P3028-RD-00006

State Route 91 Corridor Improvement Project

Riverside and Orange Counties, California
ORA-91-R14.43/R18.91
RIV-91-R0.00/R13.04
RIV-15-35.64/45.14
EA 08-0F5400
PN 080000000136

Final Environmental Impact Report/Environmental Impact Statement

Volume II



Prepared by the
State of California Department of Transportation
and the
Riverside County Transportation Commission

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

Caltrans

August 2012

This page intentionally left blank

TABLE OF CONTENTS

VOLUME I

EXECUTIVE SUMMARY S-1
CHAPTER 1 PROJECT 1-1
CHAPTER 2 PROJECT ALTERNATIVES 2-1
CHAPTER 3 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES 3-1
HUMAN ENVIRONMENT 3.1-1
PHYSICAL ENVIRONMENT 3.9-1
BIOLOGICAL ENVIRONMENT 3.17-1
CHAPTER 4 CALIFORNIA ENVIRONMENTAL QUALITY ACT EVALUATION 4-1
CHAPTER 5 COMMENTS AND COORDINATION 5-1
CHAPTER 6 LIST OF PREPARERS 6-1
CHAPTER 7 DISTRIBUTION LIST 7-1

VOLUME II

APPENDIX A CEQA ENVIRONMENTAL CHECKLIST A-1
APPENDIX B RESOURCES EVALUATED RELATIVE TO THE REQUIREMENTS OF SECTION 4(F) B-1
APPENDIX C TITLE VI POLICY STATEMENT C-1
APPENDIX D SUMMARY OF RELOCATION BENEFITS D-1
APPENDIX E ENVIRONMENTAL COMMITMENTS RECORD E-1
APPENDIX F LIST OF ACRONYMS F-1
APPENDIX G LIST OF TECHNICAL STUDIES G-1
APPENDIX H REFERENCES H-1
APPENDIX I USFWS SPECIES LIST I-1
APPENDIX J UTILITY RELOCATIONS J-1
APPENDIX K 2012 RTP AND 2011 FTIP (AMENDMENT 24) PROJECT LISTINGS K-1
APPENDIX L PROJECT FEATURES L-1
APPENDIX M SECTION 106 CORRESPONDENCE M-1
APPENDIX N BIOLOGICAL OPINION N-1
APPENDIX O RESPONSES TO COMMENTS O-1

This page intentionally left blank

Appendix A CEQA Environmental Checklist

Supporting documentation for all CEQA checklist determinations is provided in Chapter 3 (Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures) and Chapter 4 (California Environmental Quality Act Evaluation) of this EIR/EIS. Documentation of "No Impact" determinations is provided at the beginning of Chapters 3 and 4. Discussion of all impacts and avoidance, minimization, and/or compensation measures is provided under the appropriate topic headings in Chapters 3 and 4.

CEQA Environmental Checklist

Ora-91 RIV-91 RIV-15	R14.43/R18.91 R0.00/R13.04 35.64/45.14	0F540
Dist.-Co.-Rte.	P.M/P.M.	E.A.

This checklist identifies physical, biological, social and economic factors that might be affected by the 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 either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

	Potentially Significant Impact	Less Than Significant with Mitigation	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 AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Conflict with:				
i) Existing zoning for agricultural use?	☐	☐	☒	☐
ii) Or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☒	☐	☐
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?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☒	☐	☐
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. GREENHOUSE GAS EMISSIONS: Would the project:

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

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

An assessment of the GHG emissions and climate change is included in the body of environmental document. While the Department has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is the Department's determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. The Department does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

VIII. 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?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
IX. HYDROLOGY AND WATER QUALITY: Would the project:				
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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	☐	☐	☐	☒
X. 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?	☐	☐	☒	☐
XI. 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?	☐	☐	☐	☒
XII. 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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project 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?	☐	☐	☐	☒
XIII. 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?	☐	☒	☐	☐
XIV. 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:				
i) Fire protection?	☐	☐	☐	☒
ii) Police protection?	☐	☐	☐	☒
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☒	☐	☐
v) Other public facilities?	☐	☒	☐	☐
XV. 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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
XVI. TRANSPORTATION/TRAFFIC: Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
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) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☒	☐	☐
XVII. 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	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?	☐	☐	☐	☒
XVIII. 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, substantially 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 Resources Evaluated Relative to the Requirements of Section 4(f)

B.1 Introduction

This section of the document discusses parks, recreational facilities, wildlife refuges, and historic properties found within or adjacent to the project area that do not trigger Section 4(f) protection either because: (1) they are not publicly owned, (2) they are not open to the public, (3) they are not eligible historic properties, (4) the project does not permanently, temporarily, or constructively use the property as defined in 23 Code of Federal Regulations (CFR) Section 774.17.

As discussed in detail in this appendix, Alternatives 1 and 2 would result in effects at the following resources that were not addressed in the Section 4(f) discussions in Section 3.1.3.3 in the Environmental Impact Report (EIR)/Environmental Impact Statement (EIS):

- **Santa Ana River Trail/Bike Lane**
  - Permanent relocation of a 200-foot (ft) long segment of the Santa Ana River Trail/Bike Lane to the north in the vicinity of Green River Road during construction of the Initial Phases of Alternatives 1 and 2.
  - No permanent use of land and no permanent easements.
  - Possible short-term (hours/days) detours of segments of the Santa Ana River Trail/Bike Lane during construction of the Initial Phases of Alternatives 1 and 2 for the safety of construction workers and Trail/Bike Lane users.
- **Featherly Regional Park**
  - No permanent use of land and no permanent easements.
  - Temporary use of 0.2 acre (ac) of land for three temporary construction easements (TCEs) in Featherly Regional Park during construction of the Initial Phases of Alternatives 1 and 2.
- **Chino Hills State Park (CHSP)**
  - Temporary use of 2.0 ac of land for seven TCEs during construction of the Initial Phases of Alternatives 1 and 2.

- **Griffin Park**
  - No permanent use of land and no permanent easements.
  - Temporary use of 0.47 ac of land for one TCE during construction of the Alternative 1 and 2 Ultimate Projects.
- **El Cerrito Sports Park**
  - No permanent use of land and no permanent easements.
  - Temporary use of 0.19 ac of land for four TCEs during construction of the Initial Phases of Alternatives 1 and 2.
- **Grand Boulevard Historic District**
  - No permanent or temporary use of land.
  - Removal and relocation of up to seven acorn-style streetlights near their original locations or elsewhere in the Grand Boulevard Historic District during construction of the Initial Phases of Alternatives 1 and 2.
  - Removal of 18 trees adjacent to the East Grand Boulevard and West Grand Boulevard undercrossings during construction of the Initial Phases of Alternatives 1 and 2.

The permanent use of 0.48 ac from CHSP, the permanent subsurface easements in CHSP and New Orange County Park (National Natural Landmark) (New OC Park [NNL]), and the project effects in the Grand Boulevard Historic District are not discussed in this appendix. Refer to Section 3.1.3.3, Section 4(f), Section 6(f), and the Public Park Protection Act of 1971.

B.2 Section 4(f) Use

As defined in 23 CFR Section 774.17, use of a protected Section 4(f) property occurs when any of the following conditions is met:

- Land is permanently incorporated into a transportation facility through partial or full acquisition (i.e., direct use).
- There is a temporary occupancy of land that is adverse in terms of the preservationist purposes of Section 4(f) (i.e., temporary use).
- There is no permanent incorporation of land, but the proximity of a transportation facility results in impacts so severe that the protected activities, features, and/or attributes that qualify a resource for protection under Section 4(f) are substantially impaired (i.e., constructive use).

B.2.1 Permanent Use

A permanent use of a Section 4(f) property takes place when part or all of a property designated for protection under Section 4(f) is permanently incorporated into a transportation project (23 CFR Section 774.17). This may occur as a result of partial or full acquisition of a fee simple interest, permanent easements (which are required for the purpose of project construction or that grants right-of-way access onto a Section 4(f) property, such as for the purpose of routine maintenance by a transportation agency), or temporary easements that exceed the regulatory limits noted below.

B.2.2 Temporary Use and Occupancy

A temporary use of a Section 4(f) property occurs when there is a temporary occupancy of land on a property designated for protection under Section 4(f), and when that temporary occupancy of the property is considered adverse in terms of the preservationist purposes of the Section 4(f) statute. Under the Federal Highway Administration (FHWA) regulations (23 CFR Section 774.13(d)), TCEs and other temporary uses do not normally constitute a temporary use of a property protected under Section 4(f) when all of the following conditions are met:

- The duration of the occupancy must be temporary (i.e., less than the time needed for construction of the project), and there should be no change in ownership of the land;
- The scope of the work must be minor (i.e., both the nature and the magnitude of the changes to the Section 4(f) property must be minimal);
- There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, and/or attributes of the property on either a temporary or permanent basis;
- The land being used must be fully restored (i.e., the property must be returned to the condition that existed prior to the project); and
- There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

B.2.3 Constructive Use

A constructive use of a property designated for protection under Section 4(f) occurs when a transportation project does not incorporate land from the property in the transportation facility, but the proximity of the project to the Section 4(f) property results in adverse proximity impacts (such as noise, vibration, visual, access, and/or ecological impacts) so severe that the protected activities, features, and/or attributes

that qualify the property for protection under Section 4(f) are substantially impaired (23 CFR Section 774.15). Substantial impairment occurs only if the protected activities, features, and/or attributes of the Section 4(f) property are substantially diminished by the indirect adverse impacts of the project (23 CFR Section 774.15(a)). This determination is made through the following process:

- Identification of the current activities, features, and/or attributes of the property that may be sensitive to proximity impacts.
- Analysis of the potential proximity impacts of the project on the property.
- Consultation with the appropriate officials having jurisdiction over the property (23 CFR Section 774.15(d)).

B.3 Resources Evaluated

B.3.1 Section 4(f) Properties

An area within approximately 0.5 mile (mi) of the alignments of Alternatives 1 and 2 was used as the study area for the identification of recreation resources and properties potentially protected under the requirements of Section 4(f). The locations of those properties in relation to the alignment of State Route 91 (SR-91) are shown on Figure B.1, and those properties are described in Table B.1. The figures and tables cited in this appendix are provided following the last page of text in this appendix.

The study area for National Register listed and eligible historic sites was based on the Area of Potential Effects (APE) defined in the *Historic Property Survey Report* (HPSR; 2010) and the Supplemental HPSR (2011). Based on the HPSR and the Supplemental HPSR, there is one National Register-listed property, the Grand Boulevard Historic District, and no other eligible properties in the APE.

Resources in the project study area evaluated for potential protection under Section 4(f) were identified if they were:

- Existing publicly owned recreation and park resources, including local, regional, and State resources[1];
- Publicly owned wildlife and water fowl refuges and conservation areas;

[1] The recreation and park resources within 0.5 mi of the project that were not evaluated under Section 4(f) because they are not publicly owned include the Mountain View Country Club and the Cresta Verde Golf Club.

- Existing public bicycle, pedestrian, and equestrian trails; or
- National Register listed or eligible historic sites.

Table B.2 summarizes the potential effects of the Build Alternatives on the identified Section 4(f) properties that were determined not to trigger the requirements for Section 4(f) protection. Figures B.2 through B.7 show the potential effects of the Build Alternatives on those properties.

B.3.2 Assessment of the Potential for Constructive Uses

The properties described in Table B.1 were evaluated to determine whether the Build Alternatives would result in constructive use of those properties. The detailed analyses related to access, visual and aesthetics, air quality, noise, and ecological impacts provided in Chapter 3 were reviewed as described Attachment F, Evaluation of the Potential for Constructive Use Impacts. That review did not identify any proximity impacts resulting from the Build Alternatives that would be so severe that the activities, features, or attributes that qualify the properties in Table B.1 for protection under Section 4(f) would be substantially impaired. The proximity impacts of the Build Alternatives will not substantially impair the protected activities, features, or attributes of these resources in terms of their Section 4(f) significance. As a result, Alternatives 1 and 2 would not result in constructive use of any of the properties in Table B.1.

B.3.3 Santa Ana River Trail/Bike Lane

B.3.3.1 Project Effects at the Santa Ana River Trail/Bike Lane

Alternatives 1 and 2 would not result in the permanent use of land from the Santa Ana River Trail/Bike Lane. As shown in Table B.2, construction of the Initial Phases of Alternatives 1 and 2 would result in the permanent relocation of an approximately 200 ft long segment of the Trail/Bike Lane in the vicinity of Green River Road, possible temporary detours of a segment of the Trail/Bike Lane during construction, and temporary occupancy of the Trail/Bike Lane during those detours. The relocated trail segment is shown on Figures B.2 and B.3 for the Initial Phases of Alternatives 1 and 2, respectively.

The potential effects of the construction of Alternatives 1 and 2 on the Santa Ana River Trail/Bike Lane are independent of, would occur after, and would accommodate any effects to the Trail/Bike Lane as a result of other projects in the area including the United States Army Corps of Engineers (Corps) projects to realign and modify the Santa Ana River. Refer to Section 2.3.9, Related Projects and Other

Projects in the Vicinity of the SR-91 CIP, for additional discussion of Corps projects in the vicinity of the Santa Ana River. As a result, the evaluation of the impacts of Alternatives 1 and 2 on the Trail/Bike Lane assesses only the impacts of those two alternatives on that facility and does not consider any effects of other projects on the Trail/Bike Lane.

The Initial Phases of Build Alternatives 1 and 2 also include construction of a 30-space surface parking lot near the relocated Trail/Bike Lane segment. The original location of the proposed parking lot at the end of the proposed Green River Road re-alignment and cul-de-sac was in conflict with the extension of the embankment of the Corps' Santa Ana River Reach 9 Phase 2B project. As a result of coordination with the Corps, the parking lot was reconfigured to avoid this conflict. The State Route 91 Corridor Improvement Project (SR-91 CIP) will provide an entrance to the Santa Ana River Trail/Bike Lane from the parking lot to enter the Trail/Bike Lane from the north side onto the extended maintenance access road as modified by the Corps as part of the Santa Ana River Reach 9 Phase 2B project.

The Santa Ana River Trail/Bike Lane extends through the City of Corona into Orange County. The segment of the Trail/Bike Lane that will be shifted north by the SR-91 CIP Build Alternatives is in the City of Corona. As a result, the California Department of Transportation (Department) requested the City of Corona to consider the project effects on that segment of the Santa Ana River Trail/Bike Lane, as described at the end of the following section, Section B.3.3.2, Applicability of Section 4(f).

B.3.3.2 Applicability of Section 4(f)

The Department has determined that the SR-91 CIP Build Alternatives satisfy the five conditions set forth in 23 CFR Section 774.13(d) and do not constitute a use; therefore, Section 4(f) would not apply to the temporary occupancy of the Santa Ana River Trail/Bike Lane during construction of the Initial Phases of Alternatives 1 and 2. The duration of that temporary occupancy would be substantially less than the time needed for construction of the Build Alternatives and there would be no change in ownership of land. The changes to the Santa Ana River Trail/Bike Lane would be minimal, no permanent adverse physical impacts are anticipated, and there would be no interference with the activities or purposes of the resource on either a temporary or permanent basis. The land being used would be fully restored and returned to the condition that existed prior to the project.

B.3.3.3 Documentation of Consultation

Mr. Lance Natsuhara, County of Orange, attended the June 9, 2009, consultation meeting. Consultation with the County of Orange regarding the Santa Ana River Trail/Bike Lane was initiated to ensure that temporary occupancy would result in minimal effects on the Trail/Bike Lane and that the relocated segment of the Trail/Bike Lane will be fully functional after completion of the construction of the Initial Phases of Alternatives 1 and 2.

At the request of Mr. Natsuhara, a second consultation meeting was held with a representative of Orange County Parks (OC Parks), the County of Orange department responsible for the Santa Ana River Trail/Bike Lane. That meeting was held on August 4, 2009. Mr. Harry Huggins, Asset Manager for OC Parks, attended the meeting. The issue of potentially temporarily closing an approximately 4,800 ft long segment of the Santa Ana River Trail/Bike Lane during construction was discussed with Mr. Huggins at the August 4, 2009 meeting. The meeting agenda and minutes for the August 4, 2009, meeting with OC Parks are on file at the Riverside County Transportation Commission (RCTC).

Mr. Huggins provided a written response (letter dated October 9, 2009) regarding the anticipated temporary closure/occupancy of part of the Santa Ana River Trail/Bike Lane during construction. In that letter, OC Parks indicated that it would not support, under any circumstances, the temporary closure of the Santa Ana River Trail/Bike Lane during construction of the Build Alternatives. That comment was predicated on the information discussed at the August 4, 2009 meeting, which indicated that an approximately 4,800 ft long segment of the Trail/Bike Lane could potentially be closed during construction. Since that meeting, it was determined that only very limited (hours/days) temporary detours of a much shorter, 200 ft long segment of the Trail/Bike Lane may be necessary during the construction of the Build Alternatives.

The Department requested the City of Corona's concurrence with that determination in a letter to the City dated April 10, 2012. The City concurred with that determination by signing the Department's letter on April 12 and April 16, 2012 (signatures from the Public Works Department and Parks and Community Services Department, respectively). Copies of the April 10, 2012 letter and the signed April 12 and April 16, 2012 letters are provided in Attachment D.

