	HALLOWEEN CLUB	C	X	X	X	X

Appendix E – Right-of-way Impacts

City	APN	Address	Street	Description	R/C	Alternatives			
						4A	4B	5A	5B
SFS	7005-001-032*	14932	SHOEMAKER AVE.	API PROPERTIES ASSOC II	C	X	X	X	X
SFS	7005-001-033*	14932	SHOEMAKER AVE.	API PROPERTIES ASSOC II	C	X	X	X	X
SFS	7005-001-034*	14932	SHOEMAKER AVE.	API PROPERTIES ASSOC II	C	X	X	X	X
SFS	7005-014-009*	13770	FIRESTONE BLVD.	BUDGET TRUCK AND CAR RENTAL	C	X	X	X	X
SFS	7005-014-025*	13580	FIRESTONE BLVD.	INDUSTRIAL THREADED PROD. INC.	C	X	X	X	X
SFS	7005-014-045*	13750	FIRESTONE BLVD.	LE FIELL MANUFACTURING CO.	C	X	X	X	X
SFS	7005-014-046*	13560	FIRESTONE BLVD.	SAPRRE WILLIAMS DOROTY	C	X	X	X	X
SFS	7005-014-047*	13630	FIRESTONE BLVD.	RYDER TRUCK RENTAL INC.	C	X	X	X	X
SFS	7005-014-048*	13460	FIRESTONE BLVD.	ARCO GAS	C	X	X	X	X
SFS	7005-014-049*	13500	FIRESTONE BLVD.	CARL'S JR	C	X	X	X	X
SFS	7005-014-050*	13530	FIRESTONE BLVD.	DYNASTY SUITES	C	X	X	X	X
SFS	7005-014-051*	13400	FIRESTONE BLVD.	MOBIL GAS/USED CARS	C	X	X	X	X
SFS	7005-014-052*	13700	FIRESTONE BLVD.	LE FIELL MANUFACTURING CO.	C	X	X	X	X
SFS	8007-037-037	10783	LONGWORTH AVE.		R	P	P	P	P
SFS	8007-037-045	10743	LONGWORTH AVE.		R	F	X	F	X
SFS	8017-001-017	11402	QUINN ST		R	X	X	X	X
SFS	8017-001-032	11403	MULLER ST		R	X	X	X	X
SFS	8017-001-034	10825	ORR & DAY RD.	EARHART FRANCES (STRIP MALL)	C	F	F	F	F
SFS	8017-001-035	10805	ORR & DAY RD.		C	P	P	P	P
SFS	8017-001-038	10821	ORR & DAY RD.	KOSOMO INVESTMENT CORP. (STRIP MALL)	C	F	F	F	F
SFS	8017-001-800	X	X	LA CELLULAR TELEPHONE CO.	C	F	F	F	F
SFS	8017-003-001	11402	MULLER ST		R	P	P	P	P
SFS	8017-003-014	11413	BUELL ST.		R	X	X	X	X
SFS	8017-003-015	11409	BUELL ST.		R	X	X	X	X
SFS	8017-003-016	11403	BUELL ST.		R	F	F	F	F
SFS	8017-003-017	11408	BUELL ST.		R	F	F	F	F
SFS	8017-003-018	11414	BUELL ST.		R	F	P	F	P
SFS	8017-003-028	11403	CECILIA ST.		R	F	F	F	F
SFS	8017-015-001	11501	LAKELAND RD.		R	F	F	F	F
SFS	8017-015-012	11412	CECILIA ST.		R	F	F	F	F
SFS	8017-015-039	11267	RINGWOOD AVE.		R	P	P	P	P
SFS	8017-015-040	11252	MONDON AVE.		R	P	P	P	P
SFS	8017-015-042	11510	LAKELAND RD.		R	P	F	P	F
SFS	8017-015-051	11246	MONDON AVE.		R	P	P	P	P
SFS	8069-012-008	14141	ALONDRA BLVD.		C	X	P	X	P
SFS	8069-014-007*	13833	FREEWAY DR.	INNOVATION QUALITY CENTER (SMURFIT & STONE	C	X	X	X	X
SFS	8069-014-800*	X	X	AT&T FRY CO. (UTILITY EASEMENT)	C	X	X	X	X
SFS	8069-015-045*	13767	FREEWAY DR.	ESTERLINE KIRKHILL	C	X	X	X	X

Appendix E – Right-of-way Impacts

City	APN	Address	Street	Description	R/C	Alternatives			
						4A	4B	5A	5B
SFS	8069-015-055*	13711	FREEWAY DR.	FRIGID COIL	C	X	X	X	X
SFS	8069-016-006*	13539	FREEWAY DR.		C	X	X	X	X
SFS	8069-016-007*	13565	FREEWAY DR.		C	X	X	X	X
SFS	8069-016-008*	13443	FREEWAY DR.	FORD TRUCKS	C	X	X	X	X
SFS	8069-016-016*	13521	FREEWAY DR.	CENTERLINE WHEEL CORPORATION	C	X	X	X	X
SFS	8069-016-017*	13525	FREEWAY DR.	ALLOY TOOL STEEL	C	X	X	X	X
SFS	8069-016-022*	13407	FREEWAY DR.		C	X	X	X	X
SFS	8069-016-024*	13635	FREEWAY DR.	CHOC THRIFT STORE	C	X	X	X	X
SFS	8082-001-001	12601	FIRESTONE BLVD.	ARCO GAS STATION	C	P	P	P	P
SFS	8082-001-020	12624	ROSECRANS	SNAT FE NISSAN	C	P	P	P	P
SFS	8082-002-014	12804	FIRESTONE BLVD.	SCHORK FAMILY PARTNERSHIP	C	X	X	P	X
SFS	8082-002-015	12842	FIRESTONE BLVD.	SCHORK FAMILY PARTNERSHIP	C	X	X	P	X
SFS	8082-002-016	12818	FIRESTONE BLVD.	SCHORK FAMILY PARTNERSHIP	C	X	X	P	X
SFS	8082-002-017	12818	FIRESTONE BLVD.	EL MONTE RV	C	X	X	P	X
SFS	8082-002-022	12940	FIRESTONE BLVD.	COX ROBERT E & TRUST (SUNSET BUS LINES)	C	X	X	P	X
SFS	8082-002-023	12900	FIRESTONE BLVD.	BARNITT MATERIAL HANDLING	C	X	X	P	X
SFS	8082-002-914	X	X	REDEVELOPMENT AGENCY OF SANTA FE SPRINGS	C	X	X	P	X
SFS	8082-002-915	X	X	REDEVELOPMENT AGENCY OF SANTA FE SPRINGS	C	X	X	P	X
C	7003-013-001	16429	VALLEY VIEW AVE		C	P	F	F	F
C	7003-013-002	14133	ARBOR PLACE	RANDAZZO PATRICIA A	C	P	X	F	P
C	7003-013-003	14141	ARBOR PLACE		C	X	X	F	X
C	7003-013-004	14120	ARBOR PLACE	FARMERS AND MERCHANTS TRUST	C	P	F	P	F
C	7003-013-005	16601	VALLEY VIEW AVE	VALLEY VIEW CENTER LLC	C	P	F	P	F
C	7003-013-018	14171	PARK PLACE		C	P	P	P	P
N	8016-017-009	11326	MONDON AVE.		R	F	X	F	X
N	8016-017-010	11332	MONDON AVE.		R	F	X	F	X
N	8016-017-011	11338	MONDON AVE.		R	F	X	F	X
N	8016-017-012	11342	MONDON AVE.		R	F	X	F	X
N	8016-017-013	11348	MONDON AVE.		R	F	X	F	X
N	8016-017-014	11402	MONDON AVE.		R	F	X	F	X
N	8016-017-015	11406	MONDON AVE.		R	F	X	F	X
N	8016-017-016	11412	MONDON AVE.		R	F	X	F	X
N	8016-017-017	11418	MONDON AVE.		R	F	X	F	X
N	8016-017-018	11422	MONDON AVE.		R	F	X	F	X
N	8016-017-019	11426	MONDON AVE.		R	F	X	F	X
N	8016-017-020	11434	MONDON AVE.		R	F	X	F	X
N	8016-017-026	11607	BAYLA ST.		R	X	X	X	X
N	8016-017-027	11603	BAYLA ST.		R	F	X	F	X

Appendix E – Right-of-way Impacts

City	APN	Address	Street	Description	R/C	Alternatives			
						4A	4B	5A	5B
N	8016-019-001	11604	BAYLA ST.		R	F	X	F	X
N	8016-019-015	11603	PANTHEON ST.		R	F	X	F	X
N	8016-020-012	11716	MONDON AVE.		R	F	X	F	X
N	8016-020-013	11708	MONDON AVE.		R	F	X	F	X
N	8016-020-014	11702	MONDON AVE.		R	F	X	F	X
N	8016-025-002	11741	ALBURTIS AVE.		R	P	X	P	X
N	8016-025-011	11758	MONDON AVE.		R	P	X	P	X
N	8016-025-012	11762	MONDON AVE.		R	P	X	P	X
N	8016-025-013	11766	MONDON AVE.		R	P	X	P	X
N	8016-025-014	11810	MONDON AVE.		R	F	X	F	X
N	8016-025-015	11802	MONDON AVE.		R	F	X	F	X
N	8016-025-016	11756	MONDON AVE.		R	P	X	P	X
N	8016-025-017	11740	MONDON AVE.		R	F	X	F	X
N	8016-025-018	11734	MONDON AVE.		R	F	X	F	X
N	8016-025-019	11728	MONDON AVE.		R	F	X	F	X
N	8016-025-034	11734	MONDON AVE.		R	F	X	F	X
N	8016-025-035	11822	MONDON AVE.		R	F	X	F	X
N	8016-025-036	11828	MONDON AVE.		R	F	X	F	X
N	8016-026-007	11703	CYCLOPS ST.		R	F	X	F	X
N	8016-026-008	11824	ALBURTIS AVE.		R	F	X	F	X
N	8016-027-002	12016	MONDON AVE.		R	F	X	F	X
N	8016-027-003	12008	MONDON AVE.		R	F	X	F	X
N	8016-027-004	12002	MONDON AVE.		R	F	X	F	X
N	8016-027-010	11703	HERCULES ST.		R	F	X	F	X
N	8016-027-011	11926	MONDON AVE.		R	F	X	F	X
N	8016-027-012	11918	MONDON AVE.		R	F	X	F	X
N	8016-027-018	12032	MONDON AVE.		R	P	X	P	X
N	8016-029-005	12105	PIONEER BLVD.	CIRCLE K	R	F	X	F	X
N	8016-029-013	12025	PIONEER BLVD.	APARTMENTS	R	P	X	P	P
N	8018-001-029	11226	ORR AND DAY RD.		R	X	X	X	X
N	8018-001-030	11220	ORR AND DAY RD.		R	X	X	X	X
N	8018-004-022	11529	THOMAS PL.		R	F	F	F	F
N	8018-004-026	11515	DOLLISON DR.		R	P	F	P	F
N	8018-004-030	11516	DOLLISON DR.		R	P	F	P	F
N	8018-004-032	11531	DOLLISON DR.		R	P	F	P	F
N	8018-004-038	11541	DOLLISON DR.		R	X	X	X	P
N	8018-004-039	11551	DOLLISON DR.		R	X	X	X	X
N	8018-006-029	11534	ESTHER ST.		R	F	F	F	F

Appendix E – Right-of-way Impacts

City	APN	Address	Street	Description	R/C	Alternatives			
						4A	4B	5A	5B
N	8018-006-047	11528	DOLLISON DR.		R	P	X	P	P
N	8018-006-062	11551	TINA ST.	SALAZAR MARIA E	R	F	F	F	F
N	8018-006-065	11551	TINA ST.	SALAZAR MARIA E, VACANT LOT	R	F	F	F	F
N	8018-012-029	11548	BEATY AVE.		R	P	P	P	F
N	8018-012-030	11554	BEATY AVE.		R	F	F	F	F
N	8018-013-001	11812	JERSEY AVE.		R	F	F	F	F
N	8018-013-002	11822	JERSEY AVE.		R	P	P	P	P
N	8018-013-009	11835	DOLLISON DR.		R	F	F	F	F
N	8018-013-010	11841	DOLLISON DR.		R	F	F	F	F
N	8018-013-011	11615	ALLARD ST.		R	F	F	F	F
N	8018-013-019	11616	ALLARD ST.		R	F	F	F	F
N	8018-013-020	11913	DOLLISON DR.		R	F	F	F	F
N	8018-013-021	11645	HERCULES ST.		R	F	F	F	F
N	8018-013-022	11637	HERCULES ST.		R	X	X	X	P
N	8018-013-030	11831	DOLLISON DR.		R	F	F	F	F
N	8018-016-020	11541	BEATY AVE.		R	P	F	P	F
N	8018-016-021	11545	BEATY AVE.		R	F	F	F	F
N	8018-016-022	11558	TINA ST.		R	F	F	F	F
N	8018-016-023	11554	TINA ST.		R	P	F	P	F
N	8019-026-001	11358	CECILIA ST.		R	F	X	F	X
N	8019-026-002	11354	CECILIA ST.		R	P	X	P	X
N	8019-026-003	11348	CECILIA ST.		R	X	X	X	X
N	8019-026-013	11363	LAKELAND ST.		R	F	X	F	X
N	8023-015-008	11640	HERCULES ST.		R	P	P	P	P
N	8023-015-009	11646	HERCULES ST.		R	F	F	F	F
N	8023-015-010	11657	GEM ST.		R	F	F	F	F
N	8023-016-012	12003	DOLLISON DR.		R	F	F	F	F
N	8023-016-013	12009	DOLLISON DR.		R	F	F	F	F
N	8023-016-014	12021	DOLLISON DR.		R	F	F	F	F
N	8023-016-015	11665	DUNE ST.		R	P	X	P	P
N	8023-017-900	8023	JERSEY AVE.	LITTLE LAKE SCHOOL DISTRICT	C	P	P	P	P
N	8023-019-004	12300	CORBY AVE		R	X	X	X	P
N	8023-019-005	12306	CORBY AVE		R	X	X	X	X
N	8023-027-005	12512	PIONEER BLVD.	CHENG HSIN INVESTMENT INC. (COMFORT INN)	C	F	F	F	F
N	8023-027-009	11805	PIONEER BLVD.		C	F	F	F	F
N	8024-019-015	11805	SPRY ST.		R	P	X	P	X
N	8024-020-001	11804	SPRY ST.		R	F	X	F	X
N	8024-020-003	12313	ARLEE AVE.		R	F	X	F	X

Appendix E – Right-of-way Impacts

City	APN	Address	Street	Description	R/C	Alternatives			
						4A	4B	5A	5B
N	8024-020-004	12317	ARLEE AVE.		R	F	X	F	X
N	8024-020-005	12323	ARLEE AVE.		R	F	X	F	X
N	8024-020-006	12329	ARLEE AVE.		R	F	X	F	X
N	8024-020-007	12335	ARLEE AVE.		R	F	P	F	P
N	8024-020-008	12339	ARLEE AVE.		R	F	P	F	P
N	8024-020-009	12403	ARLEE AVE.		R	F	P	F	P
N	8024-020-010	12409	ARLEE AVE.		R	F	P	F	P
N	8024-020-011	12413	ARLEE AVE.		R	F	P	F	P
N	8024-021-001	12419	ARLEE AVE.		R	F	P	F	P
N	8024-021-002	12425	ARLEE AVE.		R	F	X	F	X
N	8024-021-003	12431	ARLEE AVE.		R	F	X	F	X
N	8024-021-004	12435	ARLEE AVE.		R	F	X	F	X
N	8024-021-005	12441	ARLEE AVE.		R	F	X	F	X
N	8024-021-006	12447	ARLEE AVE.		R	X	X	X	X
N	8024-021-007	12453	ARLEE AVE.		R	X	P	X	P
N	8024-021-008	12467	ARLEE AVE.		R	X	P	X	P
N	8024-021-009	12473	ARLEE AVE.		R	X	P	X	P
N	8024-021-010	12479	ARLEE AVE.		R	P	P	P	P
N	8046-004-040	14517	LOCH NEVIS AVE.		R	X	P	X	P
N	8046-004-041	14527	LOCH NEVIS AVE.		R	F	F	F	F
N	8046-004-042	12919	FIRESTONE BLVD.		R	F	F	F	F
N	8046-004-043	12915	FIRESTONE BLVD.		R	F	F	F	F
N	8046-004-044	12909	FIRESTONE BLVD.		R	F	F	F	F
N	8046-004-045	12903	FIRESTONE BLVD.		R	F	F	F	F
N	8046-004-046	12879	FIRESTONE BLVD.		R	F	F	F	F
N	8046-004-047	12873	FIRESTONE BLVD.		R	F	F	F	F
N	8046-004-048	12867	FIRESTONE BLVD.		R	F	F	F	F
N	8046-004-049	12861	FIRESTONE BLVD.		R	F	F	F	F
N	8046-004-050	12857	FIRESTONE BLVD.		R	F	F	F	F
N	8046-004-059	14518	LOCH NEVIS AVE.		R	F	X	F	X
N	8046-004-060	12943	FIRESTONE BLVD.		R	F	F	F	F
N	8046-004-061	12937	FIRESTONE BLVD.		R	F	F	F	F
N	8046-004-062	12945	FIRESTONE BLVD.	ENG PHINA	C	F	F	F	F
N	8046-004-063	12951	FIRESTONE BLVD.	ENG PHINA	R	F	F	F	F
N	8046-004-900	X	X	NORWALK CITY	C	P	P	P	P
N	8046-005-024	12836	ROSECRANS AVE.	RANCH MARKET STRIP MALL	C	P	X	P	X
N	8046-005-024	12836	ROSECRANS AVE.	ADVERTISING SIGNS/VACANT LOT	C	P	X	P	X
N	8046-005-053	12800	ROSECRANS AVE.	MOBIL GAS	C	P	X	P	X

Appendix E – Right-of-way Impacts

City	APN	Address	Street	Description	R/C	Alternatives			
						4A	4B	5A	5B
N	8046-009-028	12737	ROSECRANS AVE.	NORWALK VILLAGE	R	P	P	P	P
N	8047-001-004	11911	LYNDORA ST.		R	P	P	P	P
N	8047-001-005	11907	LYNDORA ST.		R	P	P	P	P
N	8047-001-006	11903	LYNDORA ST.		R	F	P	F	P
N	8047-001-007	12601	ZEUS AVE.		R	F	F	F	F
N	8047-001-008	12646	ZEUS AVE.		R	P	X	P	X
N	8047-001-022	12711	PADDISON AVE.		R	F	P	F	P
N	8047-002-001	12607	ZEUS AVE.		R	F	F	F	F
N	8047-002-002	12613	ZEUS AVE.		R	F	F	F	F
N	8047-002-003	12617	ZEUS AVE.		R	F	F	F	F
N	8047-002-004	12623	ZEUS AVE.		R	F	F	F	F
N	8047-002-005	12629	ZEUS AVE.		R	F	F	F	F
N	8047-002-006	12635	ZEUS AVE.		R	F	F	F	F
N	8047-002-007	12639	ZEUS AVE.		R	F	F	F	F
N	8047-002-008	12645	ZEUS AVE.		R	F	F	F	F
N	8047-002-009	12651	ZEUS AVE.		R	F	F	F	F
N	8047-002-010	12655	ZEUS AVE.		R	F	F	F	F
N	8047-002-011	12661	ZEUS AVE.		R	F	F	F	F
N	8047-002-012	12721	PADDISON AVE.		R	F	F	F	F
N	8047-002-013	12727	PADDISON AVE.		R	F	F	F	F
N	8047-002-014	12733	PADDISON AVE.		R	F	F	F	F
N	8047-003-020	12723	ADOREE ST.	SECRETARY OF HUD (TRIPLEX)	R	F	F	F	F
N	8047-003-022	12011	ADOREE ST.	GARRETT PAUL & JOSEP & TRUST (APARTMENTS)	R	F	F	F	F
N	8047-003-023	12732	PADDISON AVE.	BRACAMONTE RICHARD & JR (APARTMENTS)	R	F	F	F	F
N	8047-003-024	12722	PADDISON AVE.		R	P	X	P	X
N	8047-003-032	12809	KALNOR AVE.	NORWALK GROUP LLC (APARTMENTS)	R	F	P	F	P
N	8047-005-012	12109	ADOREE ST.	APARTMENT	R	P	X	P	X
N	8047-005-025	12129	ADOREE ST.		R	X	X	X	X
N	8047-005-026	12843	NORWALK BLVD.		C	P	P	P	P
N	8047-005-027	12901	NORWALK BLVD.	AUTO CLUB CLAIMS CENTER	C	F	F	F	F
N	8047-005-900	12110	ADOREE ST.	FIRE STATION	C	P	X	P	X
N	8047-006-921	X	X	STARBUCKS?	C	P	P	P	P
N	8047-007-009	13111	SYCAMORE DR.	MARRIOTT	C	P	X	P	X
N	8047-007-082	12884	SYCAMORE DR.	CONDOMINIUM	R	P	X	P	X
N	8047-007-083	X	X	CALIFORNIA CITIES WATER CO INC.	C	P	X	P	X
N	8047-007-187	X	X	NORWALK STEAKHOUSE	C	P	P	P	P
N	8047-007-188	X	X	NORWALK STEAKHOUSE	C	P	P	P	P
N	8047-007-803	X	X		C	F	X	F	X

Appendix E – Right-of-way Impacts

City	APN	Address	Street	Description	R/C	Alternatives			
						4A	4B	5A	5B
N	8047-008-009	13213	MARKDALE AVE.		R	P	X	P	X
N	8047-008-010	13219	MARKDALE AVE.		R	F	X	F	X
N	8047-008-011	13223	MARKDALE AVE.		R	F	X	F	X
N	8047-008-012	13227	MARKDALE AVE.		R	F	X	F	X
N	8047-008-013	13233	MARKDALE AVE.		R	F	X	F	X
N	8047-008-014	13303	MARKDALE AVE.		R	F	X	F	X
N	8047-008-015	13307	MARKDALE AVE.		R	F	X	F	X
N	8047-008-016	13313	MARKDALE AVE.		R	F	X	F	X
N	8047-008-017	13317	MARKDALE AVE.		R	F	X	F	X
N	8047-008-018	13323	MARKDALE AVE.		R	F	X	F	X
N	8047-008-019	13329	MARKDALE AVE.		R	F	X	F	X
N	8047-008-020	13333	MARKDALE AVE.		R	F	X	F	X
N	8047-008-021	13403	MARKDALE AVE.		R	F	X	F	X
N	8047-008-022	13407	MARKDALE AVE.		R	F	X	F	X
N	8047-008-023	13413	MARKDALE AVE.		R	F	X	F	X
N	8047-008-024	13419	MARKDALE AVE.		R	F	X	F	X
N	8047-008-025	13423	MARKDALE AVE.		R	F	X	F	X
N	8047-008-026	13427	MARKDALE AVE.		R	F	X	F	X
N	8047-008-027	13433	MARKDALE AVE.		R	F	X	F	X
N	8047-026-001	13505	MARKDALE AVE.		R	F	F	F	F
N	8047-026-002	13509	MARKDALE AVE.		R	F	P	F	P
N	8047-026-003	13515	MARKDALE AVE.		R	F	X	F	X
N	8047-026-004	13519	MARKDALE AVE.		R	F	X	F	X
N	8047-026-005	13525	MARKDALE AVE.		R	F	X	F	X
N	8047-026-006	13531	MARKDALE AVE.		R	F	X	F	X
N	8047-026-007	13535	MARKDALE AVE.		R	F	X	F	X
N	8047-026-008	13539	MARKDALE AVE.		R	F	X	F	X
N	8047-026-009	13605	MARKDALE AVE.		R	F	X	F	X
N	8047-026-010	13611	MARKDALE AVE.		R	F	X	F	X
N	8047-026-011	13615	MARKDALE AVE.		R	F	X	F	X
N	8047-026-012	13619	MARKDALE AVE.		R	F	X	F	X
N	8047-026-013	13625	MARKDALE AVE.		R	F	X	F	X
N	8047-026-014	13629	MARKDALE AVE.		R	F	X	F	X
N	8047-026-015	13635	MARKDALE AVE.		R	F	X	F	X
N	8047-026-016	13641	MARKDALE AVE.	BLDG BEYOND PROPOSED PL	R	F	X	F	X
N	8047-026-017	13645	MARKDALE AVE.	5.5 M BY	R	F	X	F	X
N	8047-026-018	13703	MARKDALE AVE.	13.2 BY	R	F	X	F	X
N	8047-026-019	13709	MARKDALE AVE.	4.7 BY REM SHED	R	F	X	F	X

Appendix E – Right-of-way Impacts

City	APN	Address	Street	Description	R/C	Alternatives			
						4A	4B	5A	5B
N	8047-026-020	13715	MARKDALE AVE.	4.4 BY	R	F	X	F	X
N	8047-026-021	13717	MARKDALE AVE.	5.2 BY REM SHED	R	F	X	F	X
N	8047-026-022	13723	MARKDALE AVE.	8.3 BY	R	F	X	F	X
N	8047-026-023	13729	MARKDALE AVE.		R	F	X	F	X
N	8047-026-024	13733	MARKDALE AVE.		R	X	X	X	X
N	8048-016-001	11895	LYNDORA ST.		R	F	P	F	F
N	8048-016-002	11883	LYNDORA ST.		R	P	P	P	P
N	8048-016-003	11871	LYNDORA ST.		R	P	P	P	P
N	8048-016-004				R	P	P	P	P
N	8048-016-005	11867	LYNDORA ST.		R	P	P	P	P
N	8048-016-006				R	P	P	P	P
N	8048-016-007	11857	LYNDORA ST.		R	P	P	P	P
N	8048-016-008	11851	LYNDORA ST.		R	F	F	F	F
N	8048-016-009	11847	LYNDORA ST.		R	F	F	F	F
N	8048-016-010	11841	LYNDORA ST.		R	F	F	F	F
N	8048-016-011	11837	LYNDORA ST.		R	X	X	X	X
N	8048-017-001	11941	UNION ST.		R	X	X	X	X
N	8048-017-006	12816	ZEUS AVE.		R	F	F	F	F
N	8048-017-007	12810	ZEUS AVE.		R	F	F	F	F
N	8048-017-008	12804	ZEUS AVE.		R	F	F	F	F
N	8048-017-009	12802	ZEUS AVE.		R	F	P	F	P
N	8048-017-024	11899	LYNDORA ST.		R	F	P	F	P
N	8048-017-025	12820	ZEUS AVE.		R	P	P	P	P
N	8048-029-008	12042	OLIVE ST.		C	P	P	P	P
N	8048-029-009	13215	SAN ANTONIO DR.		C	P	P	P	P
N	8048-029-010	13227	SAN ANTONIO DR.		C	F	P	F	P
N	8048-029-011	12033	SPROUL ST.		C	P	P	P	P
N	8048-030-001	12052	UNION ST.		R	X	P	X	P
N	8048-030-002	12054	UNION ST.		R	X	P	X	P
N	8048-030-003	12104	UNION ST.		R	X	P	X	P
N	8048-030-004	12106	UNION ST.		R	P	P	P	P
N	8048-030-005	12112	UNION ST.		R	P	P	P	P
N	8048-030-006	12116	UNION ST.		R	P	P	P	P
N	8048-030-007	12122	UNION ST.		R	F	P	F	P
N	8048-030-008	12126	UNION ST.		R	F	F	F	F
N	8048-030-010	12136	UNION ST.		R	X	P	X	P
N	8048-030-011	13103	SAN ANTONIO DR.	AC/DC AUTO SERVICE INC.	C	P	P	P	P
N	8048-030-014	13125	SAN ANTONIO DR.		C	F	F	F	F

Appendix E – Right-of-way Impacts

City	APN	Address	Street	Description	R/C	Alternatives			
						4A	4B	5A	5B
N	8048-030-026	13113	SAN ANTONIO DR.	DIAMOND MICHAEL N	C	F	F	F	F
N	8048-031-006	12030	UNION ST.		R	X	X	X	X
N	8048-031-007	12034	UNION ST.		R	X	X	X	X
N	8048-031-008	12040	UNION ST.		R	X	X	X	X
N	8048-031-009	12044	UNION ST.		R	X	X	X	X
N	8048-032-001	12001	UNION ST.	APARTMENT	R	F	F	F	F
N	8048-032-002	12141	UNION ST.	NIKOU LTD.	C	F	F	F	F
N	8056-001-001	13706	BELMART AVE.		R	F	F	F	F
N	8056-001-002	13712	BELMART AVE.		R	X	F	X	F
N	8056-001-006	12443	SPROUL ST.		R	F	X	F	X
N	8056-001-007	13803	ARABY AVE.		R	F	F	F	F
N	8056-001-008	13804	ARABY AVE.		R	F	F	F	F
N	8056-001-009	12453	SPROUL ST.		R	X	X	X	P
N	8056-001-010	12457	SPROUL ST.		R	X	P	X	F
N	8056-001-011	12461	SPROUL ST.		R	P	P	P	F
N	8056-001-012	12467	SPROUL ST.		R	P	F	F	F
N	8056-001-013	12473	SPROUL ST.		R	P	F	F	F
N	8056-001-014	12477	SPROUL ST.		R	P	F	F	F
N	8056-001-015	12483	SPROUL ST.		R	P	F	F	F
N	8056-001-016	12489	SPROUL ST.		R	P	F	F	F
N	8056-001-017	12495	SPROUL ST.		R	F	F	F	F
N	8056-001-018	12501	SPROUL ST.		R	P	F	P	F
N	8056-002-001	13504	DELAVAN AVE.		R	F	F	F	F
N	8056-002-002	13510	DELAVAN AVE.		R	P	F	P	F
N	8056-002-003	13516	DELAVAN AVE.		R	X	P	X	F
N	8056-002-016	13601	SILVERBOW AVE.		R	F	F	F	F
N	8056-002-017	13606	SILVERBOW AVE.		R	F	F	F	F
N	8056-002-018	13612	SILVERBOW AVE.		R	P	F	P	F
N	8059-002-019	13618	SILVERBOW AVE.		R	X	P	X	P
N	8056-002-025	13713	BELMART AVE.		R	X	X	P	X
N	8056-002-026	13707	BELMART AVE.		R	X	X	F	X
N	8056-002-027	13703	BELMART AVE.		R	F	F	F	F
N	8056-003-007	13415	ESMOND AVE.		R	P	P	P	F
N	8056-003-008	13409	ESMOND AVE.		R	P	F	P	F
N	8056-003-009	13403	ESMOND AVE.		R	F	F	F	F
N	8056-003-010	13404	ESMOND AVE.		R	F	F	F	F
N	8056-003-011	13410	ESMOND AVE.		R	P	X	P	P
N	8056-003-012	13416	ESMOND AVE.		R	X	X	X	X

Appendix E – Right-of-way Impacts

City	APN	Address	Street	Description	R/C	Alternatives			
						4A	4B	5A	5B
N	8056-003-025	13511	DELAVAN AVE.		R	P	X	P	X
N	8056-003-026	13505	DELAVAN AVE.		R	P	X	P	P
N	8056-003-027	13501	DELAVAN AVE.		R	F	F	F	F
N	8056-004-011	12111	OLIVE ST.	NORWALK UNITED METHODIST CHURCH	C	P	P	P	P
N	8056-004-900	13000	CLARKDALE AVE.	SOUTHEAST RECREATION & PARK DISTRICT	C	P	P	P	P
N	8056-004-904	12155	SPROUL ST.	NORWALK ARTS & SPORTS COMPLEX	C	X	P	X	P
N	8056-005-019	13220	SAN ANTONIO DR.		C	F	F	F	F
N	8056-005-020	13208	SAN ANTONIO DR.		C	F	F	F	F
N	8056-011-016	12551	ROSECRANS AVE.	EL POLLO LOCO	C	F	F	F	F
N	8070-001-004	14616	SHOEMAKER AVE.		R	X	X	X	X
N	8070-001-005	14622	SHOEMAKER AVE.		R	F	F	F	F
N	8070-001-006*	14628	SHOEMAKER AVE.		R	X	X	X	X
N	8070-001-007*	14637	GRACEBEE AVE.		R	X	X	X	X
N	8070-001-008*	14633	GRACEBEE AVE.		R	X	X	X	X
N	8082-001-001	12645	E ROSECRANS	BUDGET RENT A CAR & SALES	C	F	F	F	F
N	8082-001-003	12605	E ROSECRANS	TUNE UP	C	F	F	F	F
D	8019-028-001	11344	BUELL ST.		R	F	P	F	P
D	8019-028-002	11338	BUELL ST.		R	F	X	F	X
D	8019-028-003	11332	BUELL ST.		R	X	X	X	X
D	8019-028-020	11343	CECILIA ST.		R	F	X	F	X
D	8019-028-021	11349	CECILIA ST.		R	F	P	F	P
D	8019-028-022	11353	CECILIA ST.		R	F	F	F	F
D	8019-030-001	11340	MULLER ST.		R	F	F	F	F
D	8019-030-002	11334	MULLER ST.		R	F	X	F	X
D	8019-030-003	11328	MULLER ST.		R	P	X	P	X
D	8019-030-016	11329	BUELL ST.		R	F	X	F	X
D	8019-030-017	11333	BUELL ST.		R	F	P	F	P
D	8019-030-018	11339	BUELL ST.		R	F	F	F	F
D	8019-031-001	11274	QUINN ST.		R	F	F	F	F
D	8019-031-002	11268	QUINN ST.		R	F	X	F	X
D	8019-031-003	11262	QUINN ST.		R	P	X	P	X
D	8019-031-030	11323	MULLER ST.		R	F	X	F	X
D	8019-031-031	11329	MULLER ST.		R	F	F	F	F
D	8019-031-032	11333	MULLER ST.		R	F	F	F	F
D	8019-032-015	10806	OFFLEY AVE		R	X	X	X	X
D	8019-032-026	10801	LONGWORTH AVE.		R	P	X	P	X
D	8019-032-027	10810	LONGWORTH AVE.		R	F	F	F	F
D	8019-032-028	10816	LONGWORTH AVE.		R	F	P	F	P

Appendix E – Right-of-way Impacts

City	APN	Address	Street	Description	R/C	Alternatives			
						4A	4B	5A	5B
D	8019-32-029	11253	QUINN ST.		R	P	X	P	X
D	8019-032-030	11259	QUINN ST.		R	F	F	F	F
D	8019-032-031	11265	QUINN ST.		R	F	F	F	F
D	8019-033-006	10780	FAIRFORD		C	P	P	P	P
D	8019-033-016	11000	FLORENCE AVE.		C	P	P	P	P
D	8019-033-017	11143	DOLLISON DR.	CAR DEALERSHIP	C	P	P	P	P
D	8019-033-025	11111	FLORENCE AVE.	SAM'S CLUB	C	P	P	P	P
D	8019-033-900	11190	FLORENCE AVE.	CAR DEALERSHIP	C	P	P	P	P

APNs with an asterisk (*) are right-of-way impacts associated with the Interstate 5 at Carmenita Road Interchange Improvement Project.

APPENDIX F-1

Project Alternative Layouts
10-and 12 Lane Modified MIS Alignment

APPENDIX F-1

Project Alternative Layouts
10 and 12 Lane Modified MIS Alignment

INDEX OF SHEETS

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN LOS ANGELES COUNTY
IN CERRITOS, LA MIRADA, NORWALK,
SANTA FE SPRINGS AND DOWNEY FROM
0.03 Km (0.02 MILE) SOUTH OF ARTESIA BLVD UNDERCROSSING TO
1.21 Km (7.61 MILE) NORTH OF ROUTE 605 AND 5 INTERCHANGE

To be supplemented by Standard Plans dated July, 2004

DIST	COUNTY	ROUTE	TELEPHONE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5	[illegible]	1	

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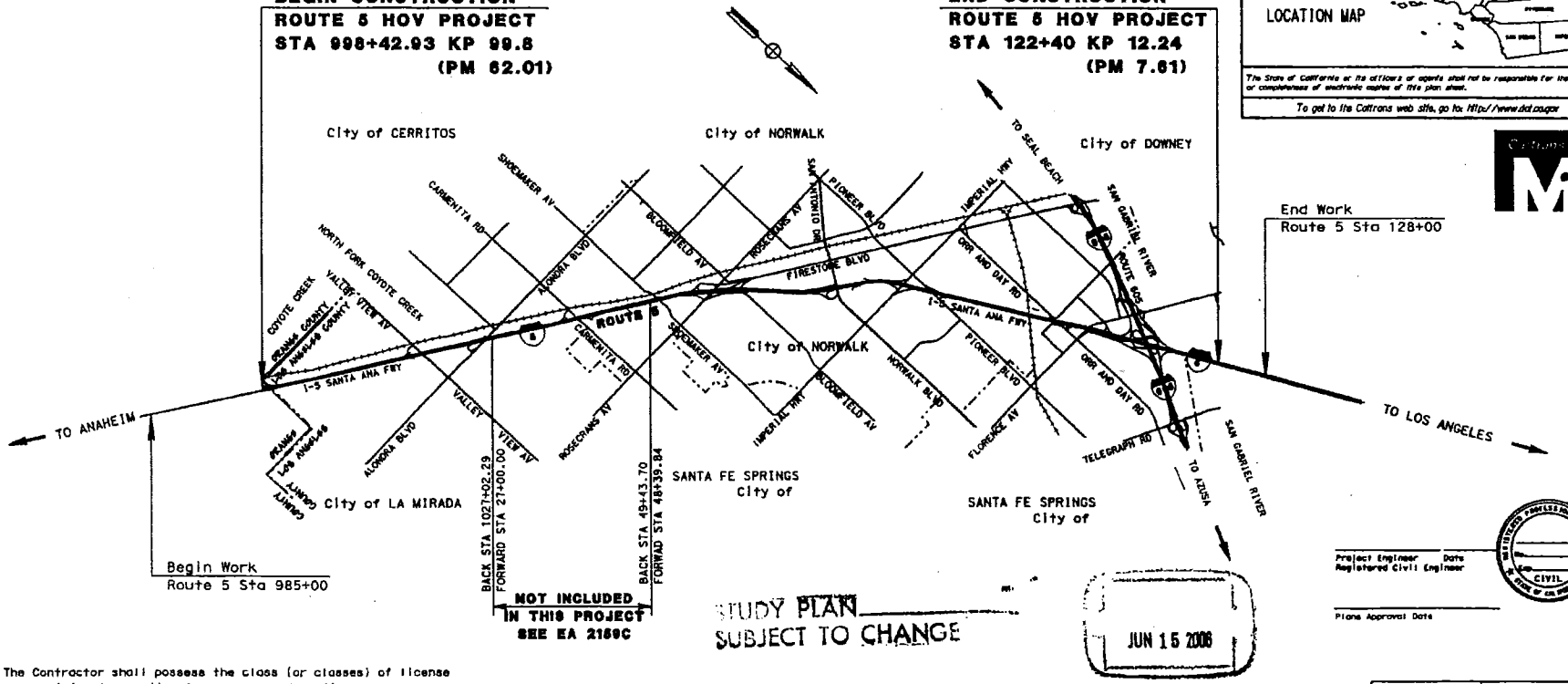
BEGIN CONSTRUCTION
ROUTE 5 HOV PROJECT
STA 998+42.93 KP 99.8
(PM 62.01)

END CONSTRUCTION
ROUTE 5 HOV PROJECT
STA 122+40 KP 12.24
(PM 7.61)



NOT INCLUDED IN THIS PROJECT SEE EA 2159C

STUDY PLAN SUBJECT TO CHANGE

JUN 15 2006

The Contractor shall possess the class (or classes) of license as specified in the "Notice to Contractors."

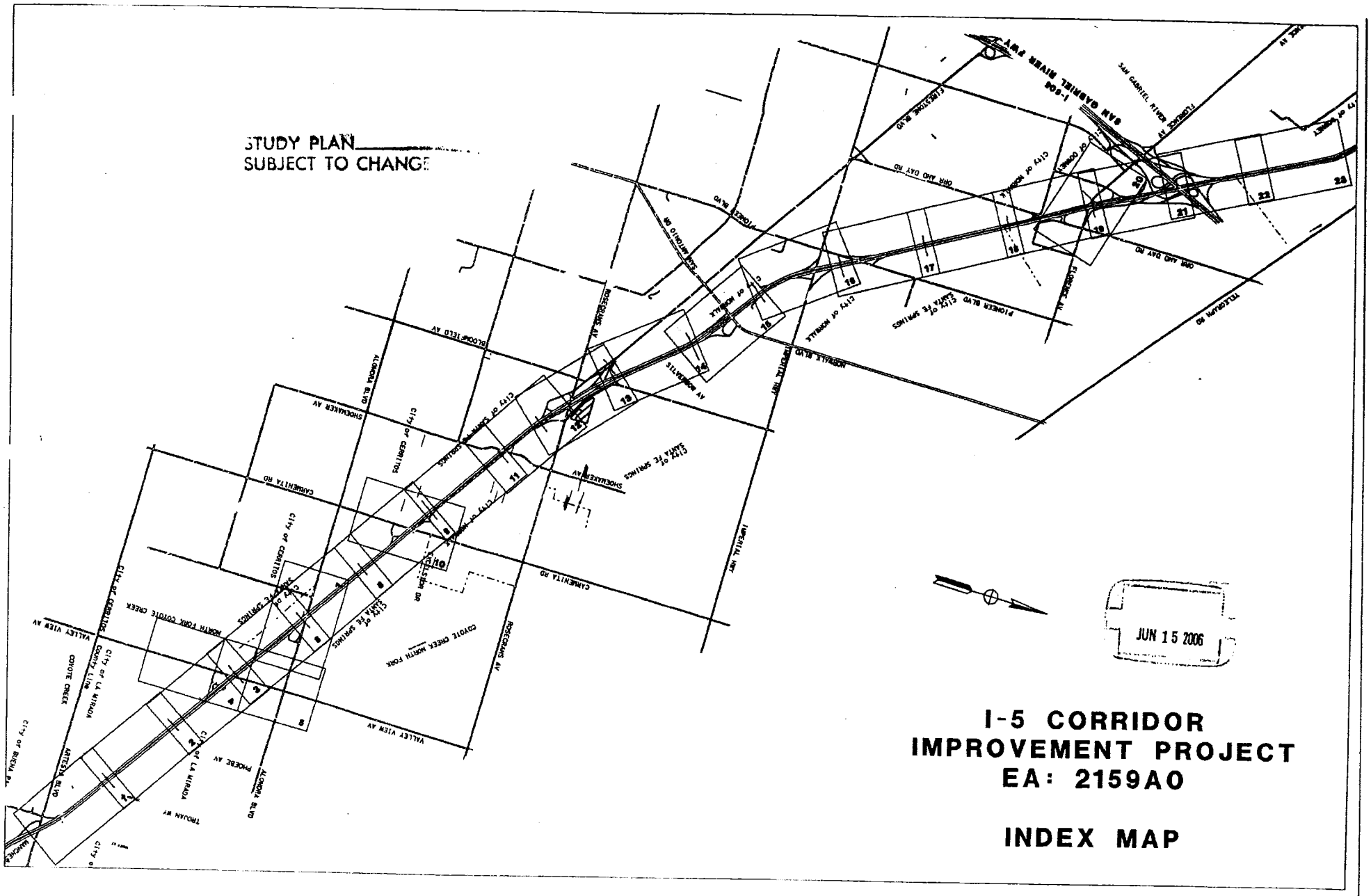
Project Engineer Date
Registered Civil Engineer
CIVIL

Plans Approval Date

Contract No.

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

CU 00000 EA 000000


STUDY PLAN
SUBJECT TO CHANGE
JUN 15 2006
I-5 CORRIDOR
IMPROVEMENT PROJECT
EA: 2159A0
INDEX MAP

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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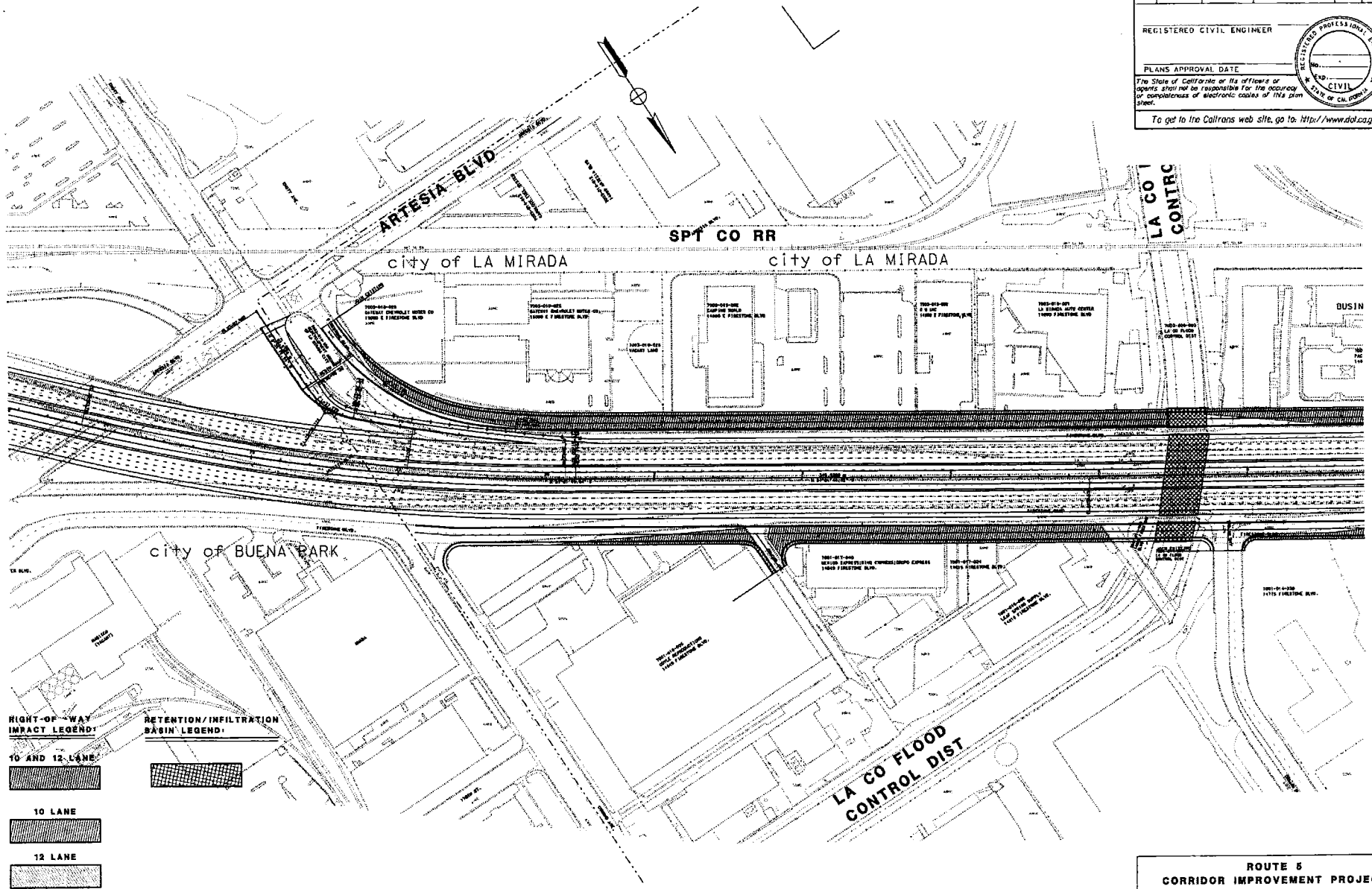
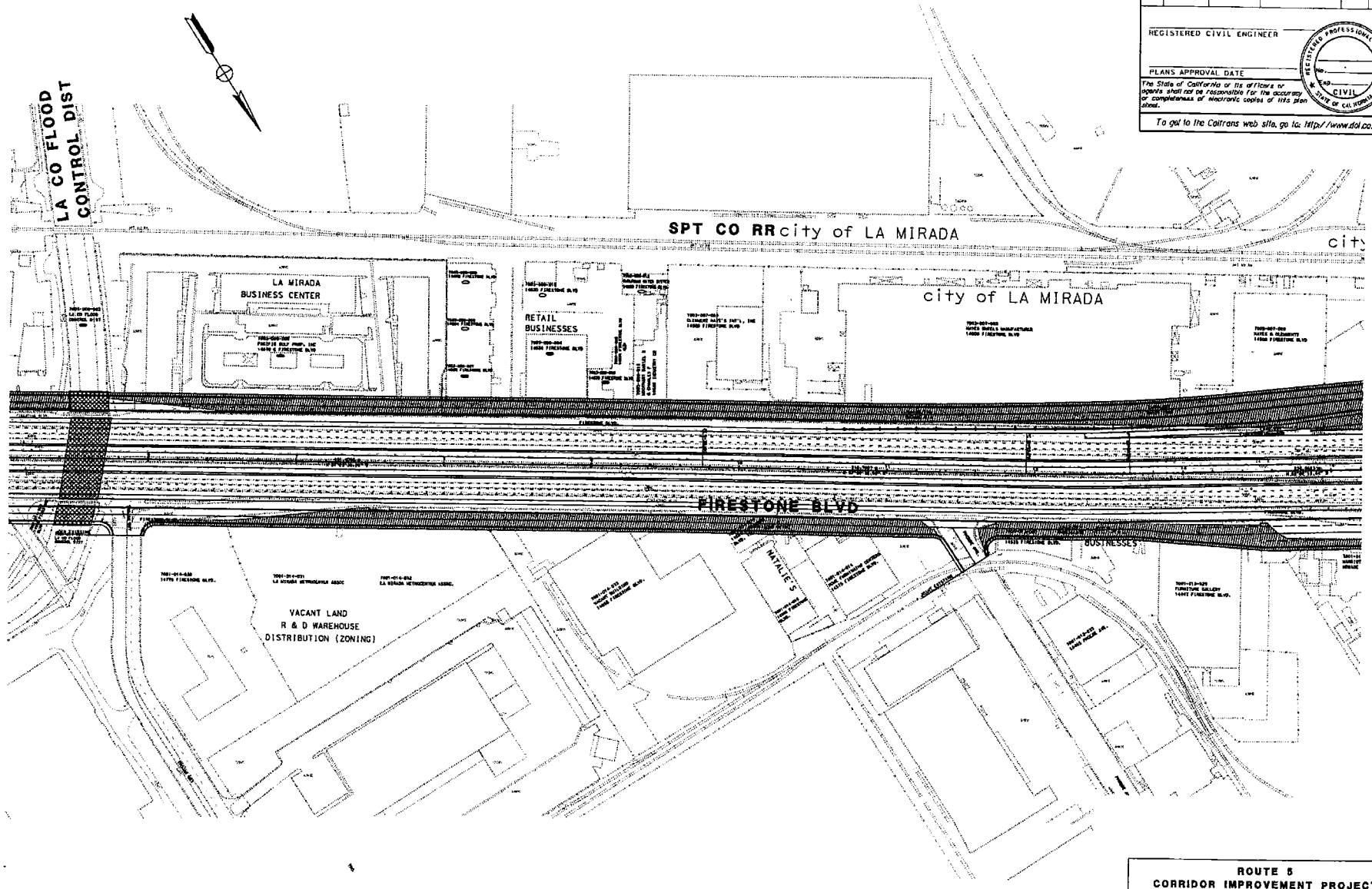


ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIS ALT L-1



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIS ALT L-2

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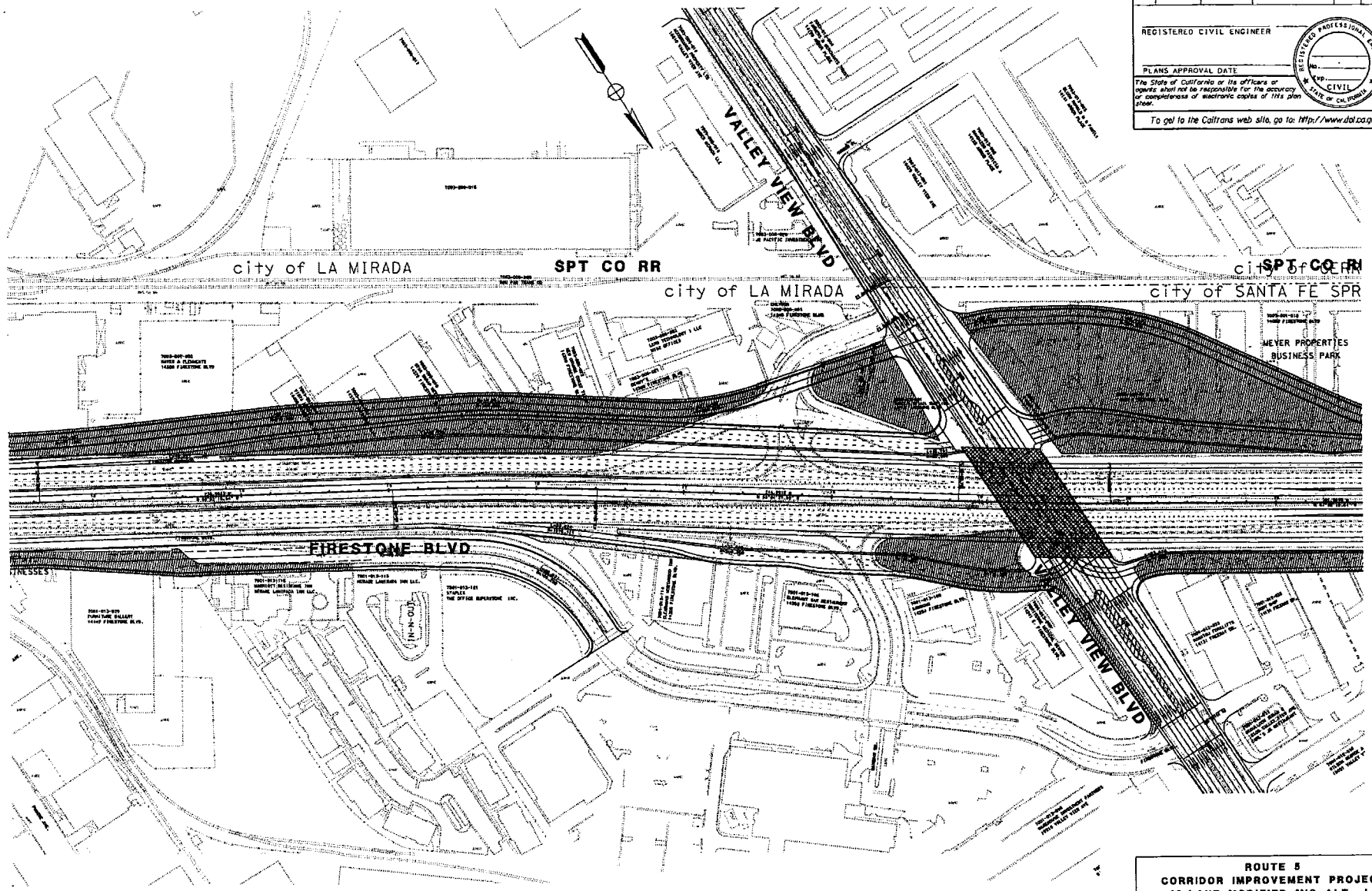

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIS ALT L-3

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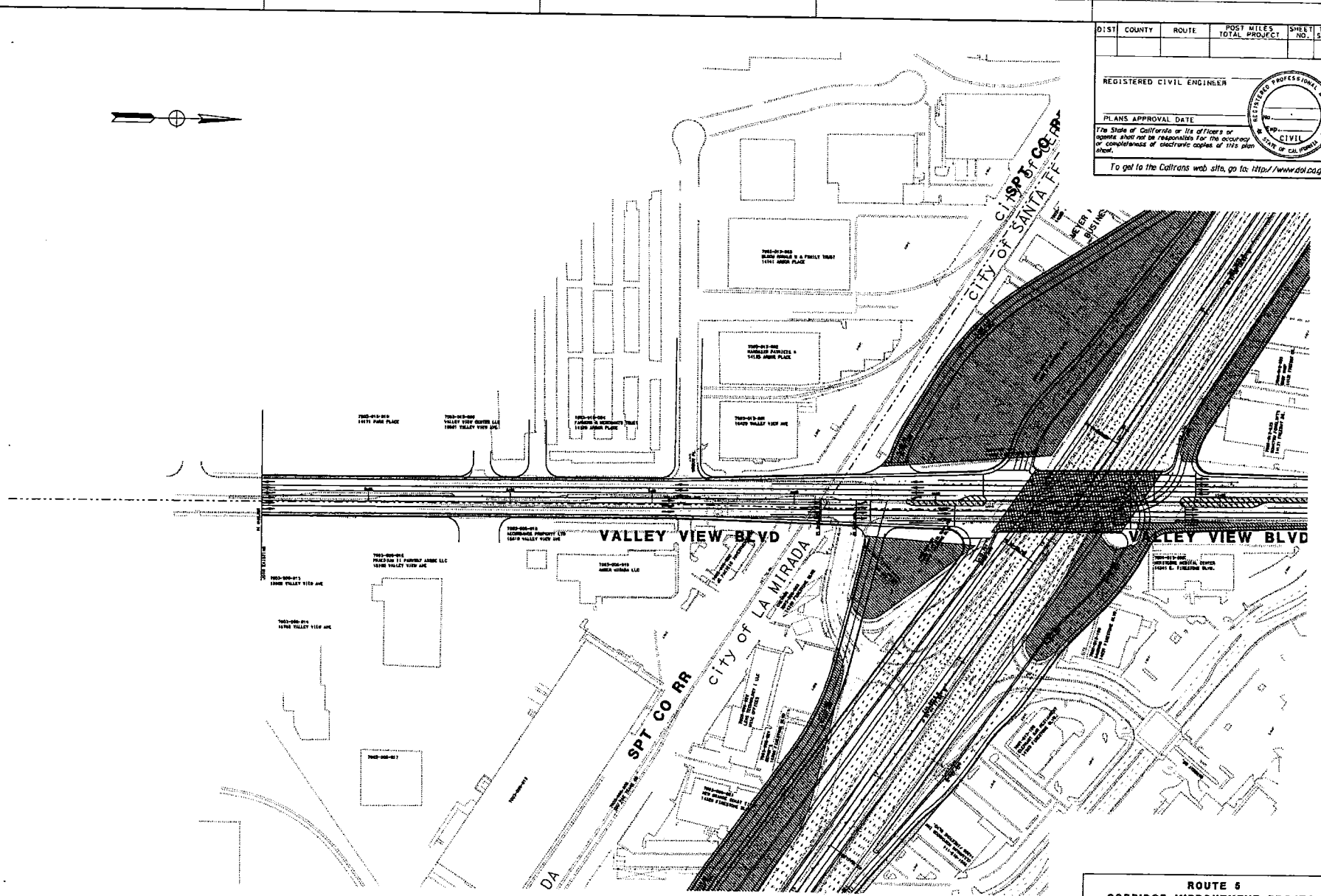

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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10-LANE MODIFIED MIS ALT L-4

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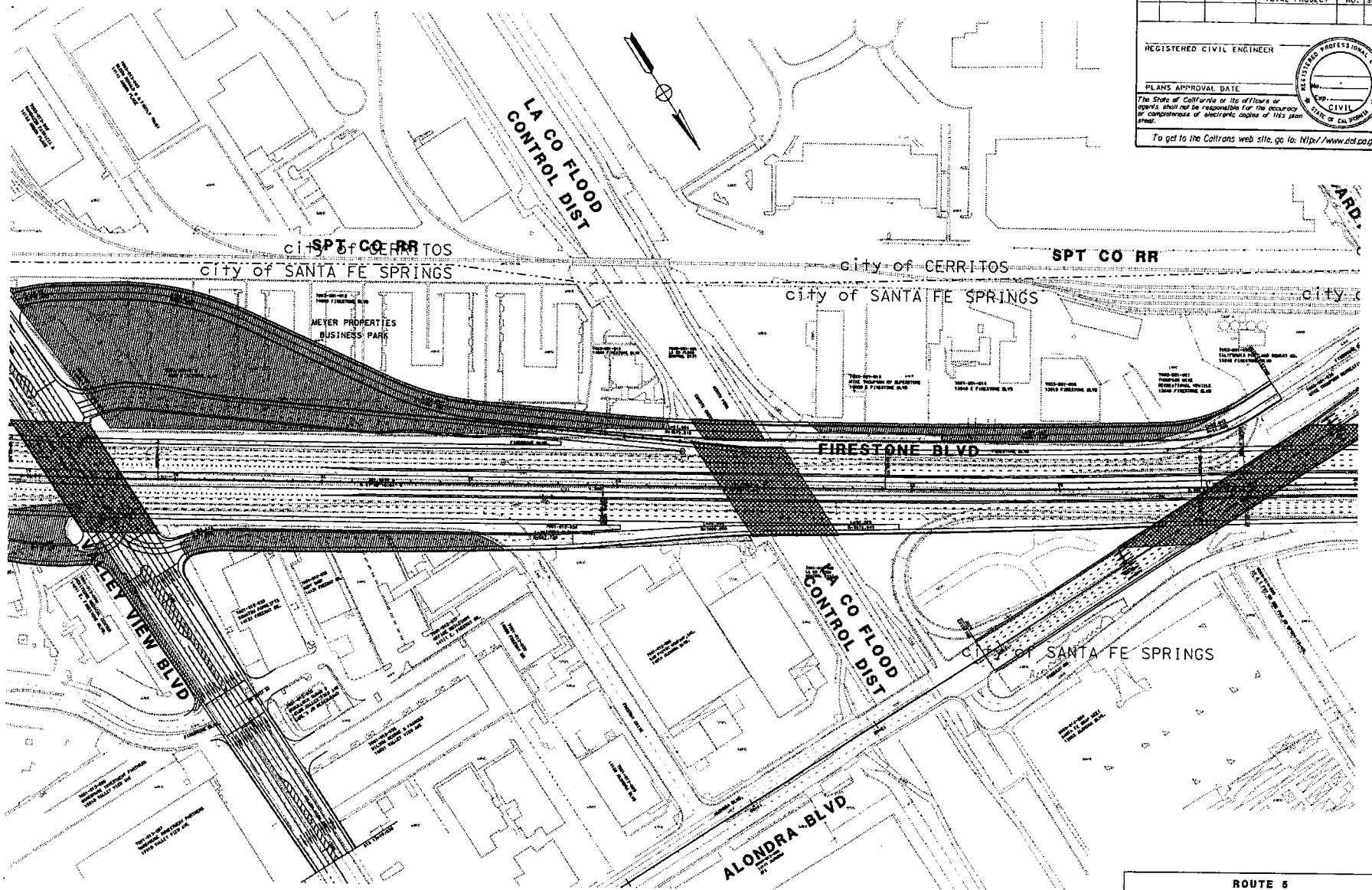
ROUTE 8
CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIB ALT L-8
CU 00000
EA 000000
REGISTERED CIVIL ENGINEER
PLANS APPROVAL DATE
To get to the Caltrans web site, go to: http://www.dot.ca.gov
VALLEY VIEW BLVD
ALONDRA BLVD
CITY OF SANTA FE SPRINGS
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
PROJECT ENGINEER
CALCULATED/ DESIGNED BY
CHECKED BY
DATE REVISED
REVISED BY
DATE



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIS ALT L-6

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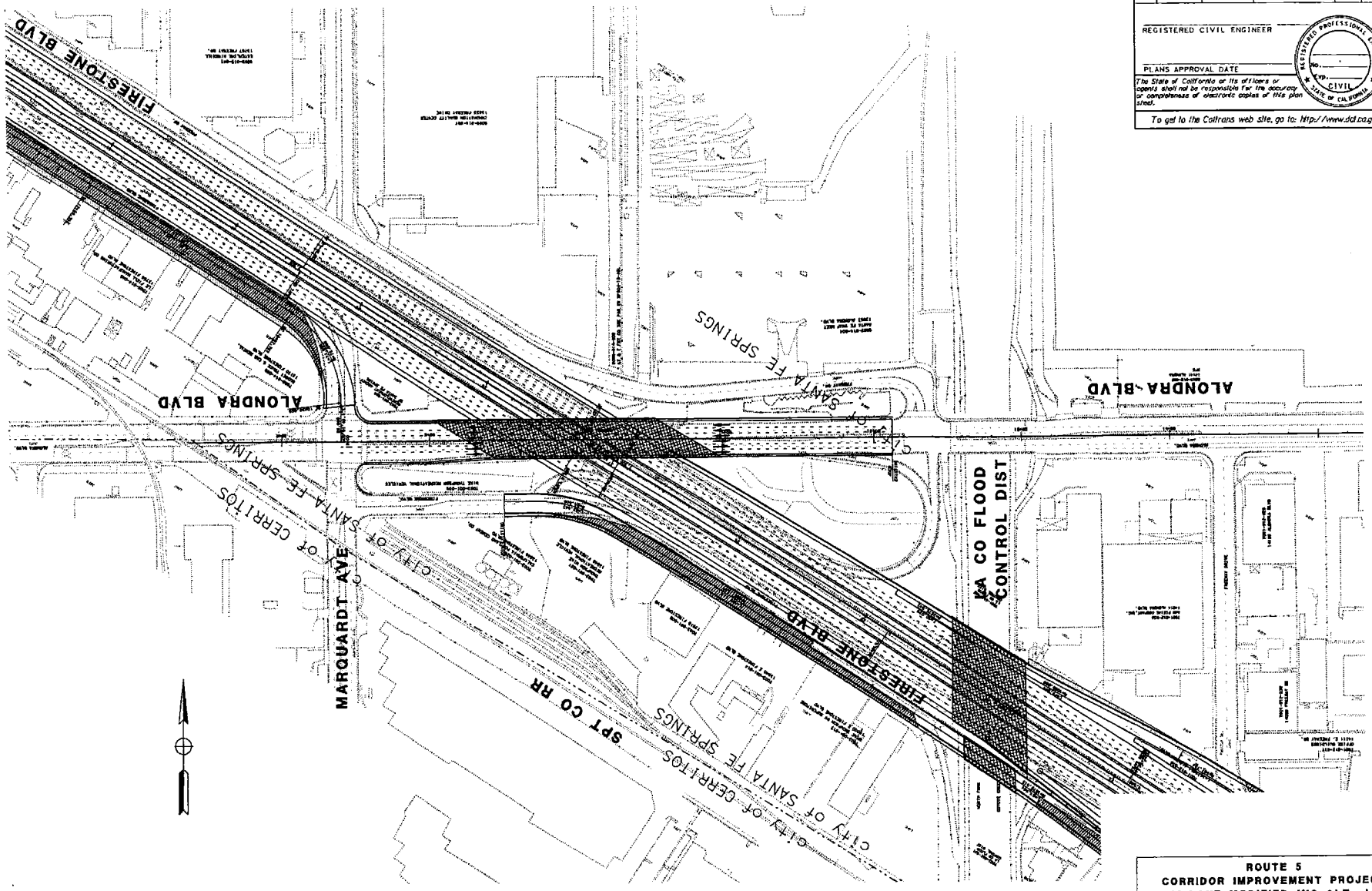

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIS ALT L-7

LAST REVISION — DATE PLOTTED => 12-OCT-2006
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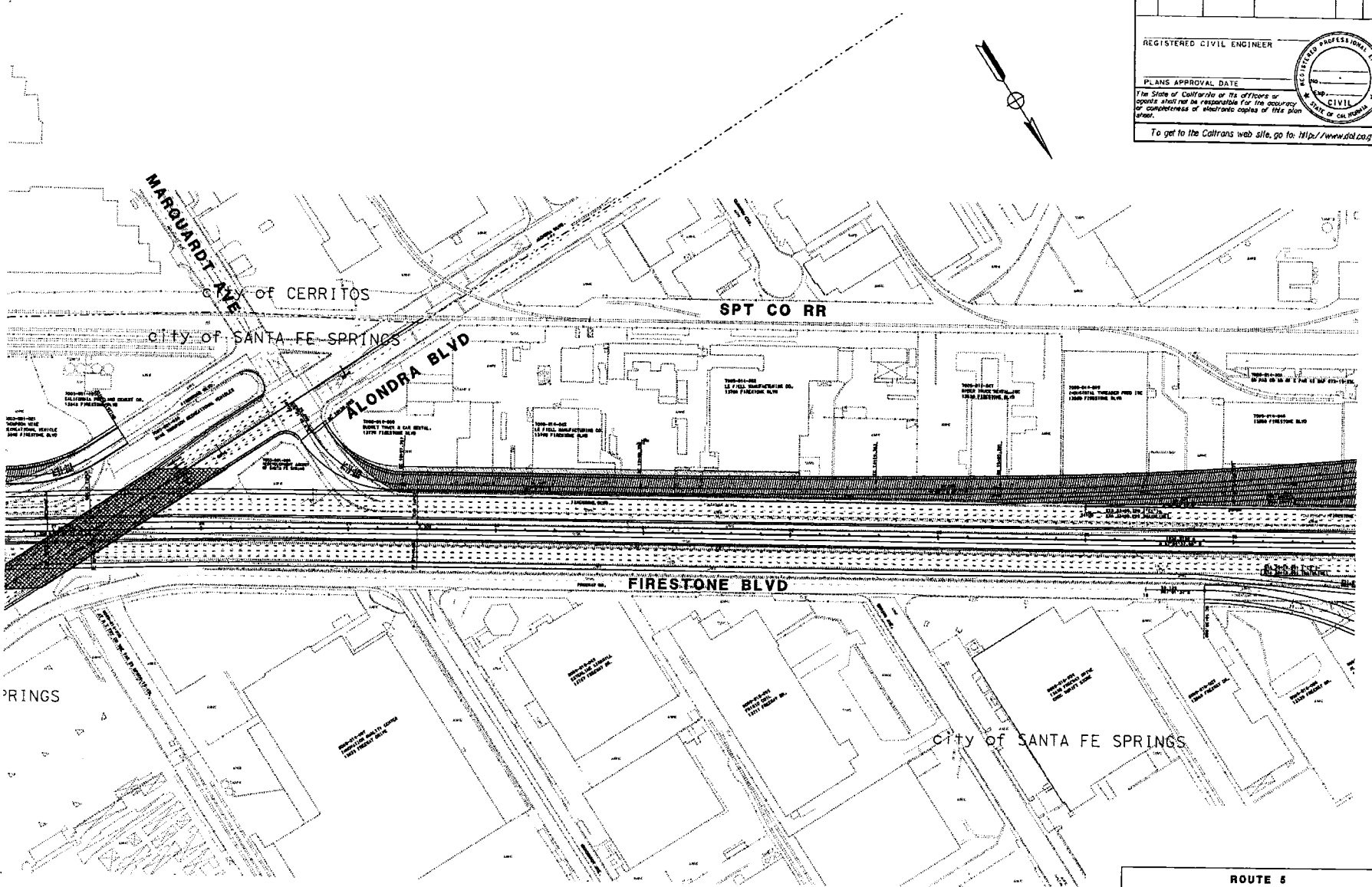

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10-LANE MODIFIED MIS ALT L-8

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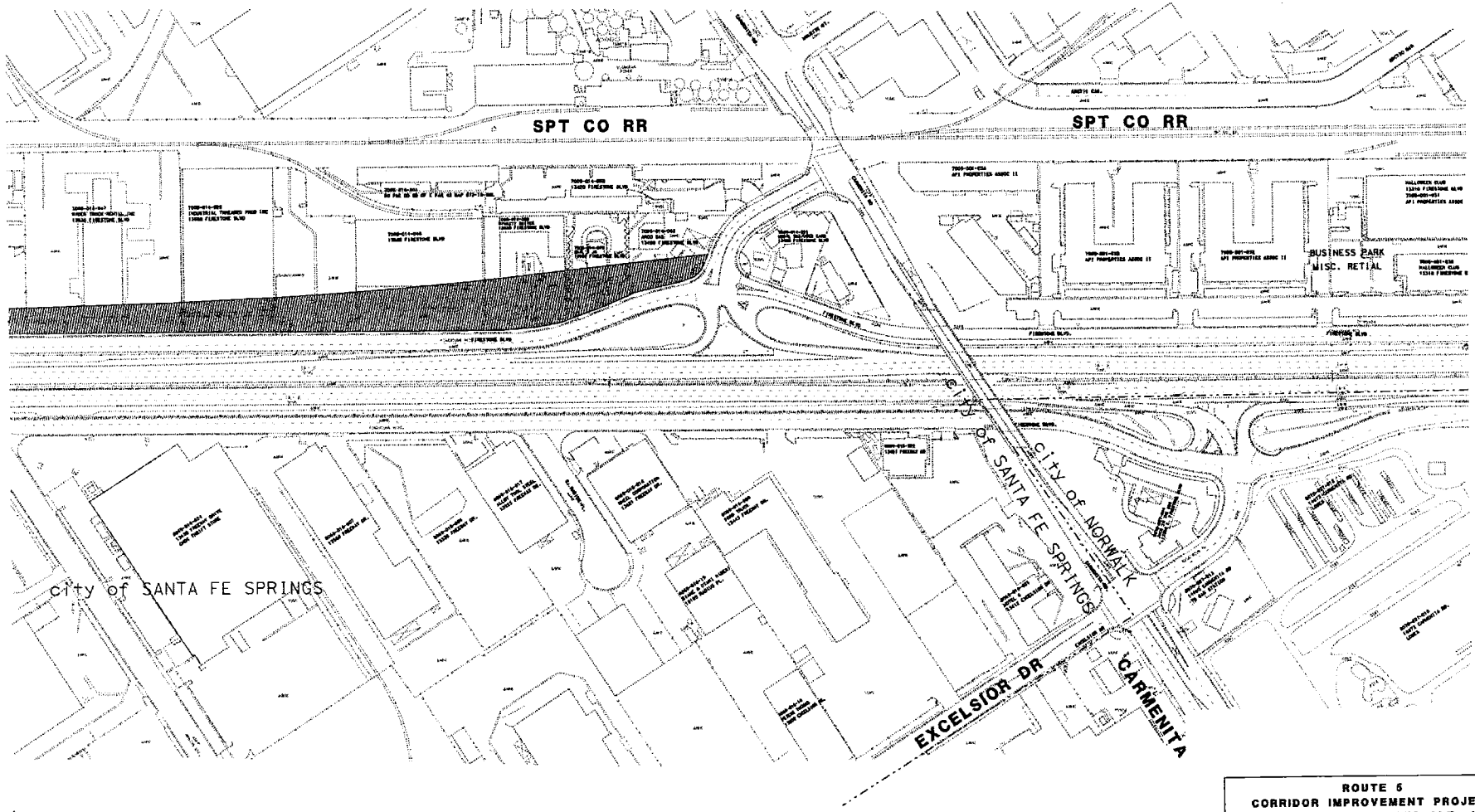

DIST	COUNTY	ROUTE	POST MILE'S TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIB ALT L-9

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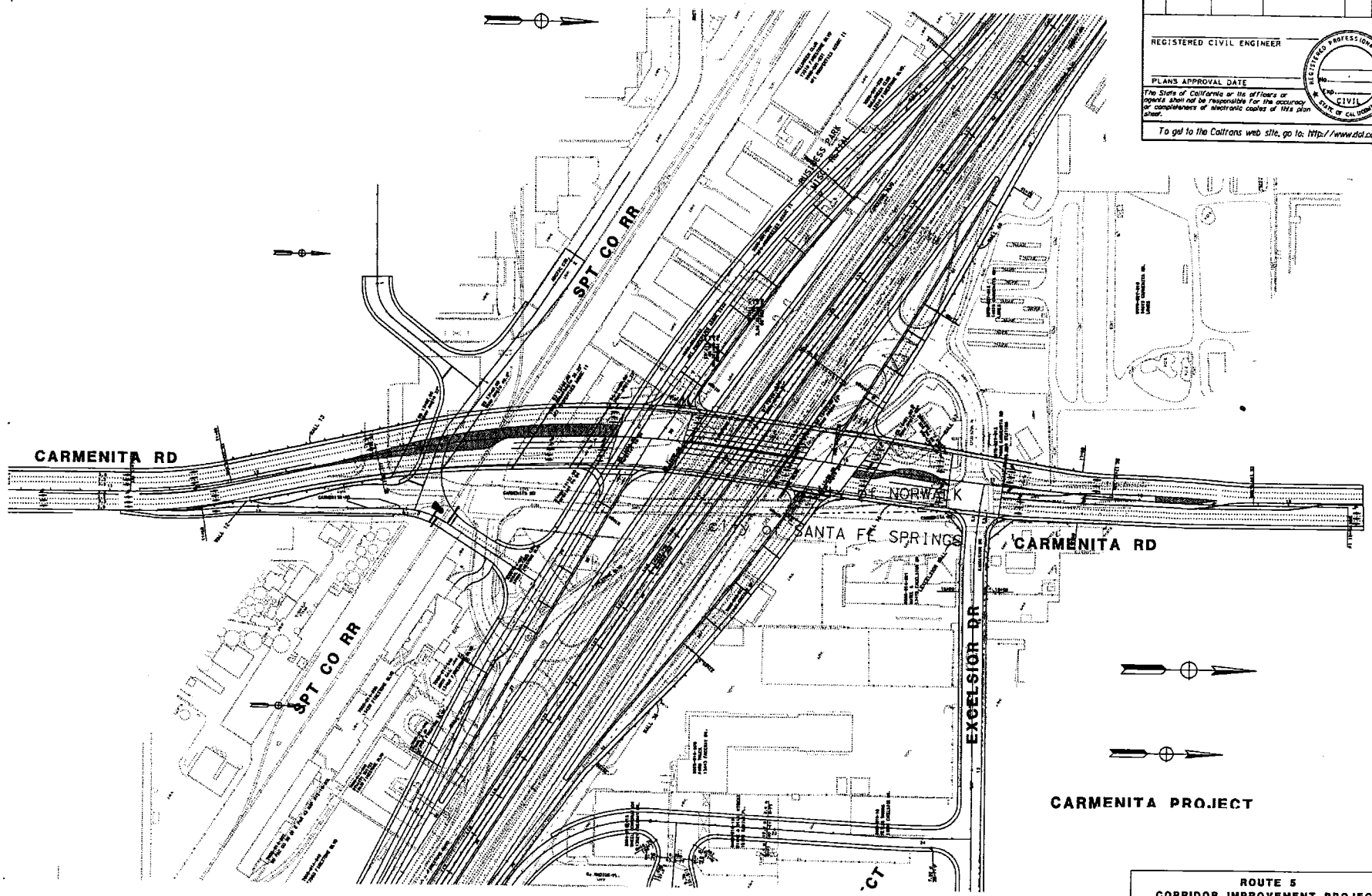

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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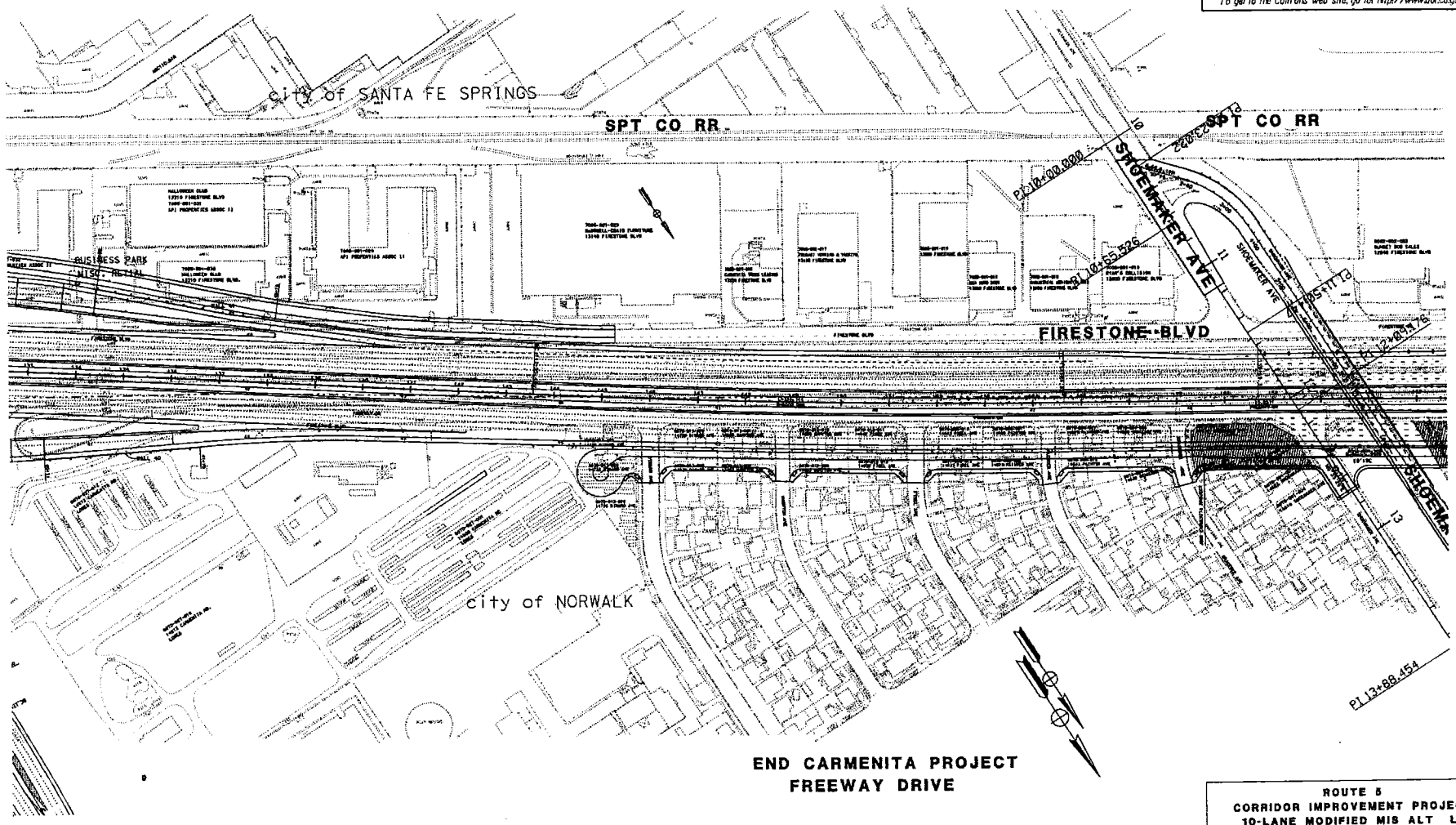

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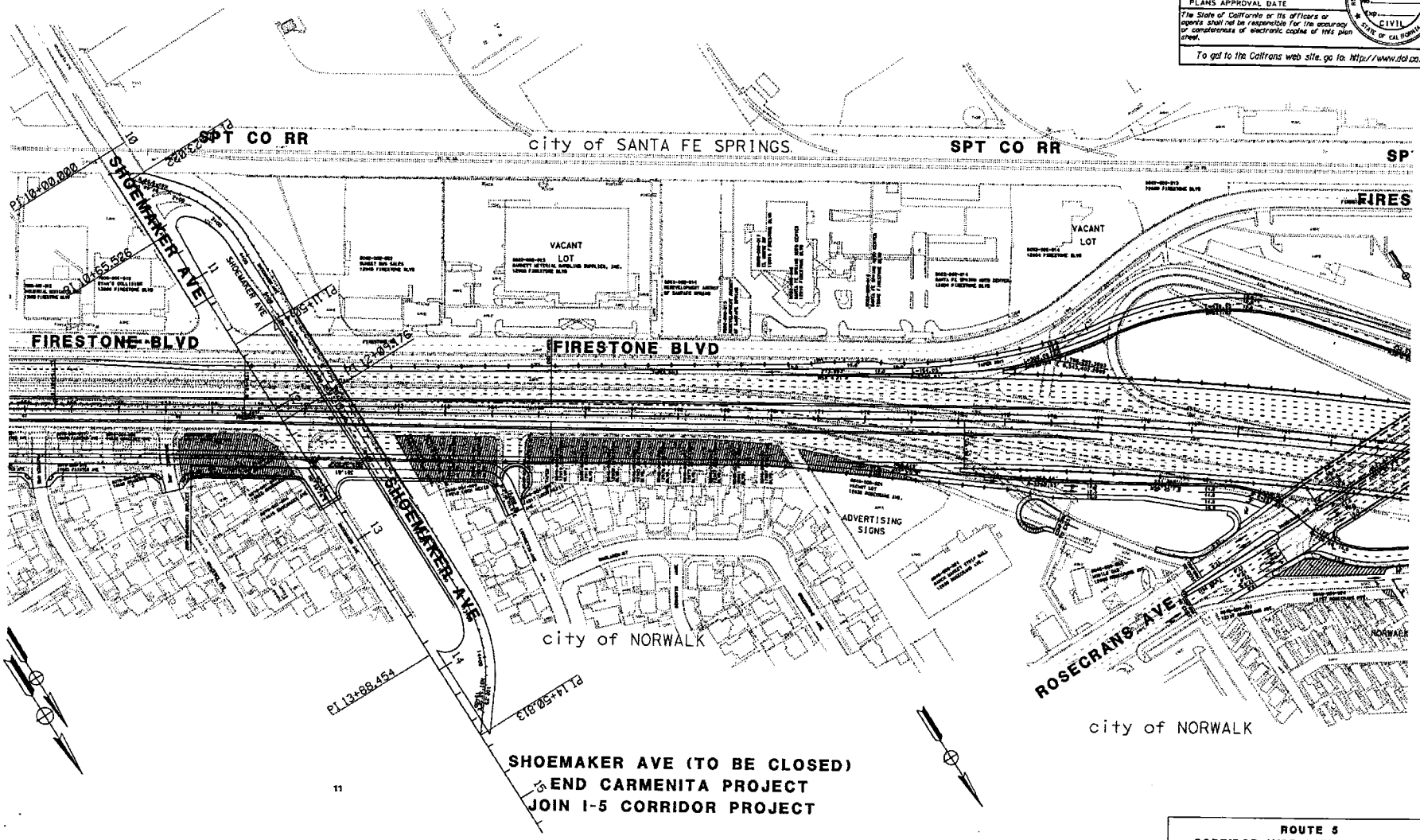

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DATE REVISED

ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
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LAST REVISION 00-00-00

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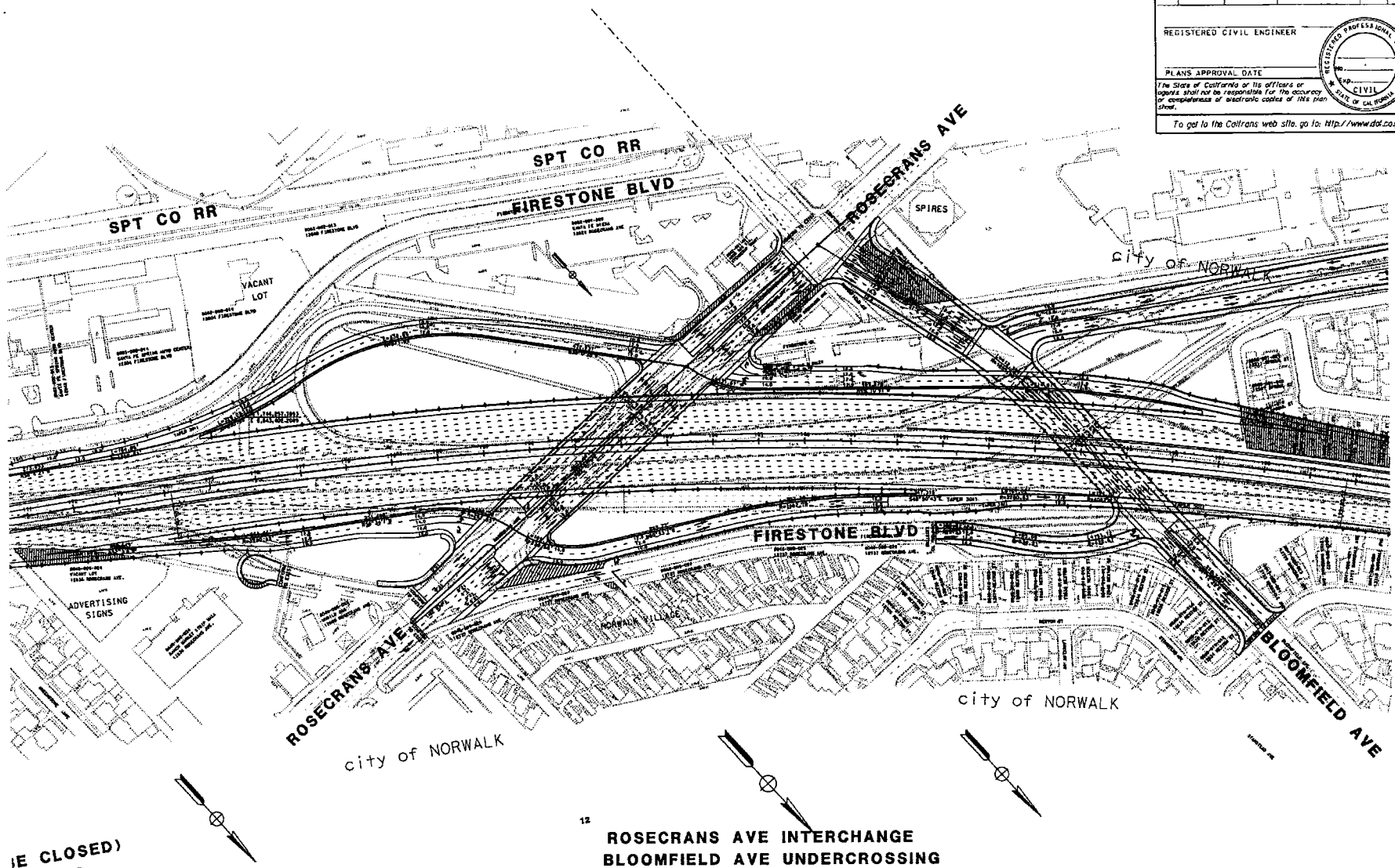

12

ROSECRANS AVE INTERCHANGE
BLOOMFIELD AVE UNDERCROSSING

)E CLOSED)
ROJECT
ROJECT

ROUTE 6
CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIS ALT L-13

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PROJECT ENGINEER

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DATE	REVISED BY	DATE REVISED

LAST REVISION 00-00-00 DATE PLOTTED => 12-OCT-2006 TIME PLOTTED => 10:47

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

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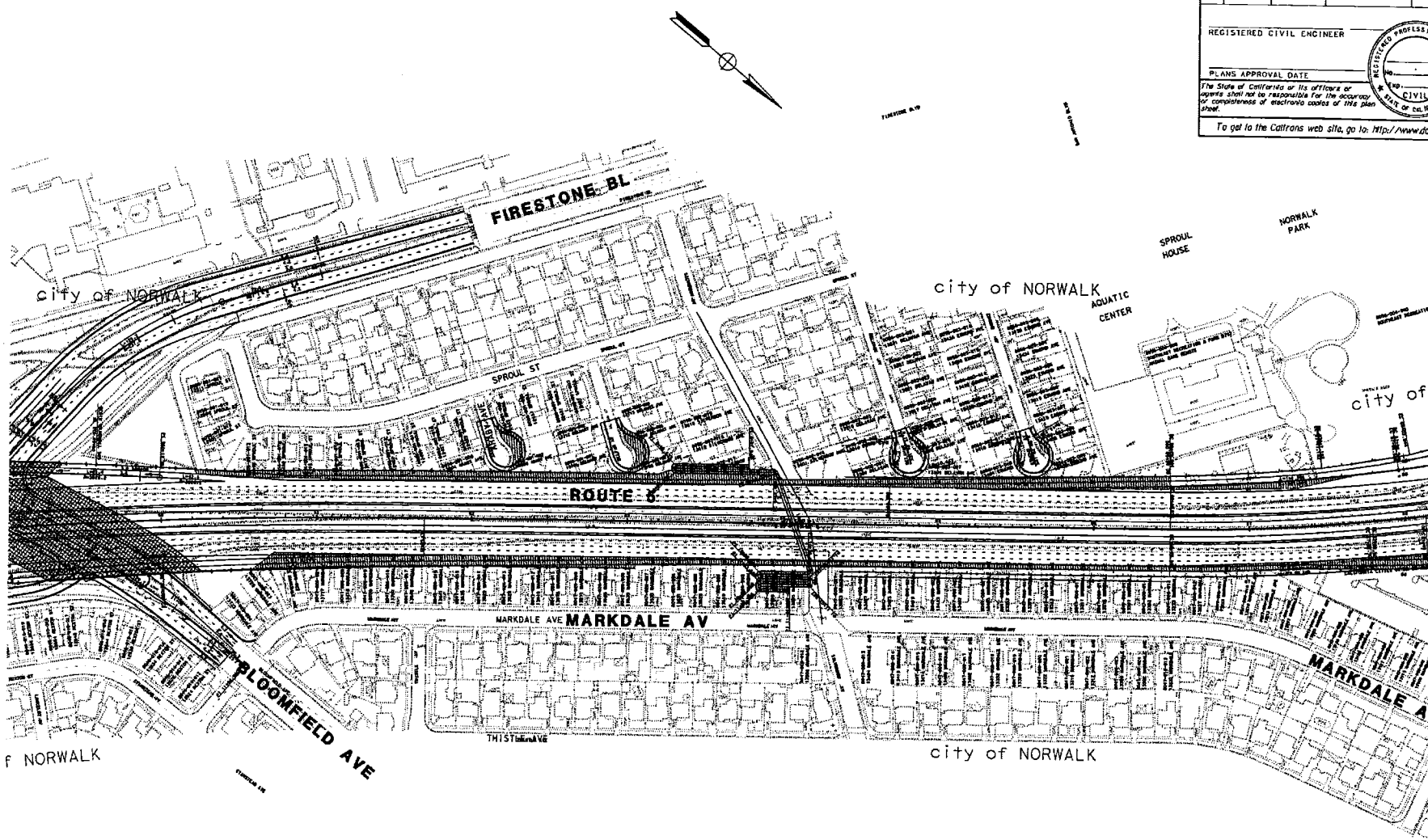

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
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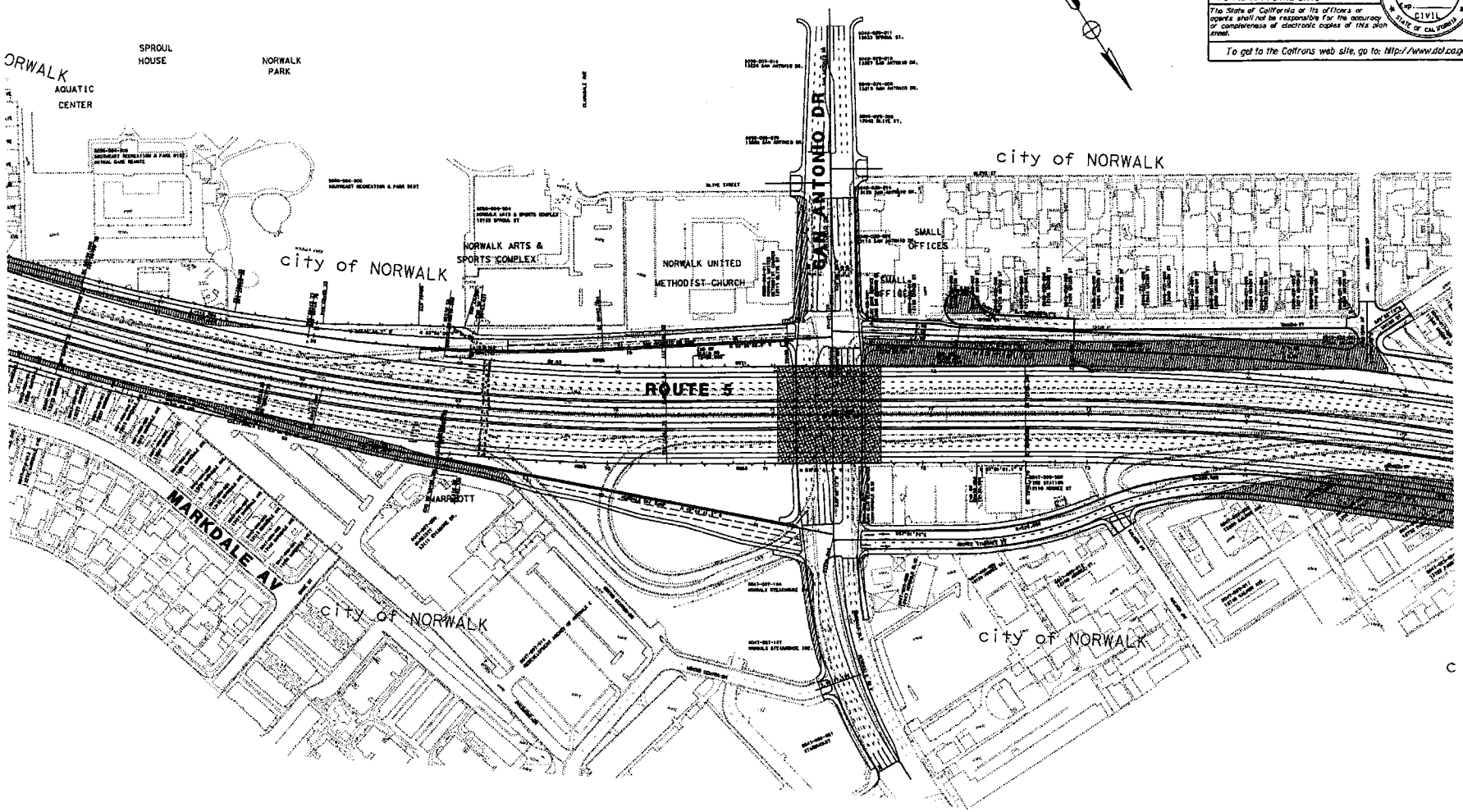

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIS ALT L-15

LAST REVISION 00-00-00 DATE PLOTTED =>12-OCT-2006 TIME PLOTTED =>10:32

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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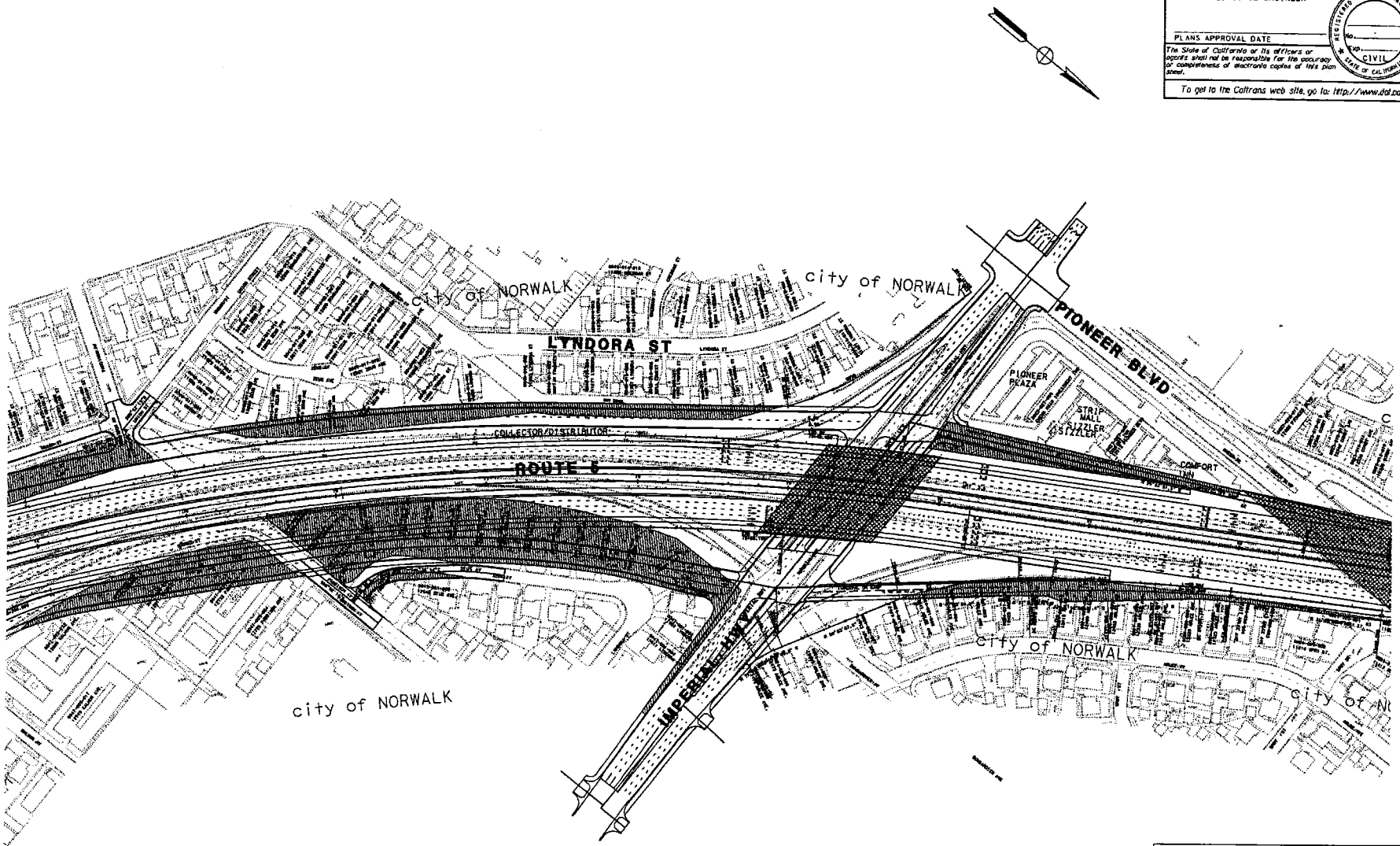

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CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIS ALT L-16

LAST REVISION 00-00-00

DATE PLOTTED => 12-OCT-2006
TIME PLOTTED => 10:59

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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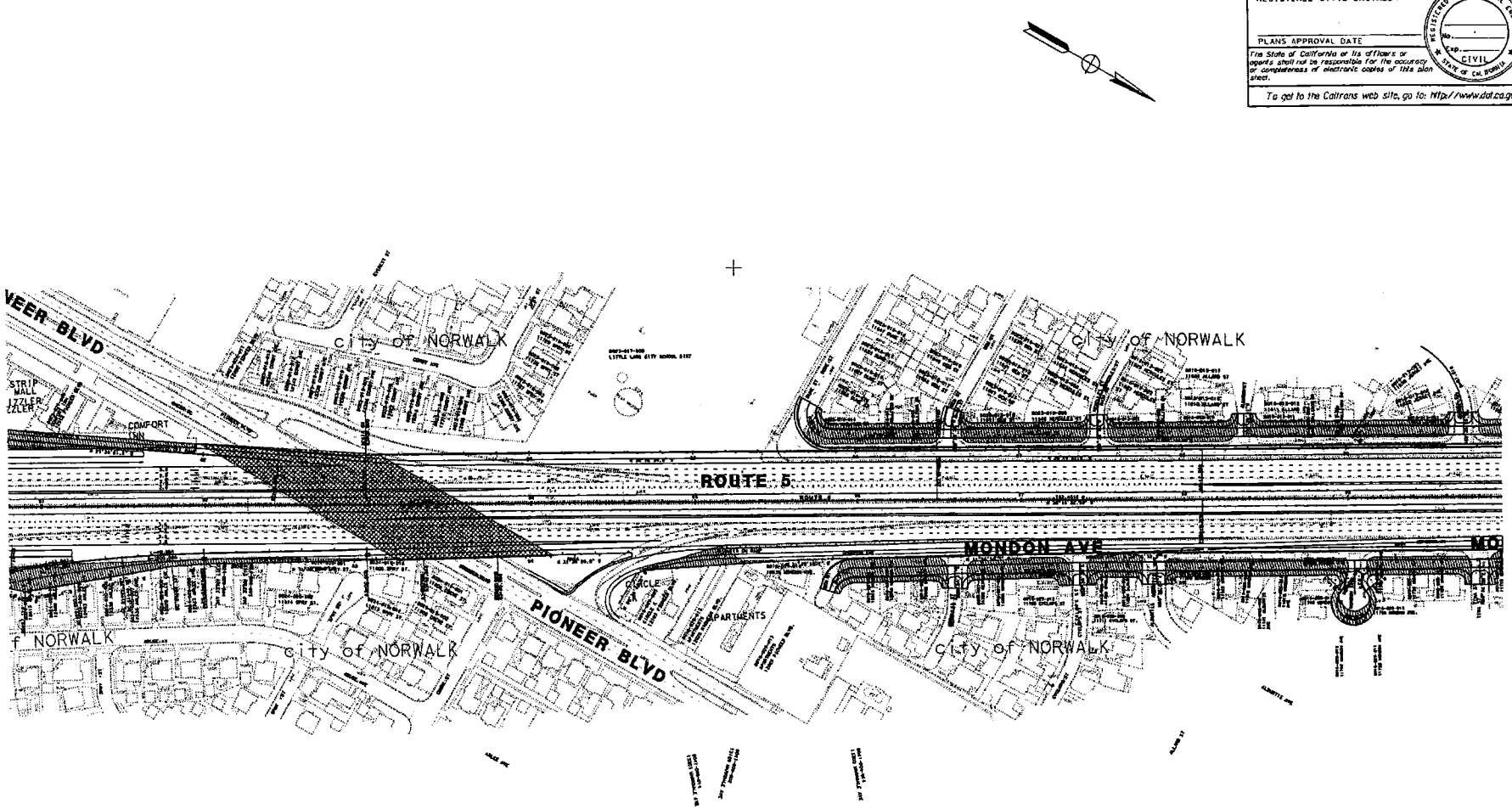

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CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIS ALT L-17

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DGN FILE => 72159aca017.dgn

CU 00000 | EA 000000

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PROJECT ENGINEER

CALCULATED/DESIGNED BY | CHECKED BY

DATE | REVISED BY | DATE REVISED

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

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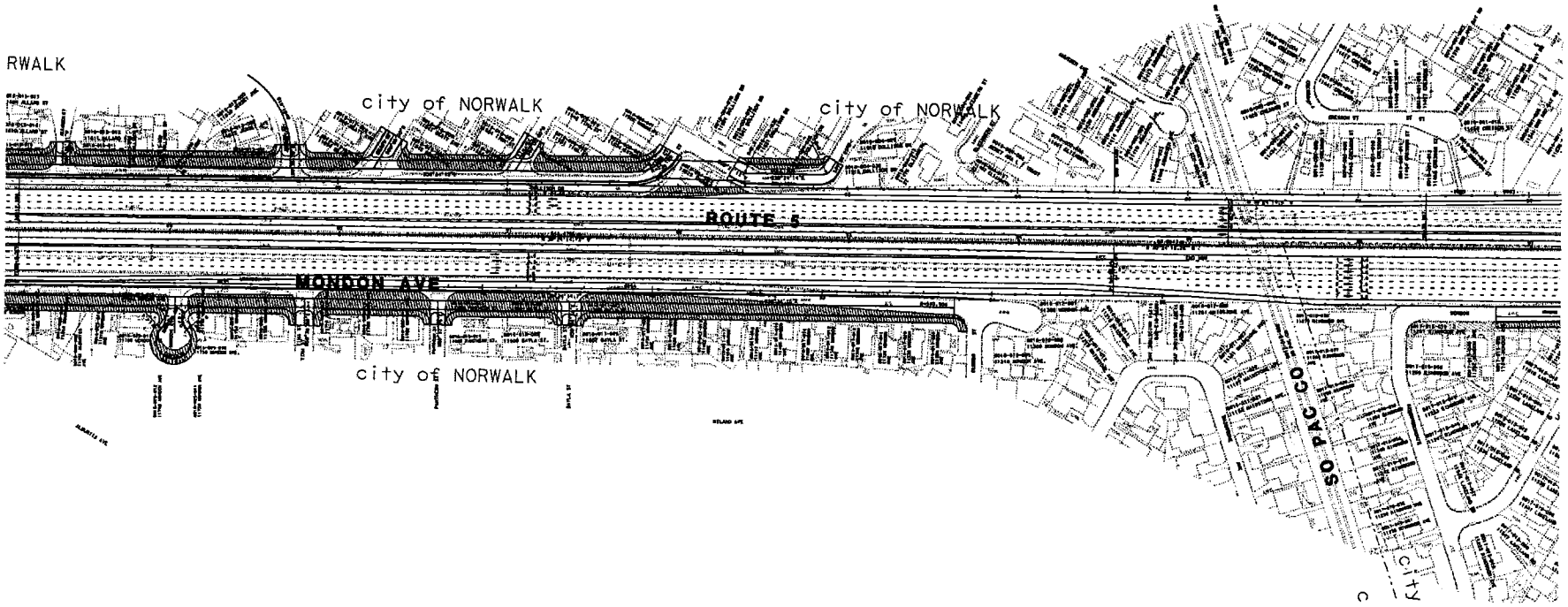

ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIS ALT L-18

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TIME PLOTTED => 11:10

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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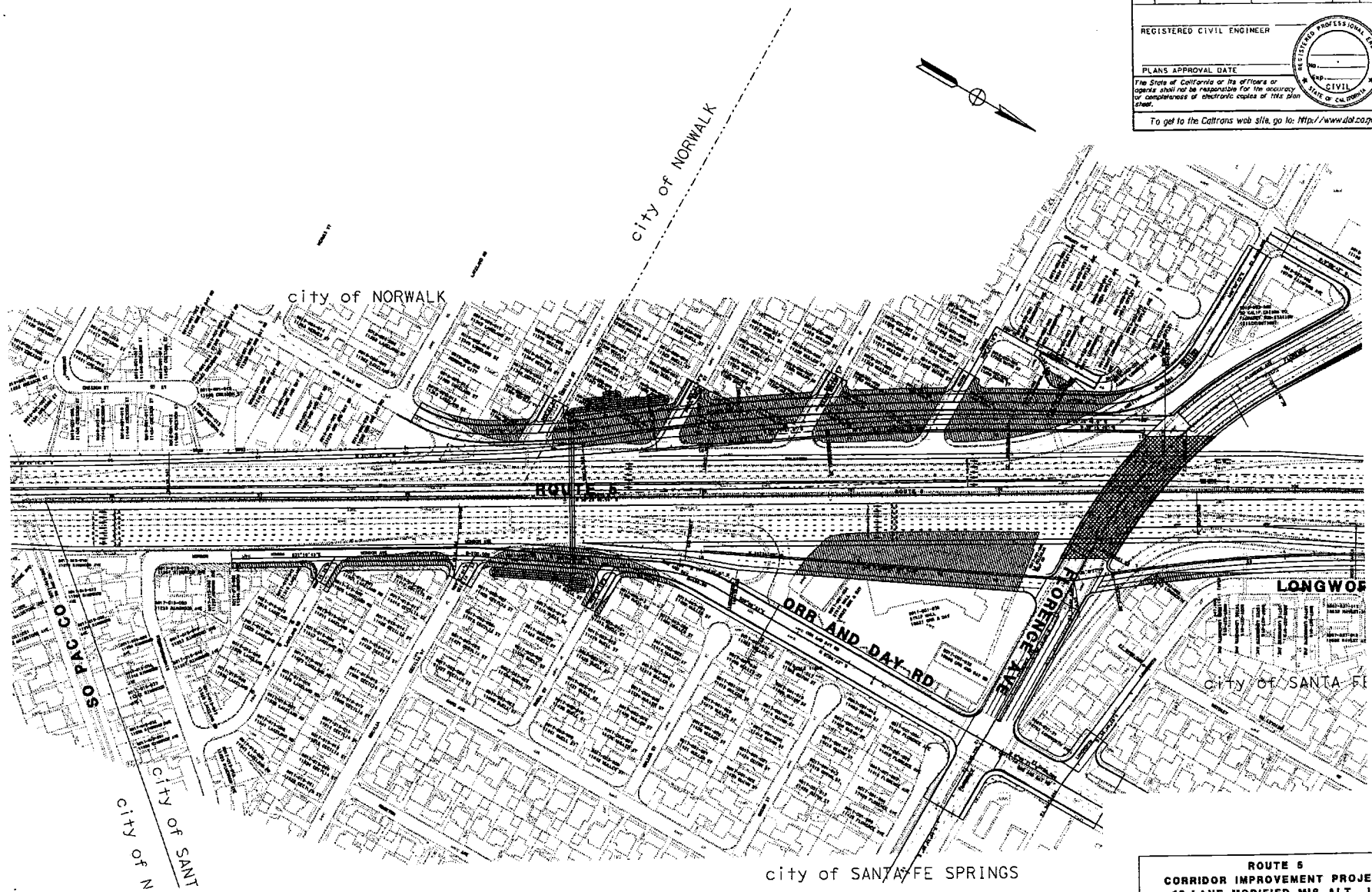

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10-LANE MODIFIED MIS ALT L-19

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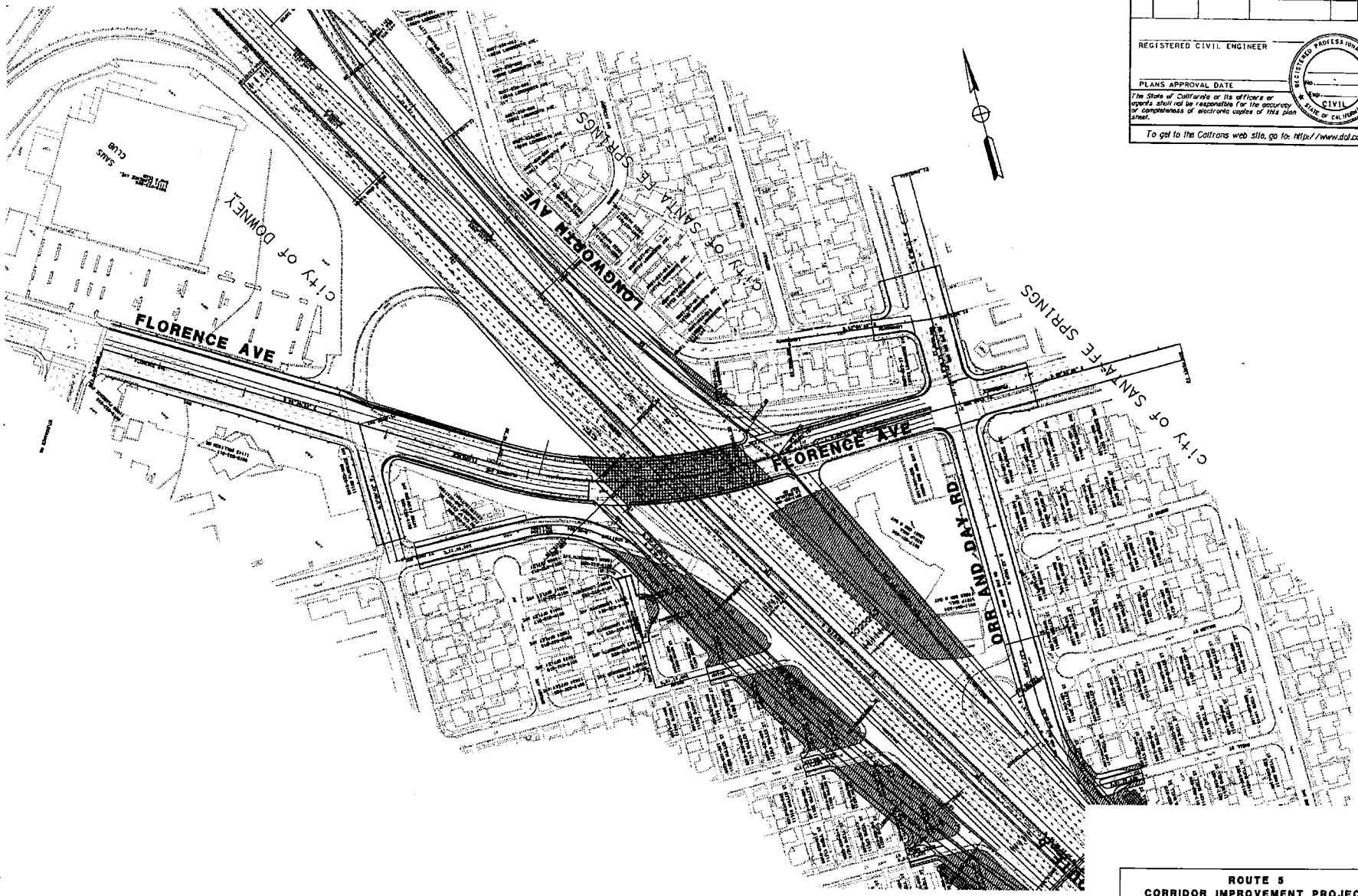

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIS ALT L-20

LAST REVISION 00-00-00

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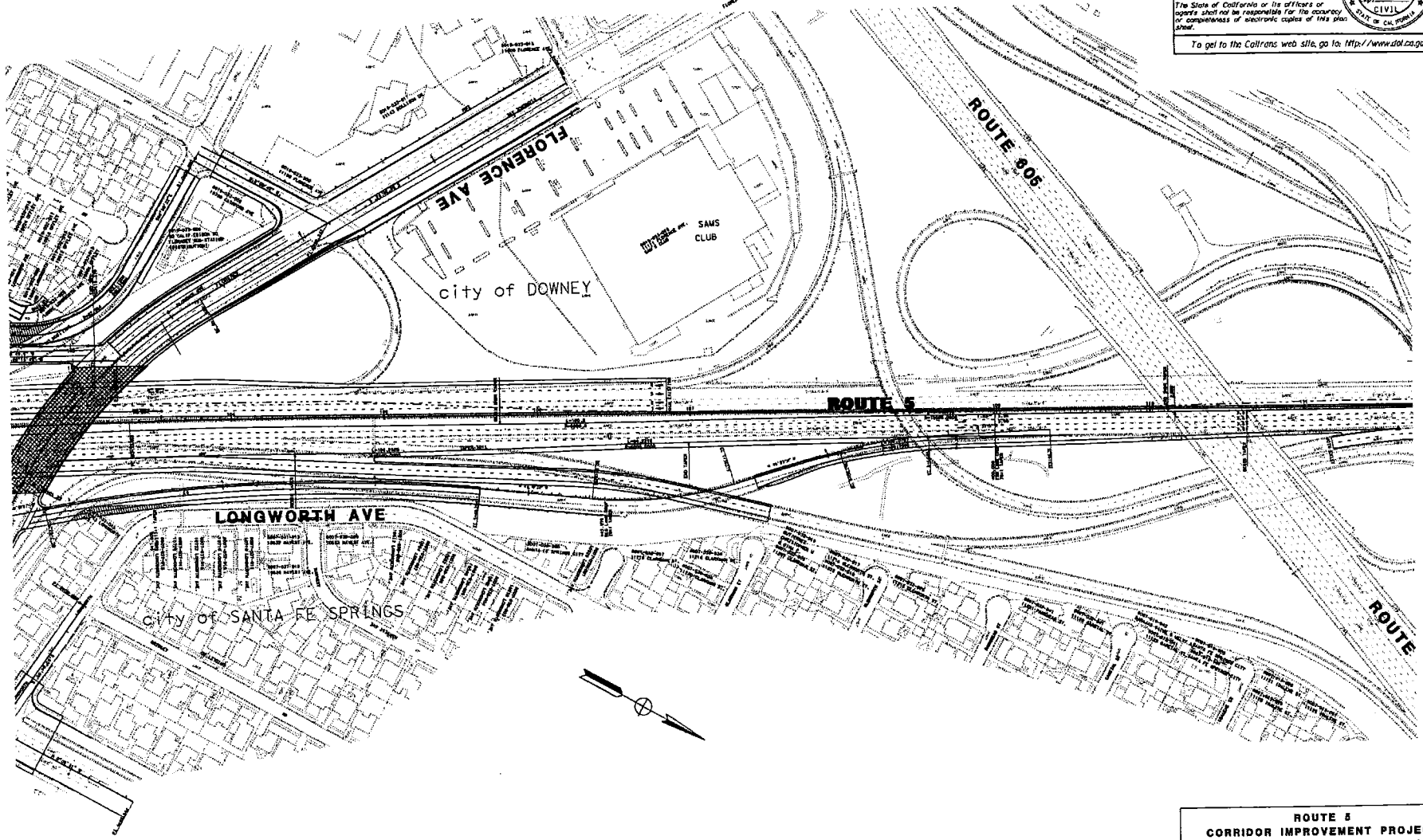

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CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIS ALT L-21

LAST REVISED 00-00-00

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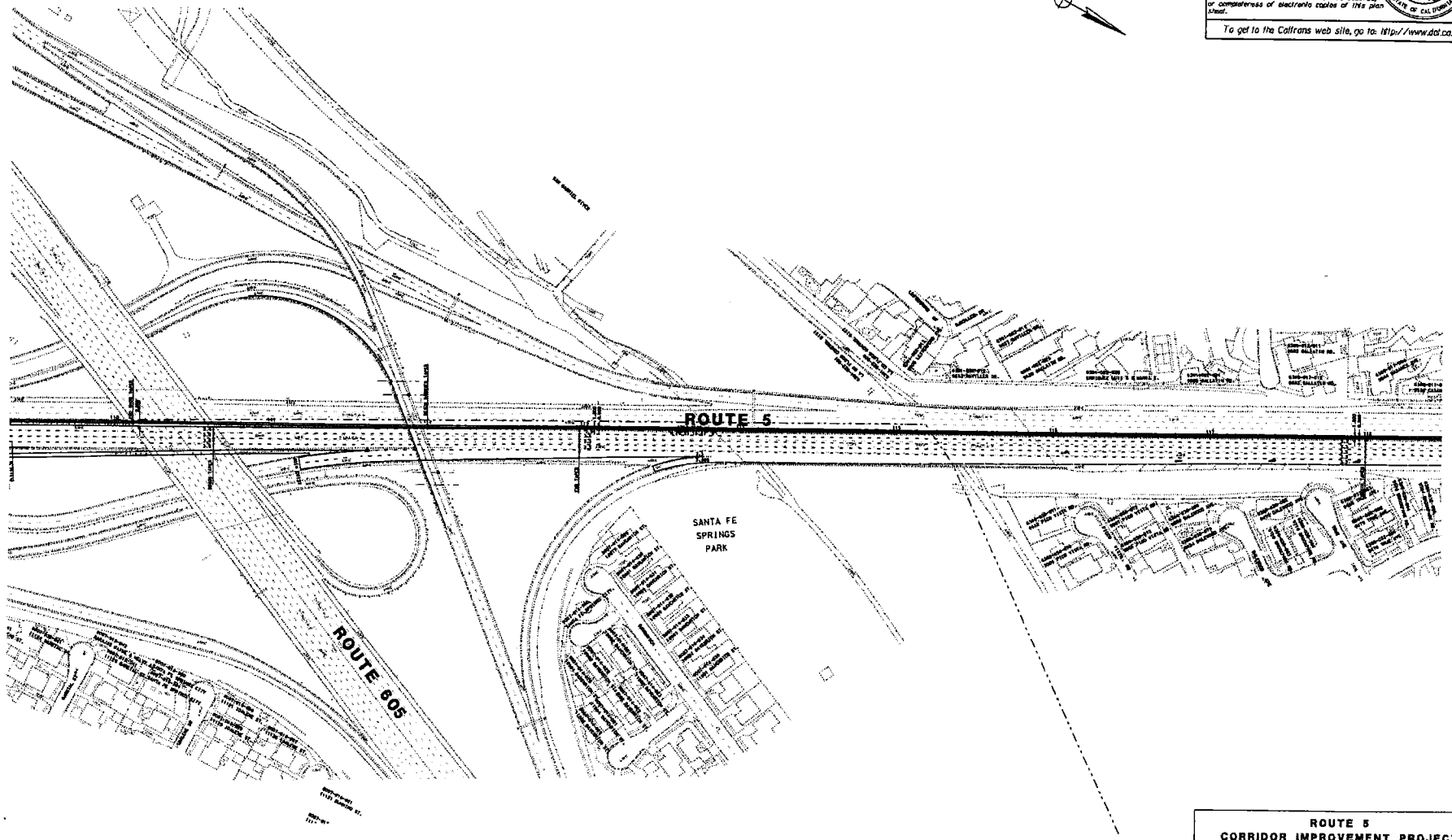

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIS ALT L-22

LAST REVISION 00-00-00

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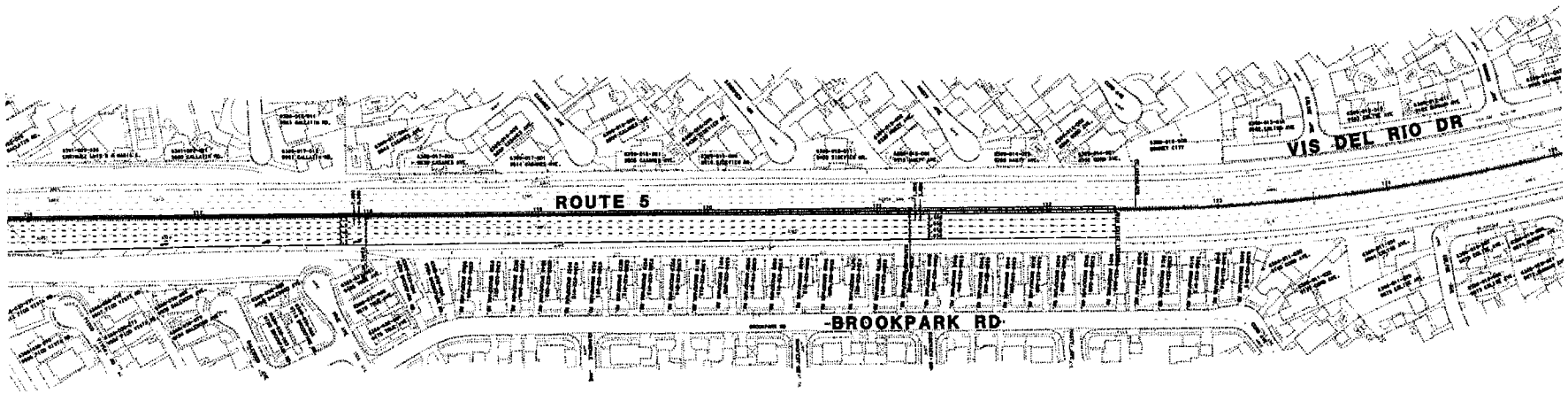

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CORRIDOR IMPROVEMENT PROJECT
10-LANE MODIFIED MIS ALT L-23

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EA 000000

APPENDIX F-2

Project Alternative Layouts
10 and 12-Lane Value Analysis Alignment

APPENDIX F-2

Project Alternative Layouts
10 and 12 Lane Value Analysis Alignment

INDEX OF SHEETS

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN LOS ANGELES COUNTY
IN CERRITOS, LA MIRADA, NORWALK, SANTA FE SPRINGS AND DOWNEY FROM 0.03 Km (0.02 MILE) SOUTH OF ARTESIA BLVD UNDERCROSSING TO 1.21 Km (7.61 MILE) NORTH OF ROUTE 605 AND 5 INTERCHANGE

To be supplemented by Standard Plans dated July, 2004

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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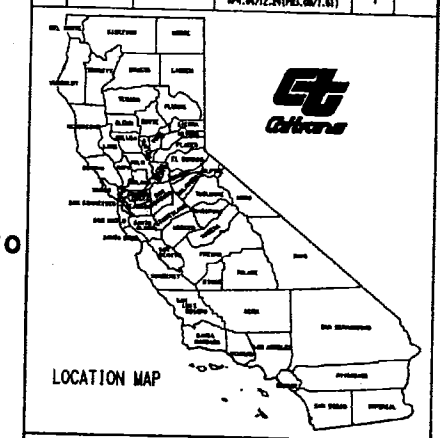

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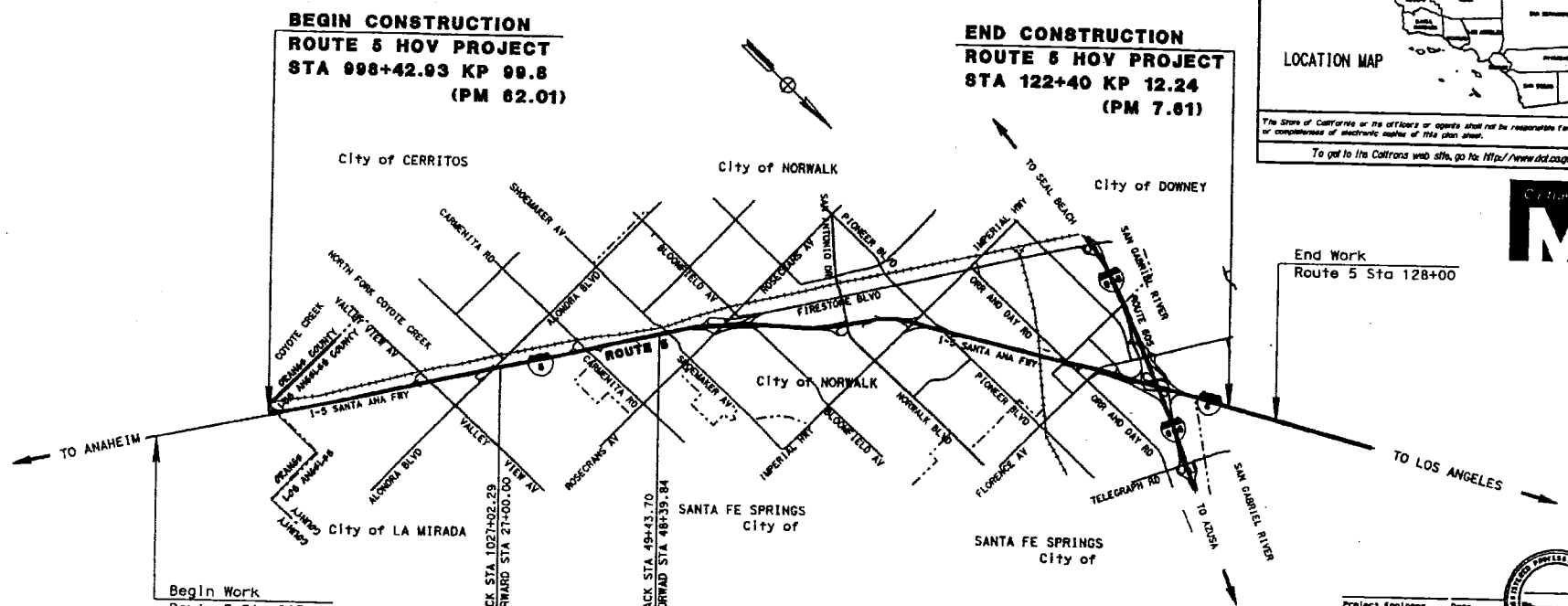

STUDY PLAN
SUBJECT TO CHANGE

JUN 15 2006

Project Engineer Date
Registered Civil Engineer

Plans Approval Date

The Contractor shall possess the class (or classes) of license as specified in the "Notice to Contractors."

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

Contract No.

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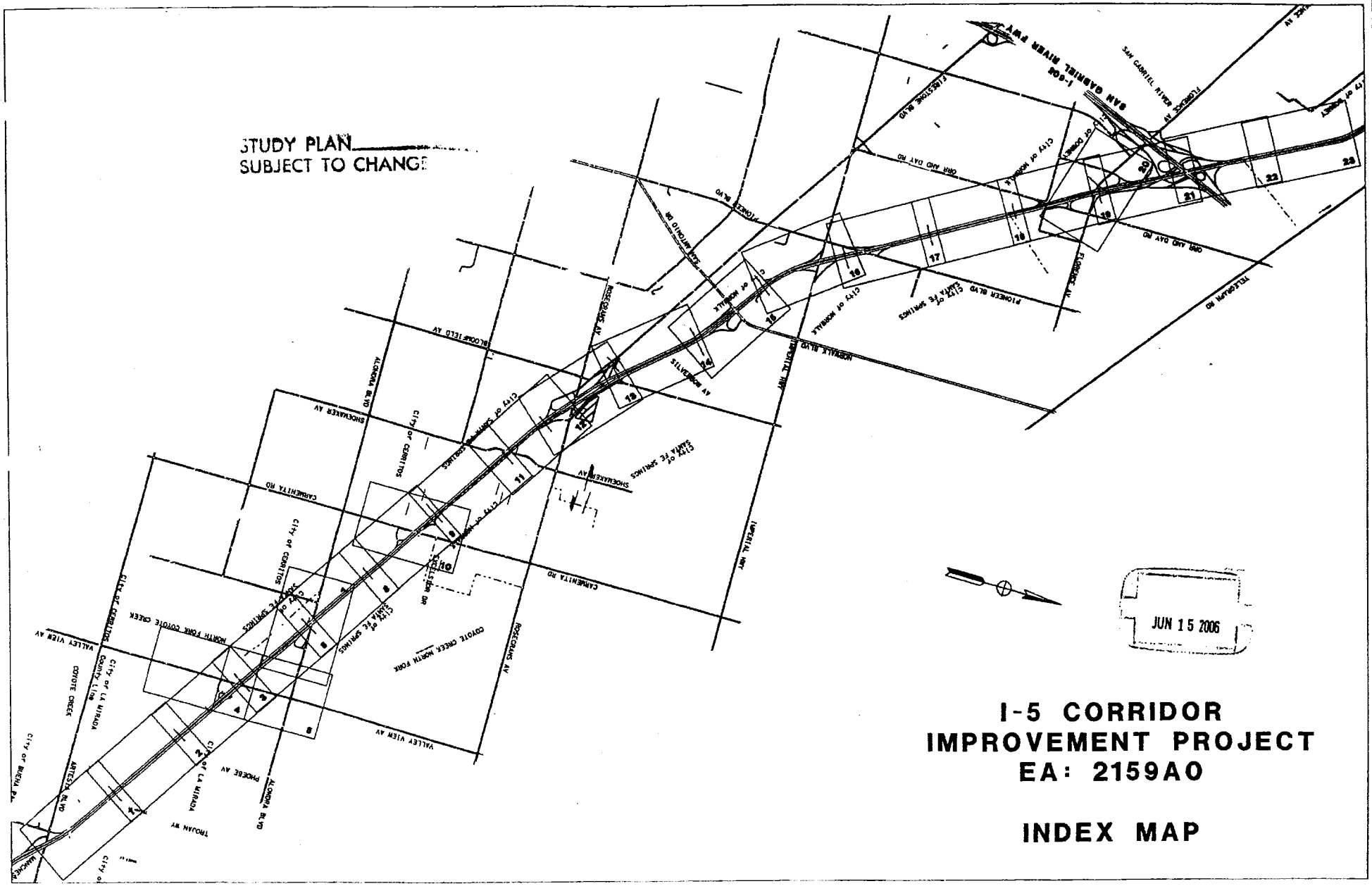
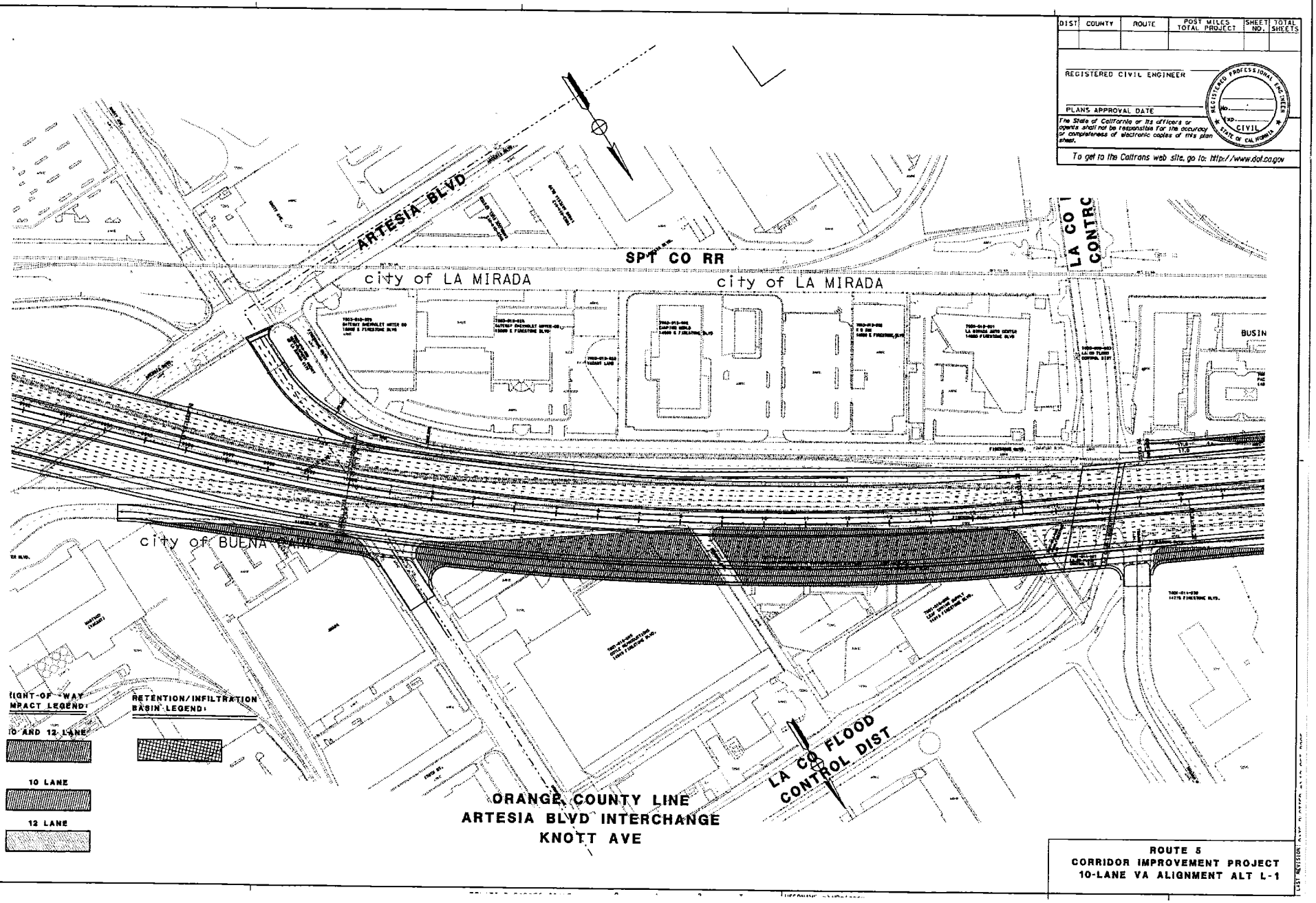


I-5 CORRIDOR IMPROVEMENT PROJECT
EA: 2159A0

INDEX MAP



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-1

LAST REVISION

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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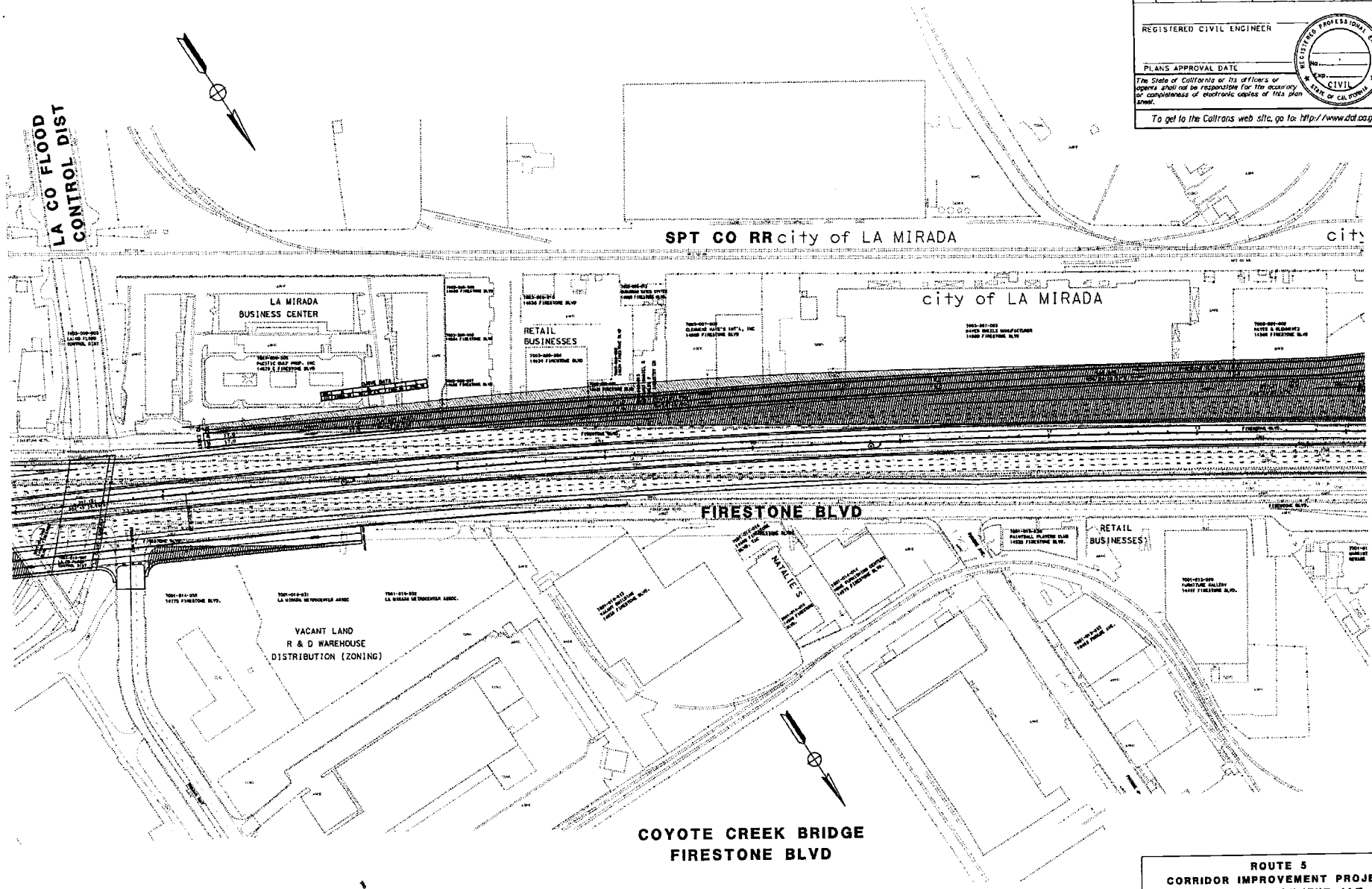
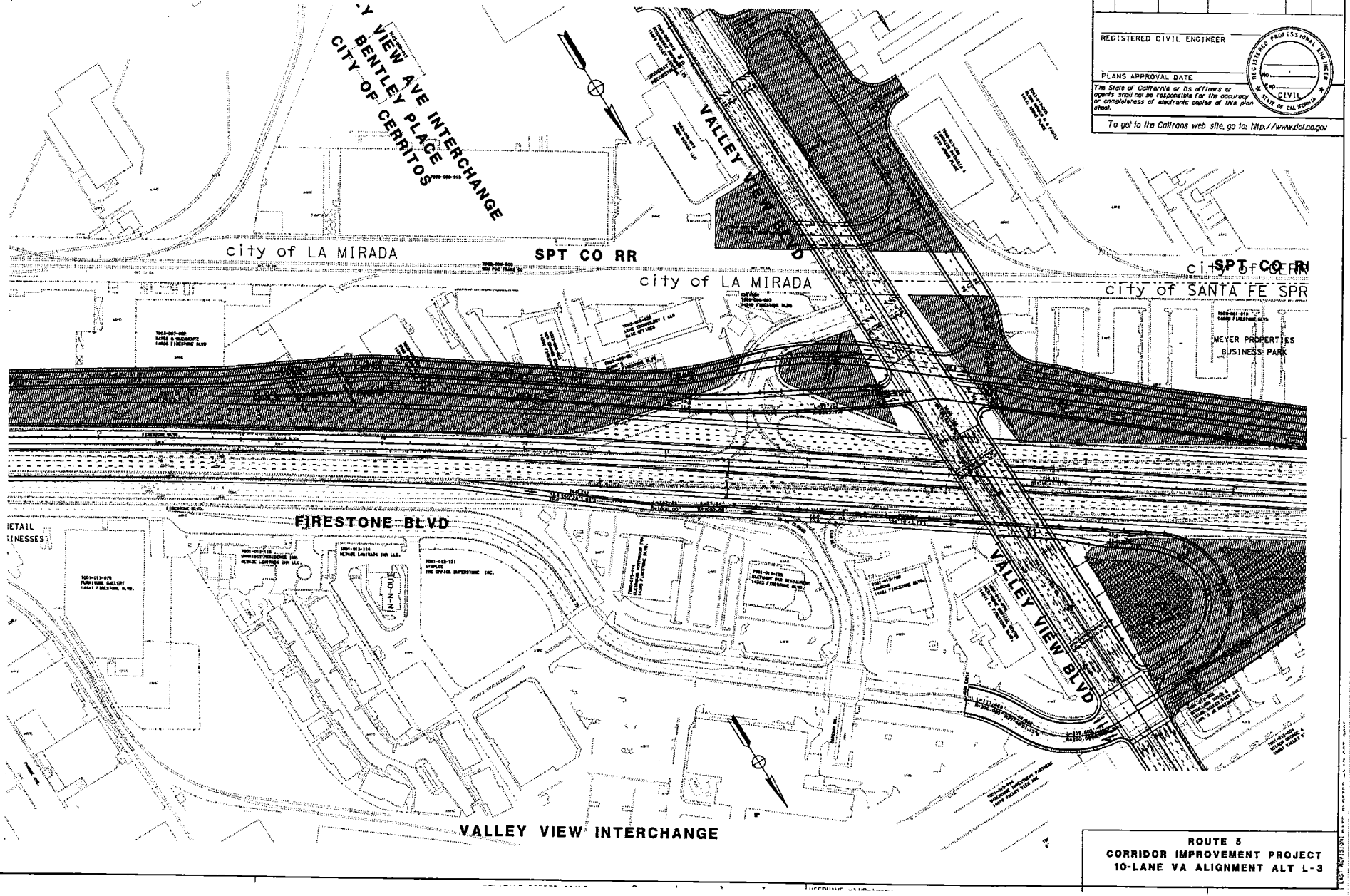


COYOTE CREEK BRIDGE
FIRESTONE BLVD

ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-2



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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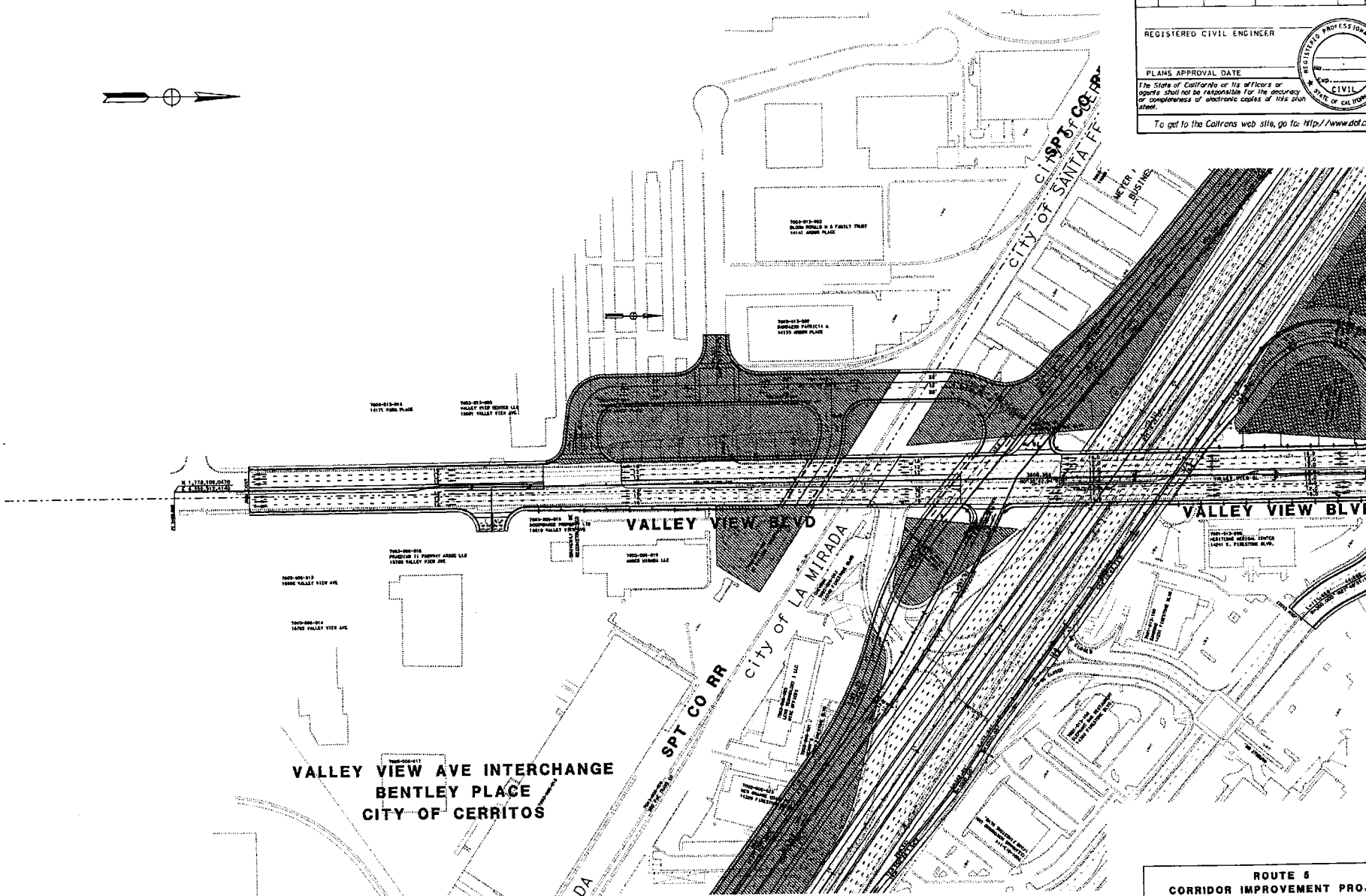

ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-4

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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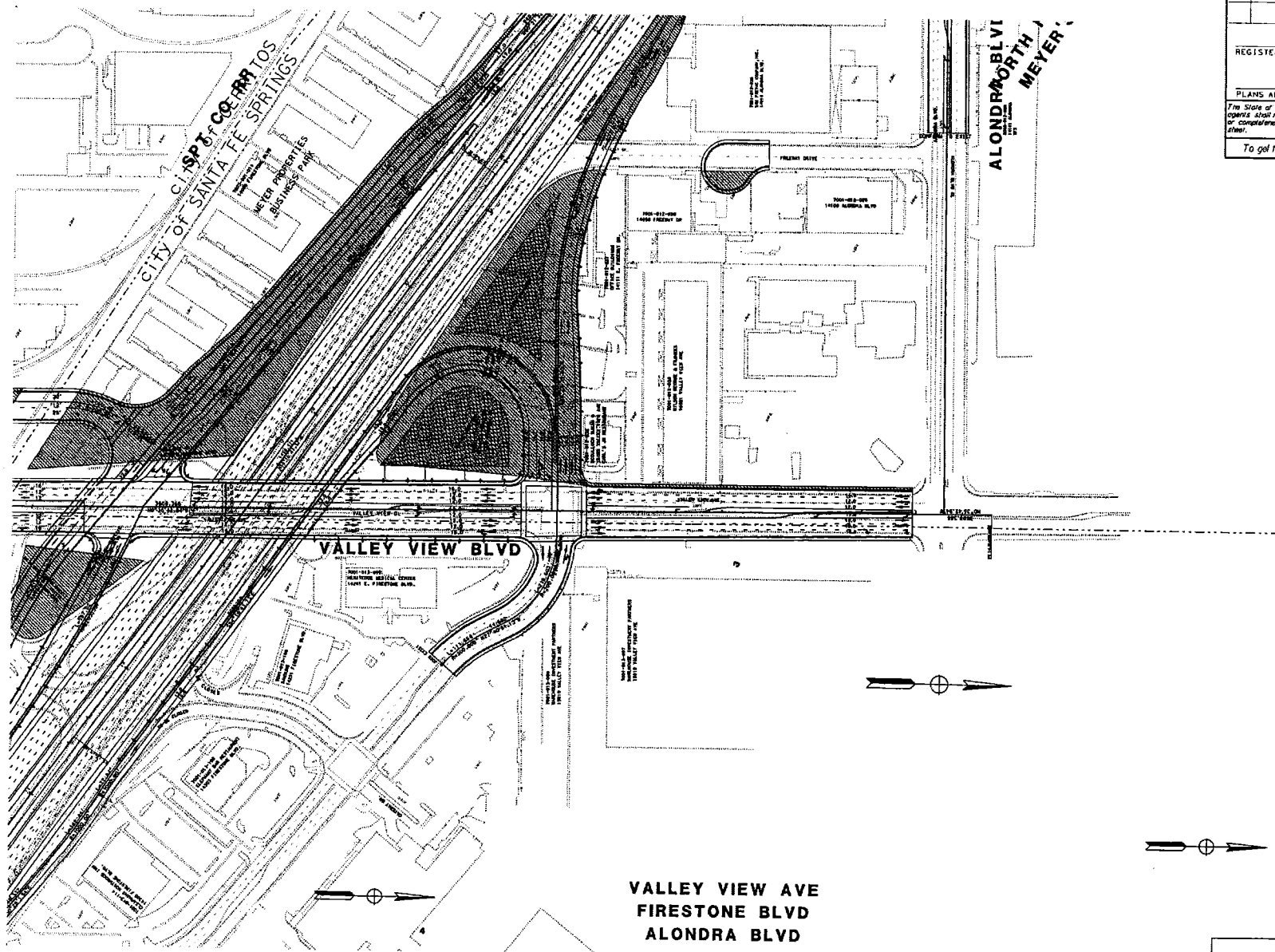

VALLEY VIEW AVE
FIRESTONE BLVD
ALONDRA BLVD

ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-5

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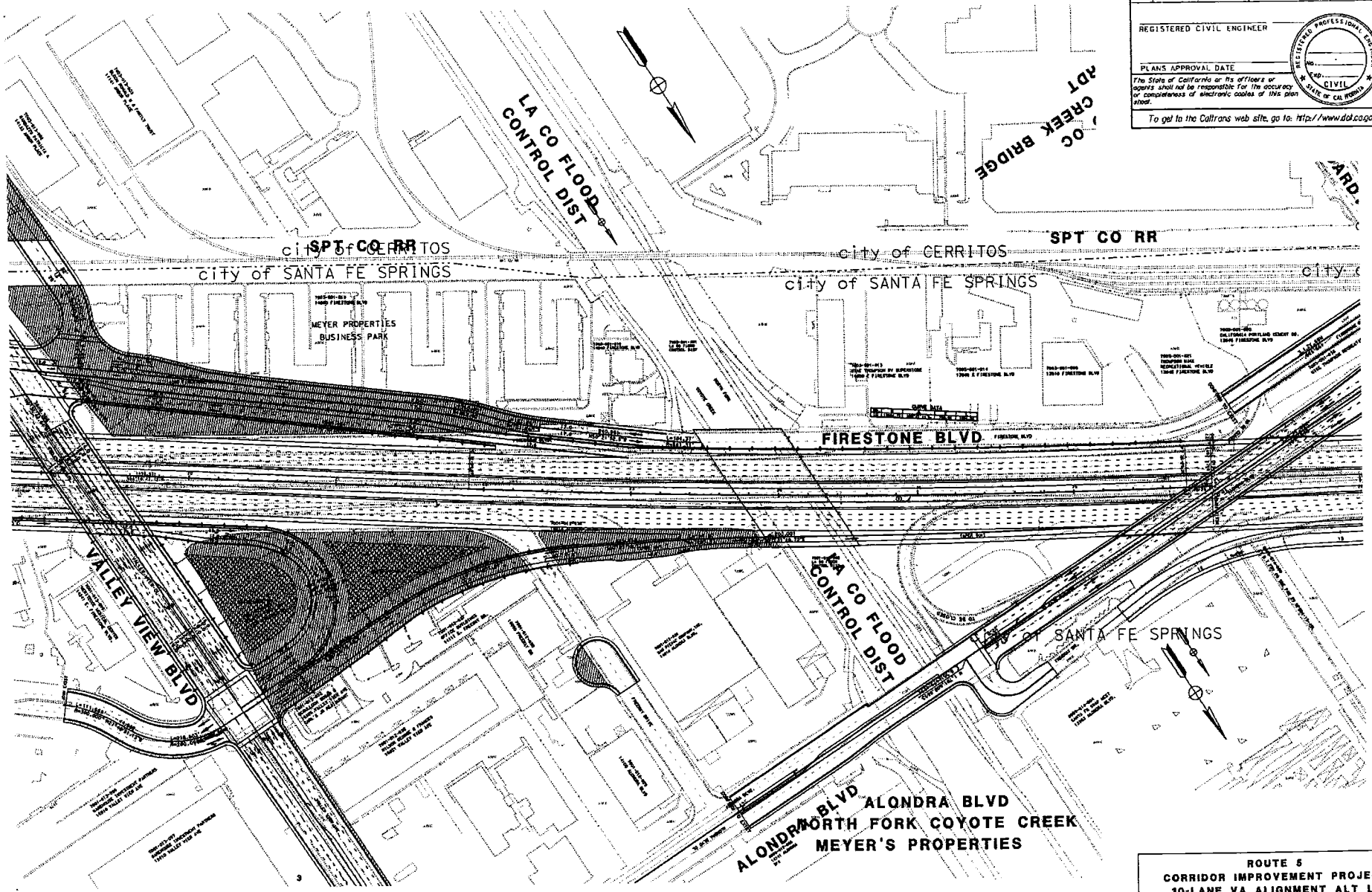

ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-8

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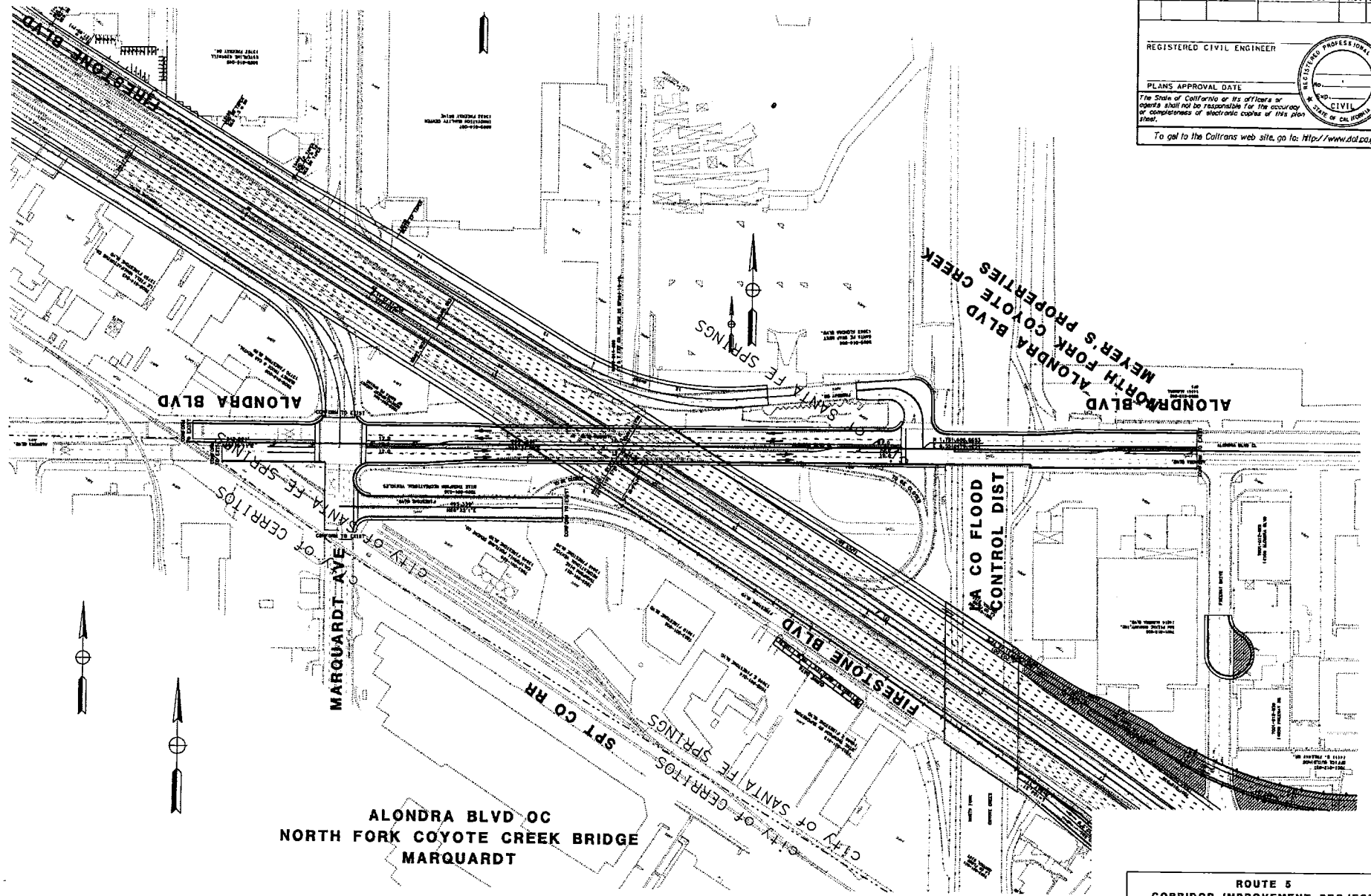

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-7

LAST REVISION

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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NORTH FORK COYOTE CR
ALONDRA BLVD O
MARQUARDT

MARQUARDT AVE

city of CERRITOS

T CO RR

SPT CO RR

city of SANTA FE SPRINGS

ALONDRA BLVD

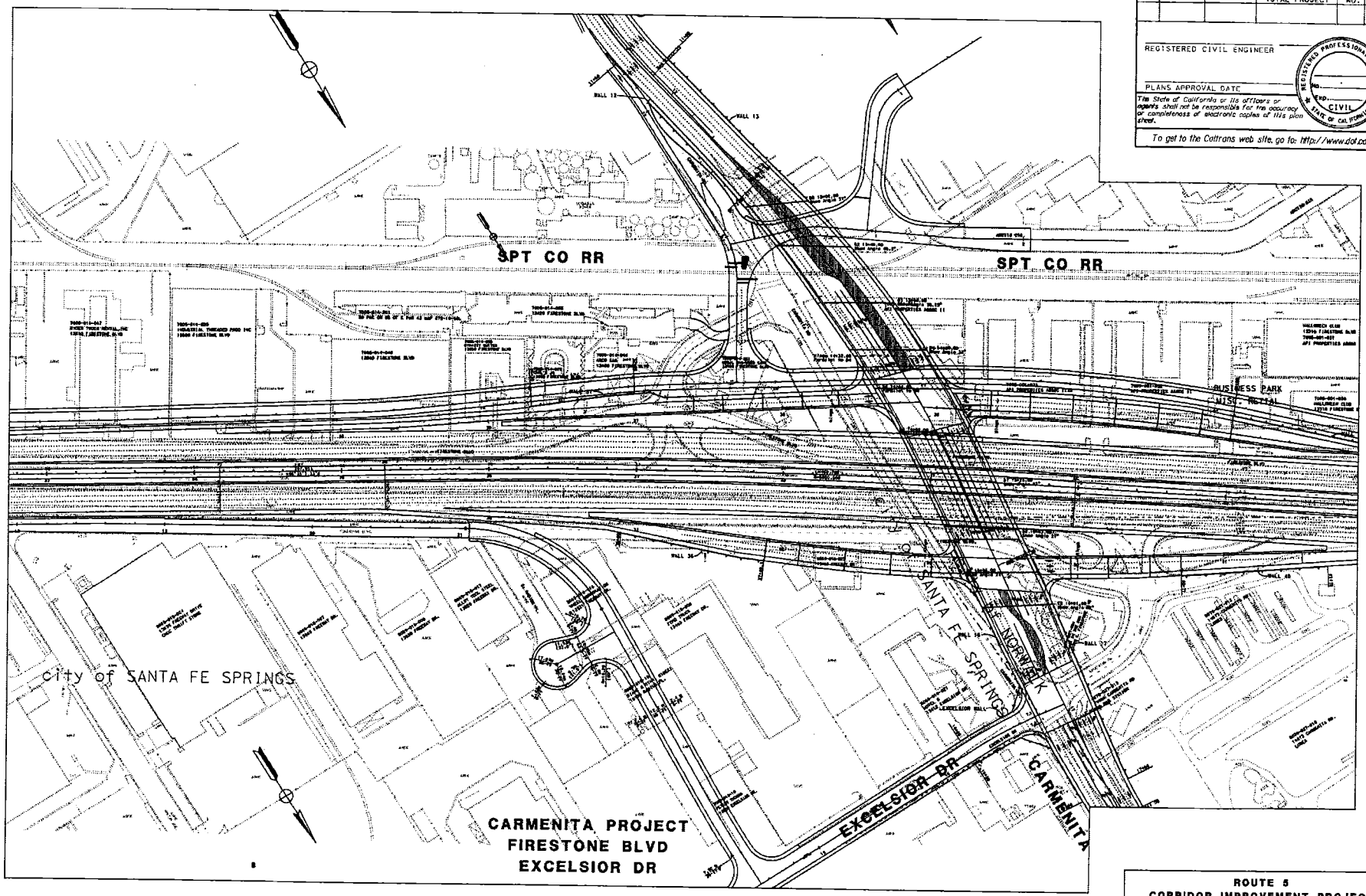
FIRESTONE BLVD

NTA FE SPRINGS

city of SANTA FE SPRINGS

MARQUARDT AVE
BEGIN CARMENITA PROJECT

ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-8



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-9

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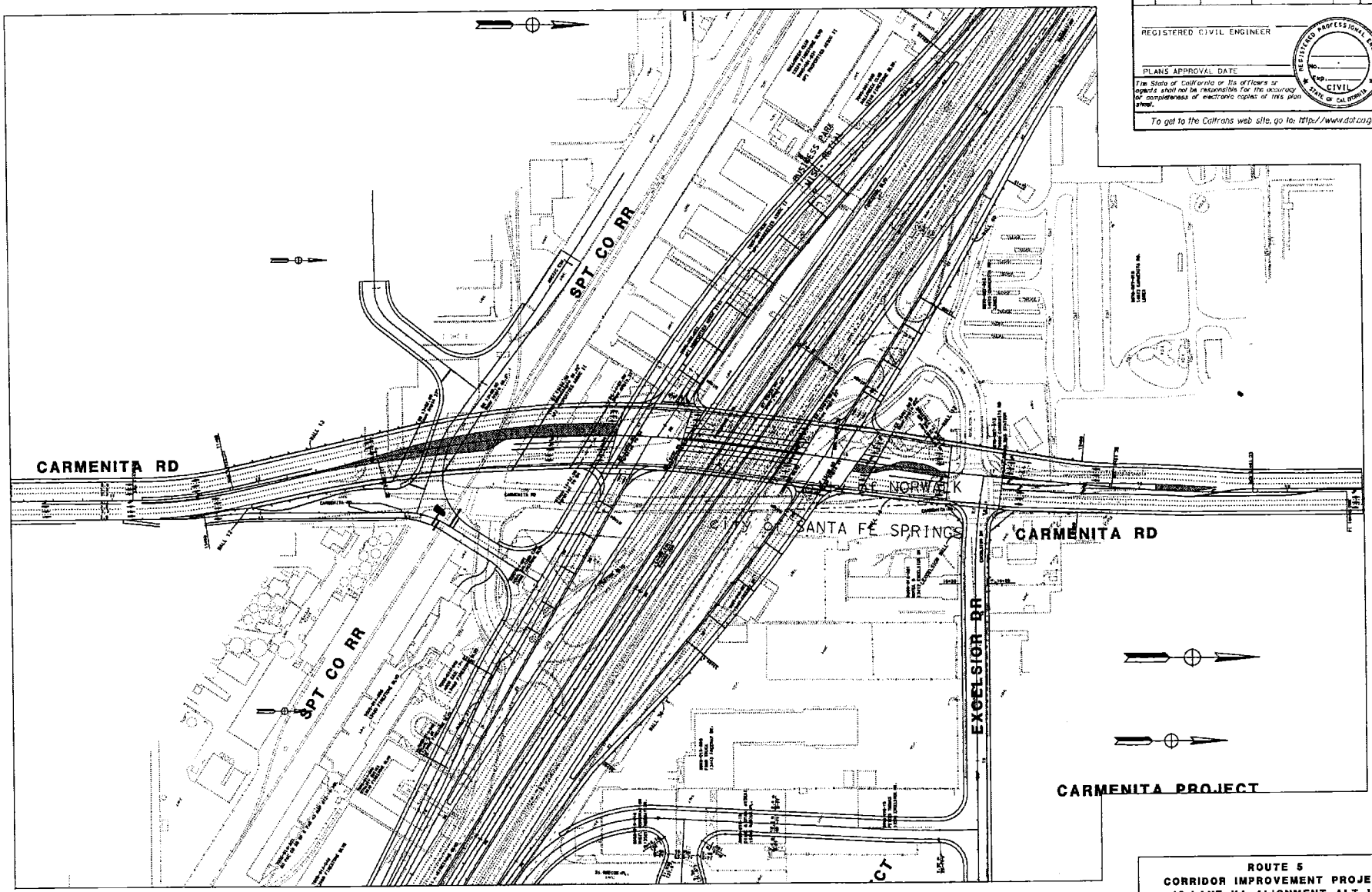

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
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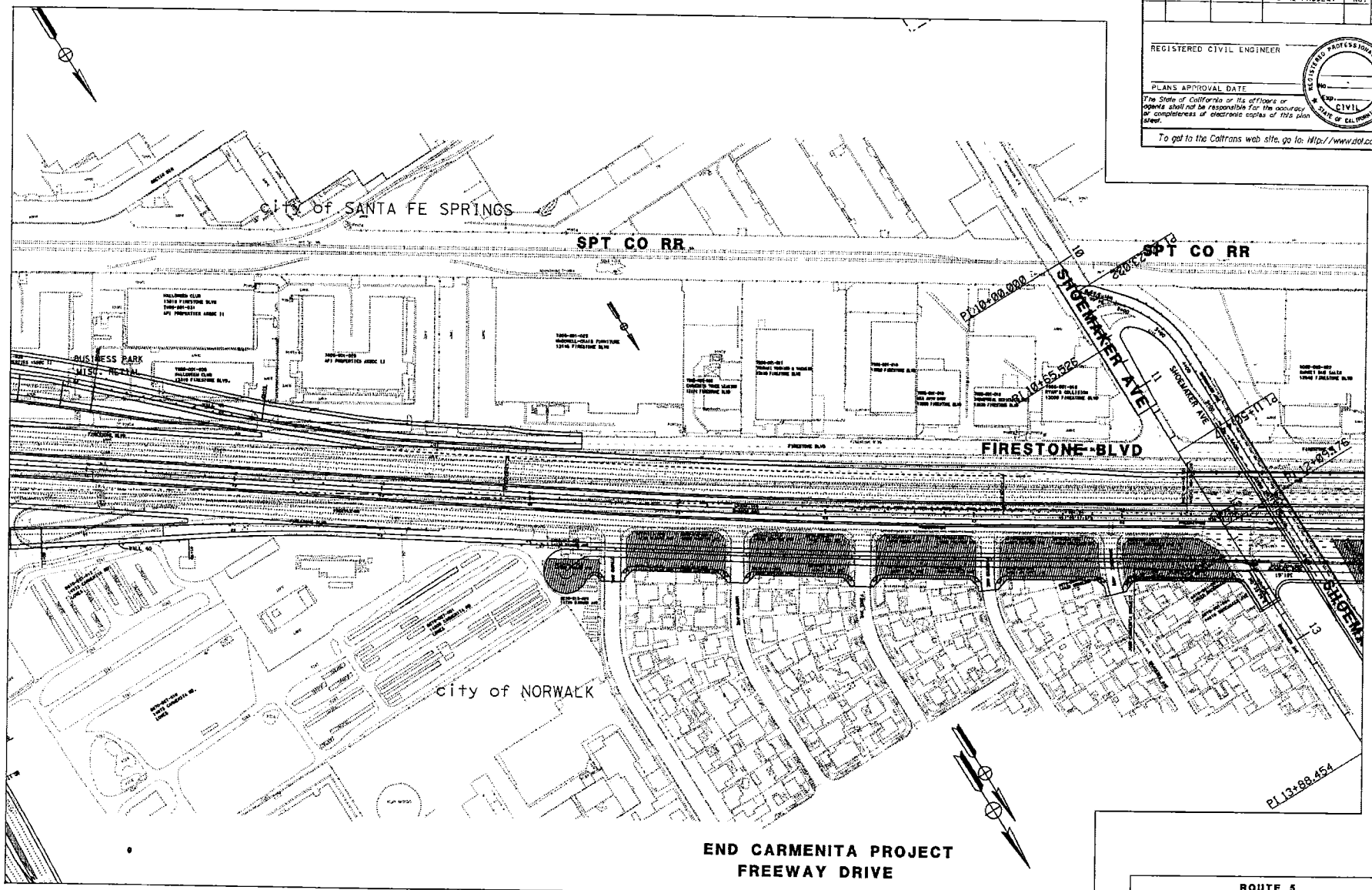

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-11

LAST REVISION — DATE PLOTTED => 11-OCT-2006
00-00-00 — TIME PLOTTED => 10:23

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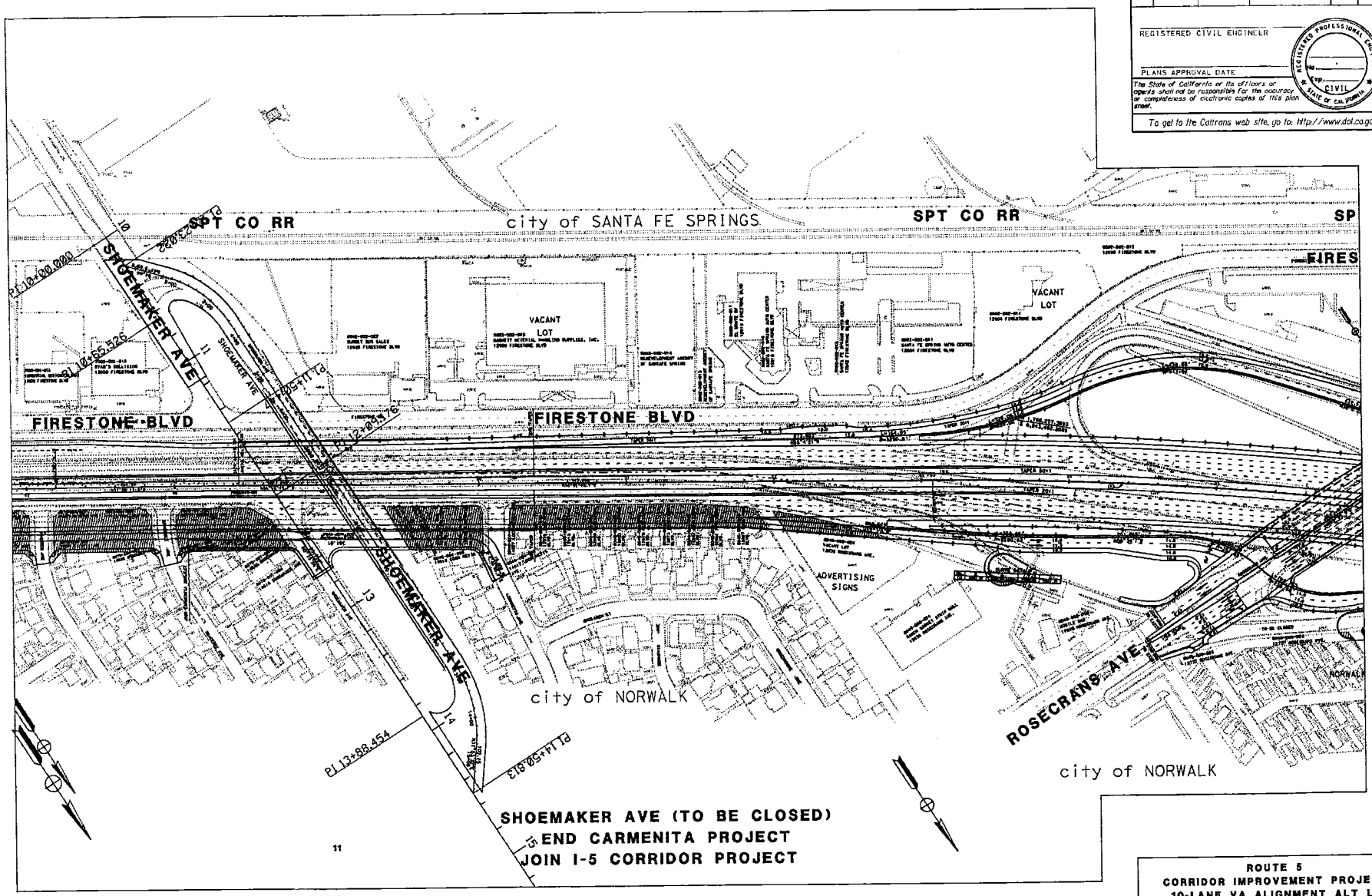

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-12

LAST REVISED: DATE PLOTTED => 11-OCT-2006
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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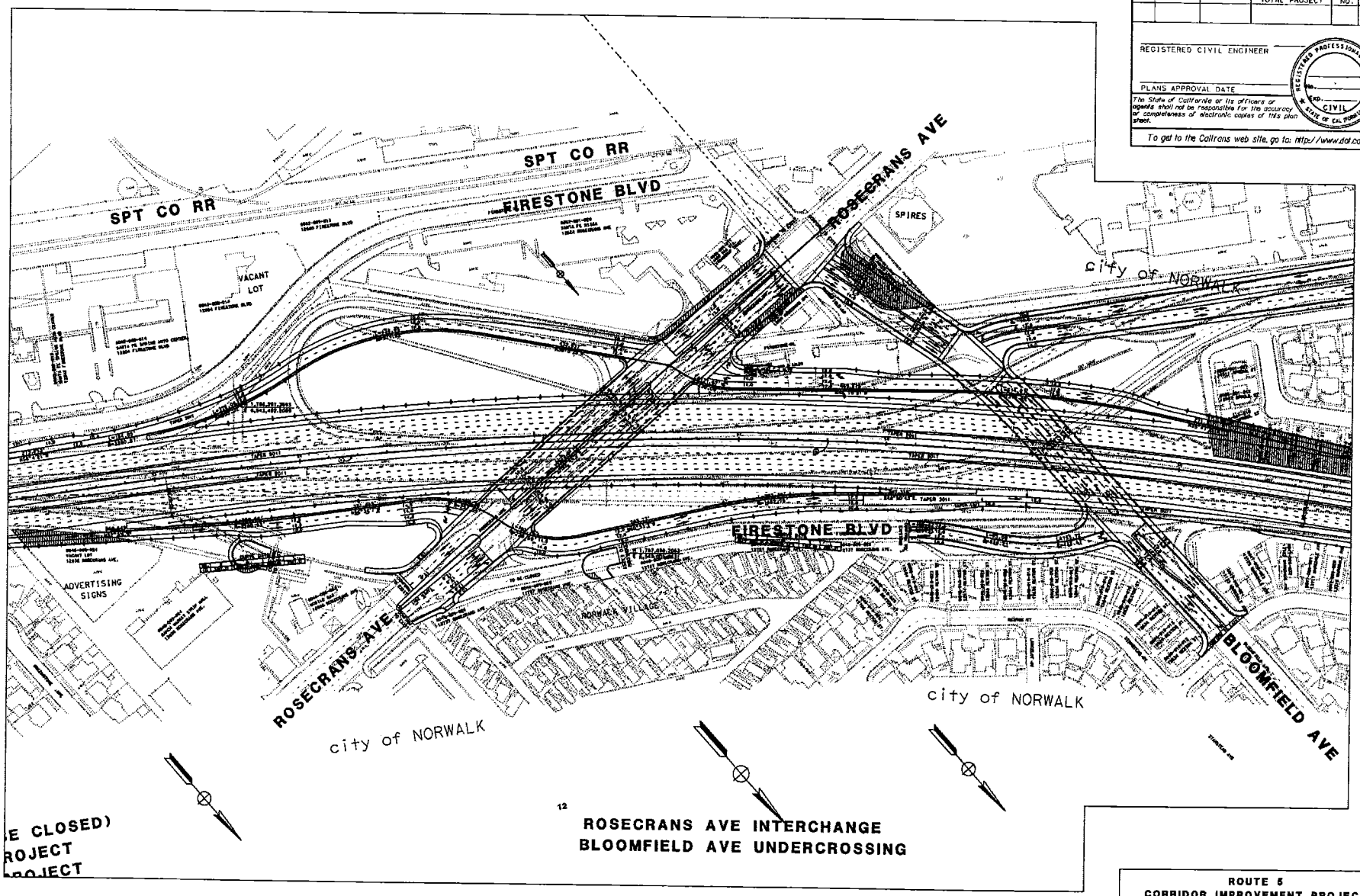

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ROJECT

ROSECRANS AVE INTERCHANGE
BLOOMFIELD AVE UNDERCROSSING

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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DATE REVISED BY

DATE REVISED

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => MRrar
DGN FILE => 72159oea013.dgn

ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-13

CU 00000

EA 000000

LAST REVISION 00-00-00

DATE PLOTTED => 11-OCT-2006
TIME PLOTTED => 10:45

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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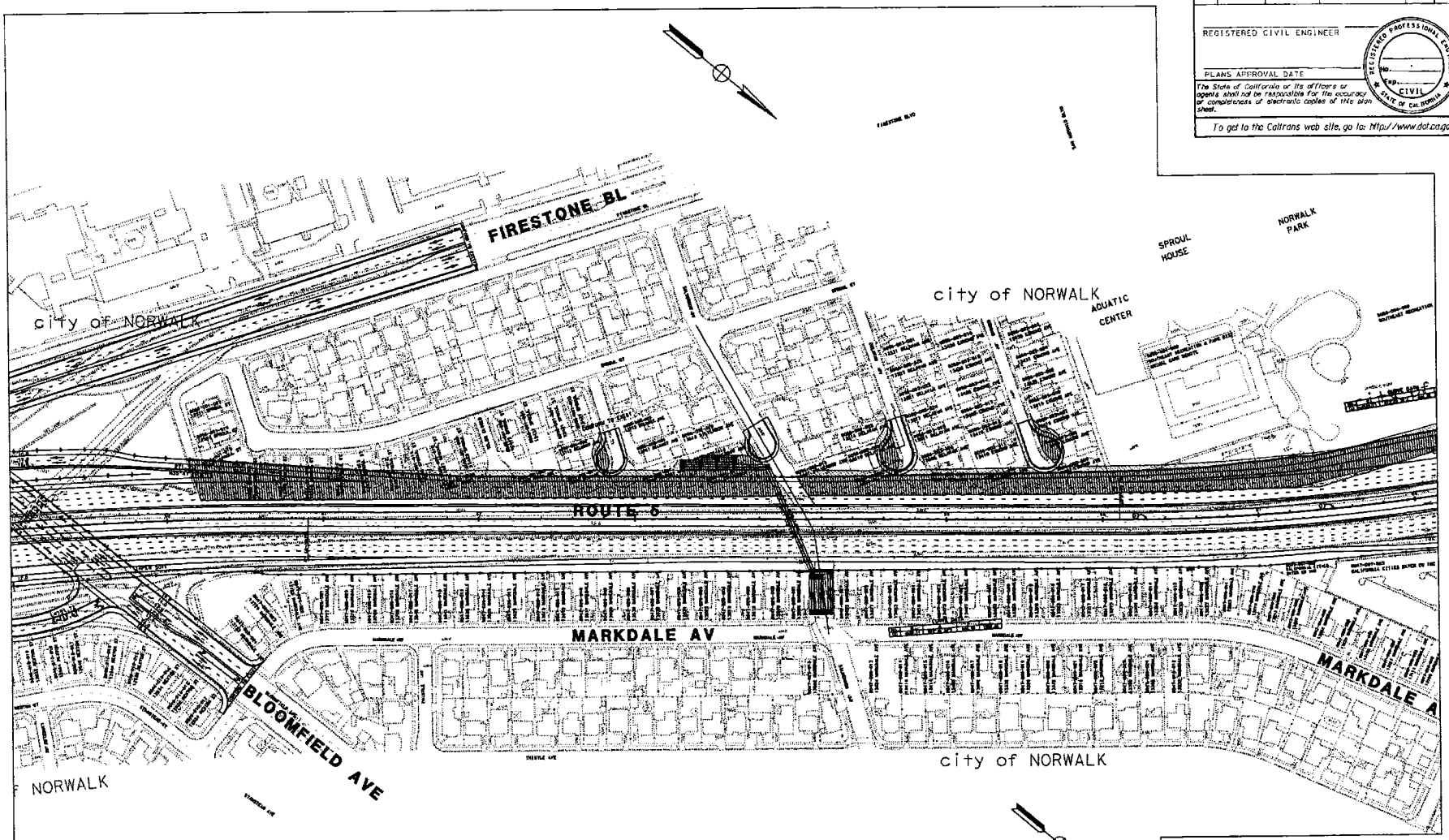
PROJECT ENGINEER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans



SILVERBOW PEDESTRIAN OVERCROSSING
ANIMAL CARE CENTER / AQUATIC CENTER

ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-14

LAST REVISION DATE PLOTTED => 11-OCT-2006
00-00-00 TIME PLOTTED => 10:47

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

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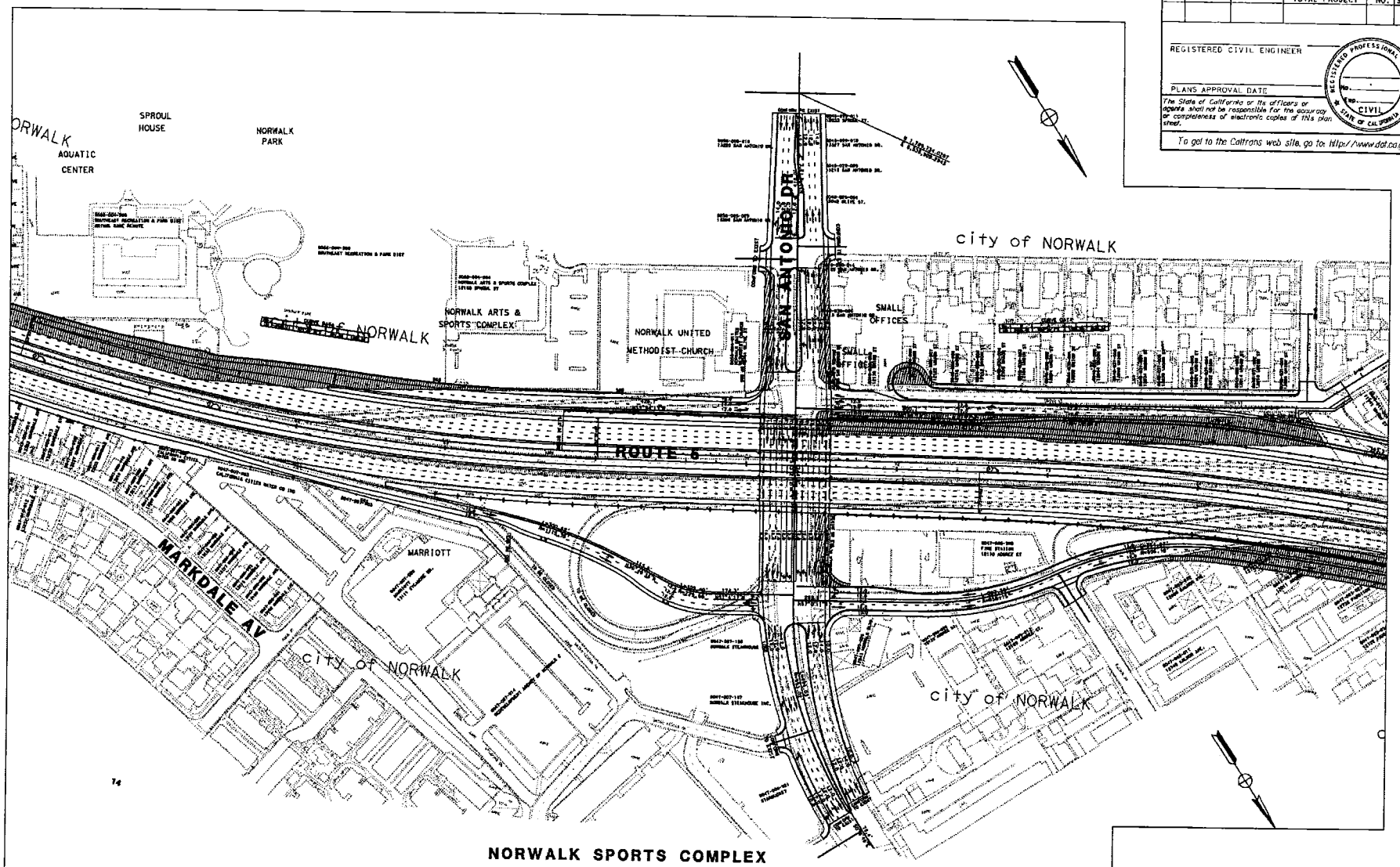
DGN FILE => 7215bgeq014.dgn

CU 00000

EA 000000



NORWALK SPORTS COMPLEX
NORWALK AVE / SAN ANTONIO DR

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-15

LAST REVISION 00-00-00
DATE PLOTTED => 11-OCT-2006
TIME PLOTTED => 10:51

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => MBror
DGN FILE => 72159ce0015.dgn

CU 00000 | EA 000000

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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PROJECT ENGINEER

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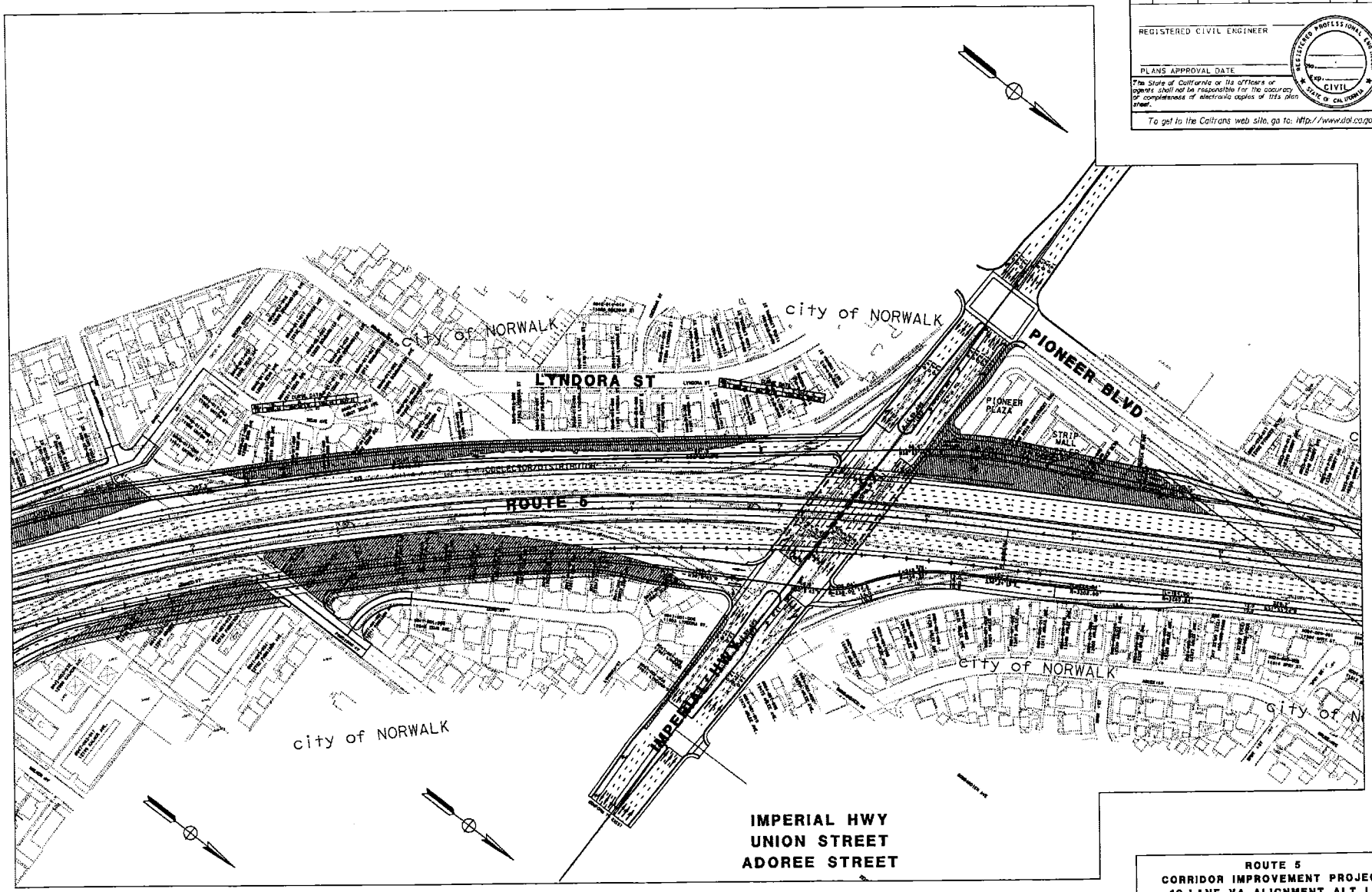

ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-16

LAST REVISION 00-00-00 DATE PLOTTED => 11-OCT-2006 TIME PLOTTED => 14:45

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

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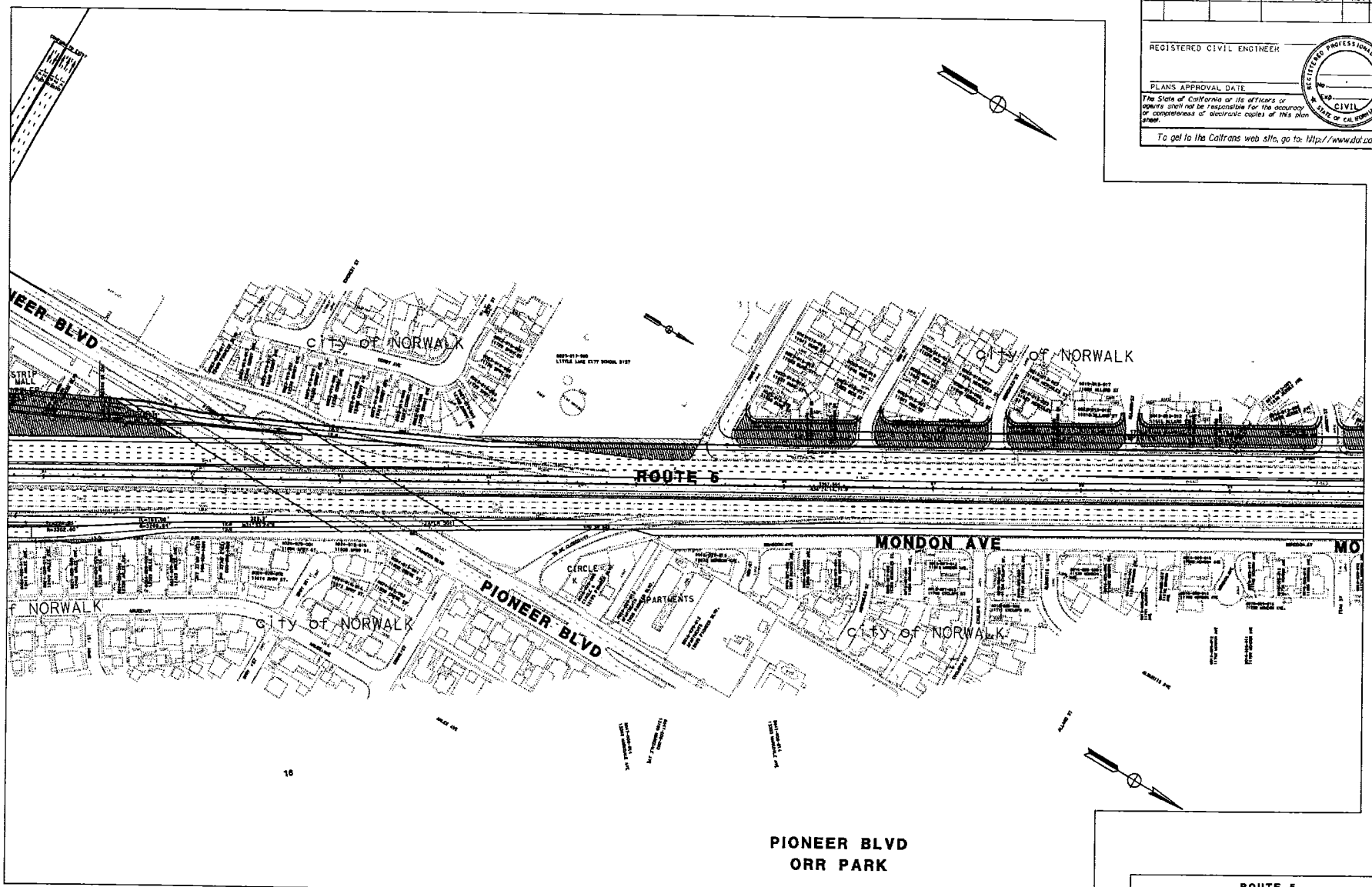
DGN FILE => 72159aea016.dgn

CU 00000

EA 000000



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CALCULATED/ DESIGNED BY

CHECKED BY

DATE	REVISED BY	DATE REVISED

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-17

LAST REVISION DATE PLOTTED => 11-OCT-2006
00-00-00 TIME PLOTTED => 14:32

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

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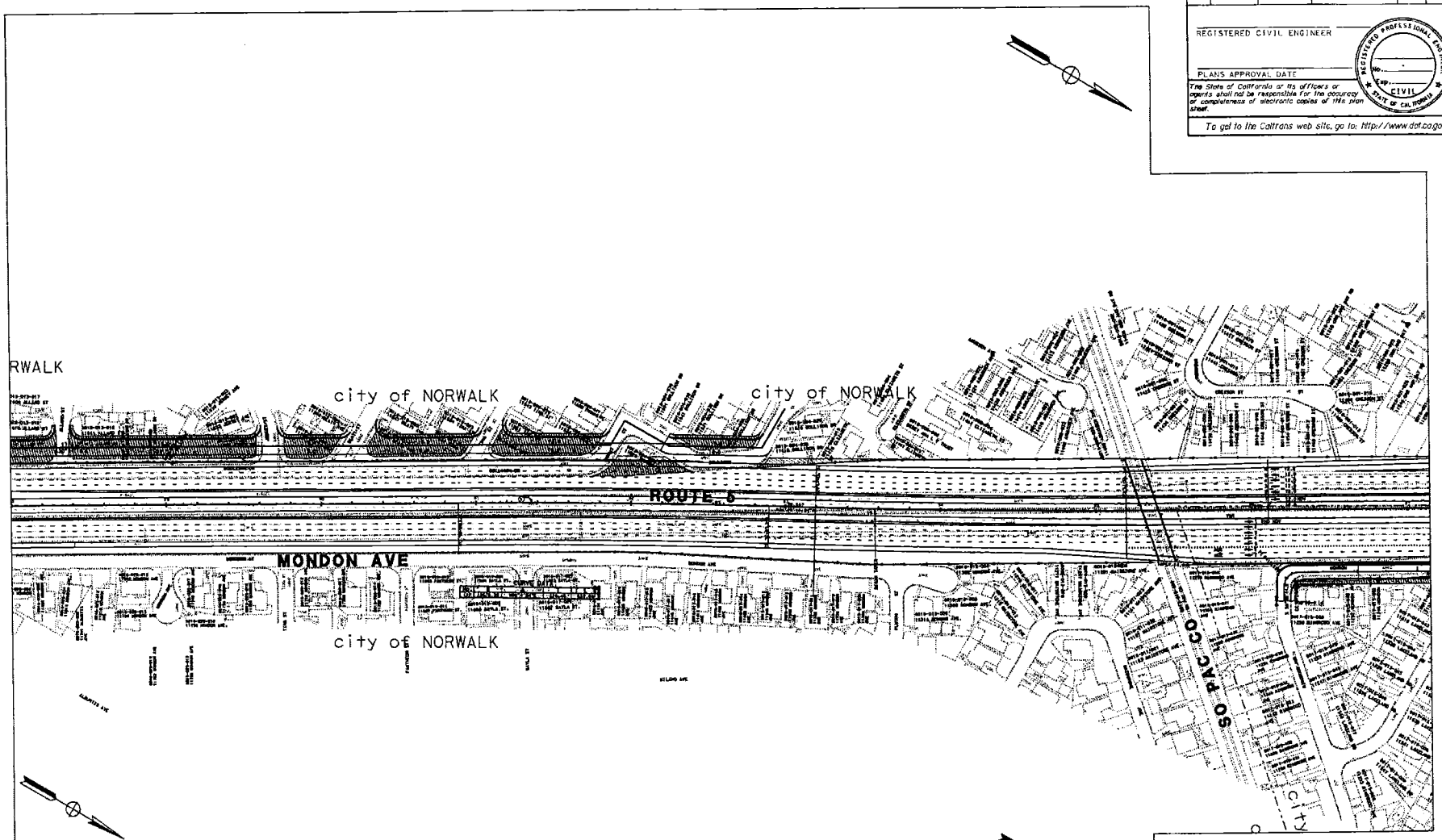
DGN FILE => I2159aaa017.dgn

CU 00000

EA 000000



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-18

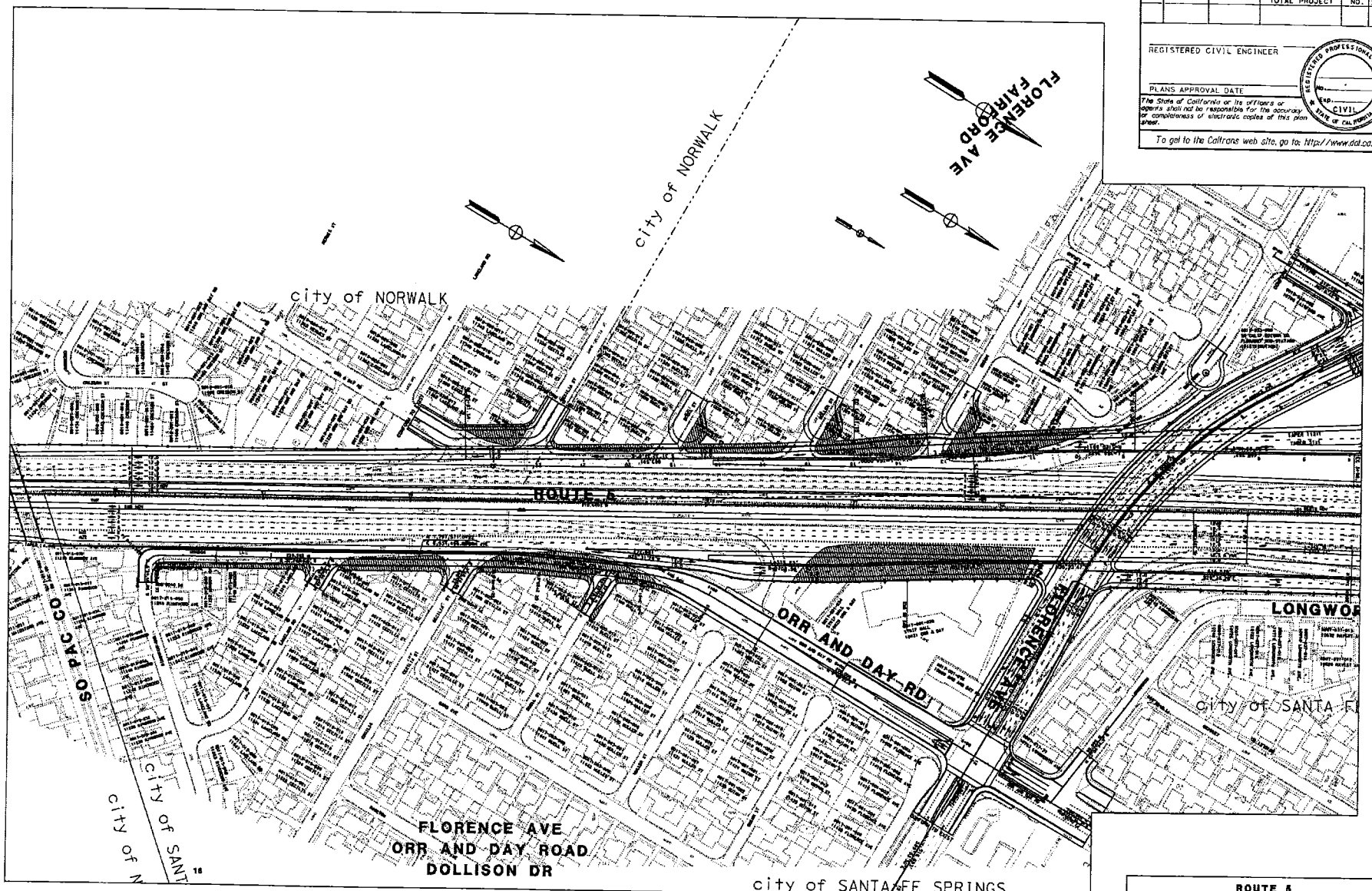
LAST REVISION 00-00-00 DATE PLOTTED =>11-OCT-2006 TIME PLOTTED =>14:54

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME =>MBrar
DGN FILE =>72159oea018.dgn

CU 00000

EA 000000



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

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	DATE REVISED

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-10

LAST REVISED 00-00-00 DATE PLOTTED => 11-OCT-2006 TIME PLOTTED => 14:56

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

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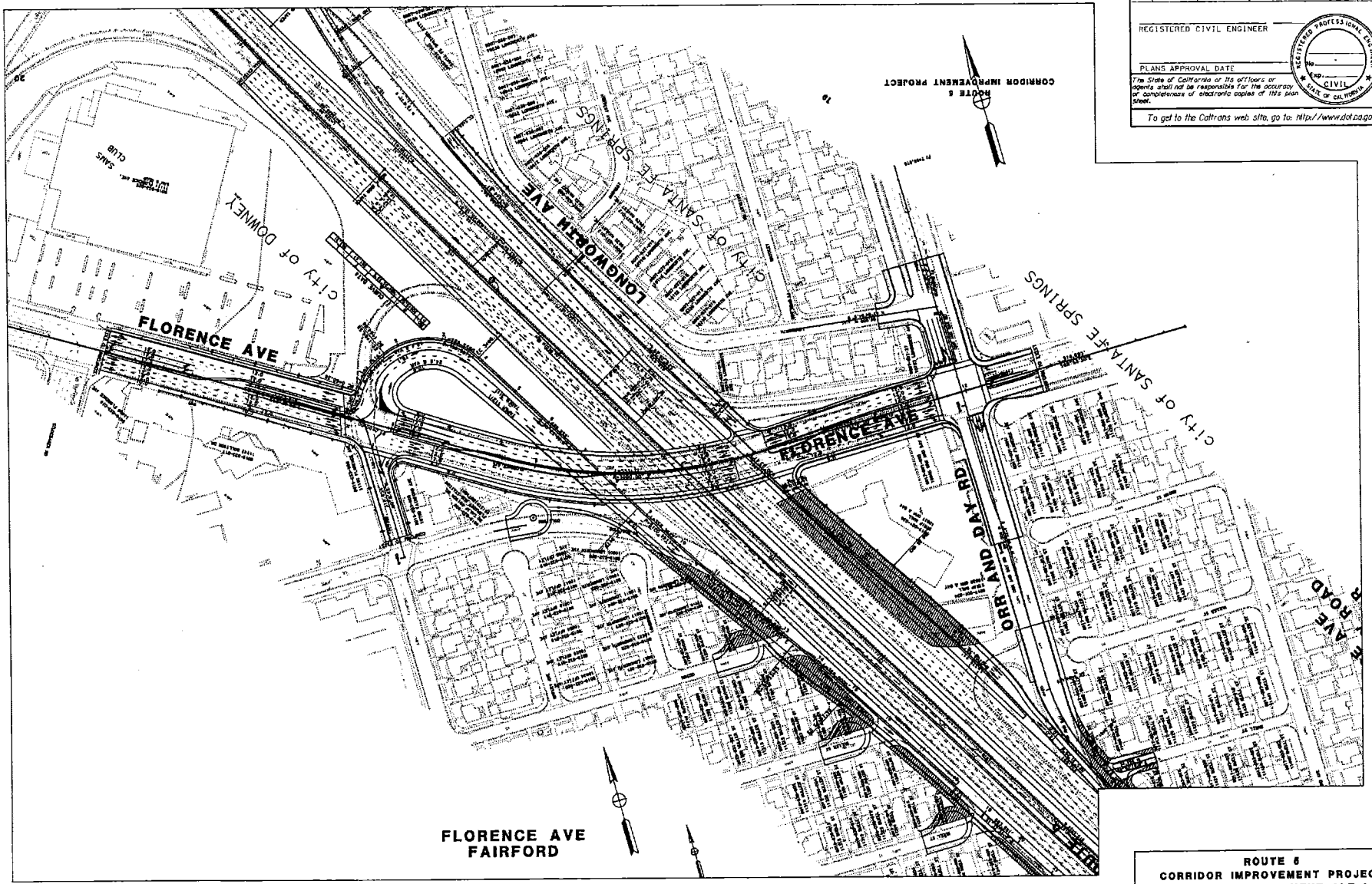
DGN FILE => 72159geo019.dgn

CU 00000 EA 000000



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PROJECT ENGINEER

CALCULATED/ DESIGNED BY

CHECKED BY

DATE	REVISED BY	DATE REVISED

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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ROUTE 6
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-20