A summary of the meetings and letters documenting the Section 4(f) consultation with the County of Orange regarding the potential effects of the SR-91 CIP Build

Alternatives on the Santa Ana River Trail/Bike Lane is also provided in Attachment B, Consultation with the County of Orange.

B.3.4 Featherly Regional Park

B.3.4.1 Project Effects at Featherly Regional Park

Alternatives 1 and 2 would not result in the permanent use of land from Featherly Regional Park, but would result in the temporary occupancy of some land in the Park for TCEs during construction of the Initial Phases of Alternatives 1 and 2. There are three TCEs totaling 0.2 ac just north of SR-91 and within Featherly Regional Park as shown on Figure B.4. The TCEs are to accommodate the modifications to drainages and utility facilities in the Initial Phases of Alternatives 1 and 2. There would be no TCEs at Featherly Regional Park during construction of the Ultimate Projects for Alternatives 1 and 2. No permanent project features will be constructed in Featherly Regional Park within the boundaries of the TCEs needed during construction of the Initial Phases of Alternatives 1 and 2.

B.3.4.2 Applicability of Section 4(f)

The Department has determined that the SR-91 CIP Build Alternatives satisfy the five conditions set forth in 23 CFR Section 774.13(d) and do not constitute a use; therefore, Section 4(f) would not apply to the TCEs at Featherly Regional Park during construction of the Initial Phases of Alternatives 1 and 2. The duration of the temporary occupancy would be less than the time needed for construction of the Build Alternatives and there would be no change in ownership of land. The changes to Featherly Regional Park would be minimal, no permanent adverse physical impacts are anticipated, and there would be no interference with the activities or purposes of the resource on either a temporary or permanent basis. The land being used would be fully restored and returned to the condition that existed prior to the project. As noted earlier, no permanent project features will be constructed in Featherly Regional Park within the boundaries of the TCEs needed during construction of the Initial Phases of Alternatives 1 and 2.

B.3.4.3 Documentation of Consultation

OC Parks is the County of Orange department responsible for Featherly Regional Park. Consultation with OC Parks regarding the temporary use of parts of Featherly Regional Park was initiated in 2009 to ensure that the TCEs would result in minimal effects on the Park, and that the affected areas in the Park are fully restored and functional after completion of the construction of the Initial Phases of Alternatives 1 and 2.

A consultation meeting was held with Mr. Harry Huggins, Asset Manager for OC Parks, on August 4, 2009. The meeting agenda and minutes for the August 4, 2009, meeting with OC Parks are on file at RCTC.

Mr. Huggins provided a written response (letter dated October 9, 2009) regarding the potential temporary use impacts on Featherly Regional Park during construction of the Build Alternatives. In that letter, OC Parks did not provide any specific comments or identify any specific concerns regarding the temporary use of land from Featherly Regional Park for TCEs during project construction.

The County concurred with the Department's temporary occupancy determination at Featherly Regional Park in an email dated March 22, 2012. A copy of that email from the County is provided in Attachment B.

A summary of the meetings and letters documenting the Section 4(f) consultation with the County of Orange regarding the potential effects of the SR-91 CIP Build Alternatives on Featherly Regional Park is also provided in Attachment B.

B.3.5 Chino Hills State Park

B.3.5.1 Project Effects at Chino Hills State Park

In addition to the de minimis impacts discussed in Section 3.1.3.3 and as shown on Figure B.5, Alternatives 1 and 2 would result in the temporary occupancy of approximately 2.0 ac of land in CHSP for seven TCEs during construction of the Initial Phases of Alternatives 1 and 2. The TCEs in CHSP will be necessary to access and modify drainages and utility facilities in the SR-91 right-of-way and in and around the Burlington Northern Santa Fe (BNSF) railroad right-of-way to accommodate construction of the Green River Road westbound exit ramp bridge over the railroad tracks. No permanent project features will be constructed in CHSP within the boundaries of the TCEs needed during construction of Alternatives 1 and 2.

B.3.5.2 Applicability of Section 4(f)

The Department made a preliminary determination that the use of 2.0 ac in CHSP for TCEs during the construction of the Initial Phases of the SR-91 CIP Build Alternatives satisfies the five conditions set forth in 23 CFR Section 774.13(d) and does not constitute a use; therefore, Section 4(f) would not apply to the use of 2.0 ac of land in CHSP for TCEs. The duration of the temporary occupancy would be less than the time needed for construction of the Build Alternatives, and there would be no change in ownership of land. The changes to CHSP would be minimal, no permanent adverse physical impacts are anticipated, and there would be no interference with the

activities or purposes of the resource on either a temporary or permanent basis. The land being used temporarily during construction must be returned to the condition that existed prior to the project. Alternatives 1 and 2 would result in the temporary occupancy of 2.0 ac of land in CHSP for seven TCEs. The TCEs are for work on existing culverts and existing power poles, and work in the vicinity of the BNSF railroad tracks. The areas in CHSP used for TCEs would be fully restored and functional after completion of the construction of Alternatives 1 and 2.

B.3.5.3 Documentation of Consultation

The State Parks Department (State Parks) confirmed their concurrence with the determination that the TCEs in CHSP are temporary occupancies and do not constitute a use of park land under Section 4(f) in a letter dated April 5, 2012, a copy of which is provided in Attachment C.

A summary of the meetings and letters documenting the Section 4(f) consultation with State Parks regarding the potential effects of the SR-91 CIP Build Alternatives on CHSP is also provided in Attachment C.

B.3.6 Griffin Park

B.3.6.1 Project Effects at Griffin Park

The Alternative 1 and 2 Ultimate Projects will require a 0.47 ac TCE at Griffin Park, as shown on Figure B.6. As shown on Figure B.6, one TCE in Griffin Park will be necessary to access and modify drainages in the SR-91 right-of-way. No permanent project features will be constructed in Griffin Park within the boundary of the TCE needed during construction of the Alternative 1 and 2 Ultimate Projects.

B.3.6.2 Applicability of Section 4(f)

The Department has determined that the SR-91 CIP Build Alternatives satisfy the five conditions set forth in 23 CFR Section 774.13(d) and do not constitute a use; therefore, Section 4(f) would not apply to the temporary occupancy of Griffin Park for a 0.47 ac TCE during construction of the Alternative 1 and 2 Ultimate Projects. The duration of that temporary occupancy would be substantially less than the time needed for construction of the Build Alternatives and there would be no change in ownership of land. The changes to Griffin Park would be minimal, no permanent adverse physical impacts are anticipated, and there would be no interference with the activities or purposes of the resource on either a temporary or permanent basis. The land being used would be fully restored and returned to the condition that existed prior to the project.

B.3.6.3 Documentation of Consultation

Mr. Robert Morin attended the June 9, 2009, consultation meeting representing the City of Corona. The intent of that consultation with the City was to ensure that the TCEs result in minimal effects on Griffin Park, and that affected areas of the Park are returned to the condition that existed prior to the project. The City of Corona provided a consultation letter (dated June 15, 2009) that indicated the information provided to the City regarding the impacts to Griffin Park was adequate, and that the City was not providing any further information regarding that Park. In its letter, the City of Corona indicated that:

- Griffin Park, the identified Section 4(f) property in the City, is under the jurisdiction of the City of Corona.
- The information provided to the City regarding the facilities and amenities at Griffin Park is correct, no additional information regarding that property is required, and the purpose of Griffin Park has been adequately described.
- The anticipated project impacts (only temporary occupancy for a TCE) at Griffin Park have been adequately evaluated in the information provided to the City.
- The significance and importance of this property to the City has been adequately expressed.

The City agreed in a letter dated June 15, 2009, that the project's impacts to Griffin Park were fully and correctly evaluated and would be temporary. A copy of the June 5, 2009 letter from the City is provided in Attachment D.

A summary of the meetings and letters documenting the Section 4(f) consultation with the City of Corona regarding the potential effects of the SR-91 CIP Build Alternatives on Griffin Park is also provided in Attachment D.

B.3.7 El Cerrito Sports Park

B.3.7.1 Project Effects at El Cerrito Sports Park

Alternatives 1 and 2 would not result in the permanent use of land from El Cerrito Sports Park, but would result in the temporary occupancy of some land from the Park for four TCEs as shown on Figure B.7. The TCEs, just east of I-15 and within the boundary of El Cerrito Sports Park, will be used to access and modify drainages in the SR-91 CIP right-of-way during construction of the Initial Phases of Alternatives 1 and 2.

B.3.7.2 Applicability of Section 4(f)

The Department has determined that the SR-91 CIP Build Alternatives satisfy the five conditions set forth in 23 CFR Section 774.13(d) and do not constitute a use; therefore, Section 4(f) would not apply to the temporary occupancy at El Cerrito Sports Park for four TCEs during construction of the Initial Phases of Alternatives 1 and 2. The changes to El Cerrito Sports Park would be minimal, no permanent adverse physical impacts are anticipated, and there would be no interference with the activities or purposes of the resource on either a temporary or permanent basis. The land being used would be fully restored and returned to the condition that existed prior to the project.

The duration of the temporary occupancy would be less than the time needed for construction of the Build Alternatives and there would be no change in ownership of land. The changes to El Cerrito Sports Park would be minimal, no permanent adverse physical impacts would occur, and there would be no interference with the activities or purposes of the resource on either a temporary or permanent basis. The land being used would be fully restored and would be returned to the condition that existed prior to the project. During public circulation and prior to final approval of the project, the Department will continue coordinating with the City of Corona on obtaining agreement regarding the above conditions.

B.3.7.3 Documentation of Consultation

The Department sent a letter (dated March 22, 2011) to the City of Corona explaining that the Department determined that the temporary use of land for the TCEs at El Cerrito Sports Park satisfies the five conditions set forth in 23 CFR Section 774.13(d), and that Section 4(f) would not apply.

In an email dated May 13, 2011, the City of Corona indicated that it concurred with the Department's determination that Section 4(f) would not apply to the temporary use of land in El Cerrito Sports Park for a TCE during the construction of the SR-91 CIP. A copy of that email is included in Attachment D.

A summary of the meetings and letters documenting the Section 4(f) consultation with the City of Corona regarding the potential effects of the SR-91 CIP Build Alternatives on El Cerrito Sports Park is also provided in Attachment D.

Attachments to this report are provided as follows:

- **Attachment A:** Tables and Figures
- **Attachment B:** Summary of Consultation with the County of Orange
- **Attachment C:** Summary of Consultation with State Parks
- **Attachment D:** Summary of Consultation with the City of Corona
- **Attachment E:** Consultation Letter from the National Park Service
- **Attachment F:** Evaluation of the Potential for Constructive Use Impacts

This page intentionally left blank

Attachment A: Tables and Figures

This attachment contains the following tables and figures:

Tables

Table B.1 Parks and Recreation Resources
Table B.2 Summary of Effects That Do Not Trigger Protection Under Sections 4(f) and 6(f)

Figures

Figure B.1 Section 4(f) and 6(f) Properties and Other Recreation Resources in the SR-91 CIP Study Area
Figure B.2 Alternative 1 Relocated Santa Ana River Trail/Bike Lane
Figure B.3 Alternative 2 Relocated Santa Ana River Trail/Bike Lane
Figure B.4 Alternatives 1 and 2 at Featherly Regional Park
Figure B.5 Temporary Construction Easements at Chino Hills State Park
Figure B.6 Alternatives 1 and 2 at Griffin Park
Figure B.7 Alternatives 1 and 2 at El Cerrito Sports Park

Table B.1 Parks and Recreation Resources[1]

Name, Address, and Owner/Operator of Property	Description of Facilities and Resources on Property
Public Trails	
Santa Ana River Trail/Bike Lane 24001 Santa Ana Canyon Road Anaheim, CA 92808 City of Corona	The Santa Ana River Trail/Bike Lane extends approximately 70 mi across Orange, Riverside, and San Bernardino Counties and 14 incorporated cities in those counties. Along the project segment of SR-91 and extending west to the Trail/Bike Lane terminus in Orange County, the Santa Ana River Trail/Bike Lane is a paved off-street, Class I bicycle path. East of Green River Road, although most of the Trail/Bike Lane is a paved Class I off-street bicycle path, some segments of the Trail/Bike Lane are in paved public street rights-of-way or are unpaved (such as in the San Bernardino National Forest). All of the Trail/Bike Lane in the SR-91 study area is paved. The Trail/Bike Lane in the study area is available for use by bicyclists and pedestrians. Some segments of the Trail/Bike Lane, such as in the San Bernardino County National Forest well east of the project study area, are unpaved and are available for use by equestrians as well as bicyclists and pedestrians. The Santa Ana River Trail/Bike Lane is a recreational facility only and not a transportation or mixed-use facility. However, the segment of the Trail/Bike Lane between Green River Road in Riverside County and Gypsum Canyon Road in Orange County that parallels SR-91 is open to use by motorized bicycles in addition to regular bicycles and pedestrians. In the vicinity of the project segment of SR-91 in Riverside County, the Santa Ana River Trail/Bike Lane is a paved, off-street trail in a dedicated, publicly owned right-of-way in the City of Corona. Because that segment of the Trail/Bike Lane is owned and operated by the City and will be affected by the SR-91 CIP, it qualifies for protection as a Section 4(f) property. The segment of the Santa Ana River Trail/Bike Lane along SR-91 in Orange County is a paved, off-street trail in a dedicated, publicly owned right-of-way. That segment of the Trail/Bike Lane will not be affected by any of the SR-91 CIP Build Alternatives. The Santa Ana River Trail/Bike Lane intersects some established bicycle lanes/facilities along its alignment as well as 24 local and arterial roads. As a result, this Trail/Bike Lane can be widely accessed by foot or bicycle from access points along its entire length. In the study area for the SR-91 CIP, parking to access the Trail/Bike Lane is available on street just east of the entrance to the Green River Golf Club in the City of Corona, and on-site parking is available in both CHSP and Featherly Regional Park. The Santa Ana River Trail/Bike Lane is one of many trails throughout the region. For example, as the Trail/Bike Lane travels south adjacent to the Santa Ana River, it crosses or connects to a number of trails and pedestrian and bicycle facilities along its alignment. These include several trails in CHSP on the north and south sides of SR-91. The Santa Ana River Trail/Bike Lane traverses Featherly Regional Park generally adjacent to the Santa Ana River. In the vicinity of SR-91, the Trail/Bike Lane is an off-street paved asphalt path, 12 ft wide, that is divided into two lanes so that cyclists may ride abreast and to allow for safe passing. The Trail/Bike Lane accommodates bicyclists, rollerbladers, joggers, and pedestrians. The segment of the Trail/Bike Lane in the SR-91 CIP study area has only moderate topography and provides views of the Santa Ana River and wildlife.

Table B.1 Parks and Recreation Resources[1]

Name, Address, and Owner/Operator of Property	Description of Facilities and Resources on Property
	Destinations along the Santa Ana River Trail/Bike Lane outside the SR-91 CIP study area include a rest area at Centennial Regional Park in the City of Santa Ana, picnic and rest-stop areas at Katella Avenue and Orange/Olive in the City of Orange, and a picnic area at Yorba Regional Park in the City of Anaheim. Because the Trail/Bike Lane is open for public access at a large number of locations along its alignment, it is not possible to estimate the number of users of this facility. Features that make the Santa Ana River Trail/Bike Lane special include its length and route, which crosses much of Orange County adjacent to the Santa Ana River; its views of natural and developed areas along the Trail/Bike Lane alignment; and the access the Trail/Bike Lane provides to other recreational facilities, including parks and other trails. The segment of the Santa Ana River Trail/Bike Lane east of Featherly Regional Park is generally close to or within the State right-of-way for SR-91. In Featherly Regional Park, the Trail/Bike Lane is farther north and, as a result, is farther from SR-91. During a consultation meeting for this project, an NPS representative indicated that the NPS considers trails in this part of southern California to be potential links to the Anza Trail. The general alignment of the Anza Trail is well north of SR-91, in San Bernardino County, and is not crossed by or in the vicinity of the SR-91 CIP limits. However, as indicated by the NPS, Santa Ana River Trail/Bike Lane users could potentially reach the Anza Trail via trails in CHSP and other locations to the north. Because the Anza Trail is well north of the SR-91 CIP study area, it is described here as a part of the overall regional system of trails but not as a resource affected by the SR-91 CIP Build Alternatives.
Public Parks	
Featherly Regional Park 24001 Santa Ana Canyon Road Anaheim, CA 92808 OC Parks	Featherly Regional Park is owned and operated by OC Parks. Because Featherly Regional Park is publicly owned and operated and is open to the public, it qualifies as a Section 4(f) property. Amenities provided at Featherly Regional Park include on-site parking, a visitor center, park benches, picnic tables, campsites, restrooms, and the Santa Ana River Trail/Bike Lane. Featherly Regional Park covers 364 ac, much of which is a natural riparian wilderness area. Viewing opportunities are best from the Santa Ana River Trail/Bike Lane and the banks of the Santa Ana River. Featherly Regional Park offers both camping and day use. The estimated number of day and overnight visitors to Featherly Regional Park was not available from the OC Parks website. Featherly Regional Park is traversed by the Santa Ana River Trail/Bike Lane, which provides a connection between this park and a number of other recreational resources along the Santa Ana Trail/Bike Lane, including the Green River Golf Club and parks to the west and south all the way to the Pacific Ocean. Vehicular access to Featherly Regional Park is available via Gypsum Canyon Road. Travelers on SR-91 can exit the freeway at Gypsum Canyon Road and travel north on Gypsum Canyon Road a short distance to the main entrance of this park. Pedestrians and bicyclists can access the park at the main entrance on Gypsum Canyon Road or via the Santa Ana River Trail/Bike Lane.