LAST REVISION 00-00-00
DATE PLOTTED => 31-OCT-2006
TIME PLOTTED => 14:59

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => MBrar
DGN FILE => T2159ae0020.dgn

CU 00000

EA 000000

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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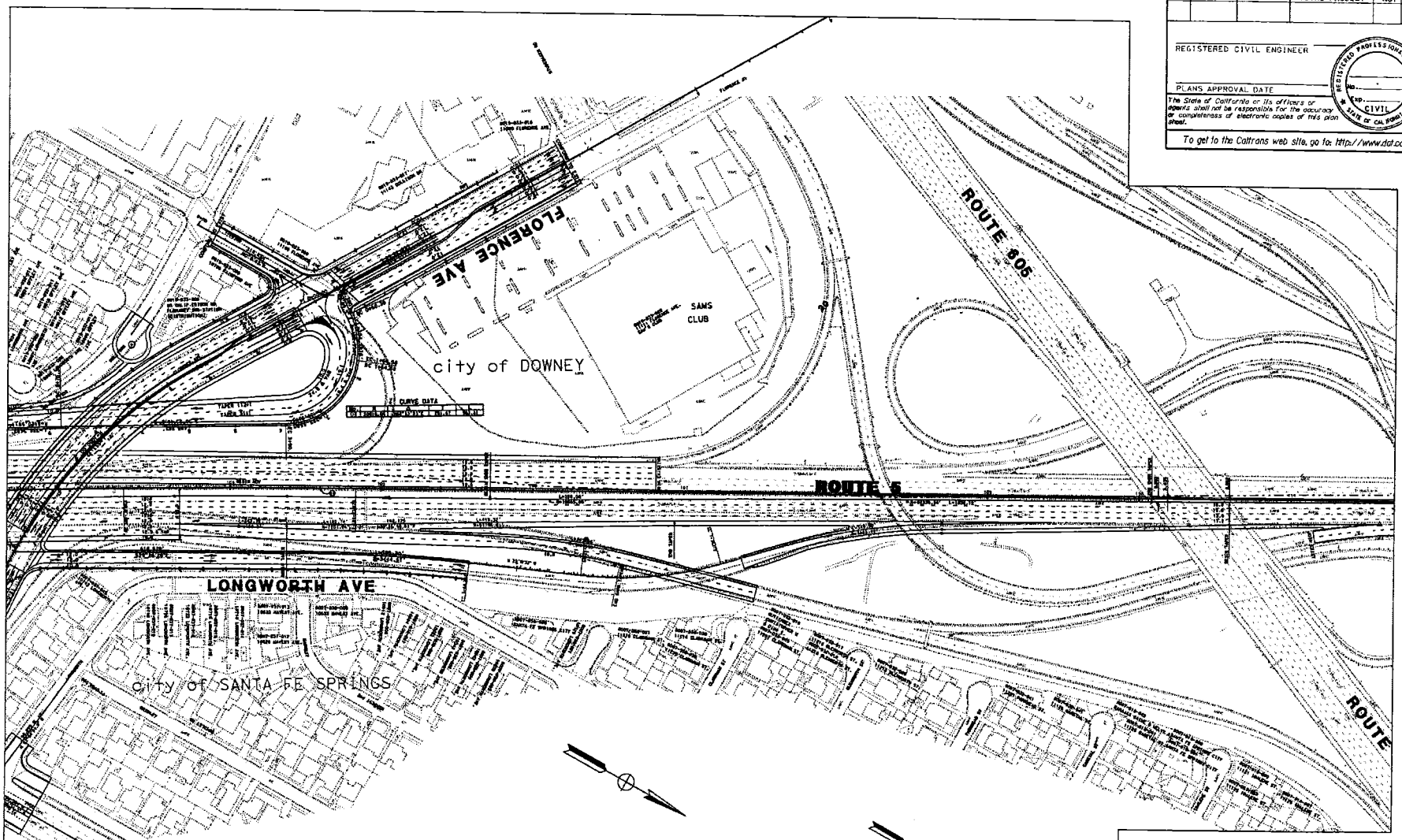

I-5/I-605 INTERCHANGE
FLORENCE AVE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DATE	REVISED BY	DATE REVISED

ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-21

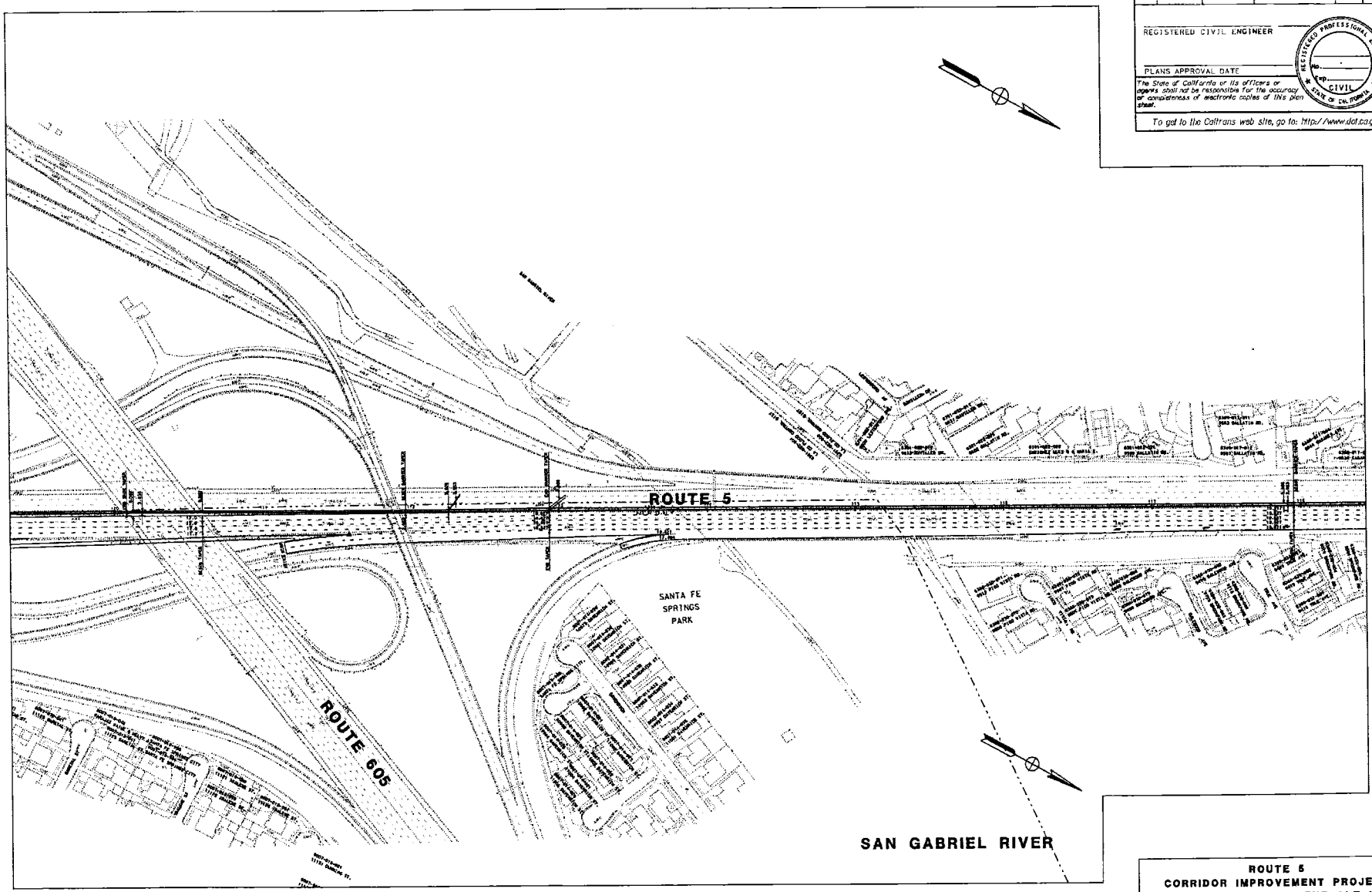
LAST REVISION 00-00-00
DATE PLOTTED => 11-OCT-2006
TIME PLOTTED => 15:02

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => MBrar
DGN FILE => 72159de0021.dgn

CU 00000

EA 000000



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-22

LAST REVISION 00-00-00 DATE PLOTTED => 11-OCT-2006 TIME PLOTTED => 15:14

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => MBrar
DGN FILE => 72159aea022.dgn

CU 00000

EA 000000

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

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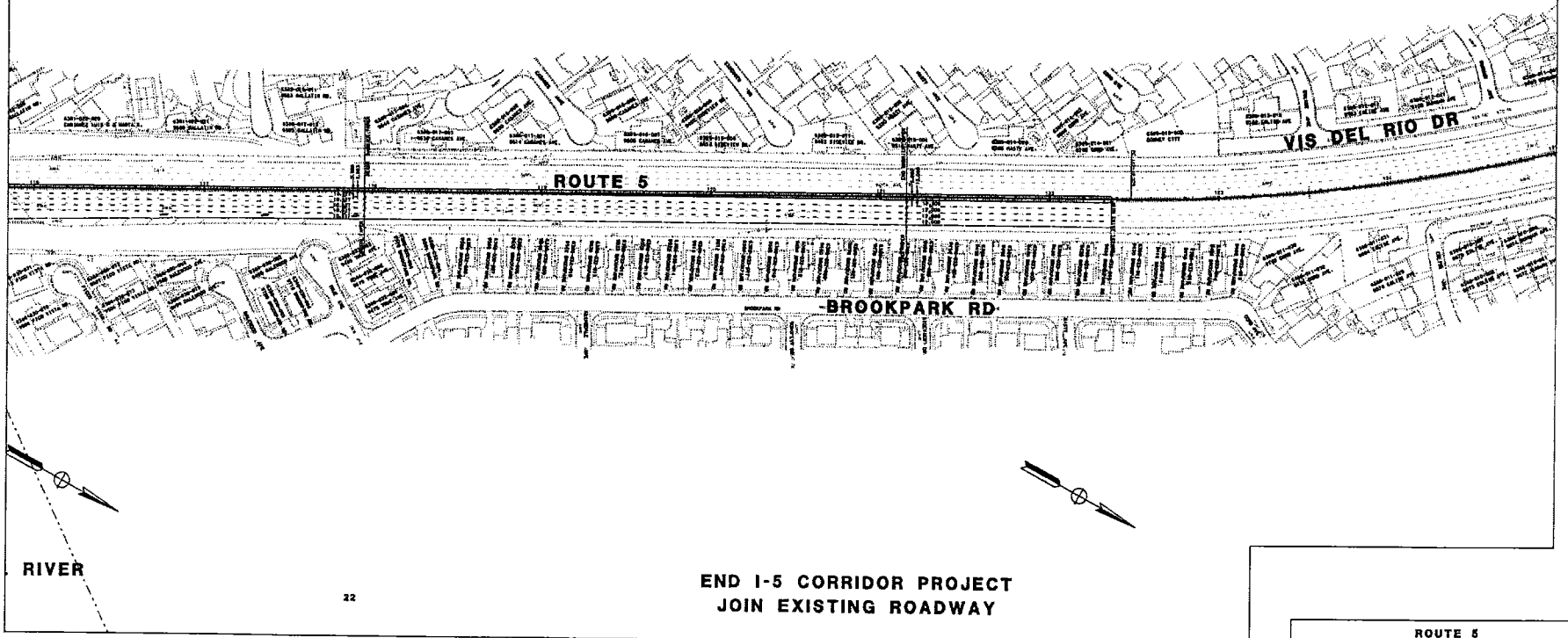

22

END I-5 CORRIDOR PROJECT
JOIN EXISTING ROADWAY

ROUTE 5
CORRIDOR IMPROVEMENT PROJECT
10-LANE VA ALIGNMENT ALT L-23

LAST REVISED: 00-00-00
DATE PLOTTED => 11-OCT-2006
TIME PLOTTED => 15:15

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => MPrior
DGN FILE => 721590ea023.dgn

CU 00000

EA 000000

APPENDIX G

Soundwall Locations and Noise Levels on Aerial Photographs

⊕ Rxx - SENSITIVE RECEPTOR SITE
xx / xx dBA "EXISTING"/ "FUTURE" - NOISE LEVELS
- - - - - EXISTING SOUNDWALL
- FUTURE SOUNDWALL

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I-5 MODIFIED MIS ALTERNATIVE SOUNDWALL LOCATIONS AND NOISE LEVELS ON AERIAL PHOTOGRAPHS
FIGURE G-1

Rxx - SENSITIVE RECEPTOR SITE
xx / xx dBA "EXISTING"/ "FUTURE" - NOISE LEVELS
- - - - - - EXISTING SOUNDWALL
FUTURE SOUNDWALL

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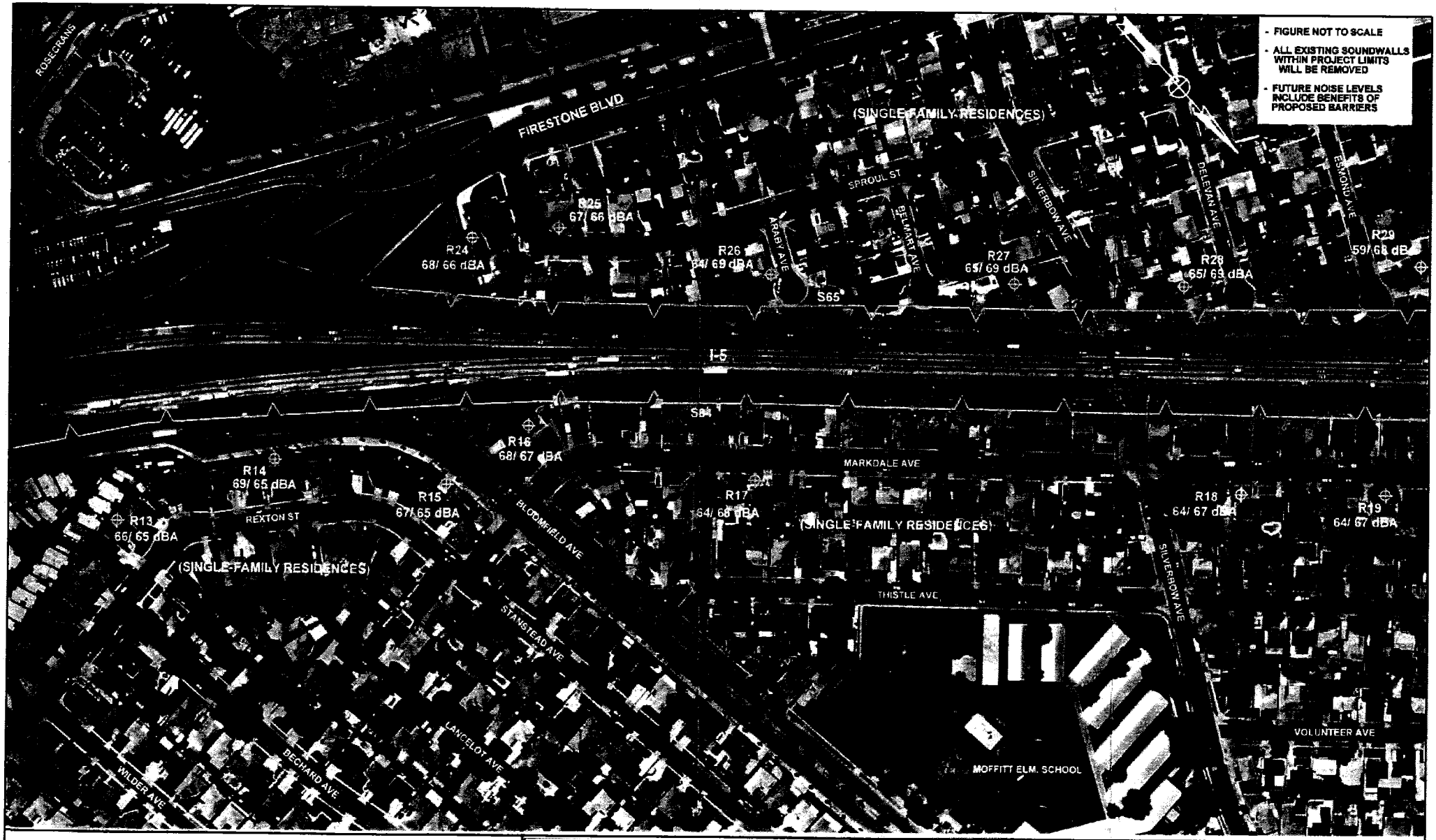
I-5 MODIFIED MIS ALTERNATIVE
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-2



⊕ Rxx - SENSITIVE RECEPTOR SITE

xx / xx dBA "EXISTING"/ "FUTURE" - NOISE LEVELS

- - - - - EXISTING SOUNDWALL

—∧—∧— FUTURE SOUNDWALL

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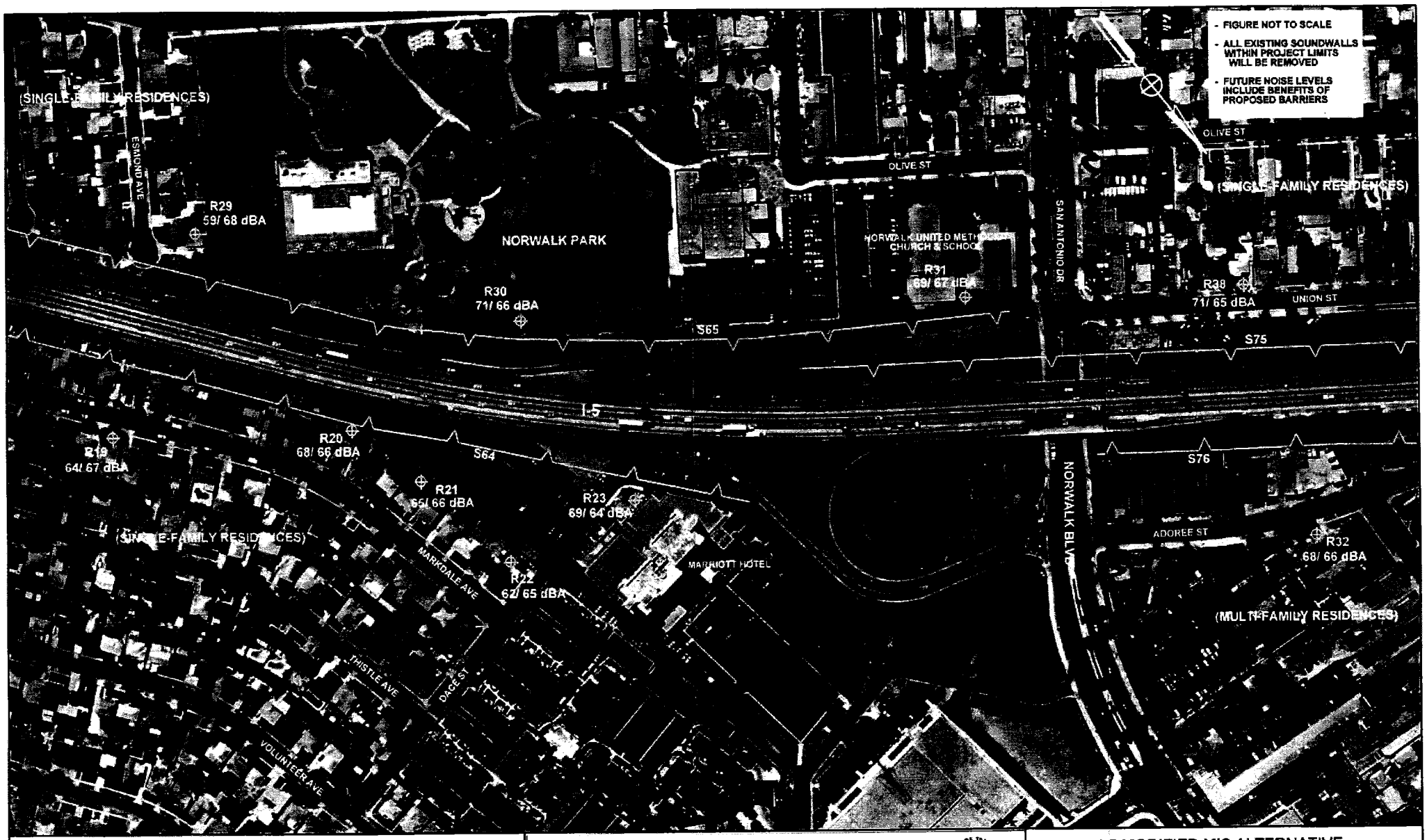
I-5 MODIFIED MIS ALTERNATIVE
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-3



◈ Rxx - SENSITIVE RECEPTOR SITE
xx / xx dBA
"EXISTING"/ "FUTURE" - NOISE LEVELS

- - - - - - EXISTING SOUNDWALL
FUTURE SOUNDWALL

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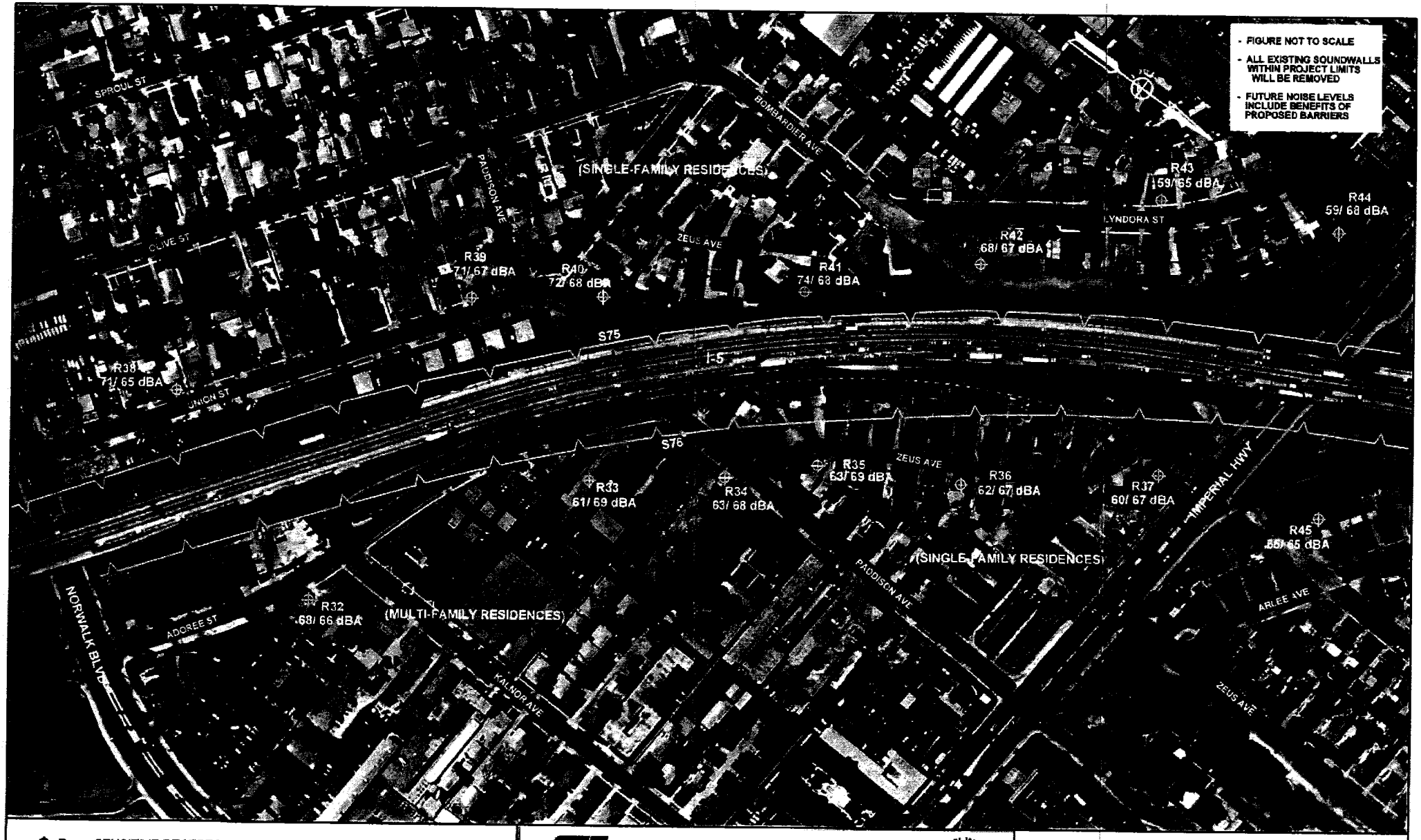
I-5 MODIFIED MIS ALTERNATIVE
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-4



◆ Rxx - SENSITIVE RECEPTOR SITE
xx / xx dBA "EXISTING"/ "FUTURE" - NOISE LEVELS
- - - - - EXISTING SOUNDWALL
FUTURE SOUNDWALL

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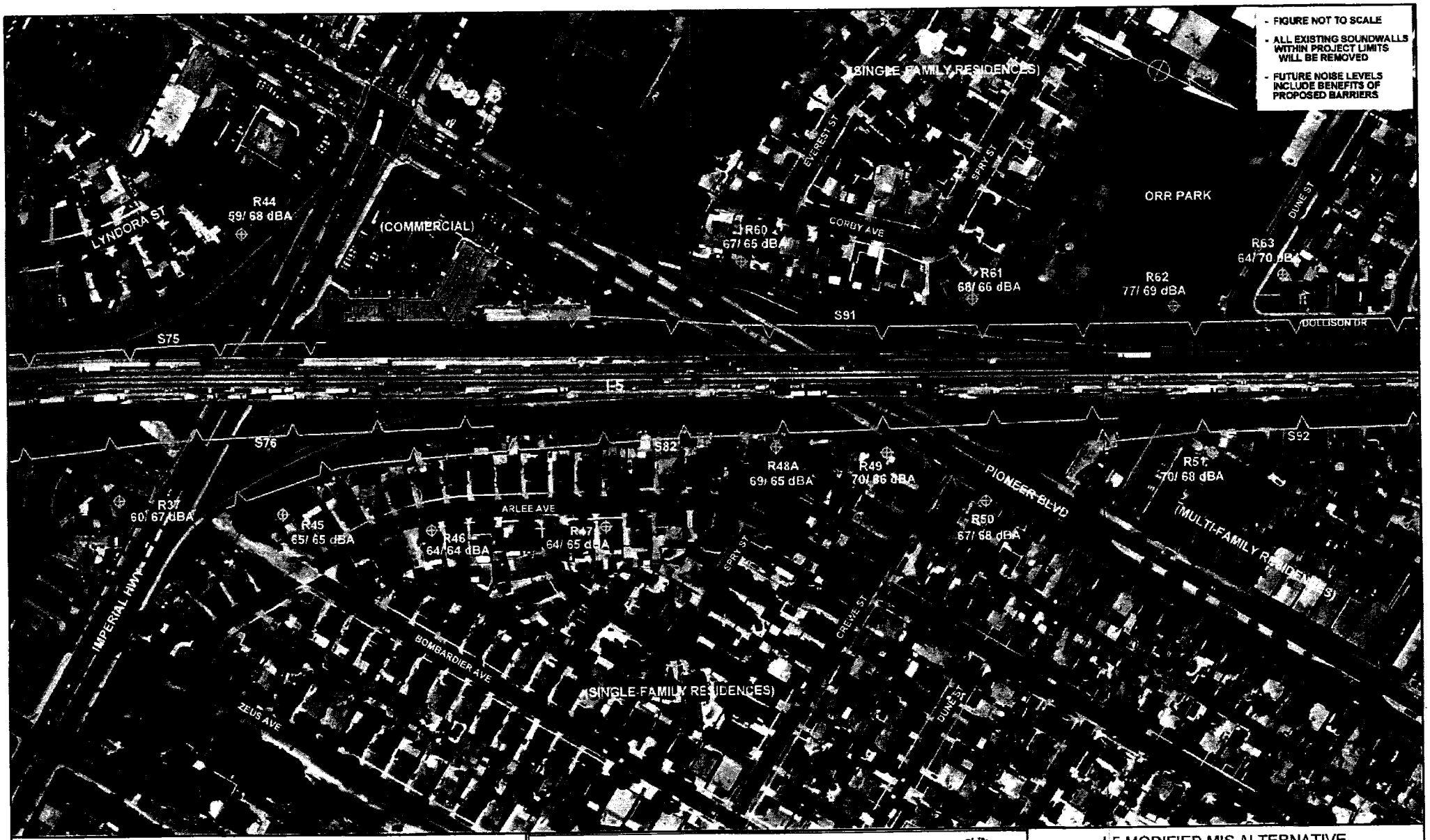
I-5 MODIFIED MIS ALTERNATIVE
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-5



◆ Rxx - SENSITIVE RECEPTOR SITE
xx / xx dBA
"EXISTING"/ "FUTURE" - NOISE LEVELS

- - - - - EXISTING SOUNDWALL
~~~ - FUTURE SOUNDWALL

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I-5 MODIFIED MIS ALTERNATIVE
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-6
~~~
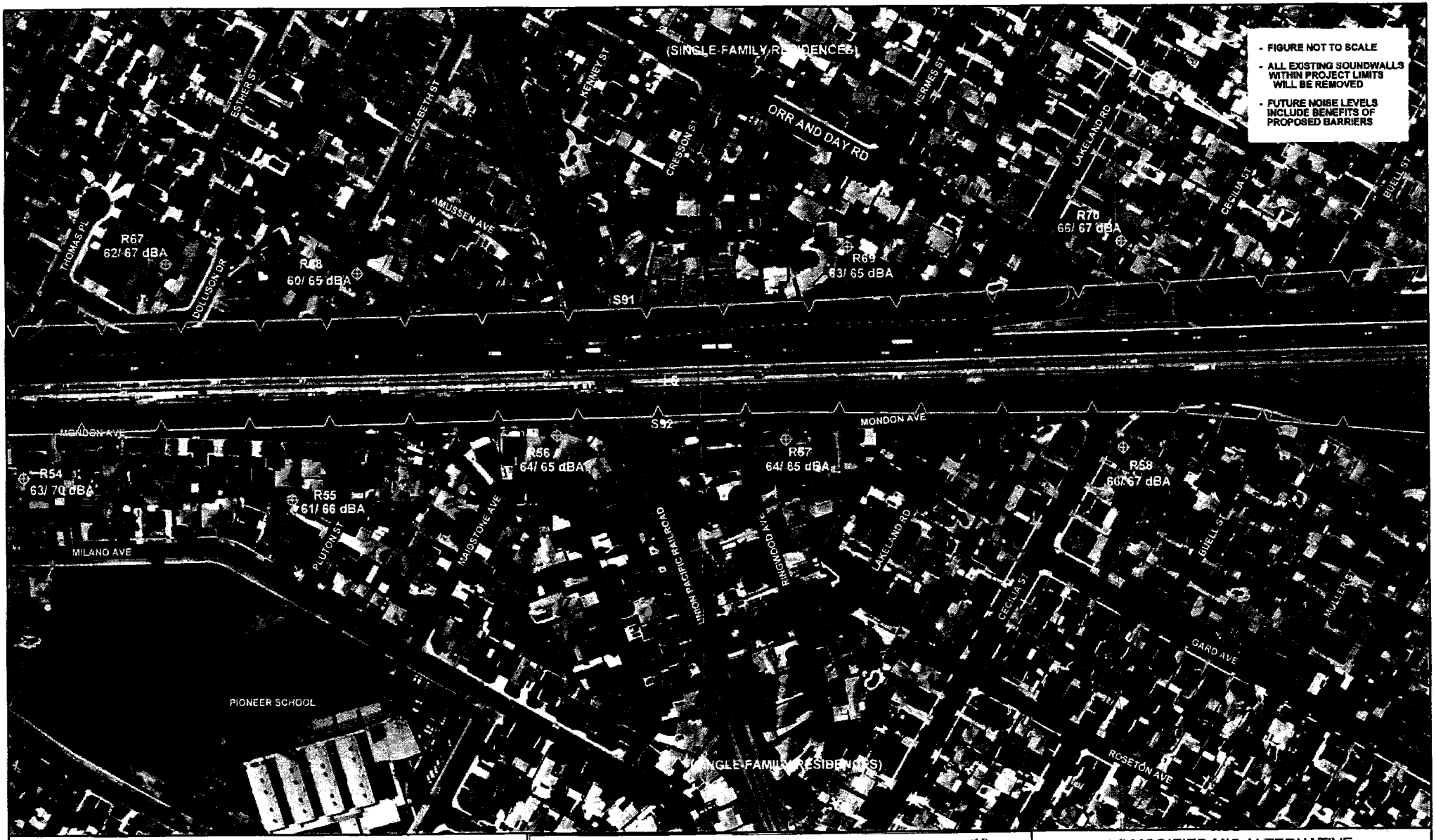

- FIGURE NOT TO SCALE
- ALL EXISTING SOUNDWALLS WITHIN PROJECT LIMITS WILL BE REMOVED
- FUTURE NOISE LEVELS INCLUDE BENEFITS OF PROPOSED BARRIERS
ORR PARK
(SINGLE-FAMILY RESIDENCES)
MAIDSTONE ST
DUNE ST
GEM ST
HERCULES ST
JERSEY ST
BEATTY ST
EMA ST
THOMAS PL
ALLARD ST
DOLLISON DR
S91
R62
77/ 69 dBA
R63
64/ 70 dBA
R64
63/ 69 dBA
R65
62/ 69 dBA
R66
64/ 69 dBA
R67
62/ 67 dBA
MONETON AVE
S92
R51
70/ 68 dBA
(MULTI-FAMILY RESIDENCES)
R52
62/ 69 dBA
R53
63/ 69 dBA
CYCLOPS ST
PANTHEON ST
BAYLA ST
R54
63/ 70 dBA
MILANO AVE
ALBURTIS AVE
(SINGLE-FAMILY RESIDENCES)
PIONEER BLVD
(SCHOOL)
ARLEE AVE
PIONEER SCHOOL
Rxx - SENSITIVE RECEPTOR SITE
xx / xx dBA
"EXISTING"/ "FUTURE" - NOISE LEVELS
- - - - - - EXISTING SOUNDWALL
FUTURE SOUNDWALL
Caltrans
Interstate 5 Corridor Improvement Project
I-5 MODIFIED MIS ALTERNATIVE
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-7



◆ Rxx - SENSITIVE RECEPTOR SITE
xx / xx dBA
"EXISTING"/ "FUTURE" - NOISE LEVELS

- - - - - - EXISTING SOUNDWALL
FUTURE SOUNDWALL

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I-5 MODIFIED MIS ALTERNATIVE
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-8

Rxx - SENSITIVE RECEPTOR SITE
xx / xx dBA
"EXISTING"/ "FUTURE" - NOISE LEVELS

- - - - - - EXISTING SOUNDWALL
FUTURE SOUNDWALL

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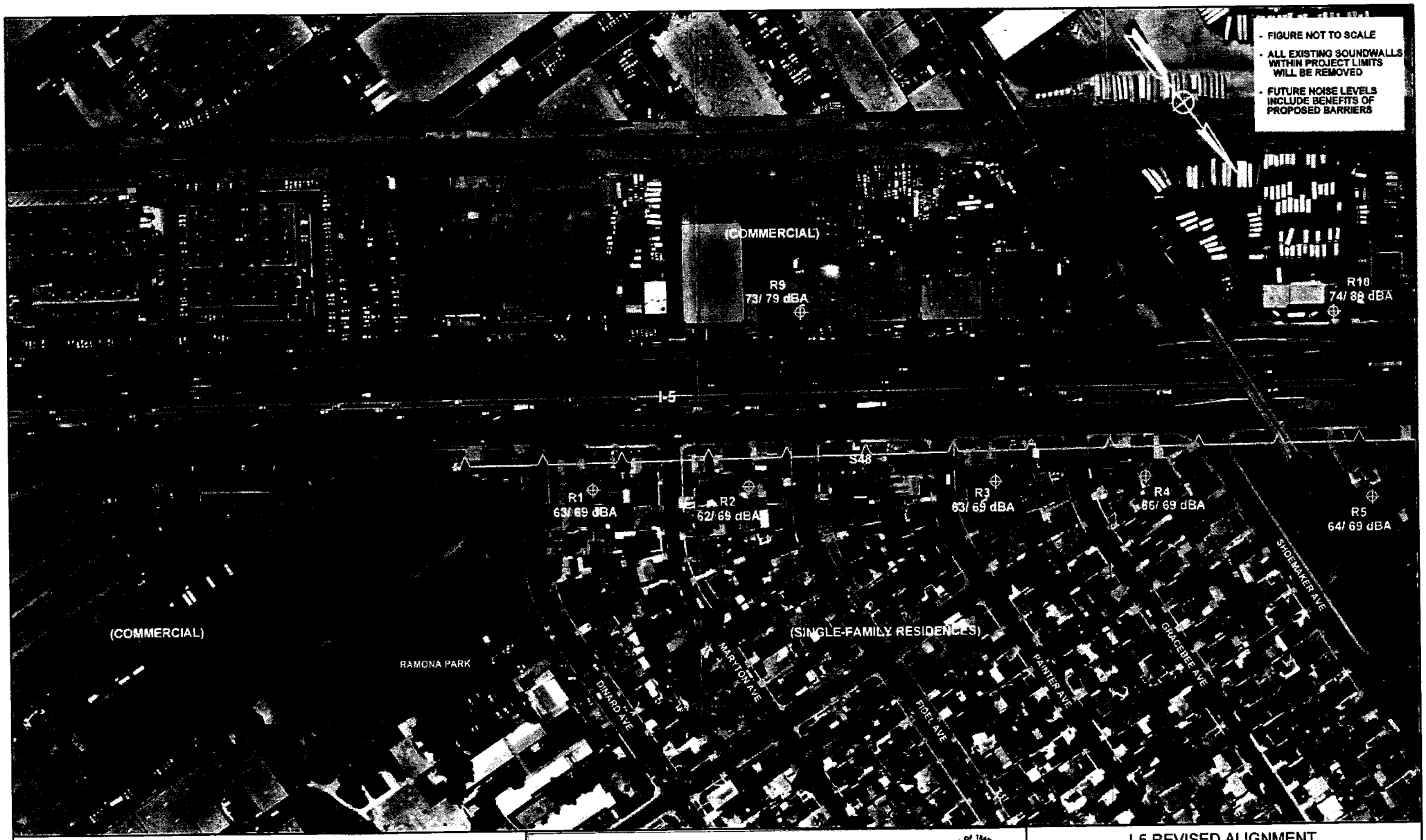
I-5 MODIFIED MIS ALTERNATIVE
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-9



⊕ Rxx - SENSITIVE RECEPTOR SITE
xx / xx dBA
"EXISTING"/ "FUTURE" - NOISE LEVELS

- - - - - EXISTING SOUNDWALL

FUTURE SOUNDWALL

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U.S. DEPARTMENT OF TRANSPORTATION

I-5 REVISED ALIGNMENT
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-10

◈ Rxx - SENSITIVE RECEPTOR SITE
xx / xx dBA
"EXISTING"/ "FUTURE" - NOISE LEVELS

- - - - - - EXISTING SOUNDWALL
/\/\/\ - FUTURE SOUNDWALL

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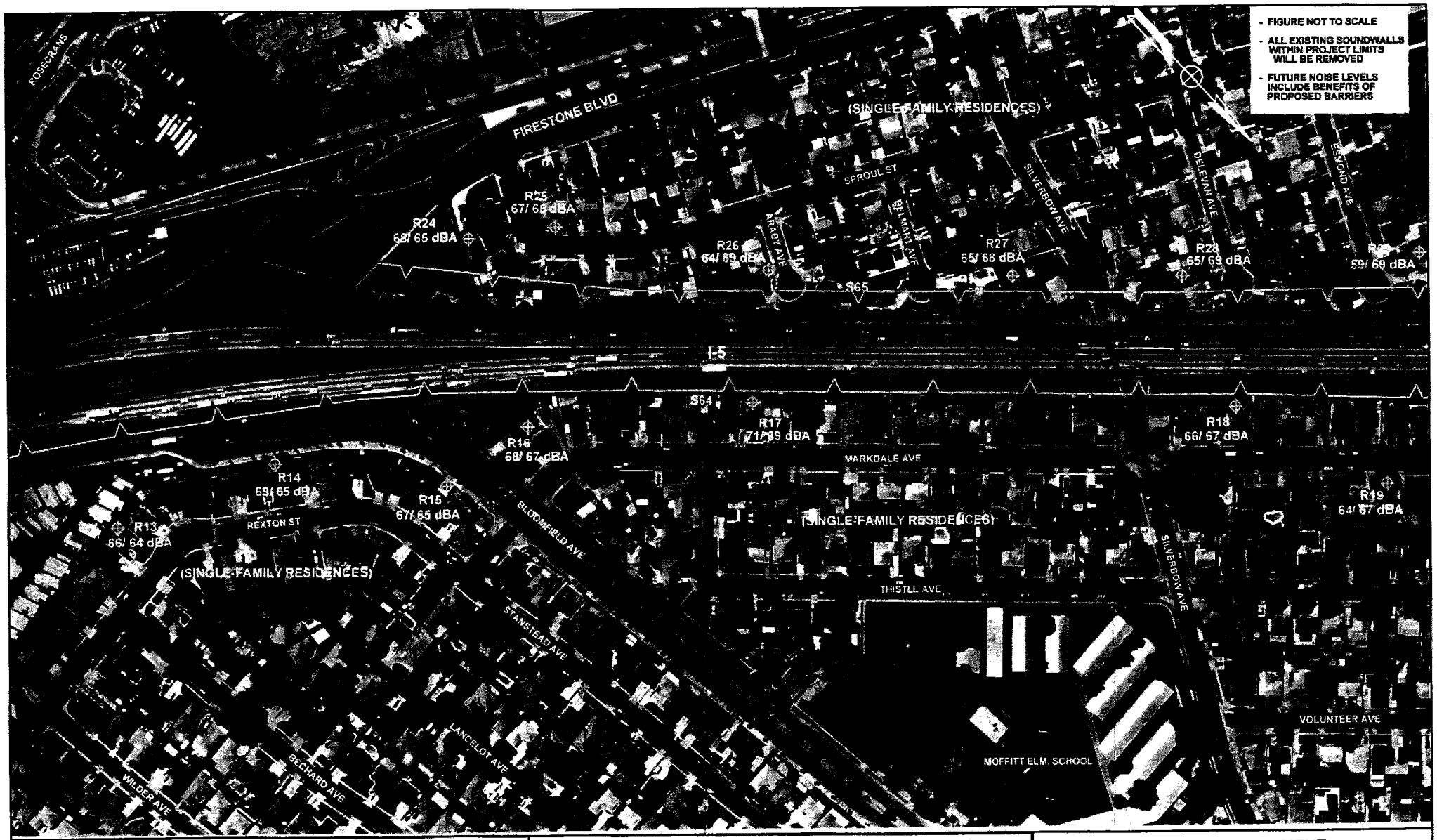
Interstate 5 Corridor Improvement Project

I-5 REVISED ALIGNMENT
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-11



◆ Rxx - SENSITIVE RECEPTOR SITE
xx / xx dBA
"EXISTING"/ "FUTURE" - NOISE LEVELS

- - - - - EXISTING SOUNDWALL
∧∧∧ - FUTURE SOUNDWALL

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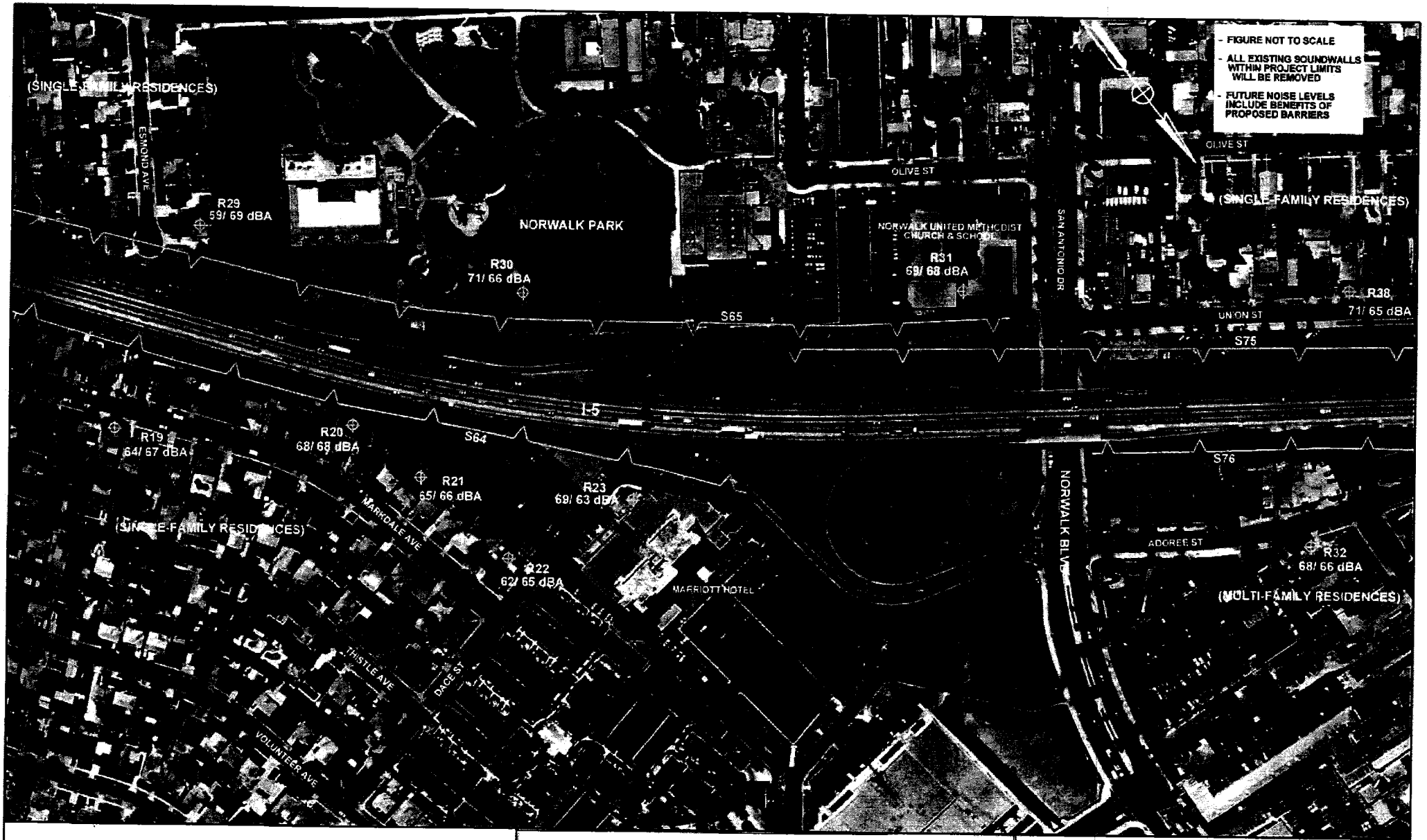
Interstate 5 Corridor Improvement Project

I-5 REVISED ALIGNMENT
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-12



⊕ Rxx - SENSITIVE RECEPTOR SITE
xx / xx dBA
"EXISTING"/ "FUTURE" - NOISE LEVELS

- - - - - - EXISTING SOUNDWALL
⋀⋀⋀ - FUTURE SOUNDWALL

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Interstate 5 Corridor Improvement Project

I-5 REVISED ALIGNMENT
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-13

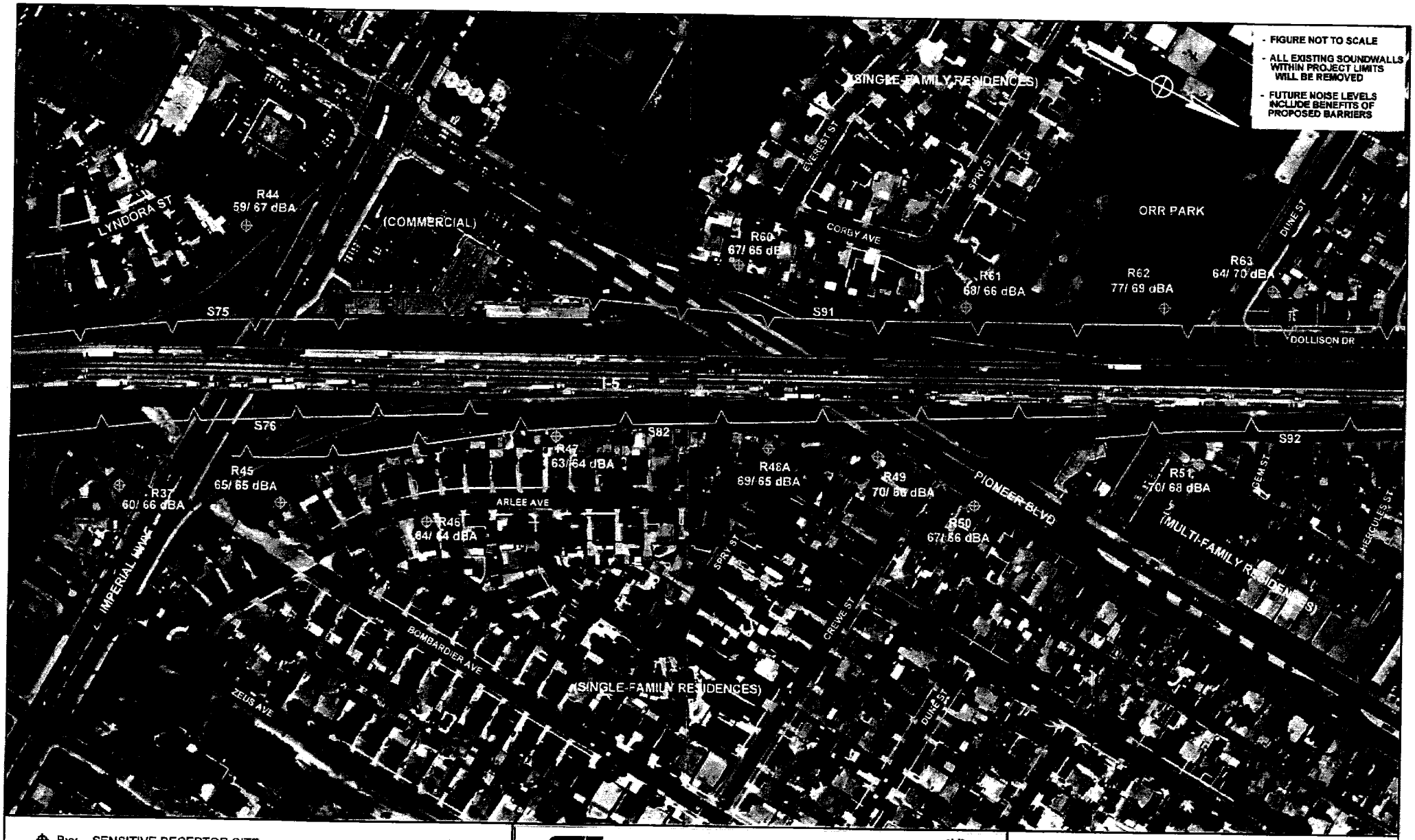
Rxx - SENSITIVE RECEPTOR SITE
xx / xx dBA
"EXISTING"/ "FUTURE" - NOISE LEVELS

- - - - - EXISTING SOUNDWALL
FUTURE SOUNDWALL

Caltrans

Interstate 5 Corridor Improvement Project

I-5 REVISED ALIGNMENT
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-14



⊕ Rxx - SENSITIVE RECEPTOR SITE

xx / xx dBA "EXISTING"/ "FUTURE" - NOISE LEVELS

- - - - - - EXISTING SOUNDWALL

⌒⌒⌒ - FUTURE SOUNDWALL

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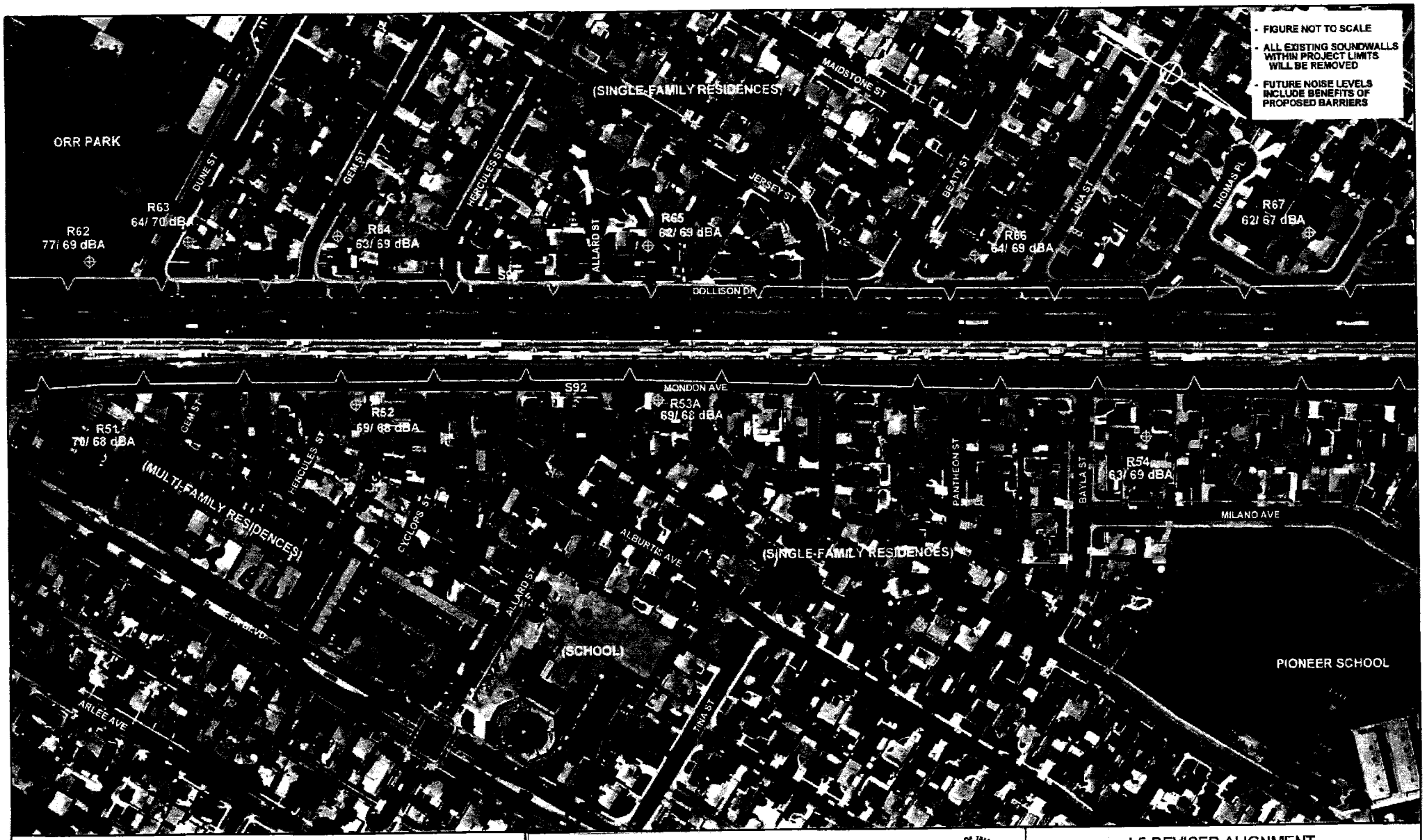
Interstate 5 Corridor Improvement Project

I-5 REVISED ALIGNMENT
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-15



⊕ Rxx - SENSITIVE RECEPTOR SITE

xx / xx dBA "EXISTING"/ "FUTURE" - NOISE LEVELS

- - - - - EXISTING SOUNDWALL

- FUTURE SOUNDWALL

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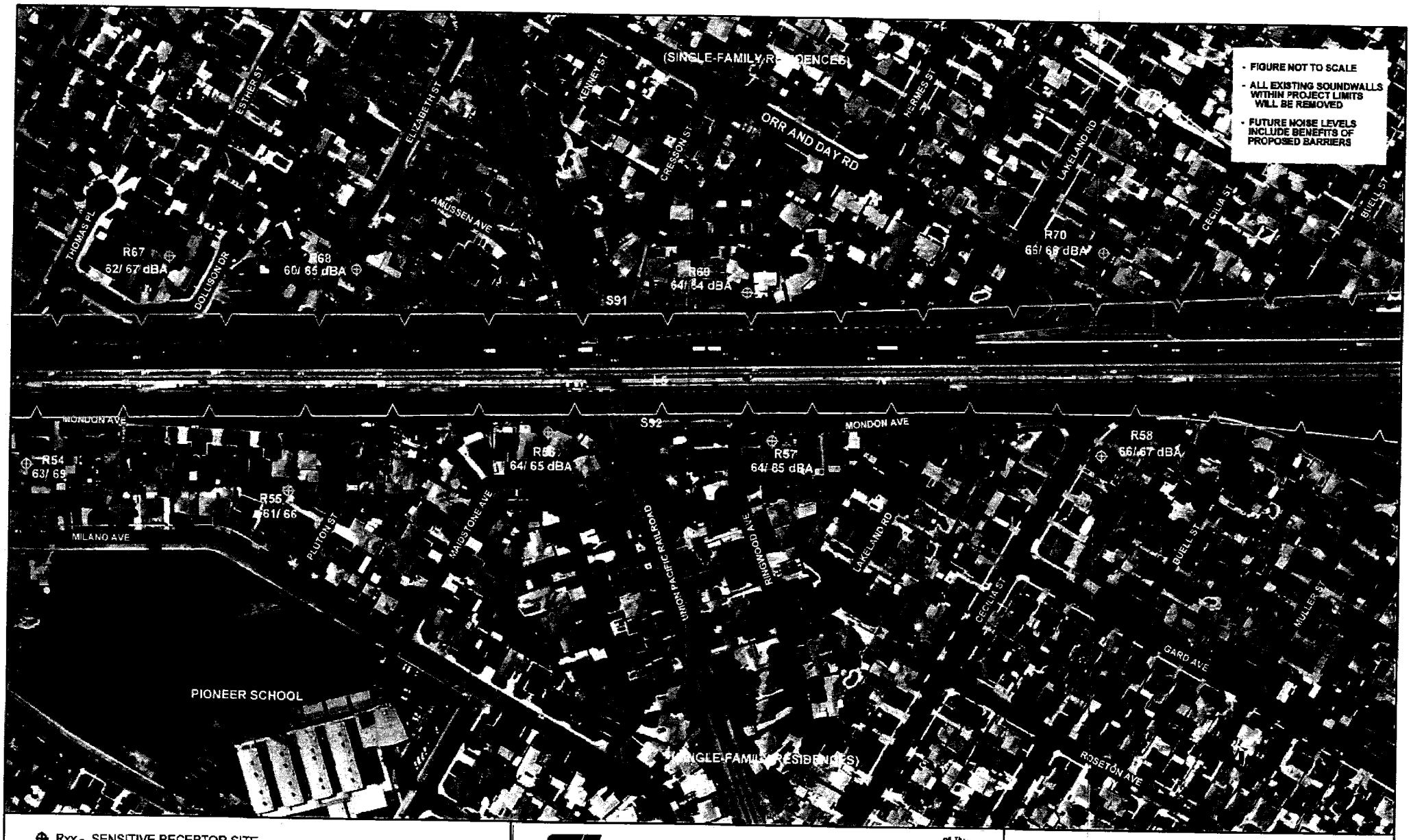
Interstate 5 Corridor Improvement Project