Table B.1 Parks and Recreation Resources[1]

Name, Address, and Owner/Operator of Property	Description of Facilities and Resources on Property
	Features that make Featherly Regional Park special include the provision of camping and day use activities in proximity to a large number of users in the developed parts of northeast Orange County, the ability to use the Santa Ana River Trail/Bike Lane to access other area resources, and the riparian vegetation and wildlife along the Santa Ana River. Featherly Regional Park is immediately adjacent to SR-91. There is a substantial change in grade from the freeway to the park, with the park substantially lower than the freeway. In addition, the interchange ramps for the SR-241/SR-91 interchange are immediately adjacent to and above Featherly Regional Park.
Chino Hills State Park 1879 Jackson Street Riverside, CA 92504 On the north and south sides of SR-91 near SR-71, on Assessor's Parcels 1033-171-15-0000 (San Bernardino County); 101-120-018 (Riverside County); and 353-061-03, 085-071-43, 085-071-32, 085-071-35, and 085-071-33 (Orange County) State Parks	CHSP is owned and operated by State Parks. Therefore, because CHSP is publicly owned and operated and is open to the public, it qualifies as a Section 4(f) property. Amenities provided in CHSP include on-site parking, picnic areas, an equestrian staging area, pipe corrals, a historic barn, water spigots, campsites, restrooms, and approximately 60 mi of hiking, bike, and equestrian trails. Organized campfires, school programs, nature hikes, a Junior Ranger program, and educational talks are offered throughout the year. A ranch house, barn, windmills, and watering troughs in the park are reminders of the cattle ranching in this area. CHSP serves a valuable function as a major link in a wildlife biolink that extends over 30 mi from the Santa Ana Mountains to the southeast to the Whittier Hills to the northwest. The Coal Canyon wildlife undercrossing, which connects the Santa Ana Mountains south of SR-91 and the Puente-Chino Hills north of SR-91, is in CHSP. This wildlife crossing is used by a wide variety of wildlife. The total area of CHSP is 14,173 ac. CHSP is normally open for both camping and day use. Based on input from State Parks (October 23, 2009), the estimated annual numbers of day-use and overnight visitors to CHSP are 100,000 and 3,500, respectively. The Freeway Complex Fire burned over 13,800 ac, or approximately 95 percent, of CHSP on November 15, 2008. As a result, the park was closed from November 15, 2008, to February 1, 2009. CHSP reopened on February 1, 2009, with some restrictions. As of 2012, CHSP is open from April through September, 8:00 a.m. to 7:00 p.m., Friday through Monday. From October through March, CHSP is open from 8:00 a.m. to 5:00 p.m., Friday through Monday. Camping is available at CHSP on Friday and Saturday nights, and campers must leave CHSP by 12:00 noon on Sunday. There are 20 campsites in the park campground. Campfires are allowed in the campground as of November 18, 2011, but are prohibited during fire season. CHSP is closed Tuesday through Thursday. Vehicular access to CHSP is available at the park entrances at Rimcrest Drive and Bane Canyon Road. Those entrances are well north of the SR-91 CIP study area. Travelers on SR-91 can use SR-71 north to Soquel Canyon Parkway, then travel west on the Parkway to Bane Canyon Road. Pedestrians and bicyclists can access CHSP at those entrances and at a number of trailheads leading to trails in the park. There is a trailhead in CHSP just north of Green River Road. The unpaved trail extends east and north from that trailhead, along a maintenance road, into CHSP.

Table B.1 Parks and Recreation Resources[1]

Name, Address, and Owner/Operator of Property	Description of Facilities and Resources on Property
	Features that make CHSP special include its overall size, the wide range of natural resources within the park, the connections provided at CHSP to other open space and wilderness areas for wildlife, and the overall experience and enjoyment associated with such a large area of open space in a largely urbanized area. There is a trail in CHSP just north of the Green River Road off-ramp and SR-91.
Griffin Park 2804 Griffin Way Corona, CA 92879 City of Corona	This 12.9 ac neighborhood park in the City of Corona just north of SR-91 is owned and operated by the City and is open to the public. Therefore, it qualifies as a Section 4(f) property. This park provides on-site parking, benches, grassy areas, a play area, and paved walking paths. The park provides opportunities for passive recreation. Griffin Park is open to the public with access via local streets and sidewalks. Vehicular access to Griffin Park is available via several local streets, including Griffin Way, Bristol Way, and Hillsborough Way. Pedestrians and bicyclists can also access Griffin Park via these local streets. Travelers on SR-91 can access the park from SR-91 by exiting at McKinley Street, traveling north on McKinley Street to Griffin Way, and then continuing east on Griffin Way to the park. No overnight use is allowed at Griffin Park. The estimated number of users at the park was not available from the City of Corona website. In addition, because this is a neighborhood park with unrestricted access for pedestrians and cars, it is not possible to estimate the number of users. Features that make Griffin Park special include being readily accessible to area residents and the presence of coastal sage scrub over a large part of the site. Griffin Park is at a higher elevation than, and overlooks, SR-91.
El Cerrito Sports Park East of the El Cerrito Road/I-15 Interchange Corona, CA 92881 City of Corona	El Cerrito Sports Park is a 26.6 ac public park on the east side of I-15 that opened to the public on June 5, 2010. Amenities at the park include two full-sized baseball/softball diamonds, two Little League baseball/softball diamonds, one T-ball multi-use field, two full-sized soccer fields, two basketball courts, a 5,000 sq ft community center building, off-street parking, restrooms, landscaping, fencing, sports field lighting, tot lots, and a concession stand. Vehicle access to this park is via Rudell Road on the northeast side of the park. Pedestrian access to El Cerrito Sports Park is via Rudell Road and El Cerrito Road.
Civic Center Gym 815 West Sixth Street Corona, CA 92882 City of Corona	This park is approximately 500 ft south of SR-91, between Buena Vista Avenue and Vicentia Avenue, at the City of Corona City Hall. This 17 ac neighborhood park/gym provides ball fields, basketball courts, soccer fields, teen room/gym/fitness room, and a kitchen facility. This gym is outside the right-of-way limits and disturbance limits for, and there is no use of land from the gym property by, the Build Alternatives. Therefore, the requirements for protection under Sections 4(f) and 6(f) are not triggered.

Table B.1 Parks and Recreation Resources[1]

Name, Address, and Owner/Operator of Property	Description of Facilities and Resources on Property
Sheridan Park 300 South Sheridan Corona, CA 92882 City of Corona	This park is approximately 500 ft south of SR-91, just east of Grand Boulevard in the City of Corona. This 3 ac neighborhood park provides active recreation such as ball fields, basketball courts, horseshoes, barbeques, covered shelter, play equipment, and picnic facilities. This park is outside the right-of-way limits and disturbance limits for, and there is no use of land from this park by, the Build Alternatives. Therefore, the requirements for protection under Sections 4(f) and 6(f) are not triggered.
City Park 930 East Sixth Street Corona, CA 92882 City of Corona	This park is approximately 950 ft south of SR-91, just east of East Grand Boulevard in the City of Corona. This 17 ac neighborhood park provides ball fields, volleyball courts, basketball courts, soccer fields, swimming pool, horseshoes, a band shell, a skate park, barbeques, covered shelter, play equipment, and picnic facilities. This park is outside the right-of-way limits and disturbance limits for, and there is no use of land from the gym property by, the Build Alternatives. Therefore, the requirements for protection under Sections 4(f) and 6(f) are not triggered.
Prado Regional Park 16700 South Euclid Avenue Chino, CA 91708	Owner/Operator: San Bernardino County Parks Department This recreation area covers approximately 2,000 ac in San Bernardino and Riverside Counties and is approximately 0.3 mi north of SR-91 and east of SR-71. The southern party of the Prado Regional Park facing SR-91 includes Prado Dam and the Prado Dam Spillway. Those areas are not open to the public and do not contain any recreation resources. The public recreation amenities at Prado Regional Park include fishing, hiking, horseback riding, wildlife viewing, picnicking, camping and RV spaces, golf, shooting, boating, playfields, an archery range, horseshoe pits, a dog training facility, and a multipurpose room. This park is outside the right-of-way limits and disturbance limits for, and there is no use of land from this park by, the Build Alternatives. Therefore, the requirements for protection under Sections 4(f) and 6(f) are not triggered.
Publicly Owned Schools	
Parkridge Elementary School 750 Corona Avenue Corona, CA 92879 Corona-Norco Unified School District	This public elementary school is approximately 0.4 mi southeast of Hidden Valley Parkway in the City of Corona. This school allows public recreation uses on their grounds. This school is outside the right-of-way limits and disturbance limits for, and there is no use of land from this school by, the Build Alternatives. Therefore, the requirements for protection under Sections 4(f) and 6(f) are not triggered.

Table B.1 Parks and Recreation Resources[1]

Name, Address, and Owner/Operator of Property	Description of Facilities and Resources on Property
El Cerrito Middle School 7610 El Cerrito Road Corona, CA 92881 Corona-Norco Unified School District	This public middle school is approximately 1,000 ft east of I-15 and the on- and off-ramps to I-15 at El Cerrito Road. There are sports fields on the school site, including a dirt track, soccer field, basketball courts, and a jungle gym. This school allows public recreation uses on their grounds. This school is outside the right-of-way limits and disturbance limits for, and there is no use of land from this school by, the Build Alternatives. Therefore, the requirements for protection under Sections 4(f) and 6(f) are not triggered.
Wildlife Reserve	
Western Riverside County MSHCP Multiple Public and Private Owners	The Western Riverside County MSHCP covers a 324,113 ac plan area and serves as a comprehensive, multijurisdictional Habitat Conservation Plan pursuant to Section 10(a)(1)(B) of FESA of 1973 and the NCCP, focusing on the conservation of species and their associated habitats in western Riverside County. The Western Riverside County MSHCP allows participating jurisdictions to authorize the take of both plant and wildlife species identified in the Western Riverside County MSHCP area. Regulation of the take of threatened, endangered, and rare species is authorized by the applicable wildlife resource agencies (USFWS and CDFG), which allow take authorization for otherwise lawful actions (e.g., public and private development) in exchange for the assembly and management of a coordinated Western Riverside County MSHCP Conservation Area. The SR-91 CIP is a covered project under the Western Riverside County MSHCP. The take of any lands designated in the Western Riverside County MSHCP by the Build Alternatives will be coordinated with, but is not subject to approval by, the Western Riverside RCA.
Golf Course	
Green River Golf Club 5215 Green River Road Corona, CA 92880 Orange County Flood Control District	This golf club is open to the public. The Santa Ana River winds through golf courses that are surrounded by mature native oak, sycamore, and cottonwood trees. Prior to initiation of the Corps project to relocate the Santa Ana River, this publicly owned golf club provided two 18-hole golf courses (36 holes total) and a clubhouse on the north side of SR-91 at Green River Road. As of January 2010, 18 holes on the golf course were closed and the vegetation removed as part of the Corps project. Because the Corps has used property from the Green River Golf Club, the disturbance limits for the Build Alternatives would not extend into the golf club's property, and there would be no use of this property by the Build Alternatives. Therefore, the requirements for protection under Sections 4(f) and 6(f) are not triggered.

Sources: Thomas Bros. Map Reference: Orange County Street Guide (2006), San Bernardino & Riverside Counties Street Guide (2007), field visits in 2008 and 2009, and "Big Gift Swells O.C. Park Acreage" (*Los Angeles Times*, June 30, 2010).

[1] The locations of these properties are shown on Figure B.1.

ac = acre/acres
Anza Trail = Juan Batista de Anza National Historic Trail
CEQA = California Environmental Quality Act
CFR = Code of Federal Regulations
CHSP = Chino Hills State Park
CIP = Corridor Improvement Project
Department = California Department of Transportation
ft = foot/feet
I-15 = Interstate 15
L&WCF Act = Land and Water Conservation Fund Act
mi = mile/miles
NNL = National Natural Landmark
NPS = National Park Service
OC Parks = Orange County Parks
RCTC = Riverside County Transportation Commission
SHPO = State Historic Preservation Officer
sq ft = square foot/feet
SR-241 = State Route 241
SR-71 = State Route 71
SR-91 = State Route 91
State Parks = California State Parks

Table B.2 Summary of Effects That Do Not Trigger Protection Under Section 4(f) and 6(f) Properties

Alternative 1 Project			Alternative 2 Project			Status Under Sections 4(f) and 6(f)
Permanent Use	**Permanent Easement**	**TCEs and Other Temporary Occupancies[1]**	**Permanent Use**	**Permanent Easement**	**TCEs and Other Temporary Occupancies[1]**	
Santa Ana River Trail/Bike Lane (Refer to Figures B.2 and B.3)						
Initial Phase: None **Ultimate Project:** None	**Initial Phase:** None **Ultimate Project:** None	**Initial Phase:** Possible temporary detours during the permanent relocation of a 200 ft long segment of the Santa Ana River Trail/Bike Lane **Ultimate Project:** None beyond the possible temporary detours in the Initial Phase	**Initial Phase:** None **Ultimate Project:** None	**Initial Phase:** None **Ultimate Project:** None	**Initial Phase:** Possible temporary detours during the permanent relocation of a 200 ft long segment of the Santa Ana River Trail/Bike Lane **Ultimate Project:** None beyond the possible temporary detours in the Initial Phase	**Permanent Use:** There are no permanent uses of the Santa Ana River Trail/Bike Lane under the Initial Phases or Ultimate Projects for Alternatives 1 and 2. Therefore, the requirements of Section 4(f) are not triggered. **Permanent Easement:** There are no permanent easements at the Santa Ana River Trail/Bike Lane under the Initial Phases or Ultimate Projects for Alternatives 1 and 2. Therefore, the requirements of Section 4(f) are not triggered. **TCEs and Other Temporary Occupancies:** The possible temporary detours of the Santa Ana River Trail/Bike Lane during construction of the Initial Phases of Alternatives 1 and 2 would be a temporary occupancy and, therefore, the requirements of Section 4(f) are not triggered. In summary, the project effects at the Santa Ana River Trail/Bike Lane do not trigger the requirements for protection under Section 4(f) and are, therefore, exempt from the requirements of Section 4(f).
Featherly Regional Park (Refer to Figure B.4)						
Initial Phase: None **Ultimate Project:** None	**Initial Phase:** None **Ultimate Project:** None	**Initial Phase:** 0.2 ac for TCEs **Ultimate Project:** None beyond the 0.2 ac for TCEs in the Initial Phase	**Initial Phase:** None **Ultimate Project:** None	**Initial Phase:** None **Ultimate Project:** None	**Initial Phase:** 0.2 ac for TCEs **Ultimate Project:** None beyond the 0.2 ac for TCEs in the Initial Phase	**Permanent Use:** There are no permanent uses of Featherly Regional Park under the Initial Phases or Ultimate Projects for Alternatives 1 and 2. Therefore, the requirements of Section 4(f) are not triggered. **Permanent Easement:** There are no permanent easements at Featherly Regional Park under the Initial Phases or Ultimate Projects for Alternatives 1 and 2. Therefore, the requirements of Section 4(f) are not triggered. **TCEs and Other Temporary Occupancies:** The TCEs at Featherly Regional Park during construction of the Initial Phases of Alternatives 1 and 2 would be temporary occupancies and, therefore, the requirements of Section 4(f) are not triggered.

Table B.2 Summary of Effects That Do Not Trigger Protection Under Section 4(f) and 6(f) Properties

Alternative 1 Project			Alternative 2 Project			Status Under Sections 4(f) and 6(f)
Permanent Use	**Permanent Easement**	**TCEs and Other Temporary Occupancies[1]**	**Permanent Use**	**Permanent Easement**	**TCEs and Other Temporary Occupancies[1]**	
						In summary, the project effects at Featherly Regional Park do not trigger the requirements for protection under Section 4(f) and are, therefore, exempt from the requirements of Section 4(f).
Chino Hills State Park (Refer to Figure B.5, Sheets 1 to 4)						
Refer to Section 3.1.3.3 for discussion regarding the permanent use of land at CHSP by this Alternative.	Refer to Section 3.1.3.3 for discussion regarding the permanent subsurface easements at CHSP by this Alternative.	**Initial Phase:** 1.1 ac for one TCE at Green River Road **Ultimate Project:** 1.03 ac for six TCEs, in addition to the 1.1 ac for one TCE in the Initial Phase	Refer to Section 3.1.3.3 for discussion regarding the permanent use of land at CHSP by this Alternative.	Refer to Section 3.1.3.3 for discussion regarding the permanent subsurface easements at CHSP by this Alternative.	**Initial Phase:** 1.1 ac for one TCE at Green River Road **Ultimate Project:** 1.03 ac for six TCEs, in addition to the 1.1 ac for one TCE in the Initial Phase	The permanent use of land and permanent subsurface easements at CHSP are addressed under Section 4(f) in Section 3.1.3.3, Section 4(f), Section 6(f), and the Public Parks Protection Act of 1971. **TCEs and Other Temporary Occupancies:** The TCEs at CHSP during construction of the Initial Phases of Alternatives 1 and 2 would be temporary occupancies. On March 26, 2012, State Parks provided written agreement that the TCEs would be temporary occupancies and would not trigger the requirements for protection under Section 4(f). A copy of that letter is provided in Attachment C.
Griffin Park (Refer to Figure B.9)						
Initial Phase: None **Ultimate Project:** None	**Initial Phase:** None **Ultimate Project:** None	**Initial Phase:** None **Ultimate Project:** 0.5 ac for a TCE	**Initial Phase:** None **Ultimate Project:** None	**Initial Phase:** None **Ultimate Project:** None	**Initial Phase:** None **Ultimate Project:** 0.5 ac for a TCE	**Permanent Use:** There are no permanent uses of Griffin Park under the Initial Phases or Ultimate Projects for Alternatives 1 and 2. Therefore, the requirements of Section 4(f) are not triggered. **Permanent Easement:** There are no permanent easements at Griffin Park under the Initial Phases or Ultimate Projects for Alternatives 1 and 2. Therefore, the requirements of Section 4(f) are not triggered. **TCEs and Other Temporary Occupancies:** The TCEs at Griffin Park during construction of the Ultimate Projects would be temporary occupancies and, therefore, the requirements of Section 4(f) are not triggered. In summary, the project effects at Griffin Park do not trigger the requirements for protection under Section 4(f).