I-5 REVISED ALIGNMENT
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-16



⊕ Rxx - SENSITIVE RECEPTOR SITE
xx / xx dBA
"EXISTING"/ "FUTURE" - NOISE LEVELS

- - - - - EXISTING SOUNDWALL
~~~ - FUTURE SOUNDWALL

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Interstate 5 Corridor Improvement Project

I-5 REIVSED ALIGNMENT
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-17
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⊕ Rxx - SENSITIVE RECEPTOR SITE

xx / xx dBA "EXISTING"/ "FUTURE" - NOISE LEVELS

- - - - - EXISTING SOUNDWALL

- FUTURE SOUNDWALL

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Interstate 5 Corridor Improvement Project

I-5 REVISED ALIGNMENT
SOUNDWALL LOCATIONS AND NOISE LEVELS
ON AERIAL PHOTOGRAPHS
FIGURE G-18

APPENDIX H

Air Quality Data Tables

Appendix H: Table 1 - Traffic Volume (vehicles per hour)							
DESCRIPTION	2003	2013nP	2013-4	2013-5	2030nP	2030-4	2030-5
NB 5	5,300	8,648	8,354	8,333	9,149	8,846	8,805
SB 5	9,371	10,284	10,185	10,223	11,182	11,566	11,672
NB5 SB 605 ON	608	724	851	748	833	912	991
NB5 NB605/Studebaker ON	1,780	2,118	2,510	2,172	2,439	2,670	2,795
NB5 SB605 OFF			2,184	1,919		2,340	2,543
NB5 605 OFF	1,560	1,856	2,184	1,919	2,262	2,340	2,543
NB5 Florence ON	328	390	459	403	476	492	535
NB5 Florence OFF	277	366	366	368	524	524	532
NB5 Pioneer ON	268	295	354	354	332	507	507
NB5 Imperial Hwy ON	493	537	1,032	1,033	597	1,458	1,482
NB5 Imperial Hwy OFF	186	214			255		
NB5 Kalnor/Norwalk ON	214	233			259		
NB5 Norwalk ON	81	88			98		
NB5 Norwalk OFF	572	658	1,035	1,042	784	1,559	1,577
NB5 Norwalk – Imp Hwy Frontage				725		1,150	1,170
NB5 Rosecrans ON	512	558	671	671	620	947	963
NB5 Firestone OFF	325	358			403		
NB5 Rosecrans OFF	352	384	894	900	426	1,287	1,314
NB5 Carmenita ON	408	445	534	534	494	755	767
NB5 Carmenita OFF	715	787	944	951	887	1,359	1,387
NB5 Alondra ON	498	543			603		
NB5 Valley View ON	534	582	1,352	1,352	646	1,909	1,940
NB5 Valley View OFF	635	756	908	921	953	1,461	1,486
NB5 Artesia ON	500	595	715	725	750	1,150	1,170
NB5 Artesia OFF	500	595	715	725	750	1,150	1,170
NB5 Manchester ON	500	595	715	725	750	1,150	1,170
NB5 Beach/Manchester OFF	500	595	715	725	750	1,150	1,170
NB5 Manchester OFF	500	595	715	725	750	1,150	1,170
NB5 Orangethorpe ON	500	595	715	725	750	1,150	1,170
SB5 SB605/Florence OFF	2,370	2,773	2,844	2,891	3,437	3,579	3,721
SB5 SB605 ON	990	1,158	1,188	1,218	1,436	1,525	1,614
SB5 NB605/Florence OFF	620	701	800	806	818	1,116	1,141
SB5 N605/Studabaker ON	390	449	468	476	534	589	612
SB5 Florence ON	88	91	230	231	93	288	292
SB5 Orr & Day ON	96	105			116		
SB5 Pioneer/Imperial Hwy OFF	833	908	1,502	1,502	1,008	1,915	1,939
SB5 Imperial Hwy ON	220	240			266		
SB5 Imp Hwy – Norwalk Frontage				725		1,150	1,170
SB5 Union OFF	314	342			380		
SB5 Norwalk ON	273	298	646	646	330	823	833
SB5 Firestone ON	506	552			612		
SB5 Rosecrans OFF	471	513	617	617	570	787	796
SB5 Rosecrans ON	442	482	1,242	1,242	535	1,583	1,602
SB5 Carmenita OFF	795	867	1,041	1,041	962	1,328	1,344
SB5 Carmenita ON	559	609	1,198	1,198	676	1,529	1,547
SB5 Alondra ON	356	388			431		
SB5 Valley View OFF	740	807	969	969	895	1,236	1,251
SB5 Valley View ON	655	714	858	858	793	1,212	1,231
SB5 Artesia/Knott OFF	500	545	655	655	605	925	940
SB5 Artesia ON	500	545	655	655	605	925	940
SB5 Beach OFF	500	545	655	655	605	925	940
SB5 Beach ON	500	545	655	655	605	925	940

Appendix H: Table 2 - Modeling Speed & Emission Factors

		grams/mile		
	MPH	2003	2013	2030
I-5	40	5.717	2.434	0.796
Ramps	30	6.540	2.798	0.922

Appendix H: Table 3 - 2003 and 2013 CO Concentrations

Receptor Number	Existing 1-Hr/8-Hr (ppm)	Alternative 1 (No Build) 1-Hr/8-Hr (ppm)	Alt. 4A 4+1 MIS Modified 1-Hr/8-Hr (ppm)	Alt 4B 4+1 MIS Revised 1-Hr/8-Hr (ppm)	Alt 4C 4+1 LPA 1-Hr/8-Hr (ppm)	Alt. 4 Increase Over Alt. 1 (No Build) 1-Hr/8-Hr (ppm)	Alt 5A 4+2 1-Hr/8-Hr (ppm)	Alt 5B 5+1 MIS Modified 1-Hr/8-Hr (ppm)	Alt 5C 5+1 MIS Revised 1-Hr/8-Hr (ppm)	Alt. 5 Increase Over Alt. 1 (No Build) 1-Hr/8-Hr (ppm)
1. Home	8.9 / 6.4	7.0 / 5.4	7.1 / 5.5	7.1 / 5.5	7.1 / 5.5	0.1 / 0.1	7.2 / 5.6	7.2 / 5.6	7.2 / 5.6	0.2 / 0.2
2. Home	7.7 / 5.5	6.4 / 5.0	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	-0.1 / -0.1	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	-0.1 / -0.1
3. Home	7.6 / 5.4	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	0.0 / 0.0	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	0.0 / 0.0
4. Home	7.5 / 5.4	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	0.0 / 0.0	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	0.0 / 0.0
5. Home	8.5 / 6.1	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.0 / 0.0	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.0 / 0.0
6. Home	9.7 / 6.9	7.4 / 5.7	7.5 / 5.8	7.5 / 5.8	7.5 / 5.8	0.1 / 0.1	7.5 / 5.8	7.5 / 5.8	7.5 / 5.8	0.1 / 0.1
7. Home	8.2 / 5.9	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	0.0 / 0.0	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	0.0 / 0.0
8. Home	8.8 / 6.3	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	0.0 / 0.0	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	0.0 / 0.0
9. Displaced Home	9.2 / 6.6	7.2 / 5.6	Acquired	Acquired	Acquired	NA	Acquired	Acquired	Acquired	NA
10. Displaced Home	9.1 / 6.5	7.1 / 5.5	Acquired	Acquired	Acquired	NA	Acquired	Acquired	Acquired	NA
11. Home	9.0 / 6.4	7.0 / 5.4	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	-0.1 / 0.0	7.0 / 5.4	7.0 / 5.4	7.0 / 5.4	0.0 / 0.0
12. Santa Fe Christian School	7.3 / 5.2	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	0.0 / 0.0	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	-0.1 / -0.1
13. Potentially Displaced Home	8.8 / 6.3	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	0.0 / 0.0	Acquired	Acquired	Acquired	0.0 / 0.0
14. Home	8.7 / 6.2	6.8 / 5.3	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	0.1 / 0.1	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	0.1 / 0.1
15. Home	8.4 / 6.0	6.7 / 5.2	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	-0.1 / 0.0	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	-0.1 / 0.0
16. Home	9.0 / 6.4	7.0 / 5.4	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	-0.1 / 0.0	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	-0.2 / -0.1
17. Home	7.5 / 5.4	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	0.0 / 0.0	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	-0.1 / -0.1
18. Home	9.0 / 6.4	7.0 / 5.4	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	-0.1 / 0.0	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	-0.1 / 0.0
19. Home	10.2 / 7.3	7.7 / 5.9	7.6 / 5.9	7.6 / 5.9	7.6 / 5.9	-0.1 / 0.0	7.5 / 5.8	7.5 / 5.8	7.5 / 5.8	-0.2 / -0.1
20. Home	10.9 / 7.8	7.9 / 6.1	8.1 / 6.2	8.1 / 6.2	8.1 / 6.2	0.2 / 0.1	8.1 / 6.2	8.1 / 6.2	8.1 / 6.2	0.2 / 0.1
21. Cresson Elementary School	7.1 / 5.1	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.0 / 0.0	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.0 / 0.0
22. Santa Fe High School	6.8 / 4.9	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0
23. Pioneer Baptist School	7.1 / 5.1	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.0 / 0.0	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.0 / 0.0
24. Orr Elementary School	7.9 / 5.7	6.4 / 5.0	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	0.1 / 0.1	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	0.1 / 0.1
25. Paddison Elementary School	6.7 / 4.8	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0
26. Home	7.4 / 5.3	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	0.0 / 0.0	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	0.0 / 0.0
27. Home	8.2 / 5.9	6.6 / 5.2	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	0.1 / 0.0	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	0.1 / 0.0
28. Home	7.5 / 5.4	6.2 / 4.9	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	0.1 / 0.0	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	0.1 / 0.0
29. Home	7.9 / 5.7	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	0.0 / 0.0	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	0.1 / 0.1
30. Home	7.7 / 5.5	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	0.0 / 0.0	6.4 / 5.0	6.4 / 5.0	6.4 / 5.0	0.1 / 0.1
31. Home	7.6 / 5.4	6.3 / 4.9	6.4 / 5.0	6.4 / 5.0	6.4 / 5.0	0.1 / 0.1	6.4 / 5.0	6.4 / 5.0	6.4 / 5.0	0.1 / 0.1
32. Home	7.9 / 5.7	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	0.0 / 0.0	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	0.0 / 0.0
33. Home	9.4 / 6.7	7.3 / 5.6	7.0 / 5.4	7.0 / 5.4	7.0 / 5.4	-0.3 / -0.2	7.1 / 5.5	7.1 / 5.5	7.1 / 5.5	-0.2 / -0.1
34. Potentially Displaced Home	10.2 / 7.3	7.7 / 5.9	Acquired	Acquired	7.3 / 5.6	-0.4 / -0.3	Acquired	Acquired	Acquired	NA

Appendix H: Table 3 - 2003 and 2013 CO Concentrations

Receptor Number	Existing 1-Hr/8-Hr (ppm)	Alternative 1 (No Build) 1-Hr/8-Hr (ppm)	Alt. 4A 4+1 MIS Modified 1-Hr/8-Hr (ppm)	Alt 4B 4+1 MIS Revised 1-Hr/8-Hr (ppm)	Alt 4C 4+1 LPA 1-Hr/8-Hr (ppm)	Alt. 4 Increase Over Alt. 1 (No Build) 1-Hr/8-Hr (ppm)	Alt 5A 4+2 1-Hr/8-Hr (ppm)	Alt 5B 5+1 MIS Modified 1-Hr/8-Hr (ppm)	Alt 5C 5+1 MIS Revised 1-Hr/8-Hr (ppm)	Alt. 5 Increase Over Alt. 1 (No Build) 1-Hr/8-Hr (ppm)
35. Home	9.9 / 7.1	7.5 / 5.8	7.0 / 5.4	7.0 / 5.4	7.0 / 5.4	-0.5 / -0.4	7.1 / 5.5	7.1 / 5.5	7.1 / 5.5	-0.4 / -0.3
36. Home	9.3 / 6.6	7.2 / 5.6	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	-0.3 / -0.2	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	-0.3 / -0.2
37. Home	9.5 / 6.8	7.3 / 5.6	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	-0.5 / -0.3	7.0 / 5.4	7.0 / 5.4	7.0 / 5.4	-0.3 / -0.2
38. Home	7.1 / 5.1	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	0.0 / 0.0	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	0.0 / 0.0
39. Home	8.3 / 5.9	6.7 / 5.2	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	-0.1 / 0.0	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	0.0 / 0.0
40. Home	8.9 / 6.4	7.0 / 5.4	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	-0.1 / 0.0	7.1 / 5.5	7.1 / 5.5	7.1 / 5.5	0.1 / 0.1
41. Moffit Elementary School	7.3 / 5.2	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	0.0 / 0.0	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	0.1 / 0.1
42. Home	8.3 / 5.9	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	0.0 / 0.0	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	0.0 / 0.0
43. Home	9.4 / 6.7	7.2 / 5.6	7.2 / 5.6	7.2 / 5.6	7.2 / 5.6	0.0 / 0.0	7.2 / 5.6	7.2 / 5.6	7.2 / 5.6	0.0 / 0.0
44. Home	8.8 / 6.3	7.0 / 5.4	7.0 / 5.4	7.0 / 5.4	7.0 / 5.4	0.0 / 0.0	7.0 / 5.4	7.0 / 5.4	7.0 / 5.4	0.0 / 0.0
45. Potentially Displaced Home	10.1 / 7.2	7.6 / 5.9	7.9 / 6.1	Acquired	7.9 / 6.1	0.3 / 0.2	7.9 / 6.1	Acquired	Acquired	0.3 / 0.2
46. Home	9.2 / 6.6	7.1 / 5.5	7.2 / 5.6	7.2 / 5.6	7.2 / 5.6	0.1 / 0.1	7.2 / 5.6	7.2 / 5.6	7.2 / 5.6	0.1 / 0.1
47. Home	8.2 / 5.9	6.7 / 5.2	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	-0.1 / 0.0	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	0.0 / 0.0
48. Home	8.5 / 6.1	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.0 / 0.0	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.0 / 0.0
49. Home	7.3 / 5.2	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	0.0 / 0.0	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	0.0 / 0.0
50. Home	7.1 / 5.1	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.0 / 0.0	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.0 / 0.0
51. Home	8.0 / 5.7	6.5 / 5.1	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	0.2 / 0.1	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	0.2 / 0.1
52. Home	8.5 / 6.1	6.8 / 5.3	7.1 / 5.5	7.1 / 5.5	7.1 / 5.5	0.3 / 0.2	7.1 / 5.5	7.1 / 5.5	7.1 / 5.5	0.3 / 0.2
53. Home	8.0 / 5.7	6.5 / 5.1	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	0.2 / 0.1	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	0.2 / 0.1
54. Ramona Pre-School	7.1 / 5.1	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	0.0 / 0.0	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	0.0 / 0.0
55. Home	7.1 / 5.1	6.0 / 4.7	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	0.1 / 0.1	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	0.1 / 0.1
56. Home	8.6 / 6.1	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.0 / 0.0	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.0 / 0.0
57. Home	8.1 / 5.8	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	0.0 / 0.0	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	0.0 / 0.0
58. Home	8.1 / 5.8	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	0.0 / 0.0	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	0.0 / 0.0
59. Home	7.8 / 5.6	6.4 / 5.0	6.4 / 5.0	6.4 / 5.0	6.4 / 5.0	0.0 / 0.0	6.4 / 5.0	6.4 / 5.0	6.4 / 5.0	0.0 / 0.0
60. Home	7.5 / 5.4	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	0.0 / 0.0	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	0.0 / 0.0
61. Home	7.4 / 5.3	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	0.0 / 0.0	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	0.0 / 0.0
62. Home	9.0 / 6.4	7.1 / 5.5	7.1 / 5.5	7.1 / 5.5	7.1 / 5.5	0.0 / 0.0	7.1 / 5.5	7.1 / 5.5	7.1 / 5.5	0.0 / 0.0
63. Whitaker Elementary School	7.2 / 5.2	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	0.0 / 0.0	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	0.0 / 0.0
64. Home	7.6 / 5.4	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	0.0 / 0.0	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	0.0 / 0.0
65. Home	7.1 / 5.1	6.1 / 4.8	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	-0.1 / -0.1	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	-0.1 / -0.1
66. Home	7.8 / 5.6	6.4 / 5.0	6.4 / 5.0	6.4 / 5.0	6.4 / 5.0	0.0 / 0.0	6.4 / 5.0	6.4 / 5.0	6.4 / 5.0	0.0 / 0.0
67. St. Linus Elementary School	6.6 / 4.7	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0
68. Home	6.9 / 5.0	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	0.0 / 0.0	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	0.0 / 0.0
69. Gilbert Elementary School	7.1 / 5.1	6.0 / 4.7	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	-0.1 / 0.0	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	-0.1 / 0.0
70. St. Pius V School	6.5 / 4.7	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0
71. Home	7.7 / 5.5	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	0.0 / 0.0	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	0.0 / 0.0
72. Home	7.6 / 5.4	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	0.0 / 0.0	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	0.0 / 0.0
73. United Methodist Church	9.1 / 6.5	7.1 / 5.5	7.1 / 5.5	7.1 / 5.5	7.1 / 5.5	0.0 / 0.0	7.2 / 5.6	7.2 / 5.6	7.2 / 5.6	0.1 / 0.1

Appendix H: Table 3 - 2003 and 2013 CO Concentrations

Receptor Number	Existing 1-Hr/8-Hr (ppm)	Alternative 1 (No Build) 1-Hr/8-Hr (ppm)	Alt. 4A 4+1 MIS Modified 1-Hr/8-Hr (ppm)	Alt 4B 4+1 MIS Revised 1-Hr/8-Hr (ppm)	Alt 4C 4+1 LPA 1-Hr/8-Hr (ppm)	Alt. 4 Increase Over Alt. 1 (No Build) 1-Hr/8-Hr (ppm)	Alt 5A 4+2 1-Hr/8-Hr (ppm)	Alt 5B 5+1 MIS Modified 1-Hr/8-Hr (ppm)	Alt 5C 5+1 MIS Revised 1-Hr/8-Hr (ppm)	Alt. 5 Increase Over Alt. 1 (No Build) 1-Hr/8-Hr (ppm)
74. Home	8.4 / 6.0	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	0.0 / 0.0	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	0.0 / 0.0
75. Home	9.8 / 7.0	7.4 / 5.7	7.5 / 5.8	7.5 / 5.8	7.5 / 5.8	0.1 / 0.1	7.5 / 5.8	7.5 / 5.8	7.5 / 5.8	0.1 / 0.1
76. Home	8.7 / 6.2	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.0 / 0.0	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	-0.1 / -0.1
77. Home	8.3 / 5.9	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	0.0 / 0.0	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	0.0 / 0.0
78. Displaced Home	9.8 / 7.0	7.4 / 5.7	Acquired	Acquired	Acquired	NA	Acquired	Acquired	Acquired	NA
79. Potentially Displaced Home	10.5 / 7.5	7.8 / 6.0	7.9 / 6.1	Acquired	Acquired	0.1 / 0.1	Acquired	Acquired	Acquired	0.1 / 0.1
80. Home	8.6 / 6.1	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.0 / 0.0	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.0 / 0.0
81. Potentially Displaced Home	12.5 / 8.9	8.9 / 6.8	7.7 / 5.9	Acquired	Acquired	-1.2 / -0.9	8.0 / 6.1	8.0 / 6.1	Acquired	-0.9 / -0.7
82. Potentially Displaced Home	11.4 / 8.1	8.3 / 6.3	Acquired	Acquired	9.3 / 7.0	1.0 / 0.7	Acquired	Acquired	Acquired	NA
83. Potentially Displaced Home	8.9 / 6.4	7.1 / 5.5	8.1 / 6.2	8.1 / 6 2	Acquired	1.0 / 0.7	Acquired	Acquired	Acquired	1.0 / 0.7
84. Potentially Displaced Home	8.9 / 6.4	7.0 / 5.4	7.4 / 5.7	Acquired	Acquired	0.4 / 0.3	7.4 / 5.7	7.4 / 5.7	Acquired	0.4 / 0.3
85. Public Access	8.2 / 5.9	6.6 / 5.2	7.0 / 5.4	7.0 / 5.4	7.0 / 5.4	0.4 / 0.2	7.0 / 5.4	7.0 / 5.4	7.0 / 5.4	0.4 / 0.2
86. Public Access	8.1 / 5.8	6.6 / 5.2	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	0.3 / 0.2	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	0.3 / 0.2
87. Public Access	9.8 / 7.0	7.5 / 5.8	7.4 / 5.7	7.4 / 5.7	7.4 / 5.7	-0.1 / -0.1	7.4 / 5.7	7.4 / 5.7	7.4 / 5.7	-0.1 / -0.1
88. Public Access	10.2 / 7.3	7.7 / 5.9	7.4 / 5.7	7.4 / 5.7	7.4 / 5.7	-0.3 / -0.2	7.4 / 5.7	7.4 / 5.7	7.4 / 5.7	-0.3 / -0.2
89. Public Access	10.0 / 7.1	7.6 / 5.9	7.4 / 5.7	7.4 / 5.7	7.4 / 5.7	-0.2 / -0.2	7.4 / 5.7	7.4 / 5.7	7.4 / 5.7	-0.2 / -0.2
90. Public Access	9.8 / 7.0	7.4 / 5.7	7.5 / 5.8	7.5 / 5.8	7.5 / 5.8	0.1 / 0.1	7.5 / 5.8	7.5 / 5.8	7.5 / 5.8	0.1 / 0.1
91. Public Access	8.6 / 6.1	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.0 / 0.0	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.0 / 0.0
92. Public Access	10.0 / 7.1	7.5 / 5.8	7.5 / 5.8	7.5 / 5.8	7.5 / 5.8	0.0 / 0.0	7.5 / 5.8	7.5 / 5.8	7.5 / 5.8	0.0 / 0.0
93. Public Access	9.3 / 6.6	7.3 / 5.6	8.4 / 6.4	8.4 / 6.4	8.4 / 6.4	1.1 / 0.8	8.4 / 6.4	8.4 / 6.4	8.4 / 6.4	1.1 / 0.8
94. Public Access	9.5 / 6.8	7.3 / 5.6	7.2 / 5.6	7.2 / 5.6	7.2 / 5.6	-0.1 / 0.0	7.2 / 5.6	7.2 / 5.6	7.2 / 5.6	-0.1 / 0.0
95. Public Access	8.7 / 6.2	6.9 / 5.4	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	-0.1 / -0.1	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	-0.1 / -0.1
96. Public Access	7.6 / 5.4	6.3 / 4.9	6.4 / 5.0	6.4 / 5.0	6.4 / 5.0	0.1 / 0.1	6.4 / 5.0	6.4 / 5.0	6.4 / 5.0	0.1 / 0.1
97. Public Access	9.8 / 7.0	7.4 / 5.7	8.0 / 6.1	8.0 / 6.1	8.0 / 6.1	0.6 / 0.4	8.0 / 6.1	8.0 / 6.1	8.0 / 6.1	0.6 / 0.4
98. Public Access	8.3 / 5.9	6.7 / 5.2	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.1 / 0.1	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.1 / 0.1
99. Public Access	8.5 / 6.1	6.7 / 5.2	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.1 / 0.1	6.8 / 5.3	6.8 / 5.3	6.8 / 5.3	0.1 / 0.1
100. Public Access	7.8 / 5.6	6.4 / 5.0	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	0.1 / 0.1	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	0.1 / 0.1
101. Public Access	9.5 / 6.8	7.4 / 5.7	7.8 / 6.0	7.8 / 6.0	7.8 / 6.0	0.4 / 0.3	7.8 / 6.0	7.8 / 6.0	7.8 / 6.0	0.4 / 0.3
102. Public Access	9.6 / 6.8	7.3 / 5.6	7.4 / 5.7	7.4 / 5.7	7.4 / 5.7	0.1 / 0.1	7.5 / 5.8	7.5 / 5.8	7.5 / 5.8	0.2 / 0.2
103. Public Access	8.6 / 6.1	6.8 / 5.3	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	-0.1 / -0.1	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	-0.1 / -0.1
104. Public Access	7.8 / 5.6	6.4 / 5.0	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	-0.1 / -0.1	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	-0.1 / -0.1
105. Public Access	7.8 / 5.6	6.4 / 5.0	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	0.2 / 0.2	6.6 / 5.2	6.6 / 5.2	6.6 / 5.2	0.2 / 0.2
106. Public Access	9.5 / 6.8	7.3 / 5.6	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	-0.4 / -0.2	6.9 / 5.4	6.9 / 5.4	6.9 / 5.4	-0.4 / -0.2
107. Public Access	8.3 / 5.9	6.6 / 5.2	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	-0.1 / -0.1	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	-0.1 / -0.1
108. Public Access	10.9 / 7.8	8.0 / 6.1	8.5 / 6.5	8.5 / 6.5	8.5 / 6.5	0.5 / 0.4	8.6 / 6.6	8.6 / 6.6	8.6 / 6.6	0.6 / 0.5
109. Public Access	8.3 / 5.9	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	0.0 / 0.0	6.7 / 5.2	6.7 / 5.2	6.7 / 5.2	0.0 / 0.0
110. Public Access	8.3 / 5.9	6.7 / 5.2	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	-0.2 / -0.1	6.5 / 5.1	6.5 / 5.1	6.5 / 5.1	-0.2 / -0.1

NOTE: Includes ambient one-hour concentration of 5.4 ppm and ambient eight-hour concentration of 3.9 ppm measured at the 3713 San Gabriel River Pkwy, Pico Rivera, CA, AQ Station (Los Angeles County) for the existing scenario. Includes SCAQMD CEQA projected one-hour concentration of 5.1 ppm and eight-hour concentration of 4.1 ppm for 2013 scenarios.

Appendix H: Table 4 - 2003 and 2030 CO Concentrations

Receptor Number	Existing 1-Hr/8-Hr (ppm)	Alternative 1 (No Build) 1-Hr/8-Hr (ppm)	Alt. 4A 4+1 MIS Modified 1-Hr/8-Hr (ppm)	Alt 4B 4+1 MIS Revised 1-Hr/8-Hr (ppm)	Alt 4C 4+1 LPA 1-Hr/8-Hr (ppm)	Alt. 4 Increase Over Alt. 1 (No Build) 1-Hr/8-Hr (ppm)	Alt 5A 4+2 1-Hr/8-Hr (ppm)	Alt 5B 5+1 MIS Modified 1-Hr/8-Hr (ppm)	Alt 5C 5+1 MIS Revised 1-Hr/8-Hr (ppm)	Alt. 5 Increase Over Alt. 1 (No Build) 1-Hr/8-Hr (ppm)
1. Home	8.9 / 6.4	5.8 / 4.6	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	0.1 / 0.1	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	0.1 / 0.1
2. Home	7.7 / 5.5	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0
3. Home	7.6 / 5.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0
4. Home	7.5 / 5.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0
5. Home	8.5 / 6.1	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0
6. Home	9.7 / 6.9	5.9 / 4.7	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.1 / 0.0	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.1 / 0.0
7. Home	8.2 / 5.9	5.6 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.1 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.1 / 0.0
8. Home	8.8 / 6.3	5.7 / 4.5	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.1 / 0.1	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.1 / 0.1
9. Displaced Home	9.2 / 6.6	5.8 / 4.6	Acquired	Acquired	Acquired	NA	Acquired	Acquired	Acquired	NA
10. Displaced Home	9.1 / 6.5	5.8 / 4.6	Acquired	Acquired	Acquired	NA	Acquired	Acquired	Acquired	NA
11. Home	9.0 / 6.4	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0
12. Santa Fe Christian School	7.3 / 5.2	5.5 / 4.4	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	-0.1 / -0.1	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0
13. Potentially Displaced Home	8.8 / 6.3	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0	Acquired	Acquired	Acquired	0.0 / 0.0
14. Home	8.7 / 6.2	5.7 / 4.5	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.1 / 0.1	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.1 / 0.1
15. Home	8.4 / 6.0	5.7 / 4.5	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0
16. Home	9.0 / 6.4	5.8 / 4.6	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	-0.1 / -0.1	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0
17. Home	7.5 / 5.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0
18. Home	9.0 / 6.4	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0
19. Home	10.2 / 7.3	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.0 / 0.0	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.0 / 0.0
20. Home	10.9 / 7.8	6.1 / 4.8	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	0.1 / 0.1	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	0.1 / 0.1
21. Cresson Elementary School	7.1 / 5.1	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0
22. Santa Fe High School	6.8 / 4.9	5.4 / 4.3	5.3 / 4.2	5.3 / 4.2	5.3 / 4.2	-0.1 / -0.1	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0
23. Pioneer Baptist School	7.1 / 5.1	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0
24. Orr Elementary School	7.9 / 5.7	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0
25. Paddison Elementary School	6.7 / 4.8	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0
26. Home	7.4 / 5.3	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0
27. Home	8.2 / 5.9	5.6 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.1 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.1 / 0.0
28. Home	7.5 / 5.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0
29. Home	7.9 / 5.7	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0
30. Home	7.7 / 5.5	5.5 / 4.4	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.1 / 0.1	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.1 / 0.1
31. Home	7.6 / 5.4	5.5 / 4.4	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.1 / 0.1	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.1 / 0.1
32. Home	7.9 / 5.7	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0
33. Home	9.4 / 6.7	5.9 / 4.7	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	-0.1 / -0.1	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	-0.1 / -0.1
34. Potentially Displaced Home	10.2 / 7.3	6.0 / 4.7	Acquired	Acquired	6.0 / 4.7	0.0 / 0.0	Acquired	Acquired	Acquired	NA
35. Home	9.9 / 7.1	5.9 / 4.7	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	-0.1 / -0.1	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	0.0 / 0.0
36. Home	9.3 / 6.6	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0
37. Home	9.5 / 6.8	5.9 / 4.7	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	-0.1 / -0.1	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	-0.1 / -0.1
38. Home	7.1 / 5.1	5.4 / 4.3	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.1 / 0.1	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.1 / 0.1

Appendix H: Table 4 - 2003 and 2030 CO Concentrations

Receptor Number	Existing 1-Hr/8-Hr (ppm)	Alternative 1 (No Build) 1-Hr/8-Hr (ppm)	Alt. 4A 4+1 MIS Modified 1-Hr/8-Hr (ppm)	Alt 4B 4+1 MIS Revised 1-Hr/8-Hr (ppm)	Alt 4C 4+1 LPA 1-Hr/8-Hr (ppm)	Alt. 4 Increase Over Alt. 1 (No Build) 1-Hr/8-Hr (ppm)	Alt 5A 4+2 1-Hr/8-Hr (ppm)	Alt 5B 5+1 MIS Modified 1-Hr/8-Hr (ppm)	Alt 5C 5+1 MIS Revised 1-Hr/8-Hr (ppm)	Alt. 5 Increase Over Alt. 1 (No Build) 1-Hr/8-Hr (ppm)
39. Home	8.3 / 5.9	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0
40. Home	8.9 / 6.4	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0
41. Moffit Elementary School	7.3 / 5.2	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0
42. Home	8.3 / 5.9	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0
43. Home	9.4 / 6.7	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	0.0 / 0.0	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	0.0 / 0.0
44. Home	8.8 / 6.3	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0
45. Potentially Displaced Home	10.1 / 7.2	6.0 / 4.7	6.1 / 4.8	Acquired	6.1 / 4.8	0.1 / 0.1	6.1 / 4.8	Acquired	Acquired	0.1 / 0.1
46. Home	9.2 / 6.6	5.8 / 4.6	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	0.1 / 0.1	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	0.1 / 0.1
47. Home	8.2 / 5.9	5.6 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.1 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.1 / 0.0
48. Home	8.5 / 6.1	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0
49. Home	7.3 / 5.2	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0
50. Home	7.1 / 5.1	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0
51. Home	8.0 / 5.7	5.6 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.1 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.1 / 0.0
52. Home	8.5 / 6.1	5.7 / 4.5	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.1 / 0.1	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.1 / 0.1
53. Home	8.0 / 5.7	5.6 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.1 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.1 / 0.0
54. Ramona Pre-School	7.1 / 5.1	5.4 / 4.3	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.1 / 0.1	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.1 / 0.1
55. Home	7.1 / 5.1	5.4 / 4.3	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.1 / 0.1	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.1 / 0.1
56. Home	8.6 / 6.1	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0
57. Home	8.1 / 5.8	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.1 / 0.0
58. Home	8.1 / 5.8	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0
59. Home	7.8 / 5.6	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0
60. Home	7.5 / 5.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0
61. Home	7.4 / 5.3	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0
62. Home	9.0 / 6.4	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.0 / 0.0
63. Whitaker Elementary School	7.2 / 5.2	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0
64. Home	7.6 / 5.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0
65. Home	7.1 / 5.1	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0
66. Home	7.8 / 5.6	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0
67. St. Linus Elementary School	6.6 / 4.7	5.3 / 4.2	5.3 / 4.2	5.3 / 4.2	5.3 / 4.2	0.0 / 0.0	5.3 / 4.2	5.3 / 4.2	5.3 / 4.2	0.0 / 0.0
68. Home	6.9 / 5.0	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0
69. Gilbert Elementary School	7.1 / 5.1	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0	5.4 / 4.3	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0
70. St. Pius V School	6.5 / 4.7	5.3 / 4.2	5.3 / 4.2	5.3 / 4.2	5.3 / 4.2	0.0 / 0.0	5.3 / 4.2	5.3 / 4.2	5.3 / 4.2	0.0 / 0.0
71. Home	7.7 / 5.5	5.5 / 4.4	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.1 / 0.1	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.1 / 0.1
72. Home	7.6 / 5.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0
73. United Methodist Church	9.1 / 6.5	5.8 / 4.6	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	0.1 / 0.1	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	0.1 / 0.1
74. Home	8.4 / 6.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0
75. Home	9.8 / 7.0	5.9 / 4.7	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.1 / 0.0	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.1 / 0.0
76. Home	8.7 / 6.2	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0

Appendix H: Table 4 - 2003 and 2030 CO Concentrations

Receptor Number	Existing 1-Hr/8-Hr (ppm)	Alternative 1 (No Build) 1-Hr/8-Hr (ppm)	Alt. 4A 4+1 MIS Modified 1-Hr/8-Hr (ppm)	Alt 4B 4+1 MIS Revised 1-Hr/8-Hr (ppm)	Alt 4C 4+1 LPA 1-Hr/8-Hr (ppm)	Alt. 4 Increase Over Alt. 1 (No Build) 1-Hr/8-Hr (ppm)	Alt 5A 4+2 1-Hr/8-Hr (ppm)	Alt 5B 5+1 MIS Modified 1-Hr/8-Hr (ppm)	Alt 5C 5+1 MIS Revised 1-Hr/8-Hr (ppm)	Alt. 5 Increase Over Alt. 1 (No Build) 1-Hr/8-Hr (ppm)
77. Home	8.3 / 5.9	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0
78. Displaced Home	9.8 / 7.0	5.9 / 4.7	Acquired	Acquired	Acquired	NA	Acquired	Acquired	Acquired	NA
79. Potentially Displaced Home	10.5 / 7.5	6.0 / 4.7	6.1 / 4.8	Acquired	Acquired	0.1 / 0.1	Acquired	Acquired	Acquired	0.1 / 0.1
80. Home	8.6 / 6.1	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0
81. Potentially Displaced Home	12.5 / 8.9	6.4 / 5.0	6.2 / 4.9	Acquired	Acquired	-0.2 / -0.1	6.2 / 4.9	6.2 / 4.9	Acquired	-0.2 / -0.1
82. Potentially Displaced Home	11.4 / 8.1	6.2 / 4.9	Acquired	Acquired	6.6 / 5.2	0.4 / 0.3	Acquired	Acquired	Acquired	NA
83. Potentially Displaced Home	8.9 / 6.4	5.8 / 4.6	6.2 / 4.9	6.2 / 4.9	Acquired	0.4 / 0.3	Acquired	Acquired	Acquired	0.4 / 0.3
84. Potentially Displaced Home	8.9 / 6.4	5.8 / 4.6	6.0 / 4.7	Acquired	Acquired	0.2 / 0.1	6.0 / 4.7	6.0 / 4.7	Acquired	0.2 / 0.1
85. Public Access	8.2 / 5.9	5.6 / 4.5	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.2 / 0.1	5.8 / 4.6	5.8 / 4.6	Acquired	0.2 / 0.1
86. Public Access	8.1 / 5.8	5.6 / 4.5	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	0.2 / 0.1	5.8 / 4.6	5.8 / 4.6	Acquired	0.2 / 0.1
87. Public Access	9.8 / 7.0	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	0.0 / 0.0	5.9 / 4.7	5.9 / 4.7	Acquired	0.0 / 0.0
88. Public Access	10.2 / 7.3	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.0 / 0.0	6.0 / 4.7	6.0 / 4.7	Acquired	0.0 / 0.0
89. Public Access	10.0 / 7.1	6.0 / 4.7	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	-0.1 / 0.0	5.9 / 4.7	5.9 / 4.7	Acquired	-0.1 / 0.0
90. Public Access	9.8 / 7.0	5.9 / 4.7	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.1 / 0.0	6.0 / 4.7	6.0 / 4.7	Acquired	0.1 / 0.0
91. Public Access	8.6 / 6.1	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	Acquired	0.0 / 0.0
92. Public Access	10.0 / 7.1	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.0 / 0.0	6.0 / 4.7	6.0 / 4.7	Acquired	0.0 / 0.0
93. Public Access	9.3 / 6.6	5.9 / 4.7	6.3 / 4.9	6.3 / 4.9	6.3 / 4.9	0.4 / 0.2	6.3 / 4.9	6.3 / 4.9	Acquired	0.4 / 0.2
94. Public Access	9.5 / 6.8	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	5.9 / 4.7	0.0 / 0.0	5.9 / 4.7	5.9 / 4.7	Acquired	0.0 / 0.0
95. Public Access	8.7 / 6.2	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	Acquired	0.0 / 0.0
96. Public Access	7.6 / 5.4	5.5 / 4.4	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.1 / 0.1	5.6 / 4.5	5.6 / 4.5	Acquired	0.1 / 0.1
97. Public Access	9.8 / 7.0	5.9 / 4.7	6.2 / 4.9	6.2 / 4.9	6.2 / 4.9	0.3 / 0.2	6.2 / 4.9	6.2 / 4.9	Acquired	0.3 / 0.2
98. Public Access	8.3 / 5.9	5.6 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.1 / 0.0	5.7 / 4.5	5.7 / 4.5	Acquired	0.1 / 0.0
99. Public Access	8.5 / 6.1	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	Acquired	0.0 / 0.0
100. Public Access	7.8 / 5.6	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0	5.6 / 4.5	5.6 / 4.5	Acquired	0.0 / 0.0
101. Public Access	9.5 / 6.8	5.9 / 4.7	6.1 / 4.8	6.1 / 4.8	6.1 / 4.8	0.2 / 0.1	6.1 / 4.8	6.1 / 4.8	Acquired	0.2 / 0.1
102. Public Access	9.6 / 6.8	5.9 / 4.7	6.0 / 4.7	6.0 / 4.7	6.0 / 4.7	0.1 / 0.0	6.0 / 4.7	6.0 / 4.7	Acquired	0.1 / 0.0
103. Public Access	8.6 / 6.1	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	Acquired	0.0 / 0.0
104. Public Access	7.8 / 5.6	5.6 / 4.5	5.5 / 4.4	5.5 / 4.4	5.5 / 4.4	-0.1 / -0.1	5.5 / 4.4	5.5 / 4.4	Acquired	-0.1 / -0.1
105. Public Access	7.8 / 5.6	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	Acquired	0.1 / 0.0
106. Public Access	9.5 / 6.8	5.9 / 4.7	5.8 / 4.6	5.8 / 4.6	5.8 / 4.6	-0.1 / -0.1	5.8 / 4.6	5.8 / 4.6	Acquired	-0.1 / -0.1
107. Public Access	8.3 / 5.9	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0	5.6 / 4.5	5.6 / 4.5	Acquired	0.0 / 0.0
108. Public Access	10.9 / 7.8	6.1 / 4.8	6.4 / 5.0	6.4 / 5.0	6.4 / 5.0	0.3 / 0.2	6.4 / 5.0	6.4 / 5.0	Acquired	0.3 / 0.2
109. Public Access	8.3 / 5.9	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	5.7 / 4.5	0.0 / 0.0	5.7 / 4.5	5.7 / 4.5	Acquired	0.0 / 0.0
110. Public Access	8.3 / 5.9	5.7 / 4.5	5.6 / 4.5	5.6 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.6 / 4.5	5.6 / 4.5	Acquired	-0.1 / 0.0

NOTE: Includes ambient one-hour concentration of 5.4 ppm and ambient eight-hour concentration of 3.9 ppm measured at the 3713 San Gabriel River Pkwy, Pico Rivera, CA, AQ Station (Los Angeles County) for the existing scenario. Includes SCAQMD CEQA projected one-hour concentration of 5.1 ppm and eight-hour concentration of 4.1 ppm for 2030 scenarios.

Appendix H: Table 5 – 2015 CO Concentrations

Receptor Number	Alternative 1 (No Build)			Alternative 4			Alternative 5		
	DEIR	Revised	Delta	DEIR	Revised	Delta	DEIR	Revised	Delta
1. Home	6.7 / 5.2	5.8 / 4.6	-0.9 / -0.6	6.8 / 5.3	6.2 / 4.9	-0.6 / -0.4	6.9 / 5.4	6.2 / 4.9	-0.7 / -0.5
2. Home	6.2 / 4.9	5.5 / 4.4	-0.7 / -0.5	6.1 / 4.8	5.8 / 4.6	-0.3 / -0.2	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3
3. Home	6.1 / 4.8	5.5 / 4.4	-0.6 / -0.4	6.1 / 4.8	5.7 / 4.5	-0.4 / -0.3	6.1 / 4.8	5.7 / 4.5	-0.4 / -0.3
4. Home	6.1 / 4.8	5.5 / 4.4	-0.6 / -0.4	6.1 / 4.8	5.7 / 4.5	-0.4 / -0.3	6.1 / 4.8	5.7 / 4.5	-0.4 / -0.3
5. Home	6.5 / 5.1	5.7 / 4.5	-0.8 / -0.6	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4	6.6 / 5.2	6.1 / 4.8	-0.5 / -0.4
6. Home	7.1 / 5.5	5.9 / 4.7	-1.2 / -0.8	7.1 / 5.5	6.4 / 5.0	-0.7 / -0.5	7.2 / 5.6	6.4 / 5.0	-0.8 / -0.6
7. Home	6.4 / 5.0	5.6 / 4.5	-0.8 / -0.5	6.4 / 5.0	5.9 / 4.7	-0.5 / -0.3	6.4 / 5.0	5.9 / 4.7	-0.5 / -0.3
8. Home	6.6 / 5.2	5.7 / 4.5	-0.9 / -0.7	6.6 / 5.2	6.1 / 4.8	-0.5 / -0.4	6.7 / 5.2	6.1 / 4.8	-0.6 / -0.4
9. Displaced Home	6.8 / 5.3	5.8 / 4.6	-1.0 / -0.7	Acquired	Acquired	NA	Acquired	Acquired	NA
10. Displaced Home	6.8 / 5.3	5.8 / 4.6	-1.0 / -0.7	Acquired	Acquired	NA	Acquired	Acquired	NA
11. Home	6.7 / 5.2	5.8 / 4.6	-0.9 / -0.6	6.6 / 5.2	6.1 / 4.8	-0.5 / -0.4	6.8 / 5.3	6.1 / 4.8	-0.7 / -0.5
12. Santa Fe Christian School	6.0 / 4.7	5.5 / 4.4	-0.5 / -0.3	5.9 / 4.7	5.6 / 4.5	-0.3 / -0.2	5.9 / 4.7	5.6 / 4.5	-0.3 / -0.2
13. Potentially Displaced Home	6.6 / 5.2	5.8 / 4.6	-0.8 / -0.6	6.6 / 5.2	6.0 / 4.7	-0.6 / -0.5	Acquired	Acquired	NA
14. Home	6.6 / 5.2	5.7 / 4.5	-0.9 / -0.7	6.6 / 5.2	6.1 / 4.8	-0.5 / -0.4	6.7 / 5.2	6.1 / 4.8	-0.6 / -0.4
15. Home	6.5 / 5.1	5.7 / 4.5	-0.8 / -0.6	6.4 / 5.0	5.9 / 4.7	-0.5 / -0.3	6.4 / 5.0	5.9 / 4.7	-0.5 / -0.3
16. Home	6.7 / 5.2	5.7 / 4.5	-1.0 / -0.7	6.6 / 5.2	5.8 / 4.6	-0.8 / -0.6	6.6 / 5.2	5.8 / 4.6	-0.8 / -0.6
17. Home	6.0 / 4.7	5.5 / 4.4	-0.5 / -0.3	6.0 / 4.7	5.6 / 4.5	-0.4 / -0.2	6.0 / 4.7	5.6 / 4.5	-0.4 / -0.2
18. Home	6.7 / 5.2	5.9 / 4.7	-0.8 / -0.5	6.7 / 5.2	6.1 / 4.8	-0.6 / -0.4	6.7 / 5.2	6.1 / 4.8	-0.6 / -0.4
19. Home	7.3 / 5.6	6.2 / 4.9	-1.1 / -0.7	7.2 / 5.6	6.5 / 5.1	-0.7 / -0.5	7.2 / 5.6	6.6 / 5.2	-0.6 / -0.4
20. Home	7.5 / 5.8	6.1 / 4.8	-1.4 / -1.0	7.6 / 5.9	6.5 / 5.1	-1.1 / -0.8	7.7 / 5.9	6.5 / 5.1	-1.2 / -0.8
21. Cresson Elementary School	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	5.8 / 4.6	5.5 / 4.4	-0.3 / -0.2	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3
22. Santa Fe High School	5.7 / 4.5	5.3 / 4.2	-0.4 / -0.3	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2
23. Pioneer Baptist School	5.9 / 4.7	5.4 / 4.3	-0.5 / -0.4	5.9 / 4.7	5.6 / 4.5	-0.3 / -0.2	5.9 / 4.7	5.6 / 4.5	-0.3 / -0.2
24. Orr Elementary School	6.2 / 4.9	5.6 / 4.5	-0.6 / -0.4	6.2 / 4.9	5.9 / 4.7	-0.3 / -0.2	6.3 / 4.9	5.9 / 4.7	-0.4 / -0.2
25. Paddison Elementary School	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
26. Home	6.0 / 4.7	5.5 / 4.4	-0.5 / -0.3	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2
27. Home	6.4 / 5.0	5.7 / 4.5	-0.7 / -0.5	6.4 / 5.0	6.0 / 4.7	-0.4 / -0.3	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4
28. Home	6.1 / 4.8	5.5 / 4.4	-0.6 / -0.4	6.1 / 4.8	5.8 / 4.6	-0.3 / -0.2	6.1 / 4.8	5.8 / 4.6	-0.3 / -0.2
29. Home	6.3 / 4.9	5.6 / 4.5	-0.7 / -0.4	6.3 / 4.9	5.9 / 4.7	-0.4 / -0.2	6.4 / 5.0	5.9 / 4.7	-0.5 / -0.3
30. Home	6.2 / 4.9	5.5 / 4.4	-0.7 / -0.5	6.1 / 4.8	5.8 / 4.6	-0.3 / -0.2	6.3 / 4.9	5.8 / 4.6	-0.5 / -0.3
31. Home	6.1 / 4.8	5.5 / 4.4	-0.6 / -0.4	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3
32. Home	6.2 / 4.9	5.6 / 4.5	-0.6 / -0.4	6.3 / 4.9	5.9 / 4.7	-0.4 / -0.2	6.4 / 5.0	5.9 / 4.7	-0.5 / -0.3
33. Home	6.9 / 5.4	5.9 / 4.7	-1.0 / -0.7	6.7 / 5.2	6.1 / 4.8	-0.6 / -0.4	6.9 / 5.4	6.1 / 4.8	-0.8 / -0.6
34. Potentially Displaced Home	7.3 / 5.6	6.0 / 4.7	-1.3 / -0.9	Acquired	Acquired	NA	Acquired	Acquired	NA
35. Home	7.1 / 5.5	6.0 / 4.7	-1.1 / -0.8	6.7 / 5.2	6.1 / 4.8	-0.6 / -0.4	6.9 / 5.4	6.1 / 4.8	-0.8 / -0.6
36. Home	6.9 / 5.4	5.9 / 4.7	-1.0 / -0.7	6.6 / 5.2	6.0 / 4.7	-0.6 / -0.5	6.7 / 5.2	6.1 / 4.8	-0.6 / -0.4
37. Home	7.0 / 5.4	5.9 / 4.7	-1.1 / -0.7	6.6 / 5.2	6.0 / 4.7	-0.6 / -0.5	6.7 / 5.2	6.1 / 4.8	-0.6 / -0.4
38. Home	5.9 / 4.7	5.4 / 4.3	-0.5 / -0.4	5.9 / 4.7	5.7 / 4.5	-0.2 / -0.2	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2
39. Home	6.4 / 5.0	5.7 / 4.5	-0.7 / -0.5	6.4 / 5.0	5.9 / 4.7	-0.5 / -0.3	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4
40. Home	6.7 / 5.2	5.8 / 4.6	-0.9 / -0.6	6.6 / 5.2	6.1 / 4.8	-0.5 / -0.4	6.8 / 5.3	6.1 / 4.8	-0.7 / -0.5
41. Moffit Elementary School	6.0 / 4.7	5.5 / 4.4	-0.5 / -0.3	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2

NOTE: Includes SCAQMD CEQA Projected 1-hour concentration of 5.1 ppm and 8-hour concentration of 4.1 ppm.

Appendix H: Table 5 – 2015 CO Concentrations

Receptor Number	Alternative 1 (No Build)			Alternative 4			Alternative 5		
	DEIR	Revised	Delta	DEIR	Revised	Delta	DEIR	Revised	Delta
42. Home	6.5 / 5.1	5.7 / 4.5	-0.8 / -0.6	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4
43. Home	6.9 / 5.4	5.9 / 4.7	-1.0 / -0.7	6.9 / 5.4	6.3 / 4.9	-0.6 / -0.5	6.9 / 5.4	6.3 / 4.9	-0.6 / -0.5
44. Home	6.7 / 5.2	5.8 / 4.6	-0.9 / -0.6	6.7 / 5.2	6.2 / 4.9	-0.5 / -0.3	6.8 / 5.3	6.2 / 4.9	-0.6 / -0.4
45. Potentially Displaced Home	7.2 / 5.6	6.0 / 4.7	-1.2 / -0.9	7.4 / 5.7	6.6 / 5.2	-0.8 / -0.5	7.5 / 5.8	6.7 / 5.2	-0.8 / -0.6
46. Home	6.8 / 5.3	5.8 / 4.6	-1.0 / -0.7	6.9 / 5.4	6.3 / 4.9	-0.6 / -0.5	6.9 / 5.4	6.3 / 4.9	-0.6 / -0.5
47. Home	6.4 / 5.0	5.7 / 4.5	-0.7 / -0.5	6.4 / 5.0	6.0 / 4.7	-0.4 / -0.3	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4
48. Home	6.5 / 5.1	5.7 / 4.5	-0.8 / -0.6	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4	6.6 / 5.2	6.1 / 4.8	-0.5 / -0.4
49. Home	6.0 / 4.7	5.5 / 4.4	-0.5 / -0.3	5.9 / 4.7	5.7 / 4.5	-0.2 / -0.2	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2
50. Home	5.9 / 4.7	5.4 / 4.3	-0.5 / -0.4	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1	5.9 / 4.7	5.6 / 4.5	-0.3 / -0.2
51. Home	6.3 / 4.9	5.6 / 4.5	-0.7 / -0.4	6.4 / 5.0	6.0 / 4.7	-0.4 / -0.3	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4
52. Home	6.5 / 5.1	5.7 / 4.5	-0.8 / -0.6	6.8 / 5.3	6.3 / 4.9	-0.5 / -0.4	6.9 / 5.4	6.3 / 4.9	-0.6 / -0.5
53. Home	6.3 / 4.9	5.6 / 4.5	-0.7 / -0.4	6.4 / 5.0	6.0 / 4.7	-0.4 / -0.3	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4
54. Ramona Pre-School	5.9 / 4.7	5.4 / 4.3	-0.5 / -0.4	5.9 / 4.7	5.6 / 4.5	-0.3 / -0.2	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2
55. Home	5.9 / 4.7	5.4 / 4.3	-0.5 / -0.4	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2
56. Home	6.6 / 5.2	5.7 / 4.5	-0.9 / -0.7	6.6 / 5.2	6.0 / 4.7	-0.6 / -0.5	6.6 / 5.2	6.1 / 4.8	-0.5 / -0.4
57. Home	6.3 / 4.9	5.6 / 4.5	-0.7 / -0.4	6.3 / 4.9	5.9 / 4.7	-0.4 / -0.2	6.4 / 5.0	5.9 / 4.7	-0.5 / -0.3
58. Home	6.3 / 4.9	5.6 / 4.5	-0.7 / -0.4	6.3 / 4.9	5.9 / 4.7	-0.4 / -0.2	6.4 / 5.0	5.9 / 4.7	-0.5 / -0.3
59. Home	6.2 / 4.9	5.5 / 4.4	-0.7 / -0.5	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3
60. Home	6.1 / 4.8	5.5 / 4.4	-0.6 / -0.4	6.1 / 4.8	5.7 / 4.5	-0.4 / -0.3	6.1 / 4.8	5.7 / 4.5	-0.4 / -0.3
61. Home	6.0 / 4.7	5.5 / 4.4	-0.5 / -0.3	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2
62. Home	6.8 / 5.3	5.8 / 4.6	-1.0 / -0.7	6.8 / 5.3	6.2 / 4.9	-0.6 / -0.4	6.8 / 5.3	6.2 / 4.9	-0.6 / -0.4
63. Whitaker Elementary School	6.0 / 4.7	5.5 / 4.4	-0.5 / -0.3	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2
64. Home	6.2 / 4.9	5.5 / 4.4	-0.7 / -0.5	6.1 / 4.8	5.8 / 4.6	-0.3 / -0.2	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3
65. Home	5.9 / 4.7	5.4 / 4.3	-0.5 / -0.4	5.9 / 4.7	5.6 / 4.5	-0.3 / -0.2	5.9 / 4.7	5.6 / 4.5	-0.3 / -0.2
66. Home	6.2 / 4.9	5.5 / 4.4	-0.7 / -0.5	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3	6.3 / 4.9	5.8 / 4.6	-0.5 / -0.3
67. St. Linus Elementary School	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
68. Home	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
69. Gilbert Elementary School	5.9 / 4.7	5.4 / 4.3	-0.5 / -0.4	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
70. St. Pius V School	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.6 / 4.5	5.4 / 4.3	-0.2 / -0.2	5.6 / 4.5	5.4 / 4.3	-0.2 / -0.2
71. Home	6.1 / 4.8	5.5 / 4.4	-0.6 / -0.4	6.1 / 4.8	5.8 / 4.6	-0.3 / -0.2	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3
72. Home	6.1 / 4.8	5.5 / 4.4	-0.6 / -0.4	6.1 / 4.8	5.7 / 4.5	-0.4 / -0.3	6.1 / 4.8	5.7 / 4.5	-0.4 / -0.3
73. United Methodist Church	6.8 / 5.3	5.8 / 4.6	-1.0 / -0.7	6.8 / 5.3	6.2 / 4.9	-0.6 / -0.4	6.9 / 5.4	6.2 / 4.9	-0.7 / -0.5
74. Home	6.5 / 5.1	5.7 / 4.5	-0.8 / -0.6	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4
75. Home	7.1 / 5.5	6.0 / 4.7	-1.1 / -0.8	7.1 / 5.5	6.4 / 5.0	-0.7 / -0.5	7.2 / 5.6	6.5 / 5.1	-0.7 / -0.5
76. Home	6.6 / 5.2	5.8 / 4.6	-0.8 / -0.6	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4
77. Home	6.4 / 5.0	5.7 / 4.5	-0.7 / -0.5	6.3 / 4.9	5.8 / 4.6	-0.5 / -0.3	6.4 / 5.0	5.9 / 4.7	-0.5 / -0.3
78. Displaced Home	7.0 / 5.4	5.9 / 4.7	-1.1 / -0.7	Acquired	Acquired	NA	Acquired	Acquired	NA
79. Potentially Displaced Home	7.3 / 5.6	6.0 / 4.7	-1.3 / -0.9	7.5 / 5.8	6.6 / 5.2	-0.9 / -0.6	Acquired	Acquired	NA
80. Home	6.5 / 5.1	5.7 / 4.5	-0.8 / -0.6	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4	6.6 / 5.2	6.0 / 4.7	-0.6 / -0.5
81. Potentially Displaced Home	8.3 / 6.3	6.4 / 5.0	-1.9 / -1.3	7.3 / 5.6	6.5 / 5.1	-0.8 / -0.5	7.7 / 5.9	6.5 / 5.1	-1.2 / -0.8
82. Potentially Displaced Home	7.8 / 6.0	6.2 / 4.9	-1.6 / -1.1	Acquired	Acquired	NA	Acquired	Acquired	NA
83. Potentially Displaced Home	6.8 / 5.3	5.8 / 4.6	-1.0 / -0.7	7.7 / 5.9	6.9 / 5.4	-0.8 / -0.5	Acquired	Acquired	NA

NOTE: Includes SCAQMD CEQA Projected 1-hour concentration of 5.1 ppm and 8-hour concentration of 4.1 ppm.

Appendix H: Table 5 – 2015 CO Concentrations

Receptor Number	Alternative 1 (No Build)			Alternative 4			Alternative 5		
	DEIR	Revised	Delta	DEIR	Revised	Delta	DEIR	Revised	Delta
84. Potentially Displaced Home	6.7 / 5.2	5.8 / 4.6	-0.9 / -0.6	7.1 / 5.5	6.5 / 5.1	-0.6 / -0.4	7.2 / 5.6	6.5 / 5.1	-0.7 / -0.5
85. Public Access	6.4 / 5.0	5.7 / 4.5	-0.7 / -0.5	6.7 / 5.2	6.2 / 4.9	-0.5 / -0.3	6.7 / 5.2	6.2 / 4.9	-0.5 / -0.3
86. Public Access	6.4 / 5.0	5.6 / 4.5	-0.8 / -0.5	6.7 / 5.2	6.2 / 4.9	-0.5 / -0.3	6.7 / 5.2	6.2 / 4.9	-0.5 / -0.3
87. Public Access	7.1 / 5.5	6.0 / 4.7	-1.1 / -0.8	7.0 / 5.4	6.3 / 4.9	-0.7 / -0.5	7.1 / 5.5	6.3 / 4.9	-0.8 / -0.6
88. Public Access	7.3 / 5.6	6.0 / 4.7	-1.3 / -0.9	7.1 / 5.5	6.4 / 5.0	-0.7 / -0.5	7.2 / 5.6	6.4 / 5.0	-0.8 / -0.6
89. Public Access	7.2 / 5.6	6.0 / 4.7	-1.2 / -0.9	7.0 / 5.4	6.3 / 4.9	-0.7 / -0.5	7.1 / 5.5	6.4 / 5.0	-0.7 / -0.5
90. Public Access	7.1 / 5.5	5.9 / 4.7	-1.2 / -0.8	7.1 / 5.5	6.4 / 5.0	-0.7 / -0.5	7.2 / 5.6	6.4 / 5.0	-0.8 / -0.6
91. Public Access	6.6 / 5.2	5.7 / 4.5	-0.9 / -0.7	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4	6.6 / 5.2	6.0 / 4.7	-0.6 / -0.5
92. Public Access	7.2 / 5.6	6.0 / 4.7	-1.2 / -0.9	7.1 / 5.5	6.3 / 4.9	-0.8 / -0.6	7.2 / 5.6	6.4 / 5.0	-0.8 / -0.6
93. Public Access	6.9 / 5.4	5.9 / 4.7	-1.0 / -0.7	7.9 / 6.1	7.0 / 5.4	-0.9 / -0.7	8.0 / 6.1	7.0 / 5.4	-1.0 / -0.7
94. Public Access	6.9 / 5.4	5.9 / 4.7	-1.0 / -0.7	6.9 / 5.4	6.2 / 4.9	-0.7 / -0.5	7.0 / 5.4	6.3 / 4.9	-0.7 / -0.5
95. Public Access	6.6 / 5.2	5.7 / 4.5	-0.9 / -0.7	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4	6.6 / 5.2	6.0 / 4.7	-0.6 / -0.5
96. Public Access	6.1 / 4.8	5.5 / 4.4	-0.6 / -0.4	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3
97. Public Access	7.1 / 5.5	5.9 / 4.7	-1.2 / -0.8	7.5 / 5.8	6.5 / 5.1	-1.0 / -0.7	7.6 / 5.9	6.6 / 5.2	-1.0 / -0.7
98. Public Access	6.4 / 5.0	5.6 / 4.5	-0.8 / -0.5	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4	6.6 / 5.2	6.0 / 4.7	-0.6 / -0.5
99. Public Access	6.5 / 5.1	5.7 / 4.5	-0.8 / -0.6	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4	6.6 / 5.2	6.0 / 4.7	-0.6 / -0.5
100. Public Access	6.2 / 4.9	5.6 / 4.5	-0.6 / -0.4	6.3 / 4.9	5.9 / 4.7	-0.4 / -0.2	6.3 / 4.9	5.9 / 4.7	-0.4 / -0.2
101. Public Access	7.0 / 5.4	5.9 / 4.7	-1.1 / -0.7	7.3 / 5.6	6.7 / 5.2	-0.6 / -0.4	7.4 / 5.7	6.7 / 5.2	-0.7 / -0.5
102. Public Access	7.0 / 5.4	5.9 / 4.7	-1.1 / -0.7	7.1 / 5.5	6.4 / 5.0	-0.7 / -0.5	7.2 / 5.6	6.4 / 5.0	-0.8 / -0.6
103. Public Access	6.6 / 5.2	5.7 / 4.5	-0.9 / -0.7	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4
104. Public Access	6.2 / 4.9	5.6 / 4.5	-0.6 / -0.4	6.1 / 4.8	5.7 / 4.5	-0.4 / -0.3	6.1 / 4.8	5.8 / 4.6	-0.3 / -0.2
105. Public Access	6.2 / 4.9	5.6 / 4.5	-0.6 / -0.4	6.3 / 4.9	5.9 / 4.7	-0.4 / -0.2	6.4 / 5.0	5.9 / 4.7	-0.5 / -0.3
106. Public Access	7.0 / 5.4	5.9 / 4.7	-1.1 / -0.7	6.6 / 5.2	6.1 / 4.8	-0.5 / -0.4	6.7 / 5.2	6.1 / 4.8	-0.6 / -0.4
107. Public Access	6.4 / 5.0	5.7 / 4.5	-0.7 / -0.5	6.3 / 4.9	5.9 / 4.7	-0.4 / -0.2	6.3 / 4.9	5.9 / 4.7	-0.4 / -0.2
108. Public Access	7.6 / 5.9	6.1 / 4.8	-1.5 / -1.1	8.0 / 6.1	6.9 / 5.4	-1.1 / -0.7	8.1 / 6.2	7.0 / 5.4	-1.1 / -0.8
109. Public Access	6.4 / 5.0	5.6 / 4.5	-0.8 / -0.5	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4	6.5 / 5.1	6.0 / 4.7	-0.5 / -0.4
110. Public Access	6.4 / 5.0	5.6 / 4.5	-0.8 / -0.5	6.3 / 4.9	5.9 / 4.7	-0.4 / -0.2	6.4 / 5.0	5.9 / 4.7	-0.5 / -0.3

NOTE: Includes SCAQMD CEQA Projected 1-hour concentration of 5.1 ppm and 8-hour concentration of 4.1 ppm.

Appendix H: Table 6 – 2035 CO Concentrations

Receptor Number	Alternative 1 (No Build)			Alternative 4			Alternative 5		
	DEIR	Revised	Delta	DEIR	Revised	Delta	DEIR	Revised	Delta
1. Home	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	5.9 / 4.7	5.7 / 4.5	-0.2 / -0.2	5.9 / 4.7	5.6 / 4.5	-0.3 / -0.2
2. Home	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
3. Home	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
4. Home	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
5. Home	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
6. Home	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	6.0 / 4.7	5.8 / 4.6	-0.2 / -0.1	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2
7. Home	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
8. Home	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
9. Displaced Home	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	Acquired	Acquired	NA	Acquired	Acquired	NA
10. Displaced Home	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	Acquired	Acquired	NA	Acquired	Acquired	NA
11. Home	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	5.8 / 4.6	5.7 / 4.5	-0.1 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
12. Santa Fe Christian School	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2
13. Potentially Displaced Home	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1	Acquired	Acquired	NA
14. Home	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
15. Home	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
16. Home	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1	5.8 / 4.6	5.5 / 4.4	-0.3 / -0.2
17. Home	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2
18. Home	5.8 / 4.6	5.5 / 4.4	-0.3 / -0.2	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
19. Home	6.0 / 4.7	5.6 / 4.5	-0.4 / -0.2	6.0 / 4.7	5.9 / 4.7	-0.1 / 0.0	6.0 / 4.7	5.8 / 4.6	-0.2 / -0.1
20. Home	6.1 / 4.8	5.6 / 4.5	-0.5 / -0.3	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3
21. Cresson Elementary School	5.4 / 4.3	5.2 / 4.2	-0.2 / -0.1	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1
22. Santa Fe High School	5.4 / 4.3	5.2 / 4.2	-0.2 / -0.1	5.3 / 4.2	5.3 / 4.2	0.0 / 0.0	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1
23. Pioneer Baptist School	5.4 / 4.3	5.2 / 4.2	-0.2 / -0.1	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1
24. Orr Elementary School	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1
25. Paddison Elementary School	5.4 / 4.3	5.2 / 4.2	-0.2 / -0.1	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1
26. Home	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
27. Home	5.6 / 4.5	5.4 / 4.3	-0.2 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
28. Home	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
29. Home	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1
30. Home	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.6 / 4.5	5.4 / 4.3	-0.2 / -0.2
31. Home	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.6 / 4.5	5.4 / 4.3	-0.2 / -0.2
32. Home	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1
33. Home	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
34. Potentially Displaced Home	6.0 / 4.7	5.5 / 4.4	-0.5 / -0.3	Acquired	Acquired	NA	Acquired	Acquired	NA
35. Home	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	5.8 / 4.6	5.7 / 4.5	-0.1 / -0.1	5.9 / 4.7	5.6 / 4.5	-0.3 / -0.2
36. Home	5.8 / 4.6	5.5 / 4.4	-0.3 / -0.2	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
37. Home	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
38. Home	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
39. Home	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
40. Home	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
41. Moffit Elementary School	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1

NOTE: Includes SCAQMD CEQA Projected 1-hour concentration of 5.1 ppm and 8-hour concentration of 4.1 ppm.

Appendix H: Table 6 – 2035 CO Concentrations

Receptor Number	Alternative 1 (No Build)			Alternative 4			Alternative 5		
	DEIR	Revised	Delta	DEIR	Revised	Delta	DEIR	Revised	Delta
42. Home	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
43. Home	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	5.9 / 4.7	5.7 / 4.5	-0.2 / -0.2	5.9 / 4.7	5.7 / 4.5	-0.2 / -0.2
44. Home	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	5.8 / 4.6	5.7 / 4.5	-0.1 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
45. Potentially Displaced Home	6.0 / 4.7	5.5 / 4.4	-0.5 / -0.3	6.1 / 4.8	5.9 / 4.7	-0.2 / -0.1	6.1 / 4.8	5.8 / 4.6	-0.3 / -0.2
46. Home	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	5.9 / 4.7	5.7 / 4.5	-0.2 / -0.2	5.9 / 4.7	5.7 / 4.5	-0.2 / -0.2
47. Home	5.6 / 4.5	5.4 / 4.3	-0.2 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
48. Home	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
49. Home	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
50. Home	5.4 / 4.3	5.2 / 4.2	-0.2 / -0.1	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1
51. Home	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
52. Home	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.8 / 4.6	5.7 / 4.5	-0.1 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
53. Home	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
54. Ramona Pre-School	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
55. Home	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
56. Home	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0
57. Home	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
58. Home	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1
59. Home	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.6 / 4.5	5.4 / 4.3	-0.2 / -0.2
60. Home	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
61. Home	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
62. Home	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	5.8 / 4.6	5.7 / 4.5	-0.1 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
63. Whitaker Elementary School	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
64. Home	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
65. Home	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1
66. Home	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.6 / 4.5	5.4 / 4.3	-0.2 / -0.2
67. St. Linus Elementary School	5.3 / 4.2	5.2 / 4.2	-0.1 / 0.0	5.3 / 4.2	5.3 / 4.2	0.0 / 0.0	5.3 / 4.2	5.3 / 4.2	0.0 / 0.0
68. Home	5.4 / 4.3	5.2 / 4.2	-0.2 / -0.1	5.4 / 4.3	5.4 / 4.3	0.0 / 0.0	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1
69. Gilbert Elementary School	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1	5.4 / 4.3	5.3 / 4.2	-0.1 / -0.1
70. St. Pius V School	5.3 / 4.2	5.2 / 4.2	-0.1 / 0.0	5.3 / 4.2	5.3 / 4.2	0.0 / 0.0	5.3 / 4.2	5.3 / 4.2	0.0 / 0.0
71. Home	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.6 / 4.5	5.4 / 4.3	-0.2 / -0.2
72. Home	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
73. United Methodist Church	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	5.9 / 4.7	5.7 / 4.5	-0.2 / -0.2	5.9 / 4.7	5.6 / 4.5	-0.3 / -0.2
74. Home	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
75. Home	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	6.0 / 4.7	5.8 / 4.6	-0.2 / -0.1	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2
76. Home	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
77. Home	5.6 / 4.5	5.4 / 4.3	-0.2 / -0.2	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1
78. Displaced Home	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	Acquired	Acquired	NA	Acquired	Acquired	NA
79. Potentially Displaced Home	6.0 / 4.7	5.5 / 4.4	-0.5 / -0.3	6.1 / 4.8	5.9 / 4.7	-0.2 / -0.1	Acquired	Acquired	NA
80. Home	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
81. Potentially Displaced Home	6.4 / 5.0	5.7 / 4.5	-0.7 / -0.5	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3
82. Potentially Displaced Home	6.2 / 4.9	5.6 / 4.5	-0.6 / -0.4	Acquired	Acquired	NA	Acquired	Acquired	NA
83. Potentially Displaced Home	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	6.2 / 4.9	6.1 / 4.8	-0.1 / -0.1	Acquired	Acquired	NA

NOTE: Includes SCAQMD CEQA Projected 1-hour concentration of 5.1 ppm and 8-hour concentration of 4.1 ppm.

Appendix H: Table 6 – 2035 CO Concentrations

Receptor Number	Alternative 1 (No Build)			Alternative 4			Alternative 5		
	DEIR	Revised	Delta	DEIR	Revised	Delta	DEIR	Revised	Delta
84. Potentially Displaced Home	5.8 / 4.6	5.4 / 4.3	-0.4 / -0.3	6.0 / 4.7	5.9 / 4.7	-0.1 / 0.0	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2
85. Public Access	5.6 / 4.5	5.4 / 4.3	-0.2 / -0.2	5.8 / 4.6	5.7 / 4.5	-0.1 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
86. Public Access	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.8 / 4.6	5.7 / 4.5	-0.1 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
87. Public Access	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	5.9 / 4.7	5.8 / 4.6	-0.1 / -0.1	5.9 / 4.7	5.7 / 4.5	-0.2 / -0.2
88. Public Access	6.0 / 4.7	5.5 / 4.4	-0.5 / -0.3	6.0 / 4.7	5.8 / 4.6	-0.2 / -0.1	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2
89. Public Access	6.0 / 4.7	5.5 / 4.4	-0.5 / -0.3	5.9 / 4.7	5.8 / 4.6	-0.1 / -0.1	5.9 / 4.7	5.7 / 4.5	-0.2 / -0.2
90. Public Access	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	6.0 / 4.7	5.8 / 4.6	-0.2 / -0.1	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2
91. Public Access	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
92. Public Access	6.0 / 4.7	5.5 / 4.4	-0.5 / -0.3	6.0 / 4.7	5.8 / 4.6	-0.2 / -0.1	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2
93. Public Access	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	6.3 / 4.9	6.2 / 4.9	-0.1 / 0.0	6.3 / 4.9	6.0 / 4.7	-0.3 / -0.2
94. Public Access	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	5.9 / 4.7	5.7 / 4.5	-0.2 / -0.2	5.9 / 4.7	5.7 / 4.5	-0.2 / -0.2
95. Public Access	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
96. Public Access	5.5 / 4.4	5.3 / 4.2	-0.2 / -0.2	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.6 / 4.5	5.4 / 4.3	-0.2 / -0.2
97. Public Access	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	6.2 / 4.9	5.9 / 4.7	-0.3 / -0.2	6.2 / 4.9	5.8 / 4.6	-0.4 / -0.3
98. Public Access	5.6 / 4.5	5.4 / 4.3	-0.2 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
99. Public Access	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
100. Public Access	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1
101. Public Access	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	6.1 / 4.8	6.0 / 4.7	-0.1 / -0.1	6.1 / 4.8	5.8 / 4.6	-0.3 / -0.2
102. Public Access	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	6.0 / 4.7	5.8 / 4.6	-0.2 / -0.1	6.0 / 4.7	5.7 / 4.5	-0.3 / -0.2
103. Public Access	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
104. Public Access	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.5 / 4.4	5.5 / 4.4	0.0 / 0.0	5.5 / 4.4	5.4 / 4.3	-0.1 / -0.1
105. Public Access	5.6 / 4.5	5.3 / 4.2	-0.3 / -0.3	5.6 / 4.5	5.6 / 4.5	0.0 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
106. Public Access	5.9 / 4.7	5.5 / 4.4	-0.4 / -0.3	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1	5.8 / 4.6	5.6 / 4.5	-0.2 / -0.1
107. Public Access	5.6 / 4.5	5.4 / 4.3	-0.2 / -0.2	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1
108. Public Access	6.1 / 4.8	5.6 / 4.5	-0.5 / -0.3	6.4 / 5.0	6.1 / 4.8	-0.3 / -0.2	6.4 / 5.0	6.0 / 4.7	-0.4 / -0.3
109. Public Access	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.7 / 4.5	5.6 / 4.5	-0.1 / 0.0	5.7 / 4.5	5.5 / 4.4	-0.2 / -0.1
110. Public Access	5.7 / 4.5	5.4 / 4.3	-0.3 / -0.2	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1	5.6 / 4.5	5.5 / 4.4	-0.1 / -0.1

NOTE: Includes SCAQMD CEQA Projected 1-hour concentration of 5.1 ppm and 8-hour concentration of 4.1 ppm.

APPENDIX I

Public Hearing Transcript

HEARD BEFORE THE STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

Caltrans Public Hearing	)
	)
In re: Interstate 5 Corridor	)
	)
Improvement Project	)
	)

TRANSCRIPT OF PROCEEDINGS, taken on behalf of Caltrans, at 13000 Clarkdale Avenue, Norwalk, California, at 6:00 p.m., on Tuesday, December 12, 2006, before KATHRYN L. MAUTZ, CSR No. 11539, RPR.

Reported by: KATHRYN L. MAUTZ, CSR No. 11539, RPR

Job No.: 06-29813

APPEARANCES:

For Caltrans:

GENOVEVA ARELLANO
Public Hearing Moderator

EMAD GORGY
Project Management

RON KOSINSKI
Environmental Planning

TERESA ARIAS
Regional Manager, Right-of-Way

ASADOUR TERTERIAN
Caltrans Design

Norwalk, California; Tuesday, December 12, 2006

7:05 p.m.

MS. ARELLANO: Good evening. It is now 7:05 p.m., December 12th, 2006, and I call this hearing to order.

Good evening, ladies and gentlemen. Welcome to the Caltrans public hearing for the proposal to improve traffic flow on the Santa Ana Freeway, or Interstate 5, between Interstate 605 in Downey and Route 91 in Orange County.

(Whereupon the announcement was repeated in Spanish.)

MS. ARELLANO: My name is Genoveva Arellano, and I am the presiding officer for tonight's hearing. I am here to aid the hearing process and to keep things moving in a fair and orderly fashion. I will also attempt to keep this hearing process as informal as possible.

The purpose of this hearing is to receive public testimony and to answer questions regarding the project alternatives, the draft environmental document, and to give you the opportunity to present your comments concerning this proposed project.

In terms of notification, notices for this

hearing were published twice in the Los Angeles Times, the Orange County Register, La Opinion, El Mundo, L.A. Sentinal, and Watts Times. Letters were also sent to federal, state, county, and local elected officials and to other public and private organizations and individuals. Notices were also mailed to more than 4,000 interested parties, and we are presuming many of you received those.

The proceedings tonight are being recorded by a shorthand court reporter.

Caltrans is holding this hearing prior to making any commitment to this project. No decision will be made until the complete public hearing has been reviewed, including information gathered at this meeting tonight. We will also review comments in response to the draft environmental document.

When you came in, you should have received an agenda, an informational packet, and a comment card. This is the comment card (indicating). The handout (indicating) provides background information, and we will be referencing it throughout the Caltrans presentations. The comment card is for you to use to indicate, first, the desire to speak or to make a statement for the record, or to write a question that you would like for us to answer tonight. These comment

cards will become part of the official record of this hearing.

After the presentations, we will take statements for the record. After these statements, we will answer the submitted written questions. However, if you had a detailed question regarding your specific property, it may be best if you direct questions to the individual Caltrans specialist available at the tables in the next room, the viewing room. This can be done after my closing remarks from this public hearing if you have not already done so.

If you have follow-up questions, extra comment cards are available from staff. They are walking the room. They will wave the comment cards around so you can easily see them. If you need one, just raise your hand at any time, and we will see that you get one. We will not take questions without comment cards.

If we run out of time, your questions may not be answered at this meeting. Be assured, however, that your questions will be addressed in the final environmental document.

If you have a lengthy prepared statement, you may wish to present it in writing for the hearing record. You may also summarize the content verbally. Written statements will be considered equal with oral

testimony. You can say it or put it in writing.

The hearing record will remain open until January 5th, 2007. Let me repeat that. The hearing record will remain open until January 5th, 2007. You may submit a written statement to Mr. Ron Kosinski, Division of Environmental Planning, Caltrans, District 7, 100 South Main Street, Los Angeles, California 90012. I will repeat this at the end of the hearing.

All information developed on this project is available for inspection by you at any time at the Caltrans district office or during the business hours, rather. The draft environmental document is also available for inspection at the city halls and libraries in the study area.

You can also review project documents on the Caltrans Web site. The address is www.dot.ca.gov. That Web address is also at the bottom of your meeting agenda.

We have use of this facility until 9:00 o'clock this evening; and depending on how many people want to speak, it may be necessary to limit the length of the presentations in order to give everyone a fair chance to be heard.

Our first order of business will be to write a

summary of the project. As noted in your agenda, the first project presentation is by Emad Gorgy.

Emad.

MR. GORGY: Thank you.

Good evening, everyone. My name is Emad Gorgy. I am with Caltrans, the I-5 area manager. On behalf of the California Department of Transportation, I welcome you to the public hearing.

As you all are aware, this public hearing is for the I-5 from State Route 91 all the way to Interstate 605.

What I will be doing tonight is I will be sharing with you a brief history of the I-5 that brought us to today. I will also share with you the purpose of this project and introduce you to the five alternatives and conclude with our plan and our target schedule.

But before that, I wanted to thank and recognize our funding partners, first being the Metropolitan Transportation -- the LA County Metropolitan Transportation Authority, which is Metro, and also the Federal Highway Administration, which is the FHWA.

I also wanted to thank the Joint Power Authority, which represents the impacted cities along the corridor, for their input and their support

throughout this process.

The I-5. The I-5 is a major regional transportation corridor. We look at it as the backbone of our transportation system. If you look it up on the map, you will find that the I-5 extends the western side of the United States, connecting Canada in the north, all the way to Mexico in the south.

It also connects urban -- it also connects urban centers, major urban centers such as LA County and Orange County. And in essence it's an essential route for mobility, and it becomes very apparent when you start looking at the average daily traffic that travels this segment that we are here for tonight. The segment that we are here tonight is traveled by 174,000 vehicles per day. That is to give you a perspective.

The segment was built half a century ago, and it was built as a six-lane facility. It was originally built as a six-lane facility. From then, there were a lot of studies that studied that segment and provided recommendations. One study is the Santa Ana Corridor Study, the Santa Ana Transportation Corridor Study, which was completed in 1984. That study focused on the LA County portion as well as the Orange County portion, and that study basically recommended the I-5 widening from the 405 down in Orange County all the way to the

605. As you are all are aware, the majority of the Orange County portion has been completed, and what is left is the segment in LA County.

Following that study, there was also MIS, which is the Major Investment Study, and that was completed in 1998. The reason I am sharing these studies with you is because when I introduce the alternatives, we will be referring to these studies.

So the Major Investment Study was completed in 1998, and that basically recommended at grade widening, and it focused on the segment that extends from the 91 all the way to the 710. And it recommended at grade widening and basically the development of a multi-modal transportation improvement. And in the study, it referred to this improvement as the ultimate improvement.

Following the completion of that study, money was scarce and, therefore, there was not enough funding to implement what the study has recommended. Therefore, we ended up resorting to an interim alternative, and that interim alternative is basically adding one carpool lane or HOV lane, or high occupancy vehicle lane, on each side. And that was an interim alternative in order -- for the sake of alleviating the current congestion that is going on.

A year later, after -- we have done an environmental document on that interim, and that was approved. That was approved in 1999, the environmental document for that segment.

Following that, a year later in 1999, under former Governor Gray Davis' administration there was a program that was initiated called the TCRP, or the Transportation Congestion Relief Program, and that allocated money for this project. And therefore, since then we resorted to that ultimate concept versus that interim concept that we were considering at the time going back to the MIS, which is the ultimate improvement.

And following that, because the money was there, we were able to look at that alternative and push forward with that alternative. Therefore, what we have done is we have studied the Carmelita interchange, which is the first segment that is going to be going out for this project, and that is why the Carmelita -- we studied that, and we do have an environmental document for the Carmelita project. That's why it's excluded out of this environmental document here for this process, because the Carmelita has been approved. And we are currently designing that project at this time.

So from there we also have conducted analysis

on this project, and the ultimate goal is to look and improve the value of the project and to make sure that it makes good sense to proceed forward with this project.

So that is really what brought us to today. Today when you travel the corridor, you will find major delays. There is reduced travel speeds along the corridor. There is a bottleneck at the county line that we are all aware of. There is also poor on- and off-ramp access to the freeway and intersections. So in essence, it's a 50-year-old facility that was built at six lanes and today stands at six lanes. That is where we are at.

So the goal of this project is to basically reduce the existing and the forecasted traffic congestion. Again, the goal is to reduce the existing and the forecasted travel congestion -- traffic congestion. And we want to do that by improving mobility and we improve the operation and safety of the corridor, and ultimately we want to upgrade the facility to meet the state and federal guidelines at the federal standards as it stands today.

The project extends approximately nine miles. It crosses 18 structures. Four of them are over crossing, and six of them are under crossing. We look

for the project to cost up to $1.2 billion.

With that, I will start introducing you to the alternatives. The first alternative is the no-build alternative. That no-build alternative basically resorts back to the interim HOV that I mentioned at one point which we were considering at one point.

The second alternative is the transportation system management and the transportation demand management. That basically increases operational efficiency of the existing facility. It improves real service. It also shifts the user to a higher capacity mode such as transit and so on.

Then we move on to Alternative 3, which is transit enhancement. And really, basically, that's what it does. It enhances the transit through the corridor. It improves the efficiency of the transit service through the I-5 corridor.

It also introduces three parking rights, which would allow 800 spaces for cars which we use for transit for those three, so -- and it also looks at more frequent express buses along the I-5.

Before we go to Alternative 4, if you refer to this (indicating), it gives you a better perspective on what I will be talking about. This is part of your handout as well. It will give you a better perspective

on these alternatives that I am going to be giving to you in just a minute.

These alternatives that we have that we are considering at this time, we have been working very close with the Joint Power Authority and the cities that are impacted to come up with these alternatives.

The 10-lane facility. The 10-lane facility basically adds one slope and then one carpool lane or one HOV lane in each direction. That alternative will widen the freeway by 49 feet. It will widen the cross-section of the freeway by 49 feet as you see it in the handout.

There are two subalternatives in this alternative, 4-a and 4-b. 4-a looks at -- it's labeled as the modified MIS alternative, and that basically is the fruit of the MIS study that was done that I shared with you earlier.

And there is also the 4-b, which is the ten-lane value analysis alignment, and that is the value analysis that we had last year. The difference between them is the MIS alternative holds the center line, which is more or less the barrier that you see along the corridor. It holds it fixed and widens it on both sides versus the VA analysis shifts that barrier. It shifts the center line to minimize the right-of-way impact and

impact one side versus both sides.

Also there is Alternative 5, which is the 12-lane alternative, and that basically allows for widening for a two mixed flow and one HOV or one mixed flow and two HOV. And this alternative will widen the cross-section of the freeway by 72 feet. And it also has two subalternatives, just as the previous one, which is the 12-lane modified MIS alignment as well as the 12-lane value analysis alignment.

Following that, we are looking to complete this environmental document by May 2007. That is what we are targeting at this time.

Following the completion of this environmental document, we are looking to segment this project into approximately four or five segments that are more manageable to contract out, and then we will need to design it accordingly. So immediately after May 2007, when we are targeted to complete this, we will begin the design process of this project.

And the first segment of the design process that we will be contracting out is going to be -- expected to be at the end of 2009.

Following that, we will begin the construction of the first segment also in 2010. And we look at completing the entire construction of the project by

2016. Therefore, from 2010 to 2016, expect to see construction in that corridor, and there will be more than one segment that is being constructed at a time.

But throughout the construction, our goal is to minimize inconveniencing the traveling commuter, and we go through great measures in order to achieve that goal. We put together a traffic management plan committee that comes up with a traffic management plan that looks at the corridor with the ultimate goal of minimizing impact on the traveling commuter.

And this committee consists of our traffic engineers, engineers from the cities, from the local communities with the ultimate goal to hear what the community has to say in order for us to incorporate whatever we need to incorporate in this traffic management in order to alleviate any inconveniences in traveling for commuters.

In addition to that, we notify -- we do public releases of closures. We have hotlines that allow commuters to know about closures and so on, and basically we notify commuters ahead of time in order for them to schedule their travel accordingly.

With that, I would like to turn it over to Mr. Ron Kosinski, and he will be going more into the environmental aspect of this project. Thanks.

MR. KOSINSKI: Thank you, Emad.

My name is Ron Kosinski. I am the director of the environmental division within Caltrans, and we have got a very important responsibility. Our team basically is charged with making sure that environmental concerns influence the decision-making process. We work very closely with the engineers and work very closely with the cities. We work very closely with various agencies and people like yourself to make sure that the environmental impacts are identified and addressed.