Table B.2 Summary of Effects That Do Not Trigger Protection Under Section 4(f) and 6(f) Properties

Alternative 1 Project			Alternative 2 Project			Status Under Sections 4(f) and 6(f)
Permanent Use	**Permanent Easement**	**TCEs and Other Temporary Occupancies**[1]	**Permanent Use**	**Permanent Easement**	**TCEs and Other Temporary Occupancies**[1]	
El Cerrito Sports Park (Refer to Figure B.10)						
Initial Phase: None **Ultimate Project:** None	**Initial Phase:** None **Ultimate Project:** None	**Initial Phase:** 0.73 ac **Ultimate Project:** None	**Initial Phase:** None **Ultimate Project:** None	**Initial Phase:** None **Ultimate Project:** None	**Initial Phase:** 0.73 ac **Ultimate Project:** None	**Permanent Use:** There are no permanent uses of El Cerrito Sports Park under the Initial Phases and Ultimate Projects of Alternatives 1 and 2. Therefore, the requirements of Section 4(f) are not triggered. **Permanent Easement:** There are no permanent easements at El Cerrito Sports Park under the Initial Phases and Ultimate Projects of Alternatives 1 and 2. Therefore, the requirements of Section 4(f) are not triggered. **TCEs and Other Temporary Occupancies:** The TCEs at El Cerrito Sports Park would be temporary occupancies during the construction of the Initial Phases of Alternatives 1 and 2. Therefore, the requirements of Section 4(f) are not triggered. In summary, the project does not use El Cerrito Sports Park and does not trigger Section 4(f).

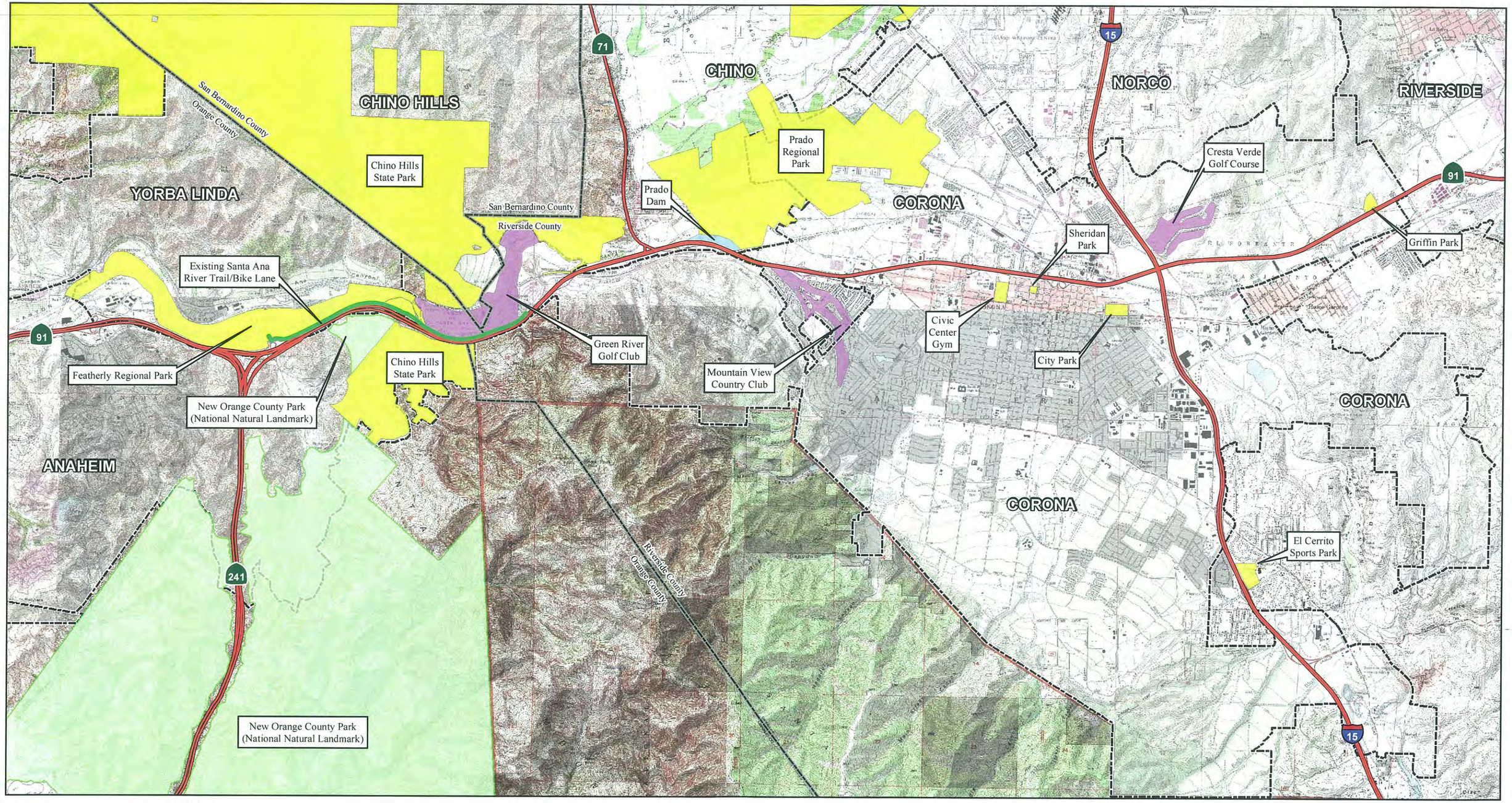
Source: Riverside County Transportation Commission (2010 and 2011).

Note: The following recreational resources are outside the project disturbance limits and will not be affected by the project. Therefore, the requirements for protection under Sections 4(f) and 6(f) are not triggered the Civic Center Gym, Sheridan Park, City Park, Prado Regional Park, Green River Golf Club, Mountain View Country Club, and Cresta Verde Golf Course. Refer to Table 3.1.5 for further information on these resources.

[1] The following conditions must all be met for a temporary effect to be considered a temporary occupancy of a property:

- The duration of the occupancy must be temporary (i.e., less than the time needed for construction of the project), and there should be no change in ownership of the land;
- The scope of the work must be minor (i.e., both the nature and the magnitude of the changes to the Section 4(f) property must be minimal);
- There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, and/or attributes of the property on either a temporary or permanent basis;
- The land being used must be fully restored (i.e., the property must be returned to the condition that existed prior to the project); and
- There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

ac = acre/acres
BNSF = Burlington, Northern, Santa Fe
CFR = Code of Federal Regulations
CHSP = Chino Hills State Park
ft = foot/feet
L&WCF Act = Land and Water Conservation Fund Act
NNL = National Natural Landmark
OC = Orange County
SR-91 = State Route 91
TCEs = temporary construction easements



LEGEND

- Park
- Golf Course/Country Club
- Dam
- New Orange County Park (National Natural Landmark)
- Existing Santa Ana River Trail/Bike Lane

0 2640 5280
FEET

SOURCE: County of Orange (2007), Thomas Bros. (2007), USGS 7.5' QUAD - BLACK STAR CANYON ('88), CORONA NORTH ('81), CORONA SOUTH ('88), PRADO DAM ('81), RIVERSIDE WEST ('81); CALIF.
I:\PAZ0701\GIS\4F\4F_Project_Location_v2.mxd (7/9/2012)

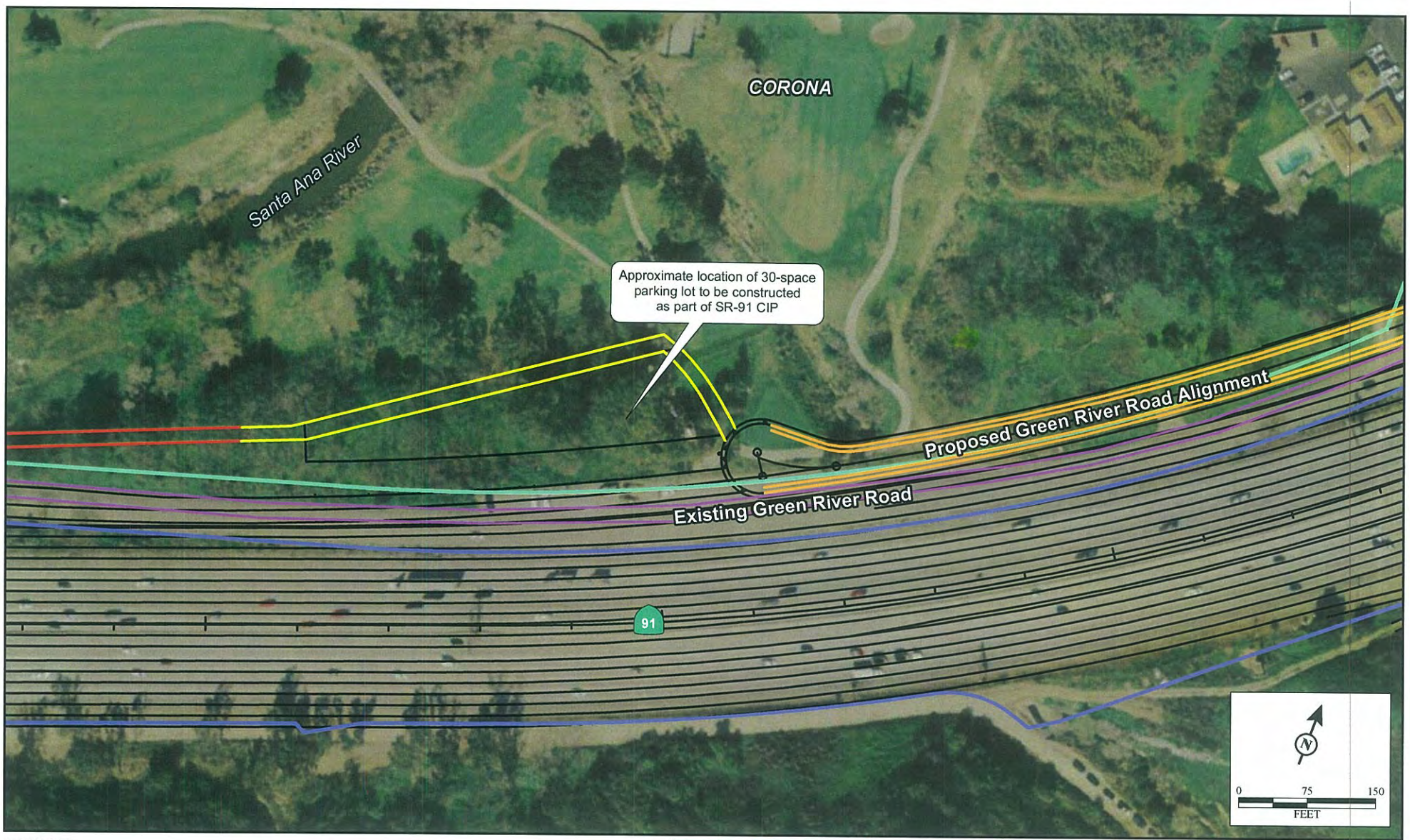
FIGURE B.1

SR-91 Corridor Improvement Project

Section 4(f) and 6 (f) Properties and Other Recreational Resources in the SR-91 CIP Study Area

Ora-91-R14.43/R18.91
Riv-91-R0.00/R13.04
Riv-15-35.64/45.14
EA 0F540

This page intentionally left blank



LEGEND

- Existing Bike Trail
- Proposed Relocated Trail/Bike Path by Corps
- Proposed Relocated Trail/Bike Path by SR-91 CIP
- Existing Bike Lanes to Remain on Relocated Green River Road
- Project Improvements
- Existing City Right-of-Way
- Existing State Right-of-Way



SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2012).

I:\PAZ0701\GIS\4f\BikeTrail_Proposed_Alt1_FigB2.mxd (7/5/2012)

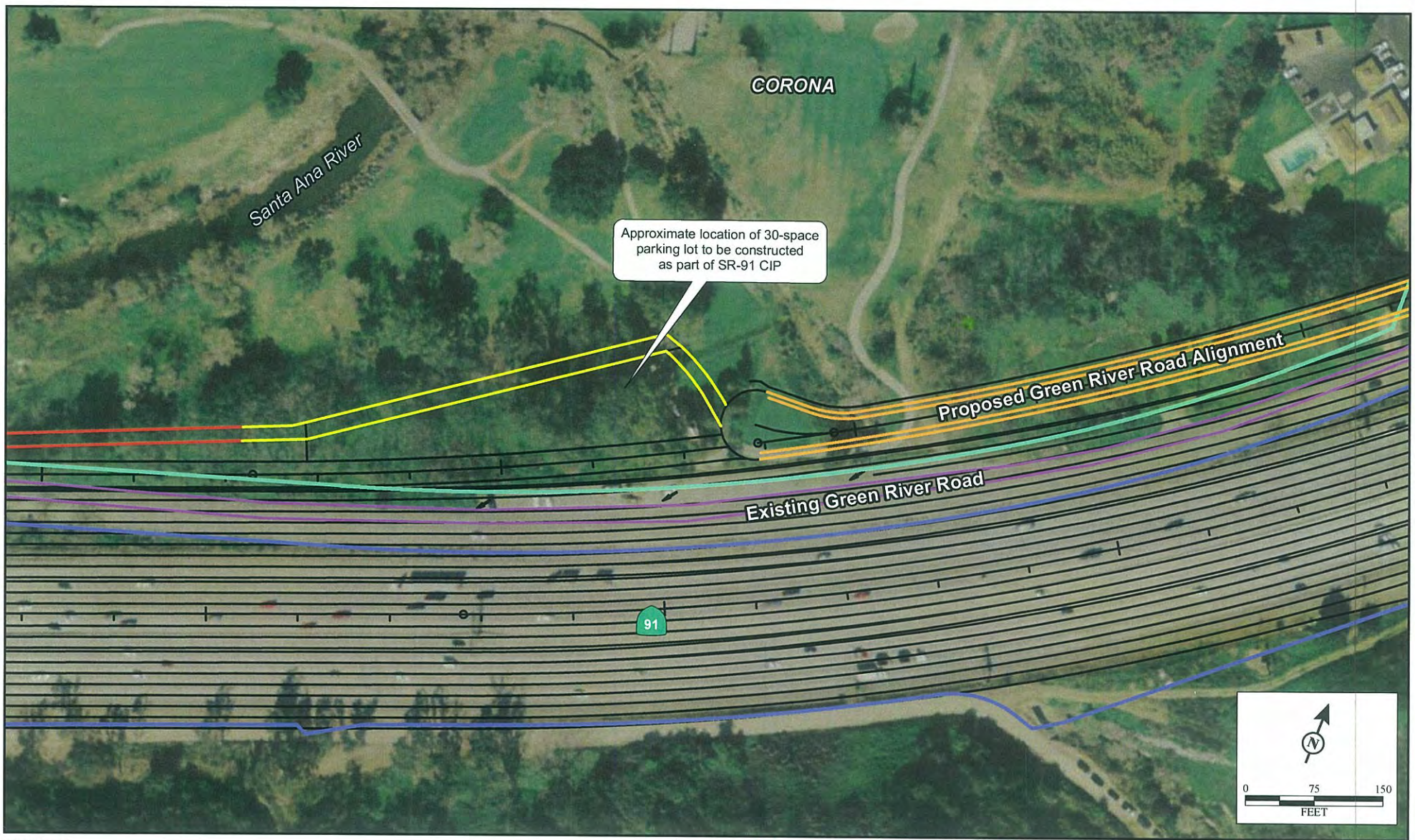
FIGURE B.2

SR-91 Corridor Improvement Project

Alternative 1
Relocated Santa Ana River Trail/Bike Lane

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

This page intentionally left blank



LEGEND

- Existing Bike Trail
- Proposed Relocated Trail/Bike Path by Corps
- Proposed Relocated Trail/Bike Path by SR-91 CIP
- Existing Bike Lanes to Remain on Relocated Green River Road
- Project Improvements
- Existing City Right-of-Way
- Existing State Right-of-Way



SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2012).
I:\PAZ0701\GIS\4f\BikeTrail_Proposed_Alt2_FigB3.mxd (7/5/2012)