And the next step really is the critical step, and that is looking at ways to avoid impacts on the community, mitigate impacts if we can't avoid them, and then in fact deal with minimizing as we go through this process.

It's a continuing effort. Today is just one step in that process. It's an important step because we are here to hear what you have to say, but it's a continuing process which we will go through right through the point where we are going into production. So we are not just going to produce this document, identify what the issues are and walk away from this and move on to something else. We are going to continue working with the community and with the agencies all the way through the process.

The document was prepared by a variety of environmental specialists. It really is our way of documenting the analysis and identifies what the findings have been to date, what we have learned to date about the community, about the issues out there. It's a very thick document. I encourage you to take a look at those sections that you are very interested in. Certainly the most important section might be the displacement and the relocation section.

I am going to use the handout, if you have got the handout with the agenda on it, and start with the environmental considerations page that you have got there. This really very briefly summarizes what we have learned today.

Clearly, all of the project alternatives are very important impacts on the surrounding communities. If we don't do anything, if we go with Alternative 1, 2, 3, the alternatives that are low cost and that are very sensitive to the overall community and doesn't really do much of a widening and a bunch of displacing, those alternatives will continue to lead to longer and longer congestion, more and more stop-and-go traffic, really kind of making you prisoners in your community like you are. Some of you are already. It really perpetuates that situation.

More importantly, it really degrades the air quality because you have got a lot of cars stopped on the freeway and very slow paths of travel, and that really leads to a lot of carbon monoxide pollution. People are taking circuitous routes now going through neighborhoods, taking other routes. And so that in turn also adds to the overall congestion, and the air quality emission increases.

The Alternative 3 enhancements would help to reduce some of this by successfully -- if it was successful -- by encouraging people to use buses, use trains, use other methods of traveling throughout the corridor. However, these alternatives, Alternatives 1, 2, and 3 alone cannot meet the travel demands in the corridor. I think we can all agree to that.

The build alternatives, the major alternatives that take properties, Alternatives 4 and 5, will clearly have the most adverse effect on the community as well. The property acquisition numbers are summarized in this handout (indicating). If you look at this draft here (indicating), they have some numbers for you. I would like to go through them with you in just a second.

As you can see, we have these four build alternatives, 4-a, 4-b, 5-a, 5-b. Each one of them has some differences, as Emad was pointing out. And the

impacts of the properties out there are different, so I am encouraging you, after the meeting, as we were talking before, take a look at all four alternatives to see if your property is impacted by all four or maybe by just one or two of those alternatives.

There are between 102 and 205 residential parcels required for these different alternatives. Most of those are single-family residences. Three or four of them are these fairly large apartment complexes that are adjacent to the freeway, mostly in the Norwalk area.

There are between 43 and 52 business parcels, and I want to emphasize the business parcels here showing this -- is it a green color?

MS. ARELLANO: Magenta color.

MR. KOSINSKI: It's the magenta color on this chart. These are business parcels which are made up of a lot of small businesses. We are estimating that there is between 207 and up to 350 actual business sites within these parcels. And it's difficult from month to month to make a determination of how many people are there in any given month because people open businesses and move on and they are vacant. So it's a real mix, but that's the general numbers that we have.

While displacement is a critical area of impact, there are other areas that we have identified on

this table that are also important. Noise impacts are critical. We take them very seriously. We have people here to talk to you about noise impacts after the meeting. We will be building sound walls adjacent to all residential properties. We usually say it's feasible. The feasibility really is contingent upon topography. But this area is really flat, and we don't really see any situation where we're not going to be able to build sound walls that will protect the residential areas.

There are traffic impacts of redistribution of traffic. There should be a reduction on most of the streets with traffic, on most local streets, but there could be some instances, some streets where traffic patterns change. Somebody who is very interested in that, take a look at the traffic impact analysis in the environmental document. It goes into great detail, telling you what the changes will be.

There will be water runoff increased because we are putting in more pavement. There will be storm water treatment that will be needed and necessary for that.

Air quality I talked about a little bit already. And generally speaking, the larger construction -- the larger Alternatives 4 and 5 would

improve air quality in the corridor and, more importantly, in the region.

And the reality is we are using some federal money for this, so the Environmental Protection Agency really wouldn't let the Federal Highway Administration fund a project that doesn't improve air quality.

There's hazardous materials in some of the businesses and some of the houses. Some of the older houses might have asbestos and things like that and lead contaminants, so that is something that we have taken a look at.

There is, of course, some vegetation that is going to have to be removed in terms of trees and things like that, so there's going to be some habitat loss that we're going to be dealing with also.

As far as the construction, as Emad talked about the construction process itself, it's going to be a lengthy process. It is going to be in segments. So if you are living between Valley View and the Orange County section, you're not going to have 12 years of construction. There will be some relatively limited three or four years of construction for that period, and then we will move on to the next section.

But the construction impacts will be mostly night construction. It's not something that is going to

be easily manageable, and we will certainly do our best to make sure it's minimized. But there's a lot of impacts associated with the construction, and we ask you for your tolerance and bear with us during those times of construction.

There's a variety of things that we do during construction, actually. Sometimes we will move people to hotels and things like that if there is a lot of, say, pile driving or something like that that's very close to your house.

That is kind of a summary of what the impacts are. They are significant, and I encourage you again to take a look at the environmental document and give us your comments on these impacts.

In conclusion, we hope that our team of specialists have identified all of the important issues here. If we have missed something or if there is something that you that you personally want to emphasize, you we encourage you to fill out one of the comment cards. Everyone fill out a comment card. Fill out a comment card if you want to provide some information to us tonight, and we will make sure that your thoughts are included in the record.

Of course, if you're shy and you don't want to say something today or you think about something

tomorrow or next week, again, you have until January 5th to give us your written comments.

We at Caltrans know that this is your community. So what the environmental document highlights should be a reflection of what you see as the important issues that you are facing. That's why we are here today, to listen and to learn from you, the community, what your concerns and opinions are.

No decision -- let me just emphasize, we have heard people say well, this is our favorite alternative or that one is. No decision is going to be made on this until all of the comments are considered and we have evaluated all of the issues and then and only then make a decision. That decision won't be happening until March, probably March of next year. So we have a lot of time to evaluate what you're proposing.

In closing, I would like to thank you for taking the time to get involved. These are very important transportation decisions because in reality, each of you are a part of the decision making process. Thank you.

Let me just take a minute to introduce our next speaker. This is Terry Arias. She has flown down here from Sacramento to participate and provide you with comment.

MS. ARIAS: First of all, my name is Terry Arias. I am the regional manager for right of way. What that means is that my department is responsible for doing all of the right-of-way activities in District 7, 8, and 12. That encompasses Los Angeles, Orange County, Ventura, San Bernardino, and Riverside. So we cover a lot of territory. So basically we are the real estate arm of the department.

So with that, I have been asked to come here and kind of summarize the right-of-way process for you. I know some of you were here earlier and we have some relocation assistance handbooks that talk about your benefits and what you're entitled to under the law. So I will try to summarize that, but I'm not going to get into too much detail because everything is -- it depends on your particular situation. So like I said, this will just be a summary.

First of all what needs to happen is -- there are three things that need to happen. We need to appraise your property. We need to make an offer of just compensation to you, and then we have to also relocate you from that property. So -- and that takes time.

All of you who are being displaced by a transportation improvement project are entitled to

rights and have benefits under the Uniform Relocation Assistance Act of 1974. That means that there was a law passed in 1974. It's a federal act, and it lays out what it is that you as a displacee are entitled to receive.

And we as a department -- the feds look at us. The federal government looks at us as a department to ensure that we follow that law. And so it's our job to do that, to see that you're treated fairly and that you get what you're entitled to under the law and that you maximize your benefits. If we don't do that, we can jeopardize our funding on this project. And so as you can see, we have a lot at stake here if we don't do our job.

So first of all what is going to happen is that once we get the environmental documents approved and we get the go-ahead to move forward with the project, then we will go and send our appraisers out there.

What they will do -- the first step that our appraiser will do is he will send a letter, which is called a notice of intent to appraise, to the property owner. And so what basically that is saying is that dear property owner, I need to make an appointment with you so I can go onto the property to inspect it so that

I can do a fair market appraisal of your property.

And they are inviting you to also accompany them when they do that inspection, so it's really critical at that point in time that you accompany the appraiser -- well, first of all, call them back and make an appointment with him to inspect the property and then also assist him. And then at that time show him any things that are unique about your property, what makes it special, any things that he or she needs to take into consideration when you are doing that fair market value appraisal.

Also at that time, it might be good to let the appraiser know -- there are some of you that probably just speak Spanish and you feel more comfortable having a bilingual agent. So at that time, it would be a good idea to let the appraiser know that that is what your preference is and so they can make a note of it so that when they come back to the office and the appraisal is approved, we can make sure that the appraisal is assigned to a bilingual agent.

So once the appraisal is approved -- and that process could take anywhere from 60 to 90 days, depending on your property and also depending on whether we are looking at a single-family residence or a business. So if it's a business, it's a little more

complex, and it takes a little more time.

So anyway, once it's approved, the appraisal is approved, the acquisition agent will then call you and set up an appointment to meet with you to make the first offer. Now, we always -- I always courage our staff -- our staff makes a point to meet one-on-one with the property owner. There is a lot of information that needs to be discussed and a lot of documents that they have to discuss with you, and it's better to establish that communication and meet with them one on one. And that way also, again, you can point out any special needs that you may have so that they can pass that on to a relocation agent.

So the acquisition agent is responsible to work with you to acquire the property that you currently occupy. And again, under the law, we are required to make an offer to you of just compensation, what is fair market value.

So that -- so what has to happen is we will either acquire the property under a right-of-way contract, or if you don't agree with our appraisal, then we will proceed with the condemnation process -- and you have that right -- to have a court of law determine what just compensation is. And so that's all involved in the process, and your acquisition agent will explain what

that process entails as well.

So once the acquisition agent -- the acquisition agent will also make the offer to you, and they will briefly go over some of your relocation benefits. They will give you what we call a relocation entitlement letter that will also go into some of the benefits that you may be entitled to, but they will just briefly explain that.

And then your wrap agent -- once the acquisition agent makes an offer to you, a relocation agent will be assigned to your file, and they will have about 30 days to contact you to make an appointment so they can specifically go into your personal situation and discuss your relocation benefits.

As a property owner, there are several things that you may be entitled to. And again, that was -- we go over some of that stuff in some of these booklets. And I say that again because it depends on your situation. As a property owner, aside from paying you just compensation for your property, we also have to -- you may be entitled to what we call a purchase differential. You may be entitled to what we call incidental expenses. You also may be entitled to -- or you also -- everyone has a right to receive relocation advisory assistance from the get-go. Everyone is

entitled to that, and that just entails your agent helping you relocate and find homes or apartments that may relocate you.

And also you have the right to file an appeal. So if for some reason you don't agree and don't feel that we are giving you what you're entitled to under the law, you have a right to file an appeal, and that's under the administrative process that is shared by some of our attorneys and people outside of the southern region.

And also the last thing and most important thing is that before you're required to relocate, to give up that property, by law we are required to give you a minimum of a 90-day notice. So you will have at a minimum at least 90 days. When we come and tell you, we will serve you with a notice and say, okay, we are going to need the property within 90 days. So we've really got to get going here and we need to move you.

You know, we have made some exceptions, depending on when we need the property. If you're currently in escrow, then we will -- we can work -- we are not insensitive. We will work with you if you need more time. We can extend the escrows and work things out. We are here to help you to make this process as easy as possible.

As a tenant -- again, as a tenant you're also again entitled to relocation advisory assistance, and you may be entitled to what we call a rental differential. Also you're entitled to moving costs and the right to file an appeal.

When we get into businesses, that is a little more complex. And businesses are entitled -- they do have their benefits that they are entitled to, and it falls into about two areas which -- it goes into moving -- we compensate the business owner for moving-related expenses or reestablishing expenses. And depending on which way the business owner wants to go, there's limits, there's things that have to be -- certain requirements that have to be met in order for the business owner to meet -- to get these benefits.

But across the board, we ask that you not make any commitments or enter into any contract to purchase anything until you talk to your relocation agent. Because if you make a commitment and you don't contact us, you may be jeopardizing your relocation benefits, and you may be laying some money on the table, and we really don't want that. We want to help you so you can maximize the most that you can get, what you're entitled to under the law for your particular situation. And that's -- that's pretty much kind of a brief summary.

Again, I want to emphasize that we are here to help you. Again, the federal government looks at us to ensure that you receive what you're entitled to. And again, if we don't, then we could be jeopardizing our funding, so that's something that we don't really want to do on this project.

We understand that the process is not -- and moving isn't easy, especially some of you who have lived in your home for 20 -- I know I lived in my home for about -- I am going on 19 years, and I know how I would feel if someone came in and said, hey, you have to move. So we have attachments and it's difficult, and we know it's not easy.

So our position is that we want to leave you -- and that's how the law is also -- to leave you in the position that you are today in the future, no worse. If we can put you in a better situation, that is great, but no worse than where you are today. We want to keep you in that same position.

And again, with the businesses, we know if you -- for those of you who have businesses out there, you've worked hard to establish yourself in the community, and we're coming here and saying you need to relocate, you need to reestablish yourself somewhere else and start over again, and it's difficult. But

there is -- there's ways that we can help you. Let us help you. Just communicate with us what your needs are, and we will work with you to help you make this transition as easy as possible. Okay. Thank you.

MS. ARELLANO: Thank you, Terry.

Okay. That concludes our presentations from the panel. What we will do now is move to receiving statements from those who have requested to speak, and then the panel will also answer questions from those of who you have submitted a question card with a question to be answered by the panel this evening.

We would like to start with first our speakers. What I will do is I will announce the individual to come forward to speak and also the speaker afterward, so if you can just be ready. The microphone is here (indicating) on the floor.

So first we are welcoming today the mayor of the city of Norwalk, Mr. Jesse Luera. Following Mr. Luera, we will ask Mr. Dennis Barnes on behalf of Buena Park Mayor Arthur Brown to come forward following the Honorable Jesse Luera.

Mr. Luera.

MR. LUERA: Good evening, ladies and gentlemen, and it's a pleasure to be here. They sent me here to receive the -- to hear the officials from Caltrans make

a presentation to the citizens for the -- that are going to be affected here in the I-5 improvement corridors.

I as the mayor of the city of Norwalk sent out 500 letters to the residents of Norwalk for this project, and I just wanted to make sure -- my concerns are, for the record -- because I have had concerns in the past, and I still have concerns -- make sure that the seniors -- and I happen to live very close in that area on Gracebee where it's going to be affected, and I have a business in that area also. Make sure that the seniors and the residents that live in that area that they get the proper value for their homes and make sure that they understand what is really happening.

And I am hoping that Caltrans, the State, has contacted all of the people in that area to make sure that the real estate doesn't come in and take advantage of the people. I have seen it happen. They have come over to me, and they said they want to quickly pressure the people here to sell the house to be able to move into another place. And in some cases, even people that are not -- they are not even real estate people, people that -- just like fine sheepers (phonetic). And I am concerned because I don't want the seniors in this community -- and I am not speaking for everyone else.

I am speaking for the residents of Norwalk

because I happen to be the mayor here for the third time. I just want to make sure everyone is treated equally and make sure that the people that don't speak English are provided a better opportunity for those people to understand. The last time we had a presentation, I think the quality of interpretation to those people was of poor quality, and I think they have upgraded that.

I told the city manager -- and we happened to have Mr. Mendez, the chairman of the I-5 today. He is not here, but I felt very safe to come here and express to these people here that are trying to do their best to present a project that I think can be very positive in this community. I think it's something that we need to move on.

But at the same time, my concern is I am saying that on the same page, I am saying that we need to make sure that all the concerns that you people have that they are addressed this evening here. And I think from what I have heard -- I have heard good explanations from the gentleman that spoke.

Like I said before, I just want to make sure that these people here are heard, and I would like to speak on the record for myself -- and I told my colleagues, and I told Mr. Mendez and I told the city

manager here later on that I wanted to come say a couple of words not simply against the project but simply to find out and let you know what my concerns are of this.

And you people that are here, you know, this is not approved until March of the year '07. So you have an opportunity to be able to express your concerns. Do not be afraid to express what you want.

These people here, they can't move on, and that's something if you people do not show your concerns. Your concerns will be recorded, and then they will take it back. They will make a decision in the very near future, and I just want you to be very remindful that I will make sure that everything that is said today that we relayed to these people here, these people here are trying to represent and do what is best for the city. We know that congestion is very, very bad. These things have to be made, and hopefully it will be done sooner than later because the congestion is getting worse. It's not getting better.

So with those comments, I don't want to take time from the other people that are here to say whatever they need to say. But, you know, just say whatever you want to say, whatever language or whatever, you know, shortness you want to say. I think it's very important that you express your concerns this evening because you

know what? The message is going to go to Sacramento where they are going to make the final decision. So with that, I want to say thank you very much.

MS. ARELLANO: Absolutely. Thank you as well.

I would like to call up Mr. Dennis Barnes on behalf of Buena Park Mayor Arthur Brown. Following Mr. Barnes, I would like to call up Robert Duncan.

Very briefly, it is now about five minutes to 8:00 o'clock. We will continue to take your speaker card comments and hear oral comments and answer the questions that have been entered to us until 9:00 o'clock this evening. If we finish before then, you will have more time to view the other room, but we will get through as many of these tonight as we can.

Mr. Duncan. Excuse me. Mr. Barnes.

MR. BARNES: Good evening. My name is Dennis Barnes. I am the traffic and transportation manager for city of Buena Park. I am here to speak on behalf of the mayor of Buena Park.

First of all --

MS. ARELLANO: If you could speak a little bit more closer to the mic, please.

MR. BARNES: Sure.

MS. ARELLANO: Thank you.

MR. BARNES: First of all, we would like to applaud

Caltrans and LA County for going forward with this important project to improve the circulation within the region.

Second, I have some other points I would like to make. The proposed design for the city of Buena Park impacts one business in particular at 7025 Firestone Boulevard. That's the Ramada America, Incorporated, and we are requesting or asking Caltrans to reevaluate the extent of the taking of that particular property and work with American Ramada -- Ramada America to rectify some of the impacts to their property. We are also requesting that everything be done at all possible to avoid a full take of that property.

Next we'd also like to ask that consideration be given by Caltrans to address Firestone Boulevard north of Artesia for the front traffic that it certainly uses that area to come up with a smooth solution to accommodate the various trucks.

I also would like to acknowledge and note that we are more than willing to work with Caltrans and the other public agencies to achieve these endeavors.

We also would like to volunteer our contact person on behalf of the city. It will be our city manager, Rick Worzinski, and we will work with you.

Our goal is to improve circulation within the

region, to address the concerns of our residents and our business community.

And thank you very much. I have attached a letter from the mayor to the comment card. Thank you.

MS. ARELLANO: Very good. Thank you.

Next I would like to call up Mr. Robert Duncan. Following Mr. Duncan, I would like to call up James Gosky.

Mr. Duncan.

MR. DUNCAN: Thank you very much. I appreciate you coming out tonight.

I have a question for the audience. How many people heard anything new or understand half of what these people presented tonight? A show of hands.

(There was a show of hands.)

MR. DUNCAN: We have heard a lot of new comments which we haven't heard in the past. We have been attending these meetings now for over 20 years, and it has been planning and committees and planning and committees. And the one thing that I have taken out of these meetings is that my expectations will always exceed Caltrans' ability to perform because they just -- they keep dragging this thing out.

And when we first started talking to Caltrans about this, we had our 16th wedding anniversary. Three

weeks ago we had our 50th. That gives you an idea how Caltrans has drug it out. Thank you.

MS. ARELLANO: Thank you. Happy anniversary.

I would like to call up Mr. James Gosky. Following Mr. Gosky, Rosalind Gonzales.

MR. GOSKY: My name is James Gosky. I live at Goller Avenue in Norwalk.

I would like to say there is one good thing about this project. It goes Bloomfield to Bloomfield on the other side. I believe last May -- I think was it '97 or '98 over here, and that's when you finally said you're going to finally hook up Bloomfield. You're going to have to go to Bloomfield to Firestone to Rosecrans back to Bloomfield, which is going to be great.

Okay. My first one is -- here is one thing I was studying on this. If the carpool lane is going to put up a sign, like it should, on the 105 -- it's going to be on this side -- no gapping in the lane, or it's going to become a light rail alternative. We don't need any gapping. I know they play games and we find gaps in there. If they want to do that, the Highway Patrol should charge them by the foot for gapping. Charge them 100 bucks a foot, and they won't go from their own lanes anymore.

My second one is -- actually, I did the second one. Now I am on the third one because it really wasn't a concern. It was about the 91, how they have got four lanes and they go into three and it's a mess. But you have that down on the 605 and 5.

I am going to ask you this part. I wonder if they are going to possibly -- where that 605 has got four lanes, then when you go above the 5 it goes into three, they should make it three lanes all the way, kill that lane out like you have got that on the 91, where you've got Lakewood ends, make it cut right off at Lakewood. Don't extend it like that.

So you have got a lane on that 605, when you group it to the 5. I wonder if that part is going to be done. That's my first. Does anybody know if it's going to be done? Because you have got three lanes -- four lanes that goes into the three and you stay in that other lane, you then have a mess created. You've got to get rid of that fourth lane and right at the 5 make it three just like you have downtown. It works good at the 5. Well, actually -- excuse me. It's the 101 and where the 5 and the -- the other one needs to come in here. It's great. It's like three lanes, four, you cut it down to three. It works perfect.

Now, I wonder if it's going to be built,

design build. Design build means you can build it a lot cheaper.

Now, going back to the first comment that somebody had mentioned, this freeway was in 1950 sometime. It only originally had four lanes, two lanes each, and a center divider. They took all the grass out. I think it was sometime in '56 or '57. It originally started out as a four-lane facility, two lanes on each side, because I have lived here since '51. That's two lanes one side, two lanes the other. They got rid of the grass in the middle and put in your other lane, which makes it three lanes.

The other one, is it going to be cheaper to double deck this? Could they double deck and put another deck on the top without taking any property away? That will save everybody a lot of time. I am just speaking this alternative out tonight, this equation.

Okay. In closing, I would like to say thank you all very much and I appreciate it.

MS. ARELLANO: Thank you, Mr. Gosky. I appreciate it as well.

Next I would like to call Rosalind Gonzales.

MS. GONZALES: Hello. My name is Rosalind Gonzales. I am very upset about what is going on. I

have lived 30 years in my home. I -- you know, you can't just get up and uproot people and just put them somewhere else and start all over again. That's not fair. I have been very happy where I live, and I expect to grow old there too.

I mean, I live by the sound wall. It never bothered me. The dust -- well, you know, dust is everywhere. I am used to that. I -- I just don't want this to happen. I -- I don't want to move. I don't plan on moving. I don't want to move. I will fight. I will find a way to stay where I live.

It's not fair because you want to grow and it's not going to help traffic because I have traveled out to the 215, out to the 15. There's always traffic. There's not going to be no end to traffic. Traffic is going to always be there because the population is growing, and growing means more cars. And you can't -- people don't depend on the bus transit and stuff like that because they cost too much. That's why you have a lot of cars, because they can get there where they have to get to. If it takes you a long time to get to work, well, then you leave extra early.

And that's just not fair. You can't make plans without seeing how people feel first, and that's all I have to say. And I will stick to the end. I will

find a way to petition you and fight if I can. I don't want to move. That's my life and my little corner of the world. You can't just throw me somewhere else and say, okay, start over again. Life is too short.

MS. ARELLANO: Thank you, Ms. Gonzales. Can I have your address please?

MS. GONZALES: 11657 Fenn Street. I am right in the heart, right next to the -- near the fence, and I am quite happy there.

MS. ARELLANO: Norwalk; correct?

MS. GONZALES: Yes. And I have neighbors. I have been there for a long time. I have watched Norwalk grow, and I said oh, this is great. I have got everything here. Now to go somewhere else and have to start all over again, that's just not fair.

MS. ARELLANO: Thank you for your comment.

We are now going to move to answering some of the questions that were submitted, and we will start with a design question.

MR. GORGY: The first one is, "Is the sound wall going up first to help us with noise and dust?" The answer is that is what we usually do. For instance, when we started building the Route 210 in Claremont, that was the business -- the order of business is that our goal is to minimize the impact on the adjacent

citizens, and that's what we do when we contract. The contract is that we put that as the first order of business. And we -- when it's feasible, that is what we usually do.

The other question from the same person is, "What is going to happen to the homes that are left alone after people move?" The strategy that we have been working on at this time is that we will be doing hazardous waste testing on that property, and following that we will be demolishing the property.

Another question is, "We own the first property north of the Orange County line. When will Caltrans contact concerning its acquisition of the property? The timing is a critical issue for us."

And in here, I basically wanted to kind of go over the process that we do, what happens after this environmental document has been completed. As I mentioned before we started the design phase, the right-of-way phase doesn't immediately start following that because the design has to proceed approximately 35 percent in order for us to determine where it is the need for the project. So I would say a year following the completion, within a year following the completion of this environmental document, that's when we start identifying the first segments that will be going out

and the right-of-way impacts of these segments as well.

Another question is, "How soon can we expect information on acquisition and construction on the Firestone exit north and southbound?" And that's basically the same question from the previous question that I just read. Once the design has progressed, we identify the segments that will go first. And following that, we will proceed with the right of way as the segment progresses, which is depending on where is the first segment going to be, and that's, to answer your question, a year following the completion of the environmental document. That's when we would be starting that process.

MR. KOSINSKI: There are some questions for us by Elizabeth Urrea who lives on Lyndora. I have talked to her often, and she would like to know what's happening to the wash that runs behind Lyndora Street. The cross streets are Imperial and Lyndora, and that property -- it looks like with all the alternatives, although this is something for all of you to consider -- go back and take a look at those maps because there are differences in the alternatives in terms of what is being taken.

It appears with those alternatives -- in all of the alternatives that that wash area behind this property would be taken, and the freeway would be

widened into that property with all of the alternatives.

And if that -- I understand that she owns the underlying field of that property, and the right-of-way people would be discussing fair market value acquisition for that portion of the property that she owns at that location.

James Gatica lives on Bombadier. He asks, "Will there be any consideration from either the city of Norwalk or Caltrans or both to allow owners of property to install sound proofing and completely sealed windows, of course through some pay scale plan?"

That is a good question, and we will put this on the record. We have done that on occasion, but the situation usually is that the city has to have a program, a housing program where they do in fact fund these types of betterments to the house to make it more sound proofing. We have done that. We have worked with the cities to do that. We would still put up our sound walls. If in addition to that the city is willing to fund a program for sound proofing the houses in that area, then we certainly would work with the cities on that issue. I know we have done it in Ventura County on a couple of locations, and I believe in San Diego County also.

Rafay Khalil from Carmenita Road asks, "How does today's Caltrans hearing impact the already approved Carmenita Road interchange?" All right. There's another good question. That project has been approved, and it's moving towards property acquisition right now, acquiring the property, the houses and the businesses.

And that basically is a project to widen Carmenita to six or eight lines so that we can build a new bridge over the freeway. This project here will approve some number of lanes on the freeway underneath Carmenita. It would approve eight, ten, or twelve lanes under Carmenita. So that is the relationship between those two projects. Hopefully I made that clear.

The next question is from Paul Kramer from Lafeyette in Huntington Beach. You have come a long way. You must be a business owner. "Do any of the I-5 alternatives allow for the future connection between I-5 and I-105 either via metro rail (green line) extension, to the BNSF line, via HOV lanes or via general purpose lanes?"

The answer to this question is at this point in time, the transit alternative does provide some bus conductivity if we add additional bus services that would be in this area. But in terms of the freeway

construction, all the freeway construction does is go through the 605 interchange and pretty much terminate at Roseby Boulevard. It's just one lane northbound. So we didn't really touch -- with this project we didn't really touch the interchange to the 605.

But for those of you who are interested in this issue, in January or February we will be initiating the studies for the next section of I-5. As we proceed with our glacial speed, we are moving to the next section, which is from the 605 through the 710 interchange. That project, again, starts in January. We would be looking at that interchange and conductivity with the Century Freeway. So that would be the next study in some number of years, and maybe by your 60th anniversary we will be looking at what we can do.

I think that's the end of these questions.

MS. ARELLANO: We have two more questions. Do you want to take them now?

MR. KOSINSKI: Sure.

Okay. Noemi, who lives on Brink Avenue in Norwalk, "What about us people that live close to the freeway project? Noise, dust, traffic. How will you help us?" A very good question. And the other one is dealing with taxes.

Okay. You know, our job, as I mentioned in my

presentation, is to help you as best we can. And in this situation, where we are taking your property, we are going to be working with the right-of-way people to make sure that you get your relocation benefits and you get relocated in a fair and equitable manner.

If your house is still going to remain and you're remaining there, we are going to make sure that you get sound walls, and we will be watching you very carefully to make sure that the construction that takes place out there is done in a way that minimizes the impacts on your specific property.

And again, if that requires us to move you temporarily during some really noisy nights, that's one of the things that we would be doing from our standpoint.

I will answer the next question on taxes, "Will they go up?" Taxes. Taxes always go up. Are you talking about -- if you're talking about your property taxes, if you move and relocate in the area, you do have Prop 13 protection, which means that the property tax -- if you've been in your property like I have been for 25 years, that property tax will stay at that rate, and you carry that forward to the next property that you move into.

And we have got one more question here from --

that's Saray Del Rio who lives on Sproul Street. Sproul. Sproul Street. "What is Caltrans' plan to keep the residents around the construction areas informed of schedules and happenings around houses?"

What we do normally is we will have community meetings, we will have schedules, we will work with the cities. You have cable TV. What we normally do is on the cable TV, we have running bulletins of what is happening this week and next week during construction. So there is a constant flow of information to you as we get the information from our contracting crew.

Keep in mind sometimes things change at the last minute, but we try to keep people informed on a regular basis as to what exactly is happening and when.

"I will be impacted with construction, and I wasn't invited to this meeting." That's certainly an oversight on our part. We did mention we sent out 4,000 notices. We did get some back, maybe about 50 or so with incorrect addresses. We did put in $40,000 worth of advertisements, as Genoveva mentioned, in the various papers in this area.

We have meetings on a regular basis where someone will come up and say, "We didn't get a notice." We certainly apologize. We want to make sure we get you on the mailing list, and we will make sure from this

point on this individual, although I can't quite read the first name -- I have got the address. We will make sure that they get the notice.

MS. ARIAS: Anyway, just a point of clarification on the taxes, there's a cap, and I believe it's 120 percent on the base. But again, your acquisition agent, when they meet with you to make the first written offer, they will give you that information. And they will give you the application, and they will go over that with you because I have that question in here too.

So anyway, thanks for answering that, Ron.

Okay. A question here. "As a tenant, would we be eligible for the relocation assistance program if only a portion of the property was taken and left the remaining portion unsuitable for our specific use, i.e. loss or required parking, truck turnaround?"

The answer to that is maybe, yes. Well, you know, it depends. The appraiser will take a look at the property. He will take into consideration -- they will check with the city what are the setback requirements and access to fire lanes that we need. And if it turns out because your business cannot operate in the after condition, you may be entitled to relocation benefits as a business. Okay?

And so again, when we make the first written

offer to the owner, the relocation agent will meet with you and discuss those options. And by then, by that time we should know if you will actually be displaced as a business.

The next question, "Please address the leases" -- "the lease issue from the point of a landlord." Okay. So it's a business. First of all, as the owner of this business, encourage your lessees to stay until we make the first written offer. They shouldn't move. But if for some reason -- we understand that they shouldn't move until after we have made the first written offer and the relocation agent starts to work with them.

But if for some reason after we have made the offer and they need to move, we understand that you have rent to pay still as an owner, or a mortgage, excuse me. So there is a possibility that we can look into -- we do what we call a rent-back situation to where we will lease back that tenant's spot from you, and you can keep it vacant.

And so it's kind of a win-win situation for us because we will relocate the existent tenant, and then that way we will pay their portion of the rent or the lease, and you can keep it vacant and we don't have to move someone else out or relocate them. So yes, we

can -- and again, that is something that you will work with your acquisition agent on if something like that should happen.

And then the same acquisition agent is usually the one that will work with the tenants as well, the lessees. So they will all work together to make it a win-win situation for everybody.

The next question, "As a motel owner, I am in a situation that a major renovation is required. Please tell me should I go ahead with the plan? And if I do, will all the costs be reimbursed?" I -- it depends, I guess, on what it is, the renovation is. If you're talking about deferred maintenance and things that you need to do to upkeep the property, you need to continue to do that because as -- as an appraiser goes out there, they will take a look at the condition of the property. And so if there is deferred maintenance or things like that that hasn't happened, they will have to take that into consideration when arriving at the fair market value of the property.

So that's -- I know sometimes it's a hard decision to make, but if you're talking about adding on more rooms or something, then maybe you might want to reconsider that. But deferred maintenance is something that you should continue doing to your property.

"Please address the franchise liability as one choice." All right. I would -- we probably have to talk to you on an individual basis because I am not sure what it is that you actually would like us to discuss. Maybe we can talk later after the meeting.

Next question, "Live in Union, slash, San Antonio. If planning to knock down the -- if planning to knock houses down and when?" I am not -- I don't have a specific schedule for knocking down the homes, but our policy is once the property owner vacates the property or the tenant has been relocated, then we move forward with demolishing the property.

Now, we have processes and policies that we have to follow being a state agency, so our process isn't as quickly as if it were a private owner. So it takes us a little time to demo a house. We have to do asbestos testing and we have to do a lot of things that are required. And usually the demolition process, it takes about from beginning to end about three months. But -- it's just a lengthy process, but as soon as we can move forward, we will move forward.

And then the person who -- Pat Salazar is the person who asked this question. If you want to, we can let you know. If you want a specific schedule as to what we're targeting, I can -- we can send you a letter

or contact you and let you know what that schedule is.

Let's see. And also "Will the city pay what the house is appraised at?" We will pay what the house is appraised at. And again, like I mentioned earlier in my presentation, we are required by law to pay fair market value for your property. So the answer is yes.

Next question, "I would like to know if we are going to get extra money for the inconvenience of moving, also for the inconvenience of household family, not just the owner but others that live at the house as well."

Let's see. Okay. First of all, like I mentioned, the Uniform Act, we are required to ensure that you get all of your relocation benefits. So they tell us what we can pay and what we can't. And so, unfortunately, this is not an item that is covered under the Uniform Act and, therefore, we cannot compensate you for inconvenience. So the answer is no to that question.

"Are special government loans available? What happens if loans are not available and loan cannot be granted since the house prices have gone up? Is there a way to find out the exact time line for the house" -- "purchase of the houses?"

Okay. First -- in answer to your question,

first of all, if you're a property owner, when we make the offer, then you will turn around -- normally what you do you is work with a real estate agent that will assist you in finding a house to relocate. That -- the real estate agent has all kinds -- you know, they are the ones that are familiar with the types of loans that are available.

We, as far as helping you get a loan, that's not something that we physically go out and do. We work together. We can work together with your real estate agent with whatever documentation -- or sometimes the lenders want to know that the property is getting condemned and so they want to know the circumstances, and they ask for permission from us. So we try to work with the real estate agent that you're working with.

Again, if you've been in your house for a long time, of course you establish some equity. So again, like I mentioned earlier, it's our goal to put you in the same situation you are today as later, and that's where the purchase differential comes into play. So you're complete -- you're whole again.

So I believe, depending on -- again, it depends on your particular situation. But for the most part what usually happens is you will take what we offer you, and then if there is a purchase differential, you

turn that around and you put it into a down payment on your replacement house so you're basically left in the same situation.

Now, if you have -- again, if there is a loan on the property and the loan that you currently have is lower than the loan you're wanting to get, we call -- that's what we call an interest differential. So that is helping you to pay down your loan. So again, I don't want to get into specifics on that because it's a little complicated, but when your acquisition agent presents an offer, they will also go into specific detail with you on that.

"Is there a way to find out our exact time line for house purchasing?" Again, we are probably looking at maybe a year from now of the approval of the -- a year after the approval of the environmental document. Again, it just depends on when they move forward with designing the project and how the design moves forward.

So we have your name here, and so maybe as we move along in the process we can -- you can give us a call or -- I don't know how we keep the public informed as to how -- we will continue having more meetings as we move along in the process, so we will do our best to keep you informed as to what you can anticipate from us

out there.

"Assuming Mr. Gorgy's time estimate of the EIR approval in May 2007 is accurate, when does Caltrans anticipate initiating right-of-way?" I think that question was answered.

MS. ARELLANO: Can you repeat it?

MS. ARIAS: Yeah. It's -- it was about a year after the environmental document was approved. We will probably -- right-of-way will probably start the appraisal process. So it's part of the acquisition process.

Okay. "Is this a project for which hardship acquisition requests will be considered? If so, at what point may such requests be made, assuming the EIR is approved May 2007?" You know, we will take a look at it. I think we have to do some research. It's a process that has to happen, and so I can't say at this point yes or no if we are going to consider hardship acquisitions. But contact me and -- or the -- myself or the manager that I have in District 7, which is Andrew Nierenberg, and then we can proceed -- we can inform you what the process is, and then we can proceed to see if this is a candidate for hardship application.

Let's see. "I want to know once the property is appraised and an agreement for purchase" -- "an

agreement for purchase has been made, how long do we have to find a place to live?" Again, at a minimum before you're required to move, we will give you a 90-day notice. We are trying to be sensitive to all of the homeowners and trying to take a look at those houses first and appraise them and give you more time in relocating. So at a minimum, you have 90 days.

But again, as we move along in the process, we will have more public hearings, and you will know where you fall in that -- in that process, and we can give you a better idea as to when we will be out there appraising the property.

But you will be given a time, a reasonable time to relocate your stuff. I mean, we are not going to go and make an offer and say in a week you've got to move. That's -- we don't -- that's not what we do. We give you a reasonable time in which to relocate and find a replacement property.

"Property taxes -- once we find a new place, will the taxes stay the same or go up?" Again, there is a proposition, I think, that was passed that allows you to keep the same tax base, but there is a maximum.

And again, the acquisition agent, they have some forms that they will present to you at the time of the offer, and they will explain that process and when

is the right time for you to submit that application to the county assessor's office.

MR. TERTERIAN: Good evening. My name is Asadour Terterian, and I am the design manager on the project.

I have one question, I guess, from Anthony Curtis, 11813 Spry Street, Norwalk, California. The question says, "Can all homeowners" -- "can all homeowners very close to the freeway be informed with absolute certainty as to the fate of their homes in a timely manner?" And in parentheses he says, "less than one year from today would be acceptable."

I just want to put one thing in perspective. This project, excluding the Carmenita section, is about 28 miles. And we don't intend to have the entire project and construction at the same time. It is going to be broken down into three segments. Okay? If your property is located in the first segment or any segment, let's say -- well, if your property is in the first segment, okay, within a year from the environmental document date, which is May of 2007, you will know your fate, the fate of your property. Okay? At least most of you.

There will be some instances, perhaps near a structure or a utility perhaps that things are not verified. Those things will take a little more time.

Those kinds of properties will take a little longer to say for sure what the impact on you will be.

Just kind of keep in mind that the project is for real right now. We do have the majority of the funds in, and in fact we are expecting a balance of funds from the recent bond measures as well. Thank you.

MS. ARELLANO: Okay. To the panel, have we answered all of the questions that have been submitted until now?

I would like to give anyone who has not filled out a comment card or a request to speak card to do so at this time if you wish to do that for tonight's meeting. Hold up your card, and we would be happy to collect that.

Okay. It looks like we have gotten through everyone's request to speak and your submitted questions. I would like to encourage you and remind you that the card can be used to submit and, in fact, mail your comment. On the back of the card, as you can see, is the mailing address that I referred to earlier. Just put a stamp on that and mail it in before January 5th, 2007, and it will be received and recorded just as if you were here tonight speaking orally.

MR. LOPEZ: I submitted a card, but it wasn't

called.

MS. ARELLANO: Oh, excuse me. What is your name?

MR. LOPEZ: Javier Lopez.

MS. ARELLANO: Javier Lopez. You all double check your cards.

Was there anyone else where that was the case?

Hold on one moment. Do you recall what your question or comment was? I apologize.

MR. LOPEZ: Yes, I do.

MS. ARELLANO: Would you mind coming forward --

MR. LOPEZ: Thank you.

MS. ARELLANO: -- and just speaking into the microphone, and we will address it straight up.

MR. LOPEZ: My name is Javier Lopez. I have no business interest in this whatsoever other than the fact that I grew up in Norwalk. I am currently staying here.

But as far as Ms. Gonzales' concerns are that she has lived here 30 years, with 30 years to get this project done, I do not envy your position as Caltrans workers. I know you're under some strict guidelines in getting these projects done. It's a very difficult process.

One question I had is a gentleman did bring up

the design build issue. Will this be a design build project as far as you know at this point in time?

MR. GORGY: At this time it is not being considered as a design build.

MR. LOPEZ: Okay. With regards to the parcels, the parcel numbers, are the persons that need to be advised already advised that their parcels are affected and that it will be taken, that being the home APN?

MR. KOSINSKI: Right. We have done a very extensive mail-out, as I mentioned, for 4,000. The city has also sent out mailings. There is certainly a conceiveability that somewhere a parcel has been missed, but I certainly think that we have done an extensive effort to make sure everybody is notified.

MR. LOPEZ: With regards to the sound walls, I understood earlier that the sound walls will be taken care of and would not be a problem. But given that, you know, you've said this is a project that impacts Canada all the way down to Mexico, I mean, has Washington or Oregon been contacted about kicking in money to get this done? I mean, we're the ones who are, like, stuck here in this urban -- I mean suburban, urban, backslash, you name it either way area -- and it is my choice, sir, thank you, for now -- so I am just curious if other states have been contacted about kicking in money into

putting up sound walls for here.

MR. KOSINSKI: Unfortunately, that's not how it works.

MR. LOPEZ: Yeah, I didn't think so.

MR. KOSINSKI: The State of California has secured the adequate funding for the construction of this project, and so it's coming from us taxpayers, along with assistance from the Federal Highway Administration, which basically takes our money back to Washington and then gives it back to us.

MR. LOPEZ: With regards to the parcels --

MS. ARELLANO: Just to clarify -- I am sorry -- we do have your card, but you just didn't indicate you wished to speak. So I just wanted to clarify that is the only reason for the oversight.

Did you have any further comments?

MR. LOPEZ: Just one more question. With regards to the parcels that are businesses, have you marked them as blighted or not blighted? That's an imminent domain question.

MR. KOSINSKI: I believe if you're looking at our document, there is an analysis called "Businesses," and I don't believe there are any identified as blighted. But again, what I would suggest to you is to take a look at the business section of the environmental document.

If you don't have a copy of the document, if you like, I would be very happy to give you a copy or a disk to look for it.

MR. LOPEZ: Okay. Thank you.

MS. ARELLANO: Thank you.

MR. LOPEZ: That would be fine.

In regards to the fair market value, we know -- I mean -- well, for the persons that are looking at an attorney to hire, I am an attorney and real estate broker. In the past few months, it's not so much the sales that have gone down -- I mean so much the prices that have gone down but the sales. In the past three months, we are talking about -- or six months -- we are talking about sales prices going down, and these properties have been under the cloud of condemnation for some time now.

I mean, we are talking four years ago I heard that this, you know, animal farm at Norwalk Park was going to be taken out. So when -- what -- what is fair market value? You know, the house I signed over to X was worth 750, you know, a year ago, and now it's worth 745 on comps. So when -- the fair market value, when are you going to determine that, or do they need to find, you know, local counsel or attorneys to help them out?

MS. ARIAS: When we are ready to appraise, we are required not to take a look at project influence. So we take that into consideration when we are doing our fair market appraisal.

MR. LOPEZ: Okay. So does that mean the title companies have been already informed that these properties are under the cloud of condemnation?

MS. ARIAS: No. No.

MR. LOPEZ: Okay. You folks know the properties are affected. Your property is under the cloud of title right now.

MS. ARELLANO: Thank you, Mr. Lopez.

MR. LOPEZ: Thank you.

MS. ARELLANO: Thank you very much.

What I would like to do now is encourage you to submit any further comments or questions with your card. Seeing no -- I am sorry. Someone just submitted a question, although they did leave. We can go ahead and include this document and make sure that it is responded to.

Any questions, again, not answered at this point will be received or responded to by the due date of January 5th. The Caltrans staff will remain this evening so if there are any more specific questions that you have, we encourage you to do so in the viewing room,

which is opposite of this room.

In closing, please remember that if you wish to submit additional comments, you have until January 5th, 2007. The address is on the card. Please, we encourage you to do so.

If you see the headset for a Spanish translation, please leave that at the desk on your way out.

Our public hearing is now closed at 8:40. Thank you very much.

(The proceedings concluded at 8:40 p.m.)

STATE OF CALIFORNIA)

) ss.

COUNTY OF LOS ANGELES)

I, KATHRYN L. MAUTZ, CSR No. 11539, do hereby certify:

That prior to being examined, the witness named in the foregoing deposition was duly sworn to testify the truth, the whole truth, and nothing but the truth;

That said transcript was taken before me at the time and place therein set forth and was taken down by me in shorthand and thereafter transcribed by computer under my direction and supervision, and I hereby certify the foregoing deposition is a true and correct transcript of my shorthand notes so taken.

I further certify that I am neither counsel for nor related to any party to said action, nor in any way interested in the outcome thereof.

IN WITNESS WHEREOF, I have hereunto subscribed my name this _____ day of _____, 2007.

_____

KATHRYN L. MAUTZ, CSR No. 11539

APPENDIX J

Public Hearing Handout Materials

CALTRANS PUBLIC HEARING

Interstate 5 Corridor Improvement Project
December 12, 2006 - 6:00 - 9:00 PM
Norwalk Arts and Sports Complex

MEETING AGENDA

If you wish to speak during the Public Comment Period, please fill out a "Comment Card".

6:00 Sign-In, Open Forum and Exhibit Viewing
Please feel free to visit the display stations on the project alternatives. Caltrans staff located at the stations can assist with any questions you may have about the exhibits.

7:00 Presentation by California Department of Transportation

Public Hearing Goals	**Genoveva Arellano** Public Hearing Moderator
Project Information	**Emad Gorgy** Project Management
Environmental Considerations	**Ron Kosinski** Environmental Planning
Right-of-Way Information	**Linda Wilford** Right-of-Way

7:30 Statements, Comments, and Questions from the Public

We plan to have as many speakers as possible, however, if time runs out before everyone gets to speak your comments and questions will be answered in the final environmental document.

8:55 Closing Comments — **Genoveva Arellano**

9:00 End of Public Hearing

9:00 Displays and Staff Available

For project information on-line go to: www.dot.ca.gov

Interstate 5
CORRIDOR IMPROVEMENT PROJECT
CHRONICLING THE IMPROVEMENT PROJECT OF THE INTERSTATE-5 CORRIDOR

AUDIENCIA PÚBLICA DE CALTRANS

Proyecto de Mejoramiento
del Tramo de la Interestatal 5
Diciembre 12, 2006 - 6:00 - 9:00 PM
Complejo de Artes y Deportes de Norwalk
(Norwalk Arts and Sports Complex)

AGENDA DE LA REUNIÓN

Si desea hablar durante el Período de Comentarios Públicos (Public Comment Period), por favor llene una Tarjeta de Comentarios ("Comment Card").

6:00 Registro, Foro Abierto y Presentación de la Exhibición
Por favor visite las estaciones de exhibición de las alternativas del proyecto. El personal de Caltrans que estará en las exhibiciones podrá asistirle con preguntas que tenga sobre éstas.

7:00 Presentación por parte del Departamento de Transportación de California

Objetivos de las Audiencia Pública	**Genoveva Arellano** Moderadora de la Audiencia Pública
Información del Proyecto	**Emad Gorgy** Gerente del Proyecto
Consideraciones Ambientales	**Ron Kosinski** Planeación Ambiental
Información Sobre el Proceso de Adquisición de Propiedades	**Linda Wilford** Derecho de Paso

7:30 Declaraciones, Comentarios y Preguntas del Público
Esperamos tener tantos expositores como sea posible. Sin embargo, si no hay tiempo para que todos hablen, sus comentarios y preguntas serán respondidos en el documento ambiental final.

8:55 Comentarios de Cierre — **Genoveva Arellano**

9:00 Final de la Audiencia Pública

9:00 Exhibiciones y Personal Disponibles

Para obtener información en Internet, visite: www.dot.ca.gov

Interstate 5
CORRIDOR IMPROVEMENT PROJECT
CHRONICLING THE IMPROVEMENT PROJECT OF THE INTERSTATE-5 CORRIDOR

PROJECT INFORMATION

Caltrans improves mobility across California

Project Partners

- California Department of Transportation, (Caltrans)
- LA County Metropolitan Transportation Authority, Metro
- Federal Highway Administration, FHWA
- Joint Power Authority, JPA

Project History

- Need recognized
  - 1981 Alternative Analysis Santa Ana Transportation Corridor Study (SATC)
  - 1984 Widening from 405 to 605
- Major Investment Study (MIS) 1995 – 1998
  - Develop multi-modal transportation improvement
  - At grade widening
- Interim HOV Project, Approved Environmental Document.
  - 1996 PSR, 1999 Environmental Document
- T.C.R.P. Program - focus shifted to Ultimate concept

General Information

- 9 Miles stretch of freeway
- 18 Structures, Including Over & Under crossing
- Estimated cost $1.2 Billion

Project Need and Purpose

- Improve mobility, by increasing capacity
- Relieve Congestion and reduce travel time
- Improve overall freeway safety
- Upgrade facility to meet current Federal and State Standards
- HOV continuity, from the 405 to 14 FWY
- Freeway facility deterioration 50 years old
- Reduced travel speeds and ride quality

Project Alternatives – (see exhibits)

Current Schedule

• Project and Environmental Document Approval	May 2007
• Complete Design	End of 2009
• Begin Construction (Segment 1)	2010
• Complete Construction	2016

ENVIRONMENTAL CONSIDERATIONS

All of the project alternatives will have important effects on the surrounding community

Property Acquisition

- Significant property acquisitions with Alternatives 4 and 5 (see Exhibit)
- Both residential and business displacements and neighborhood disruption.

Noise Impacts

- Increases in noise levels before sound wall mitigation.
- Temporary noise level increases during construction.

Traffic Impacts

- Redistribution of traffic with reductions on most local streets.
- Temporary detours and changes in bus stop locations during construction.

Water Quality

- Increases in stormwater runnoff including pollutants.
- Stormwater treatment as mitigation necessary.

Air Quality

- Increases in pollution with Alternatives 1, 2 and 3 as congestion worsens.
- Increases in dust and diesel emissions during construction.

Hazardous Materials

- Probable discovery of contaminated soils, asbestos/lead-containing materials.

Vegetation and Wildlife

- Removal of vegetation and mature trees resulting in habitat loss required.

Construction Impacts

- As noted above, construction noise, dust increases, detours, night construction.
- Traffic Management Plans will be necessary to minimize disruption.

The purpose of this Public Hearing is to receive your testimony and comments on these issues. If we have missed something or you want to emphasize a certain issue, tell us.

You have until January 5, 2007 to provide written comments to:

Ronald Kosinski, Deputy District Director
Division of Environmental Planning
CALTRANS, District 7
100 South Main Street
Los Angeles, CA 90012

For project information on-line go to: www.dot.ca.gov/dist07/I-5

RIGHT OF WAY PROCESS

Appraisal of property rights needed for the project.

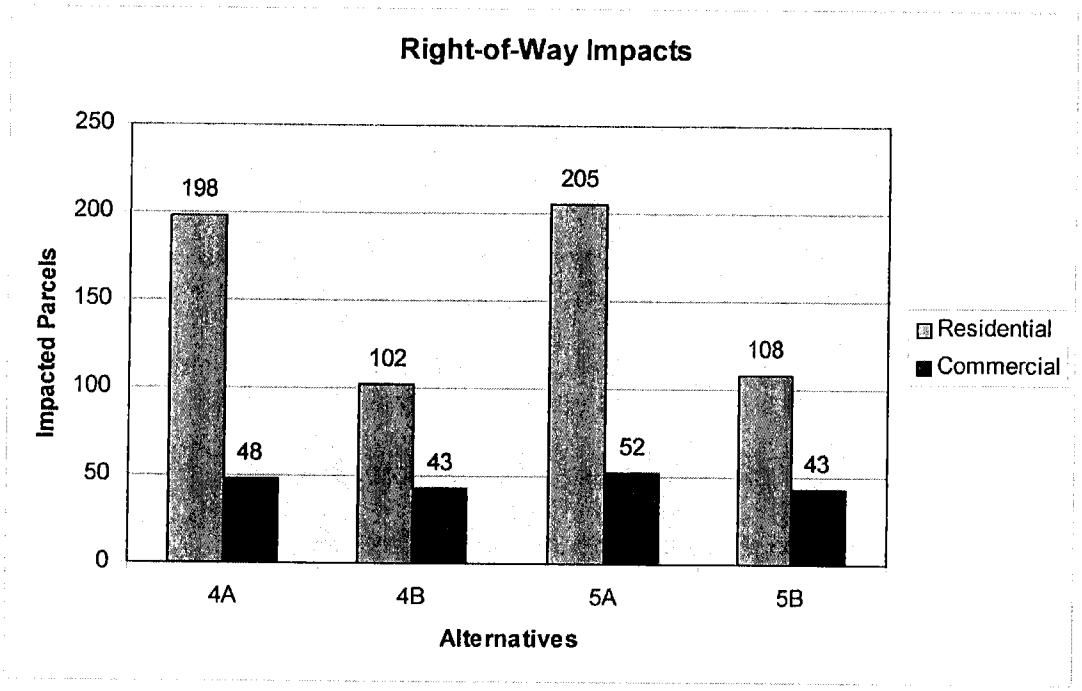
- once design and mapping are finalized, right of way receives property maps
- appraiser will initiate contact with property owner to inspect property
- appraiser will inspect property
- recent market sales will be reviewed, and comparables will be identified
- using market data, a fair market valuation of the property will be prepared

Acquisition of property rights needed for the project

- an acquisition agent will contact the property owner to make a written offer
- they will follow all laws related to the acquisition of property, and work with the property owner to enter into an escrow with the State
- condemnation by the eminent domain process can be initiated when an impasse is reached

Relocation Assistance Program - relocation of residential and business occupants from the required properties.

- a relocation agent will meet with the property owner/business to determine rights and eligibility
- explain all benefits available
- assist occupants in maximizing all benefits that they are eligible for
- RAP is a federal entitlement program



INFORMACIÓN DEL PROYECTO

Caltrans mejora la movilización en California

Socios del Proyecto

- California Department of Transportation, (Caltrans)
- LA County Metropolitan Transportation Authority, Metro
- Federal Highway Administration, FHWA
- Joint Power Authority, JPA

Historia del Proyecto

- Necesidad identificada
  - 1981 Estudio del Análisis Alternativo del Corredor de Transportación de Santa Ana (SATC)
  - 1984 Ensanchamiento desde la autopista 405 hasta la 605
- Estudio de Inversión Mayor (Major Investment Study - MIS) 1995 – 1998
  - Desarrollo de múltiples métodos de mejoramiento de la transportación
  - Ampliación al nivel Tierra
- Proyecto de Carril de Caminos Compartidos (HOV) Provisional, Documento Ambiental Aprobado.
  - 1996 PSR, 1999 Documento Ambiental
- Programa T.C.R.P. – El enfoque se centró en el concepto Final

Información General

- Tramo de 9 Millas de autopista
- 18 Estructuras, Incluyendo Cruces Sobre y al nivel Tierra
- Costo estimado en $1.2 Billones

Necesidad y Objetivo del Proyecto

- Mejorar la movilidad, incrementando la capacidad
- Aliviar la congestión y reducir el tiempo de viaje
- Mejorar la seguridad en general de la autopista
- Actualización de las estructuras de acuerdo con los Estándares Federales y Estatales actuales
- Continuidad del HOV, desde la autopista 405 hasta la 14
- Deterioro del estado de la autopista, de 50 años
- Velocidad de viaje reducida y baja calidad de viaje

Alternativas del Proyecto – (ver exhibiciones)

Calendario Actual

• Aprobación del Proyecto y del Documento Ambiental	Mayo de 2007
• Culminación del Diseño	Fines de 2009
• Inicio de la Construcción (Etapa 1)	2010
• Culminación de la Construcción	2016

CONSIDERACIONES AMBIENTALES

Todas las alternativas del proyecto tendrán efectos importantes en las comunidades circundantes

Adquisición de Propiedades

- Adquisición significativa de propiedades con las Alternativas 4 y 5 (ver Exhibición)
- Reubicación de negocios y residencias y disturbios en los vecindarios

Impacto del Ruido

- Se elevan los niveles de ruido antes de construir la pared aislante.
- Aumento temporal en los niveles de ruido durante la construcción

Impacto en el Tráfico

- Redistribución del tráfico con reducciones en la mayoría de calles locales
- Desvíos temporales y reubicación de paraderos de camión durante la construcción.

Calidad del Agua

- Incremento de aguas lluvia con contenido de contaminantes.
- Tratamiento de aguas lluvia en la medida que sea necesario.

Calidad del Aire

- Incremento en la polución con las Alternativas 1, 2 y 3 a medida que empeora la congestión.
- Incremento de polvo y emisiones diesel durante la construcción.

Materiales Peligrosos

- Posible descubrimiento de suelos contaminados y materiales con contenido de asbestos y plomo

Vegetación y Vida Salvaje

- Se requiere remover vegetación y árboles adultos, generando pérdida de habitantes

Impactos de la Construcción

- Como se anotó arriba, ruido de la construcción, incremento del polvo, desvíos, construcción nocturna.
- Serán necesarios Planes de Manejo de Tráfico para minimizar los disturbios.

El objetivo de esta Audiencia Pública es recibir su testimonio y comentarios sobre estos asuntos. Si hemos omitido algo o quiere hacer énfasis en algún aspecto, déjenos saber.

Tiene hasta el 5 de enero de 2007 para darnos sus comentarios por escrito a:

Ronald Kosinski, Deputy District Director
Division of Environmental Planning
CALTRANS, District 7
100 South Main Street
Los Angeles, CA 90012

Para obtener información en Internet, visite: www.dot.ca.gov/dist07/I-5

PROCESO DE ADQUISICION DE PROPIEDAD (RIGHT OF WAY)

Valoración de derechos de propiedad necesarios para el proyecto.

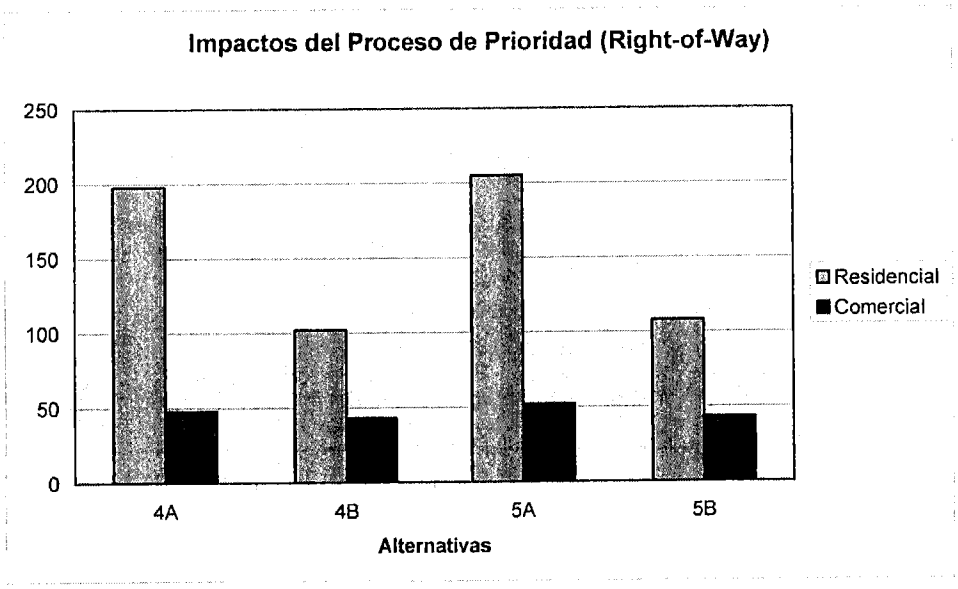
- Una vez finalizado el diseño y desarrollo de mapas, el departamento encargado de Right of Way recibe los mapas de las propiedades
- El evaluador contactará al propietario para inspeccionar la propiedad
- El evaluador inspeccionará la propiedad
- Se revisarán las ventas recientes en área y se buscarán propiedades comparables
- Usando información del mercado se realizará una evaluación justa de la propiedad

Adquisición de derechos de propiedad necesarios para el proyecto

- Un agente de adquisición contactará al propietario para hacerle una oferta formal por escrito
- Ellos se ajustarán a todas las leyes relacionadas con la adquisición de propiedades y trabajarán con el propietario para iniciar el proceso de escrow con el Estado
- La expropiación forzosa a través del trámite de derecho de expropiación puede ser iniciada cuando se llegue a un punto muerto en la negociación

Programa de Asistencia para Reubicación – reubicación de ocupantes de residencias y negocios de las propiedades requeridas.

- Un agente de reubicación se reunirá con el propietario del negocio o vivienda para determinar sus derechos elegibilidad
- Explicar todos los beneficios disponibles
- Asistir para maximizar los beneficios a los cuales tiene derecho
- RAP es un programa federal de derechos



QUESTION/COMMENT CARD

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
INTERSTATE 5 CORRIDOR
IMPROVEMENT PROJECT

NAME/NOMBRE:_____ DATE/FECHA:_____

ADDRESS/DOMICILIO: _____ PHONE/TELEPHONO:_____

CITY, STATE, ZIP/CIUDAD, ESTADO, CODIGO POSTAL:_____

E-MAIL ADDRESS/CORREO ELECTRONICO:_____

☐ I WISH TO SPEAK
DESEO PROVEER UN COMENTARIO

☐ I WOULD LIKE TO HAVE THE FOLLOWING QUESTION ANSWERED
QUIERO QUE ME CONTESTEN LA SIGUIENTE PREGUNTA

☐ I WOULD LIKE TO HAVE THE FOLLOWING STATEMENT FILED FOR THE RECORD
QUIERO TENER LA DECLARACION SIGUIENTE ARCHIVADA EN EL REGISTRO

(CIRCLE YOUR POSITION) (CIRCULE SU POSICION)	I AM, ESTOY,	OPPOSED OPUESTO	IN FAVOR A FAVOR	NEUTRAL NEUTRAL

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QUESTION/COMMENT CARD

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
INTERSTATE 5 CORRIDOR
IMPROVEMENT PROJECT

NAME/NOMBRE:_____ DATE/FECHA:_____

ADDRESS/DOMICILIO: _____ PHONE/TELEPHONO:_____

CITY, STATE, ZIP/CIUDAD, ESTADO, CODIGO POSTAL:_____

E-MAIL ADDRESS/CORREO ELECTRONICO:_____

☐ I WISH TO SPEAK
DESEO PROVEER UN COMENTARIO

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(CIRCLE YOUR POSITION) (CIRCULE SU POSICION)	I AM, ESTOY,	OPPOSED OPUESTO	IN FAVOR A FAVOR	NEUTRAL NEUTRAL

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