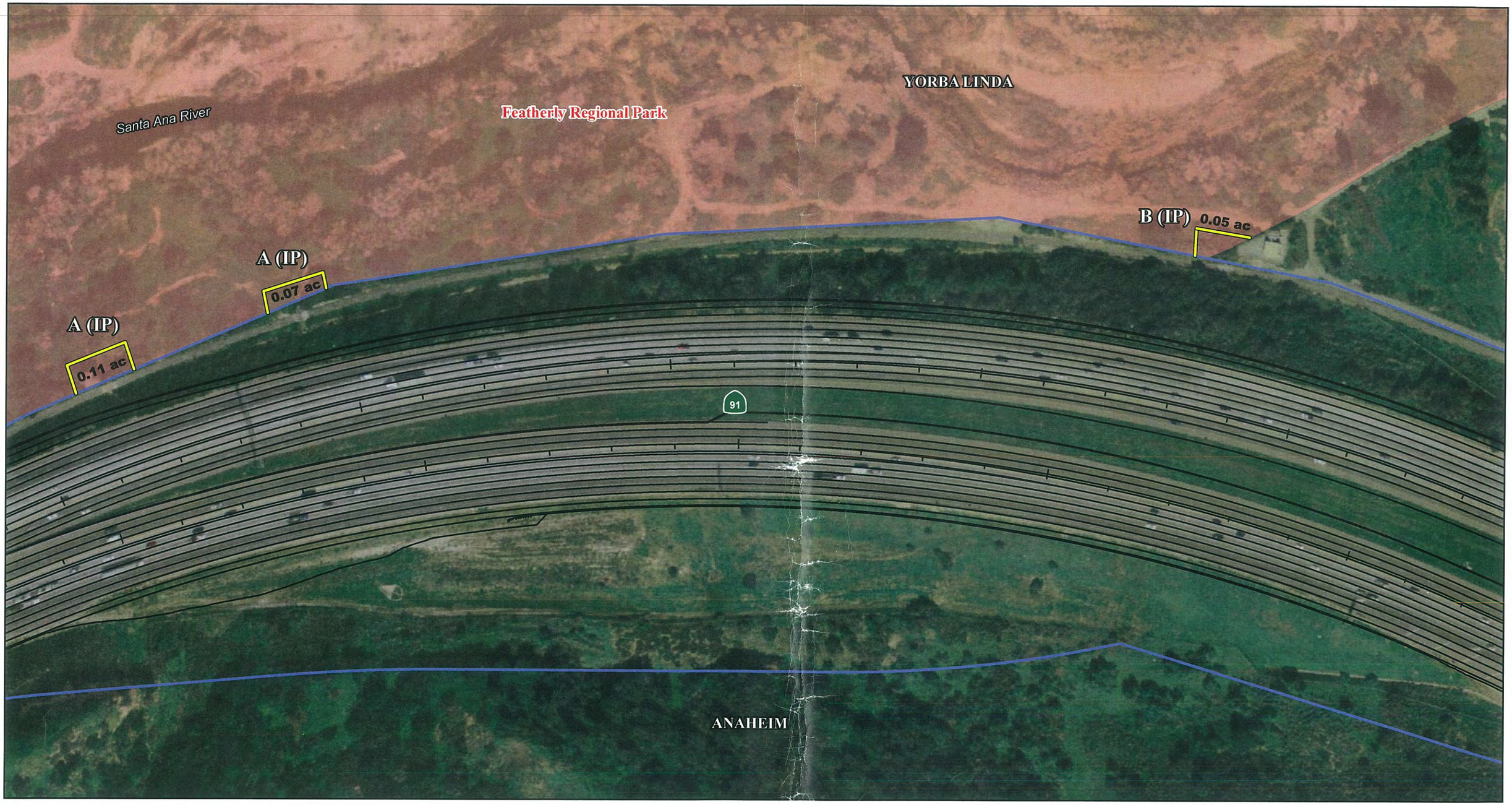
FIGURE B.3

SR-91 Corridor Improvement Project

Alternative 2
Relocated Santa Ana River Trail/Bike Lane

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

This page intentionally left blank



LEGEND

- Project Improvements
- Temporary Construction Easement (TCE)*
- Existing State Right-of-Way
- Featherly Regional Park

0 75 150
FEET

A - TCE for work on existing culverts/drainages
B - TCE for work on adjacent power poles or other utility work

IP - Occurs in the Initial Phase

*No permanent project features would be constructed in the TCEs at this park.

No permanent right-of-way acquisition is needed for Alternatives 1 and 2 (LPA) at this park.



SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2008).

I:\PAZ0701\GIS\4f\FeatherlyPark.mxd (4/12/2012)

FIGURE B.4

SR-91 Corridor Improvement Project
Alternatives 1 and 2
at Featherly Regional Park

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

This page intentionally left blank

YORBA LINDA

Chino Hills State Park

Santa Ana River

A (UP)
0.05 ac

0.52 ac
A (UP)

Coal Canyon Rd

Sheet 1

Sheet 2

91

ANAHEIM

Chino Hills State Park

LEGEND

- Project Improvements
- Temporary Construction Easement (TCE)*
- Existing State Right-of-Way
- Chino Hills State Park

0 75 150
FEET

UP - Occurs in the Ultimate Project
IP - Occurs in Initial Phase

*No permanent project features would be constructed in the TCEs at this park.

A - TCE for work on existing culverts/drainages
D - TCE for the extension of an existing culvert
E - TCE for work in and around the railroad due to construction of the new Green River Road bridge over the railroad
G - TCE for relocation of overhead power poles over the new bridge



SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2008).

i:\paz0701\gis\4f\ChinoHillsStatePark_TCEs.mxd (7/30/2012)

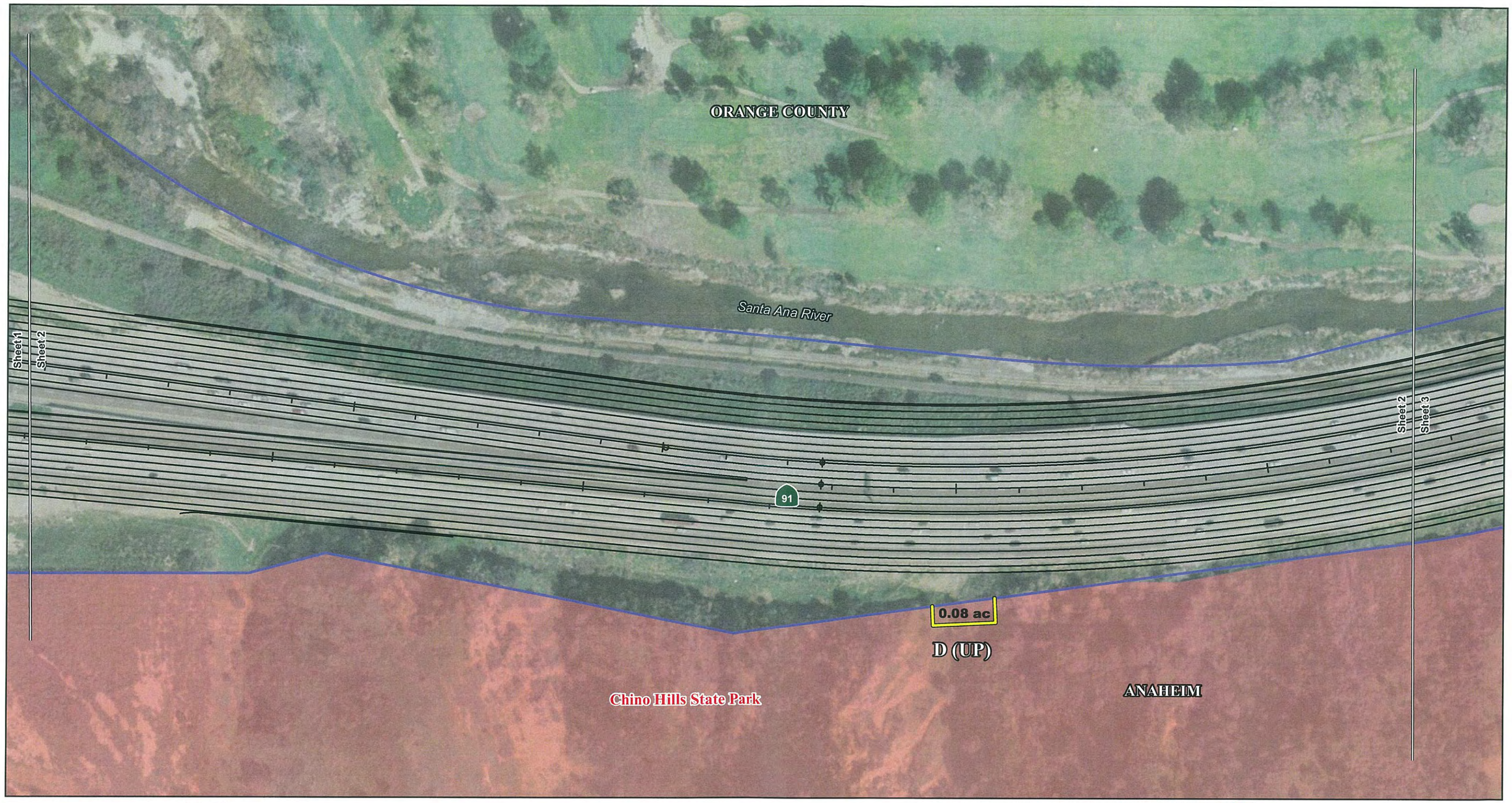
FIGURE B.5
Sheet 1 of 4

SR-91 Corridor Improvement Project

Temporary Construction Easements at Chino Hills State Park

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

This page intentionally left blank



LEGEND

- Project Improvements
- Temporary Construction Easement (TCE)*
- Existing State Right-of-Way
- Chino Hills State Park

UP - Occurs in the Ultimate Project
IP - Occurs in Initial Phase

*No permanent project features would be constructed in the TCEs at this park.

A - TCE for work on existing culverts/drainages
D - TCE for the extension of an existing culvert
E - TCE for work in and around the railroad due to construction of the new Green River Road bridge over the railroad
G - TCE for relocation of overhead power poles over the new bridge

0 75 150
FEET



SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2008).

i:\paz0701\gis\4f\ChinoHillsStatePark_TCEs.mxd (7/30/2012)

FIGURE B.5
Sheet 2 of 4
SR-91 Corridor Improvement Project
Temporary Construction Easements at Chino Hills State Park

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

This page intentionally left blank

ORANGE COUNTY

Access Road to Green River Golf Club

GREEN RIVER RD

Santa Ana River

Sheet 2

Sheet 3

91

0.25 ac

D (UP)

0.09 ac

D (UP)

0.04 ac

D (UP)

Chino Hills State Park

ANAHEIM

RIVERSIDE COUNTY

LEGEND

- Project Improvements
- Temporary Construction Easement (TCE)*
- Existing State Right-of-Way
- Chino Hills State Park

UP - Occurs in the Ultimate Project
IP - Occurs in Initial Phase

*No permanent project features would be constructed in the TCEs at this park.

A - TCE for work on existing culverts/drainages
D - TCE for the extension of an existing culvert
E - TCE for work in and around the railroad due to construction of the new Green River Road bridge over the railroad
G - TCE for relocation of overhead power poles over the new bridge

N

0 75 150
FEET

SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2008).

i:\paz0701\gis\4f\ChinoHillsStatePark_TCEs.mxd (7/30/2012)

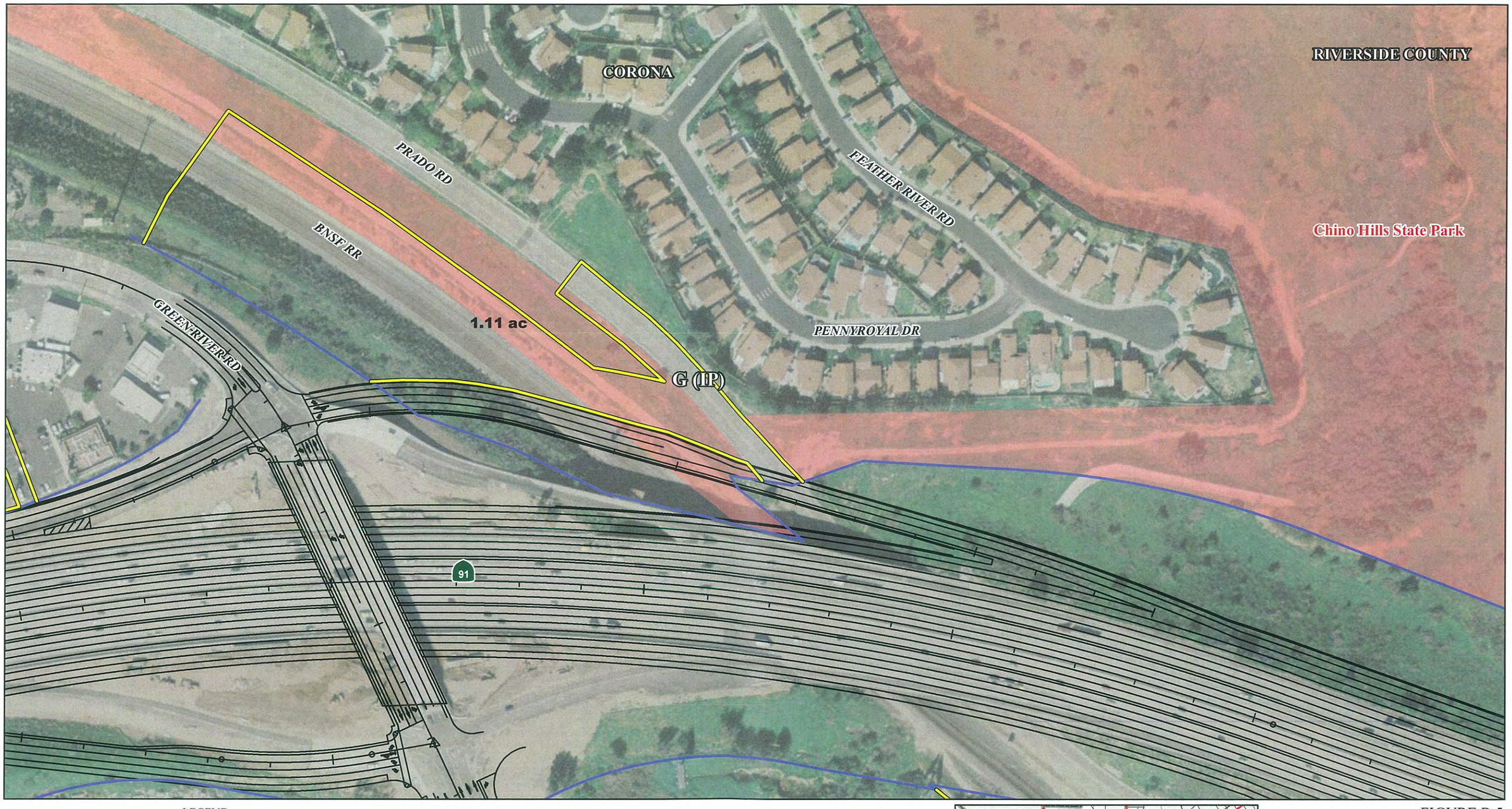


FIGURE B.5
Sheet 3 of 4

SR-91 Corridor Improvement Project

Temporary Construction Easements at Chino Hills State Park

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

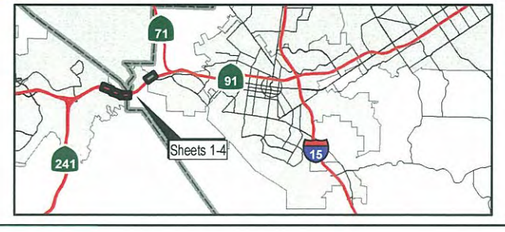
- Project Improvements
- Temporary Construction Easement (TCE)*
- Existing State Right-of-Way
- Chino Hills State Park

0 75 150
FEET

UP - Occurs in the Ultimate Project
IP - Occurs in Initial Phase

*No permanent project features would be constructed in the TCEs at this park.

A - TCE for work on existing culverts/drainages
D - TCE for the extension of an existing culvert
E - TCE for work in and around the railroad due to construction of the new Green River Road bridge over the railroad
G - TCE for relocation of overhead power poles over the new bridge



SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2008).

I:\PAZ0701\GIS\4f\ChinoHillsStatePark_TCEs.mxd (8/2/2012)

FIGURE B.5
Sheet 4 of 4
SR-91 Corridor Improvement Project
Temporary Construction Easements at Chino Hills State Park

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Project Improvements
- Temporary Construction Easement (TCE)* For work on existing culverts
- Existing State Right-of-Way
- Griffin Park

N

0 75 150
FEET

P - Occurs in the Ultimate Project

*No permanent project features would be constructed in the TCEs at this park

No permanent right-of-way acquisition is needed for Alternatives 1 and 2 at this park.

FIGURE B.6

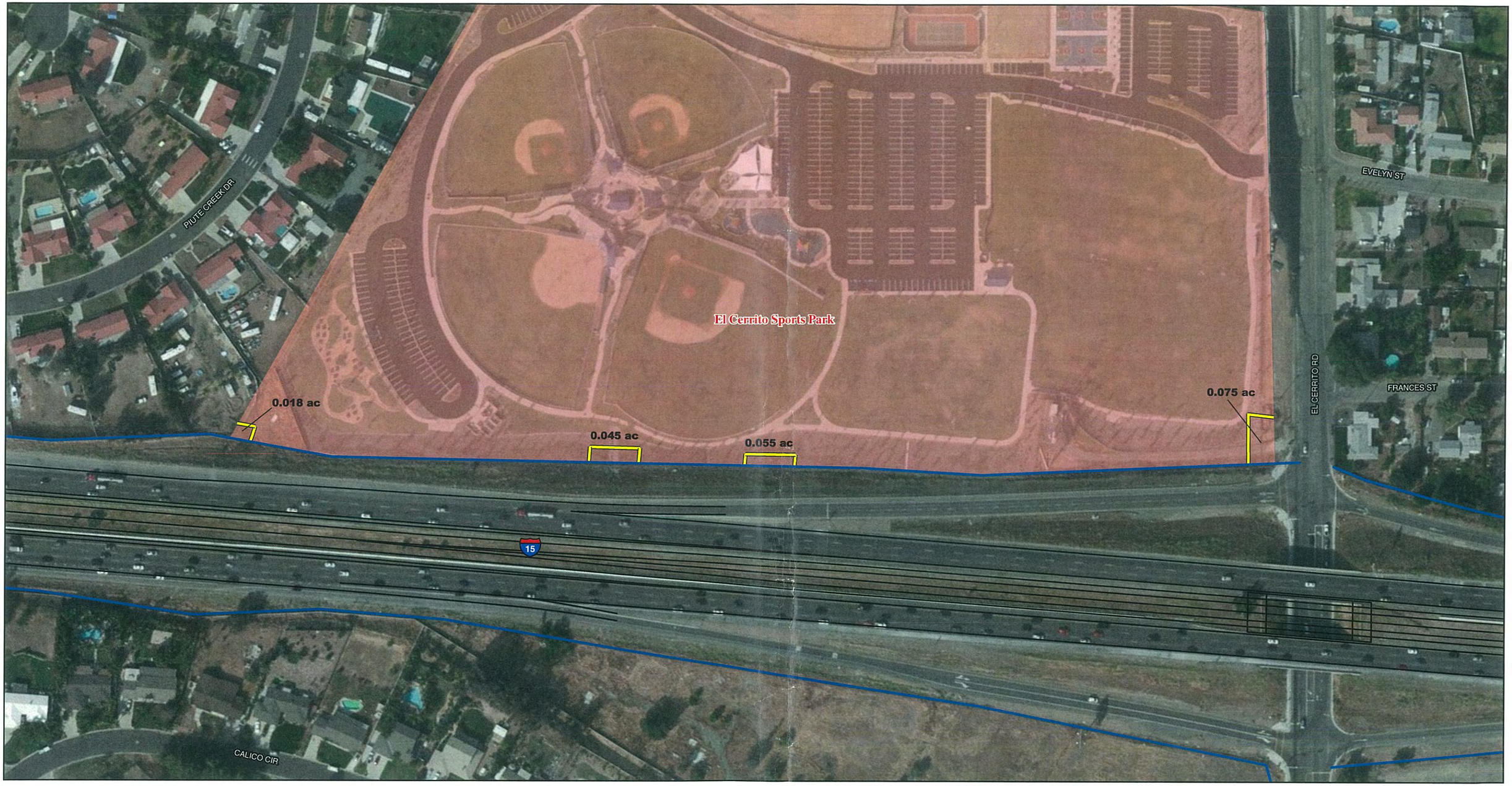
SR-91 Corridor Improvement Project

Alternatives 1 and 2
at Griffin Park

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

SOURCE: Air Photo USA (2008), PB (2008), Thomas Bros. (2007).

I:\PAZ0701\GIS\4f\GriffinPark.mxd (7/2/2012)



LEGEND

- Project Improvements
- Temporary Construction Easement (TCE)* (for work on existing culverts)
- Existing State Right-of-Way
- El Cerrito Sports Park

*No permanent project features would be constructed in the TCEs at this park.

0 75 150
FEET

SOURCE: Aerial - Bing Maps (2009); Engineering - PB (2010)

I:\PAZ0701\GIS\4f\ElCerrito_SportsPark.mxd (7/2/2012)



FIGURE B.7

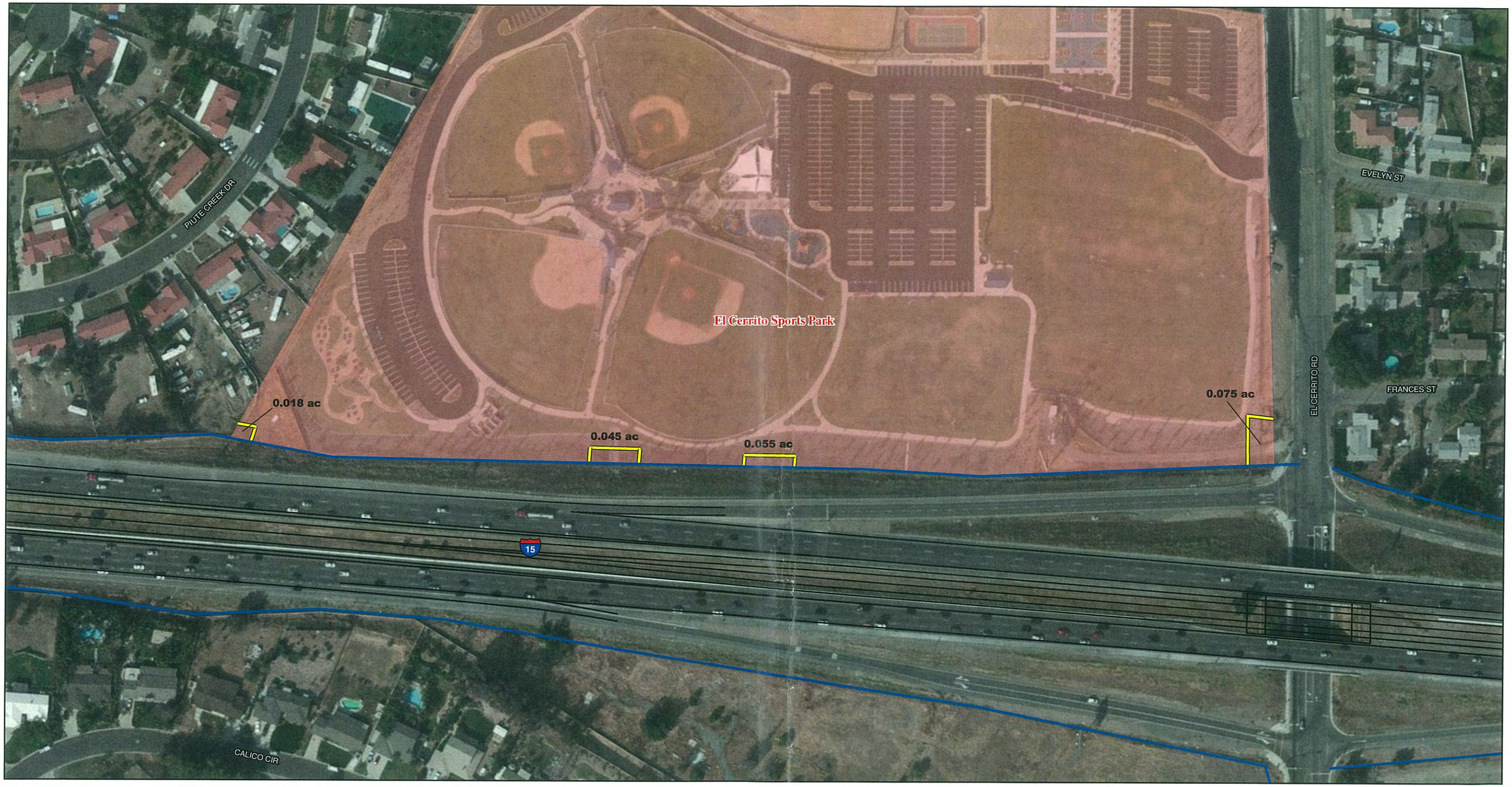
SR-91 Corridor Improvement Project

Alternatives 1 and 2
at El Cerrito Sports Park

12-Ora-91-R14.43/R18.91
08-Riv-91-R.0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

This page intentionally left blank

This page intentionally left blank



LEGEND

- Project Improvements
- Temporary Construction Easement (TCE)* (for work on existing culverts)
- Existing State Right-of-Way
- El Cerrito Sports Park

*No permanent project features would be constructed in the TCEs at this park.

0 75 150
FEET

SOURCE: Aerial - Bing Maps (2009); Engineering - PB (2010)

I:\PAZ0701\GIS\4f\ElCerrito_SportsPark.mxd (7/2/2012)



FIGURE B.7

SR-91 Corridor Improvement Project

Alternatives 1 and 2
at El Cerrito Sports Park

12-Ora-91-R14.43/R18.91
08-Riv-91-R.0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

This page intentionally left blank

Attachment B: Summary of Consultation with the County of Orange

The Section 4(f) consultation with the County of Orange regarding the potential effects of the SR-91 CIP Build Alternatives on the Santa Ana River Trail/Bike Lane, Featherly Regional Park, and New OC Park (NNL) is summarized below.

Date of Consultation	Activity	Description of Activity
May 27, 2009	Letter	Letter from the Department to Orange County Public Works regarding the "Formal Section 4(f) Consultation for the SR-91 Corridor Improvement Project"
June 9, 2009	Meeting	Consultation meeting with the County of Orange regarding the Santa Ana River Trail/Bike Lane and Featherly Regional Park
August 4, 2009	Meeting	Consultation meeting with Orange County Parks regarding the Santa Ana River Trail/Bike Lane and Featherly Regional Park
October 9, 2009	Letter	Letter from Orange County Parks to LSA Associates, Inc. regarding the "4(f) and 6(f) Evaluation Considerations of Potential Impacts of Caltrans Widening State Route 91 on Featherly Regional Park and the Santa Ana River Trail"
October 28, 2010	Letter	Letter from the Department to Orange County Parks regarding the "Temporary Occupancy at Featherly Regional Park and the Natural National Landmark"
November 24, 2010	Letter	Letter from the Department to Orange County Parks regarding the "Temporary Occupancy at the Santa Ana River Trail/Bike Lane"
March 22, 2012	Email	Email from Orange County Parks to the Department concurring with temporary occupancy determination at Featherly Regional Park
March 27, 2012, and March 29, 2012	Emails	Email (March 27, 2012) from the Department to Orange County Parks requesting concurrence with the Department's temporary occupancy determination for the New OC Park (NNL) and email response (March 29, 2012) from Orange County Parks to the Department concurring with that determination
April 17, 2012	Letter[1]	Letter from the Department to the County of Orange regarding the "Section 4(f): Revised De Minimis Determination at the National Natural Landmark, formerly labeled Anaheim 3 area by the Irvine Company" and the County's concurrence with that determination dated May 2, 2012 (copy attached: 3-page letter and 2 pages of attachments)
June 1, 2012, to July 1, 2012	Public Notice to Adopt a De Minimis Finding	The Department posted a "Public Notice to Adopt a U.S. Department of Transportation Act Section 4(f) De Minimis Finding for Impacts to the Irvine Ranch Open Space" on the New OC Park (NNL) property (copy attached: 1 page). The Department did not receive any comments or questions regarding this Notice.

Source: Riverside County Transportation Commission (2012).
[1] This letter is provided on the following pages.
Department = California Department of Transportation
New OC Park (NNL) = New Orange County Park (National Natural Landmark)
SR-91 = State Route 91

This page intentionally left blank

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
ENVIRONMENTAL STUDIES B (MS 1162)
464 WEST 4TH STREET
SAN BERNARDINO, CA 92401
PHONE (909) 383-7725

Flex your power!
Be energy efficient!

April 17, 2012

File: 08-ORA-91-R14.43/R18.91
08- RIV-91-R0.00/R13.04
08-RIV-15-35.64/45.14
State Route 91 Corridor
Improvement Project
EA: 08-0F540
PN: 0800000136

Mr. Richard Adler
Real Estate Manager
Orange County Parks
13042 Old Myford Road
Irvine, CA 92602

Subject: Section 4(f): Revised De Minimis Determination at the Irvine Ranch Open Space, previously referenced as the Natural National Landmark.

Dear Mr. Adler,

Effective July 1, 2007, the Federal Highway Administration (FHWA) assigned, and the California Department of Transportation (Caltrans) assumed, all the Secretary of the United States Department of Transportation responsibilities under the National Environmental Policy Act (NEPA) pursuant to 23 U.S.C. 327(a)(2)(A). For purposes of carrying out the responsibilities assumed under this code, Caltrans is deemed to be acting as the FHWA with respect to the environmental review, consultation, and other actions required under those responsibilities including the requirements of Section 4(f).

This letter provides updated information regarding the State Route 91 Corridor Improvement Project (SR 91 CIP) and the potential Section 4(f) impacts associated with the project on the Irvine Ranch Open Space.. Caltrans and the Riverside County Transportation Commission (RCTC) initiated Section 4(f) consultation with Orange County Parks in July 2009 when it was determined that the project's preliminary design may directly affect the Irvine Ranch Open Space.

SR 91 CIP

The proposed project includes highway widening, bridge widening, modification or construction of new drainage facilities, and retaining walls. Both SR 91 CIP build alternatives have proposed additional lanes which require widening of the existing SR 91 to accommodate these lanes. This widening would also require widening of the east bound SR 91 east of the State Route 241 (SR 241). Both SR 91 CIP build alternatives also require permanent subsurface easements to accommodate subsurface tiebacks for a tieback wall at the Irvine Ranch Open Space, approximately 0.4 acres to 2.20 acres.

APPLICABILITY OF SECTION 4(f)

The Safe, Accountable, Flexible, Transportation Equity Act – A Legacy for Users (SAFETEA-LU) Section 6009(a) amended existing Section 4(f) language to allow the U.S. DOT to determine that certain uses of Section 4(f) land are de minimis. When this is the case, and the responsible official with jurisdiction over the resource agrees in writing, compliance with Section 4(f) is greatly simplified. De minimis impacts on publicly owned parks are defined as those project impacts that do not adversely affect the activities, features, and attributes that qualify the property for protection under the requirements of Section 4(f).

Caltrans initially determined that Section 4(f) did not apply to the permanent subsurface easements to accommodate subsurface tiebacks for a tieback wall at the Irvine Ranch Open Space and that temporary occupancy applies and therefore does not constitute a use of land at the Irvine Ranch Open Space under Section (f) for the proposed retaining wall and associated easements. Caltrans has re-evaluated the prior temporary occupancy determination and now determines that a de minimis impact finding for the permanent subsurface easements required for the tieback wall located south of SR 91 and east of SR 241, approximately 0.4 acres to 2.20 acres and the potential impacts to the Irvine Ranch Open Space on the activities, features, and attributes that make the Irvine Ranch Open Space eligible for Section 4(f) protection is more appropriate finding due to the permanency of the easements required. Therefore, Caltrans now propose a de minimis impact finding for the project effects at the Irvine Ranch Open Space per 23 CFR 774.

DE MINIMIS IMPACT FINDING

Caltrans is now requesting your concurrence with this de minimis impact finding determination, as required under SAFETEA-LU Section 6009(a) under Section 4(f) in 23 CFR 774. A signature block is provided at the bottom of this letter for your convenience. Your concurrence is critically needed to continue to maintain the schedule for this project. Any delay means this critically-needed project would be delayed. If you have any questions, please do not hesitate to call me at (909) 388-7725 or Aaron Burton at (909) 383-2841.

Sincerely,

DAVID BRICKER
Deputy District Director
Environmental Planning

Attachments:

Figure B.5 Alternative 1
Figure B.6 Alternative 2

Orange County Parks appreciates the opportunity to participate in the Section 4(f) concurrence process. Orange County Parks understands that California Department of Transportation (Caltrans) Districts 8 and 12 and the Riverside County Transportation Commission (RCTC) are proposing to improve the existing State Route 91 with the SR-91 Corridor Improvement Project (CIP). The proposed project includes highway widening, bridge widening, modification or construction of new drainage facilities, and retaining walls.

Additionally, SR 91 CIP will require a permanent subsurface easement at the Irvine Ranch Open Space to accommodate subsurface tiebacks for a tieback wall (approximately 2.20 acres total).

As presented to Orange County Parks by Caltrans Staff, the proposed SR-91 CIP falls under the provisions of The Safe, Accountable, Flexible, Transportation Equity Act – A Legacy for Users (SAFETEA-LU) Section 6009(a). Under this provision, Caltrans, which has been assigned the environmental review and approval authority of the US DOT under SAFETEA-LU Section 6005, determines whether the transportation use of Section 4(f) property would result in a de minimis impact. Caltrans maintains that the de minimis impact finding is appropriate and would be maintained with regards to the potential impacts to the Irvine Ranch Open Space on the activities, features, and attributes that make the Irvine Ranch Open Space eligible for Section 4(f) protection.

My signature below represents written concurrence on the de minimis finding that the State Route 91 CIP would not adversely affect the activities, features, and attributes that qualify the Irvine Ranch Open Space for protection under Section 4(f). The transportation use of the Section 4(f) resource, together with the 4(f) impact avoidance, minimization, and mitigation or enhancement measures incorporated into the State Route 91 Corridor Improvement Project, does not adversely affect the activities, features and attributes that qualify the Irvine Ranch Open Space for protection under Section 4(f). The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource. The signature is conditioned upon the 4(f) impacts and mitigation measures as previously referenced.

Richard Adler

Richard Adler
Real Estate Manager
Orange County Parks
13042 Old Myford Road
Irvine, CA 92602-2304

5/2/12
Date

This page intentionally left blank



LEGEND

- Alternative 1
- Grading Limits
- Existing State Right-of-Way
- Permanent Subsurface Easement
- New Orange County Park (National Natural Landmark)

*No permanent right-of-way acquisition is needed for Alternative 1 at this park.

N

0 200 400
FEET

SOURCE: AirPhoto USA (2008), RBF (2010)

I:\PAZ0701\GIS\4f\Alt1_NNL.mxd (11/2/2011)

FIGURE B.5

SR-91 Corridor Improvement Project

Alternative 1 at the New Orange County Park (National Natural Landmark)

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Alternative 2
- Grading Limits
- Existing State Right-of-Way
- Permanent Subsurface Easement
- New Orange County Park (National Natural Landmark)

*No permanent right-of-way acquisition is needed for Alternative 2 (LPA) at this park.

N

0 200 400
FEET

SOURCE: AirPhoto USA (2008), RBF (2010)

I:\PAZ0701\GIS\4f\Alt2_NNL.mxd (11/2/2011)

FIGURE B.6

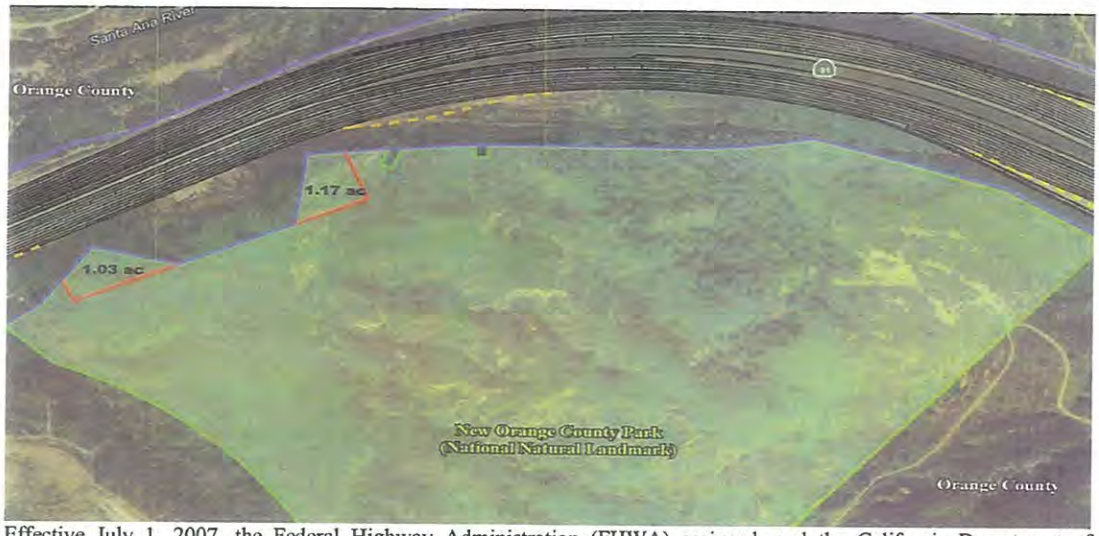
SR-91 Corridor Improvement Project

Alternative 2 at the New Orange County Park (National Natural Landmark)

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

PUBLIC NOTICE

NOTICE OF INTENT TO ADOPT A U. S. DEPARTMENT OF TRANSPORTATION ACT SECTION 4(F) DE MINIMIS FINDING FOR IMPACTS TO THE IRVINE RANCH OPEN SPACE



Effective July 1, 2007, the Federal Highway Administration (FHWA) assigned, and the California Department of Transportation (Caltrans) assumed, all the Secretary of the United States Department of Transportation responsibilities under the National Environmental Policy Act (NEPA) pursuant to 23 U.S.C. 327(a)(2)(A). For purposes of carrying out the responsibilities assumed under this code, Caltrans is deemed to be acting as the FHWA with respect to the environmental review, consultation, and other actions required under those responsibilities including the requirements of Section 4(f).

This notice provides updated information regarding the State Route 91 Corridor Improvement Project (SR 91 CIP) and the potential Section 4(f) impacts associated with the project on the Irvine Ranch Open Space. Caltrans and the Riverside County Transportation Commission (RCTC) initiated Section 4(f) consultation with Orange County Parks in July 2009 when it was determined that the project's preliminary design may directly affect the Irvine Ranch Open Space.
SR 91 CIP

The proposed project includes highway widening, bridge widening, modification or construction of new drainage facilities, and retaining walls. Both SR 91 CIP build alternatives have proposed additional lanes which require widening of the existing SR 91 to accommodate these lanes. This widening would also require widening of the east bound SR 91 east of the State Route 241 (SR 241). Both SR 91 CIP build alternatives also require permanent subsurface easements to accommodate subsurface tiebacks for a tieback wall at the Irvine Ranch Open Space, approximately 0.4 acres to 2.20 acres. These tiebacks are underground and have no impact on the surface vegetation of the park.

APPLICABILITY OF SECTION 4(f)

The Safe, Accountable, Flexible, Transportation Equity Act – A Legacy for Users (SAFETEA-LU) Section 6009(a) amended existing Section 4(f) language to allow the U.S. DOT to determine that certain uses of Section 4(f) land are de minimis. When this is the case, and the responsible official with jurisdiction over the resource agrees in writing, compliance with Section 4(f) is completed. De minimis impacts on publicly owned parks are defined as those project impacts that do not adversely affect the activities, features, and attributes that qualify the property for protection under the requirements of Section 4(f).

In the Draft Environmental Impact Statement/Report for the project, circulated to the public between May and July 2011, Caltrans initially determined that Section 4(f) did not apply to the permanent subsurface easements that would accommodate subsurface tiebacks for tieback walls at the Irvine Ranch Open Space (referenced as the National Natural Landmark) and that temporary occupancy applies and therefore did not constitute a use of land at the Irvine Ranch Open Space under Section 4(f) for the proposed retaining wall and associated easements. Caltrans re-evaluated the prior temporary occupancy determination and now has determined that a de minimis impact finding is appropriate for the permanent subsurface easements required for the tieback wall located south of SR 91 and east of SR 241, approximately 0.4 acres to 2.20 acres . This is because there are no potential impacts to the Irvine Ranch Open Space on the activities, features, and attributes that make the Irvine Ranch Open Space eligible for Section 4(f) protection, but there is a permanency of the easements required. This underground tieback is the only impact to the park. Therefore, Caltrans now propose a de minimis impact finding for the project effects at the Irvine Ranch Open Space per 23 CFR 774.

If you have any questions or comments regarding this, please call Caltrans Aaron Burton at (909) 383-2841, or write to Caltrans, attn: Aaron Burton, 464 West Fourth Street, 6th floor, San Bernardino, CA 92404

This page intentionally left blank

Attachment C: Summary of Consultation with State Parks

The Section 4(f) consultation with State Parks regarding the potential effects of the SR-91 CIP Build Alternatives on CHSP is summarized below.

Date of Consultation	Activity	Description of Activity
April 8, 2008	Meeting	Coordination meeting with State Parks to discuss the project technical studies, the need for Right-of-Entry Permits for field research, and identification of Section 6(f) resources at CHSP
August 12, 2008	Meeting	Resources Agency Scoping Meeting to coordinate with and obtain feedback from the resource agencies (including State Parks) as part of the scoping process for the project
September 25, 2008	Meeting	Natural Resources Coordination meeting to coordinate with and obtain feedback from the natural resources agencies (including State Parks)
May 27, 2009	Letters	Formal Section 4(f) consultation letters from the Department to State Parks regarding CHSP: • Ron Krueper • Jon Rowe • Enrique Arroyo
May 27, 2009	Letters	Formal Section 4(f) consultation letters from the Department to the NPS regarding CHSP: • Naomi Torres • Jim Donovan
October 23, 2009	Letter	State Parks letter to the RCTC Toll Project Manager regarding the "Section 4(f) Consultation regarding the State Route 91 Riverside to Orange County Corridor Improvement Project"
October 28, 2010	Letter	Letter from the Department to State Parks regarding the "Temporary Occupancy at Chino Hills State Park"
November 18, 2010	Letter	Letter from the Department to State Parks regarding the "Chino Hills State Park Section 6(f) Consultation for the State Route 91 Corridor Improvement Project"
November 24, 2010	Letter	Letter from the Department to State Parks regarding the "Revised Preliminary De Minimis Determination at Chino Hills State Park"
May 4, 2011	Letter	Letter from the Department to State Parks regarding the "Preliminary 4(f) De Minimis Determination at Chino Hills State Park"
May 4, 2011	Letter	Letter from the Department to State Parks regarding the "6(f) Consultation - Chino Hills State Park"
July 11, 2011	Letter	State Parks letter to the Department commenting on the "Draft Environmental Impact Report/Environmental Impact Statement (DEIR/DEIS) for the State Route 91 Corridor Improvement Project SCH# 200807 1075"
August 11, 2011	Meeting	Meeting between the Department and State Parks to discuss the proposed small Section 6(f) conversion at CHSP, compensation for that conversion, the Section 4(f) and 6(f) processes, and consultation on Sections 4(f) and 6(f)
October 20, 2011	Telephone conference	Telephone conference between the Department and CHSP to discuss State Parks' comments on the draft L&WCF Act form for the conversion of Section 6(f) parkland and to discuss follow-up actions with the NPS

Date of Consultation	Activity	Description of Activity
November 3, 2011	Telephone conference	Telephone conference between the Department and State Parks to discuss State Park's comments on the CHSP 6(f) conversion (see October 20, 2011 teleconference above)
November 17, 2011	Letter	State Parks letter to the Department regarding the "State Route 91 Corridor Improvement Project, Draft Response to Comments" NOTE: One attachment to this letter, the Conservation Assessment of Orange County, is approximately 55 pages long and is available for review at the RCTC office.
January 11, 2012	Letter[1]	Letter from the Department to State Parks regarding the "Section 4(f): Revised Temporary Occupancy and De Minimis Determination at Chino Hills State Park"
February 2, 2012	Letter	Letter from State Parks to the Department regarding the "Section 4(f) De Minimis Determination at Chino Hills State Park for the SR-91 Corridor Improvement Project" (2-page letter)
March 12, 2012	Meeting	Minutes and sign-in sheet from meeting in response to State Park's concern about fires propagating over parkland from SR-91 with representatives from the Department, State Parks, the City of Corona Fire Department, City of Corona Department of Public Works, Orange County Fire Authority, and California Department of Forestry and Fire Protection.
March 26, 2012	Letter	Letter from State Parks to the Department concurring with the "Section 4(f) De Minimis Determination at Chino Hills State Park for the SR-91 Corridor Improvement Project"
April 5, 2012	Letter[1]	Letter from State Parks to the Department concurring with the "Section 4(f) De Minimis Determination at Chino Hills State Park for the SR-91 Corridor Improvement Project" (2-page letter)
June 1, 2012, to July 2, 2012	Public Notice to Adopt a De Minimis Finding	The Department posted a "Public Notice to Adopt a U.S. Department of Transportation Act Section 4(f) De Minimis Finding for Impacts to Chino Hills State Park" at CHSP (copy attached: 1 page). The Department did not receive any comments or questions regarding this Notice.

Source: Riverside County Transportation Commission (2012).
Note: This summary includes consultation focused on Section 4(f). Other meetings and coordination with State Parks regarding possible biological resources mitigation sites in CHSP or other non-Section 4(f) issues are not included.
[1] These letters are provided on the following pages.
CHSP = Chino Hills State Park
L&WCF = Land and Water Conservation Fund
NPS = National Park Service
RCTC = Riverside County Transportation Commission
State Parks = California Department of Parks and Recreation

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
ENVIRONMENTAL STUDIES B (MS 1162)
464 WEST 4TH STREET
SAN BERNARDINO, CA 92401
PHONE (909) 383-7725

Flex your power!
Be energy efficient!

January 11, 2012

File:08-ORA-91-R14.43/R18.91
08-RIV-91-R0.00/R13.04
08-RIV-15-35.64/45.14
State Route 91 Corridor
Improvement Project
EA: 08-0F540
PN: 080000000136

Mr. Ron Krueper
District Superintendent
California State Parks
Inland Empire District
17801 Lake Perris Drive
Perris, CA 92571

Subject: Section 4(f): Revised Temporary Occupancy and De Minimis Determination at Chino Hills State Park

Dear Mr. Krueper,

Effective July 1, 2007, the Federal Highway Administration (FHWA) assigned, and the California Department of Transportation (Caltrans) assumed, all the Secretary of the United States Department of Transportation responsibilities under the National Environmental Policy Act (NEPA) pursuant to 23 USC 327(a)(2)(A). For purposes of carrying out the responsibilities assumed under this code, Caltrans is deemed to be acting as the FHWA with respect to the environmental review, consultation, and other actions required under those responsibilities including the requirements of Section 4(f).

This letter provides updated information regarding the State Route 91 Corridor Improvement Project (SR 91 CIP) and the potential Section 4(f) impacts associated with the project on Chino Hills State Park (CHSP). Caltrans and the Riverside County Transportation Commission (RCTC) initiated Section 4(f) and 6(f) consultation with State Parks in March 2008 when it was determined that the project's preliminary right-of-way needs may directly affect CHSP. Since that time, Caltrans/RCTC and State Parks have been working proactively to address and minimize those potential impacts. Through our ongoing coordination/consultation with your agency, National Park Service (NPS), and public review of the SR-91 CIP Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) in May 2011, Caltrans has further avoided and/or lessened the impacts of the SR-91 CIP on CHSP.

SR 91 CIP

Both SR 91 CIP build alternatives have proposed additional lanes which require widening of the existing SR 91 to accommodate these lanes. This widening would also require that the existing Green River Road westbound off-ramp be relocated to the north. Initially, the proposed design of this off-ramp required that it be high enough to cross the Burlington Northern Santa Fe (BNSF) railroad tracks and Prado Road, resulting in either an elevated structure or bridge over a small section of CHSP. The relocated off-ramp originally required three columns within the boundary of CHSP to support that elevated off-ramp structure/bridge. The columns would have been placed on CHSP property to avoid the BNSF tracks, the unpaved CHSP maintenance road/trail, and Prado Road. The land needed for the three columns and the aerial easements over CHSP land totaled approximately 0.73 acre of CHSP property.

Both SR 91 CIP build alternatives also require permanent subsurface easements to accommodate subsurface tiebacks for a tieback wall, approximately 1.88 acres and seven Temporary Construction Easements (TCEs), approximately 2.1 acres within CHSP.

Through our ongoing coordination/consultation between our agencies and addressing public/agency comments on the SR-91 CIP Draft EIR/EIS, Caltrans has redesigned the Green River Road westbound off-ramp with additional avoidance, minimization, and mitigation measures to lessen the project impacts to CHSP.

The redesigned Green River Road westbound off-ramp greatly reduces the previously identified project impacts on CHSP. It now requires only two columns to be placed on the strip of CHSP property located between the BNSF railroad tracks and Prado Road, further away from trail users within CHSP. These two columns will support the elevated structure or bridge and will be placed to avoid and be high enough to cross the BNSF railroad tracks and Prado Road. The actual area within the part of CHSP between the tracks and Prado Road needed for the two columns is 0.04 acre. The actual use of parkland combined with the aerial easements for that elevated structure now total approximately 0.48 acre of CHSP property.

APPLICABILITY OF SECTION 4(f)

The Safe, Accountable, Flexible, Transportation Equity Act – A Legacy for Users (SAFETEA-LU) Section 6009(a) amended existing Section 4(f) language to allow the U.S. DOT to determine that certain uses of Section 4(f) land are de minimis. When this is the case, and the responsible official with jurisdiction over the resource agrees in writing, compliance with Section 4(f) is greatly simplified. De minimis impacts on publicly owned parks are defined as those project impacts that do not adversely affect the activities, features, and attributes that qualify the property for protection under the requirements of Section 4(f).

Caltrans maintains that the de minimis impact finding is appropriate and would be maintained with regards to the potential project impacts to CHSP on the activities, features, and attributes that make CHSP eligible for Section 4(f) protection.

DE MINIMIS IMPACT FINDING

Caltrans has re-evaluated and maintains a de minimis impact finding for the permanent subsurface easements required for the tieback wall located south of SR 91 (approximately 1.88 acres of CHSP) and for the placement of the westbound Green River Road off-ramp columns and the associated aerial easement (approximately 0.48 acre of CHSP). The changes to CHSP with these easements will be minimal and there are no anticipated permanent adverse physical impacts or any interference with the activities or purposes of the resource, on either a temporary or permanent basis. The SR-91 CIP build alternatives will maintain existing and future public access to hikers and vehicles, and any land being used for temporary purposes will be fully restored and returned to a condition which is at least as good as that which existed prior to the project. The isolated strip of CHSP where the aerial easement and the placement of the two columns are now proposed is undeveloped, has no visual attributes, offers no recreational activity, is non-contiguous with the rest of the park, contains no sensitive plant species (it contains only ruderal and ornamental vegetation), and is unlikely to be developed or used for park activities or recreation because this land is located between the Burlington Northern Santa Fe railroad tracks and Prado Road.

The de minimis determination is based on the degree or level of impact including the avoidance, minimization, and mitigation or enhancement measures that have been included in the project to address the impacts to the Section 4(f) property. These measures include all the visual mitigation measures previously discussed with State Parks and which will be committed to in the Final Environmental Document. RCTC's contribution for the planning and implementation of improvements to the existing trailhead at Prado Road, and continuing per the approved Biological Opinion to investigate adding features along SR 91 in the vicinity of CHSP to minimize light intrusion, noise, and the potential threat of increased fires from the operation of SR 91 are additional committed measures to address the project effects on CHSP.

Given this information and the reduced impacts to the park via further engineering work to avoid parkland, Caltrans maintains that the de minimis impact finding is appropriate for compliance with the law, because the project would not adversely affect any of the activities, features, or attributes of the Park that qualify CHSP for protection under Section 4(f). Therefore, Caltrans is continuing to propose a de minimis impact finding for the project effects on CHSP per 23 CFR 774. The appropriateness of the de minimis impact finding is also supported by the U.S. Department of Interior letter received during public/agency review of the SR-91 CIP Draft EIR/EIS (Attachment B).

TEMPORARY OCCUPANCY

Caltrans has determined that the TCEs required for both SR 91 CIP Build Alternatives are a Temporary Occupancy and do not constitute a use of the Section 4(f) resource and satisfy the following five conditions set forth in 23 CFR 771.13(d). The TCEs are located just north and south of the SR 91 and are needed for work on existing culverts, the subsurface tiebacks/tieback walls, and for work in and around the BNSF railroad tracks. The duration of the occupancy at each TCE is temporary (less than 6 months) and will be less than the time needed for construction of the build alternatives and there would be no change in ownership of land. The scope of work is minor and changes to CHSP will be minimal. There are no permanent adverse physical impacts, nor will there be interference with the activities or purposes of the resource, on either a temporary or permanent basis. The land being used will be fully restored and will be returned to a condition which is at least as good as that which existed prior to the project. We anticipate documented agreement with the official having jurisdiction over the CHSP regarding the above conditions.

SECTION 6(F): A SEPARATE PROCESS

During our consultation meetings with you and other State Parks' representatives, we understand and appreciate your agency's need to make sure that the SR 91 CIP also fully complies with Section 6(f) relative to effects on parkland acquired with funds from the federal Land & Water Conservation Fund (LWCF) Act program. Caltrans is committed to working with State Parks and the National Park Service to ensure that all applicable requirements of Section 6(f) are met prior to the project proceeding to construction, and we believe our agencies are making mutual progress towards that goal. Through our ongoing coordination/consultation between our agencies and addressing public/agency comments on the SR 91 CIP Draft EIR/EIS, Caltrans has redesigned the Green River Road westbound off-ramp to avoid any direct impact to the parcel of land north of Prado Road that was acquired by State Parks with LWCF funds. Also, in your written comments of October 14, 2011 on our Draft LWCF Project Description and Environmental Screening Form (submitted to you on September 8, 2011), you agreed that the subsurface easement (not located at Green River) would not be considered a Section 6(f) conversion as proposed and also agreed the same for any of the proposed Temporary Construction Easements as long they do not exceed 6 months. In summary, we are in full agreement with you that the Section 6(f) process must be done properly - Caltrans would not convert 6(f) parkland to non-parkland uses without complying with this process, and without full agreement from your agency.

Because Section 4(f) is a separate process with its own requirements that is completely separate from the Section 6(f) process, Caltrans is now requesting your concurrence with this temporary occupancy determination and the de minimis impact finding determination, as required under SAFETEA-LU Section 6009(a) under Section 4(f) in 23 CFR 774. A signature block is provided at the bottom of this letter for your convenience. Your concurrence is critically needed to continue to maintain the schedule for this project. Any delay means this critically-needed project would be delayed. If you have any questions, please do not hesitate to call me at (909) 388-7725 or Aaron Burton at (909) 383-2841.

Sincerely,

DAVID BRICKER
Deputy District Director
Environmental Planning

Attachments:

Figure 1: Project Location on SR-91 and I-15
Figure 4: Project Effects at Chino Hills State Park
Table 1: Summary of Temporary Occupancies, Easements, and Permanent Uses by Alternative
U.S. Department of Interior Section 4(f) comments July 2011.

cc: Jay Chamberlain, Chief, Natural Resource Division, California State Parks

The signature below represents written concurrence on the **de minimis finding** that the State Route 91 Corridor Improvement Project would not adversely affect the activities, features, and attributes that qualify Chino Hills State Park for protection under Section 4(f). The transportation use of the Section 4(f) resource, together with the impact avoidance, minimization, and mitigation or enhancement measures incorporated into the State Route 91 Corridor Improvement Project, does not adversely affect the activities, features, and attributes that qualify Chino Hills State Park for protection under Section 4(f). The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource. The signature is conditioned upon the impacts and mitigation measures as spelled out above.

In addition to the above, **temporary occupancy** applies and therefore does not constitute a use of land in CHSP under Section 4(f) for the proposed TCEs. Because the following five conditions set forth in 23 CFR 774.13(d) are satisfied, Section 4(f) will not apply:

1. Duration of occupancy must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land;
2. Scope of the work must be minor, i.e., both the nature and magnitude of the changes to the 4(f) resource must be minimal;
3. There are no anticipated permanent adverse physical impacts, nor will there be interference with the activities or purposes of the resource, on either a temporary or permanent basis;
4. The land being used must be fully restored, i.e., the resource must be returned to a condition which is at least as good as that which existed prior to the project, and
5. There must be documented agreement of the appropriate Federal, State, or local officials having jurisdiction over the resource regarding the above conditions.

The California Department of Parks and Recreation will continue to work with Caltrans and the Riverside County Transportation Commission to ensure that the State Route 91 Corridor Improvement Project also complies with the provisions of Section 6(f) of the Land & Water Conservation Fund Act.

Ron Krueper
District Superintendent
California Department of Parks and Recreation
Inland Empire District

Table 1 Summary of Permanent Uses, Permanent Easements, and Temporary Occupancies at Chino Hills State Park by Alternative

(revised 2-6-12)

Alternative 1 Project			Alternative 2 Project		
Permanent Use	**Permanent Easement**	**TCEs and Other Temporary Occupancies[1]**	**Permanent Use**	**Permanent Easement**	**TCEs and Other Temporary Occupancies[1]**
Initial Phase					
IP: Permanent use of a total of 0.04 ac of land for the footings for two columns under the aerial easement for the elevated Green River Road off-ramp and the area south of that easement	IP: Permanent 0.48 ac aerial easement at the Green River Road off-ramp (the 0.04 ac for the column footings is below the off-ramp structure and is within the 0.48-ac area for the aerial easement)	IP: 2.14 ac for a total of 7 TCEs	IP: Permanent use of a total of 0.04 ac of land for the footings for two columns under the aerial easement for the elevated Green River Road off-ramp and the area south of that easement	IP: Permanent 0.48 ac aerial easement at the Green River Road off-ramp (the 0.04 ac for the column footings is below the off-ramp structure and is within the 0.48-ac area for the aerial easement)	IP: 2.14 ac for a total of 7 TCE
Ultimate Project					
P: None beyond the 0.04 ac in the Initial Phase	P: 1.65 ac permanent subsurface easement	P: None beyond the 2.14 ac for the 7 TCEs in the Initial Phase	P: None beyond the 0.04 ac in the Initial Phase	P: 1.88 ac permanent subsurface easement	P: None beyond the 2.14 ac for the 7 TCEs in the Initial Phase

ac = acre/acres
IP = Initial Phase of Alternative 1 or 2
P = Project
TCEs = temporary construction easements

This page intentionally left blank

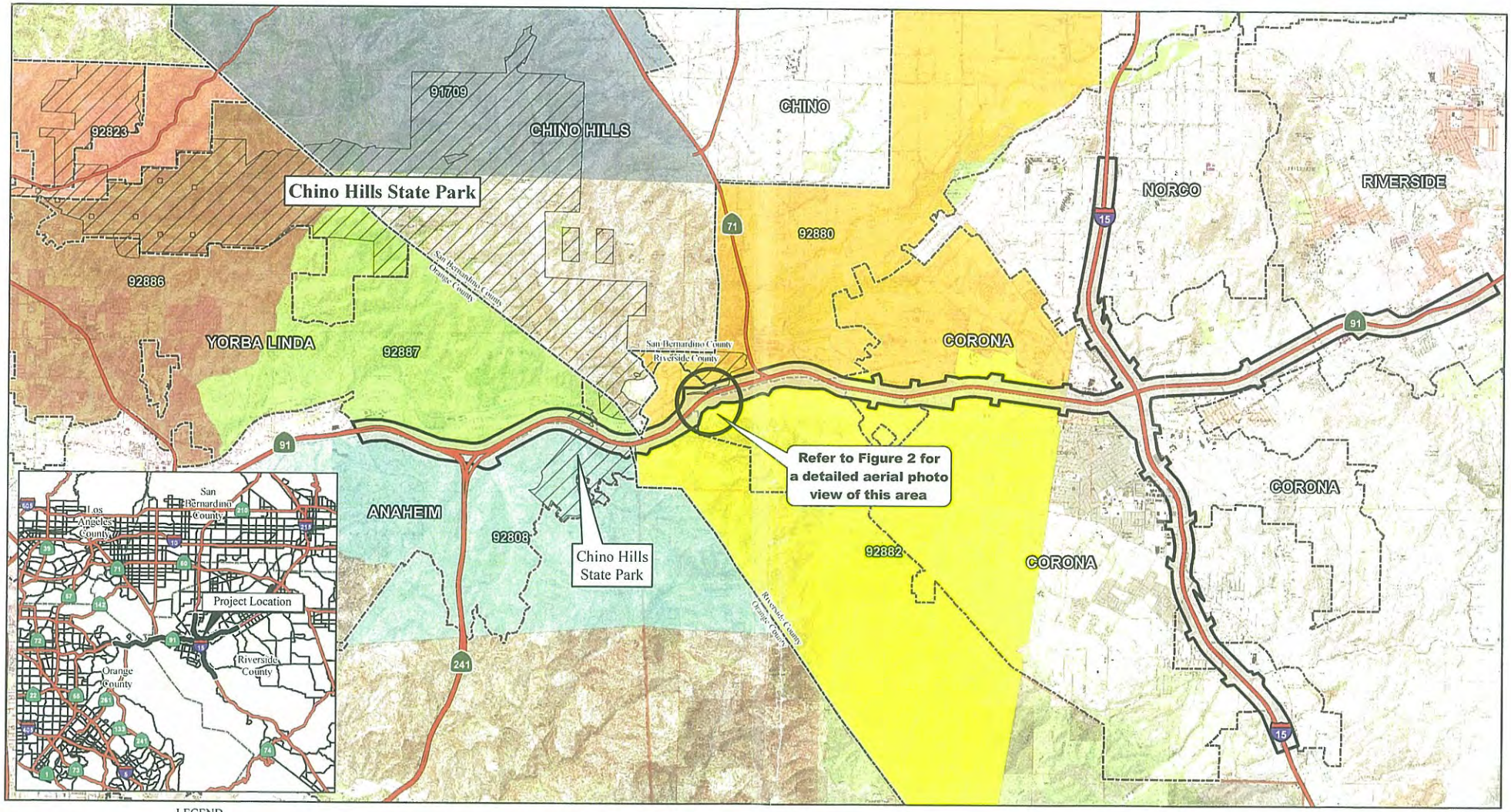


FIGURE 1

SR-91 Corridor Improvement Project

Project Location

Ora-91-R14.43/R18.91
Riv-91-R0.00/R13.04
Riv-15-35.64/45.14
EA 0F540

SOURCE: USGS 7.5' Quad - Black Star Canyon (1988), Corona North (1981), Corona South (1988), Prado Dam (1981), Riverside West (1981); CA. Zip Code Data - Thomas Bros (2010)
I:\PAZ0701\GIS\4f\4f_Location_Fig1.mxd (1/5/2012)



LEGEND

- Proposed Alignment
- Permanent Aerial Easement
- Permanent Subsurface Easement
- Proposed Retaining Wall/Concrete Barrier
- Bridge Column/Footings
- Temporary Construction Easement (TCE)
- Existing State Right-of-Way
- Chino Hills State Park

Sensitive Plants

- Southern California black walnut

Vegetation Communities

- Chaparral
- Coastal Sage Scrub
- Developed
- Non-native Grassland
- Riparian Forest
- Ruderal and Ornamental

* Impacted areas on Sheets 1-3 are entirely within Coastal California Gnatcatcher Designated Critical Habitat.

0 75 150
FEET

SOURCE: Air Photo USA (c.2010), County of Orange (2008), PB (2010).

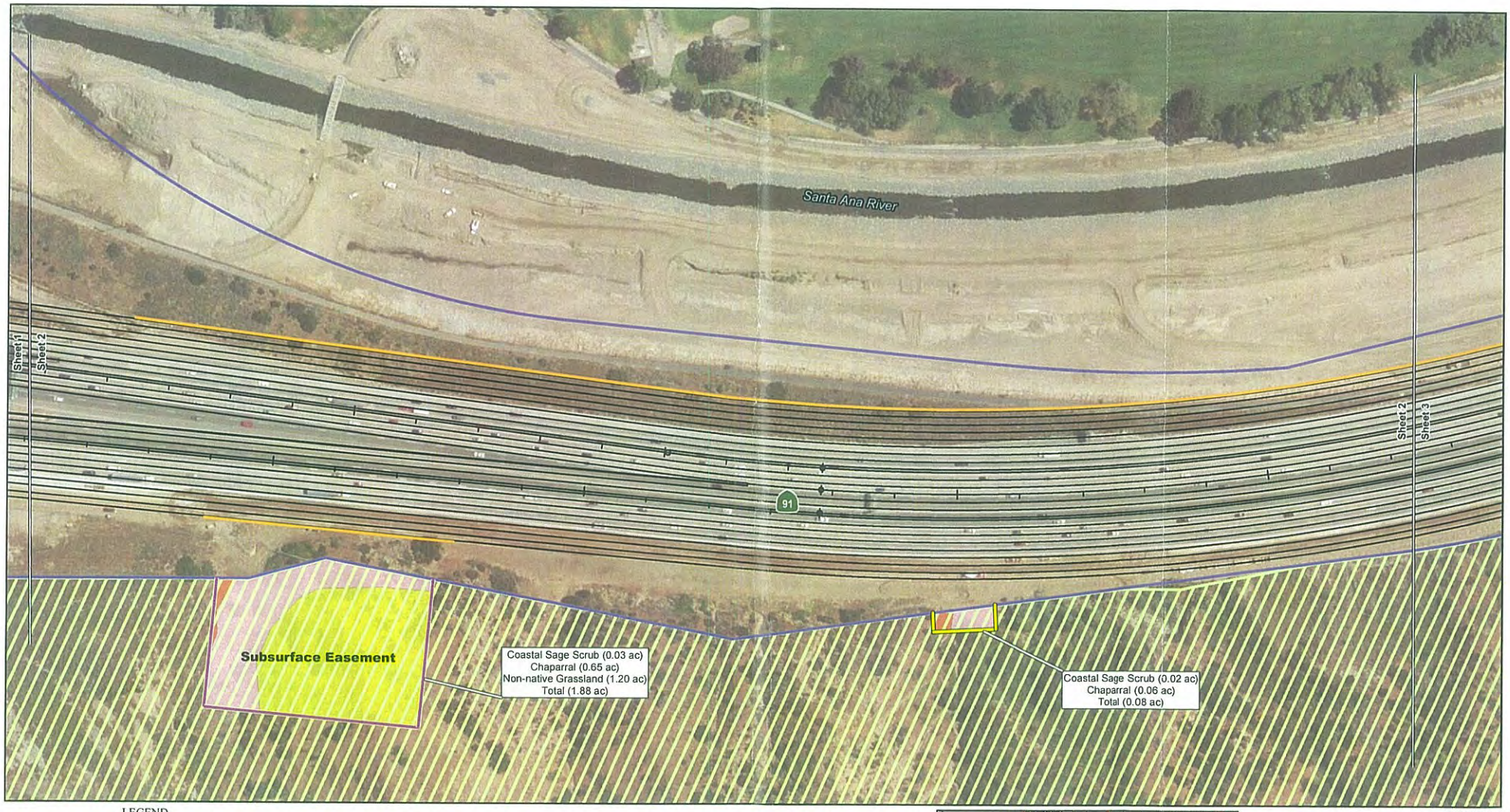
I:\PAZ0701\GIS\4f\ChinoHillsSP_Alt2_BioResources.mxd (12/16/2011)



FIGURE 4
Sheet 1 of 4

SR-91 Corridor Improvement Project
Project Effects at Chino Hills State Park

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Proposed Alignment
- Permanent Aerial Easement
- Permanent Subsurface Easement
- Proposed Retaining Wall/Concrete Barrier
- Bridge Column/Footings
- Temporary Construction Easement (TCE)
- Existing State Right-of-Way
- Chino Hills State Park

Sensitive Plants

- Southern California black walnut

Vegetation Communities

- Chaparral
- Coastal Sage Scrub
- Developed
- Non-native Grassland
- Riparian Forest
- Ruderal and Ornamental

* Impacted areas on Sheets 1-3 are entirely within Coastal California Gnatcatcher Designated Critical Habitat.

0 75 150
FEET

SOURCE: Air Photo USA (c.2010), County of Orange (2008), PB (2010).

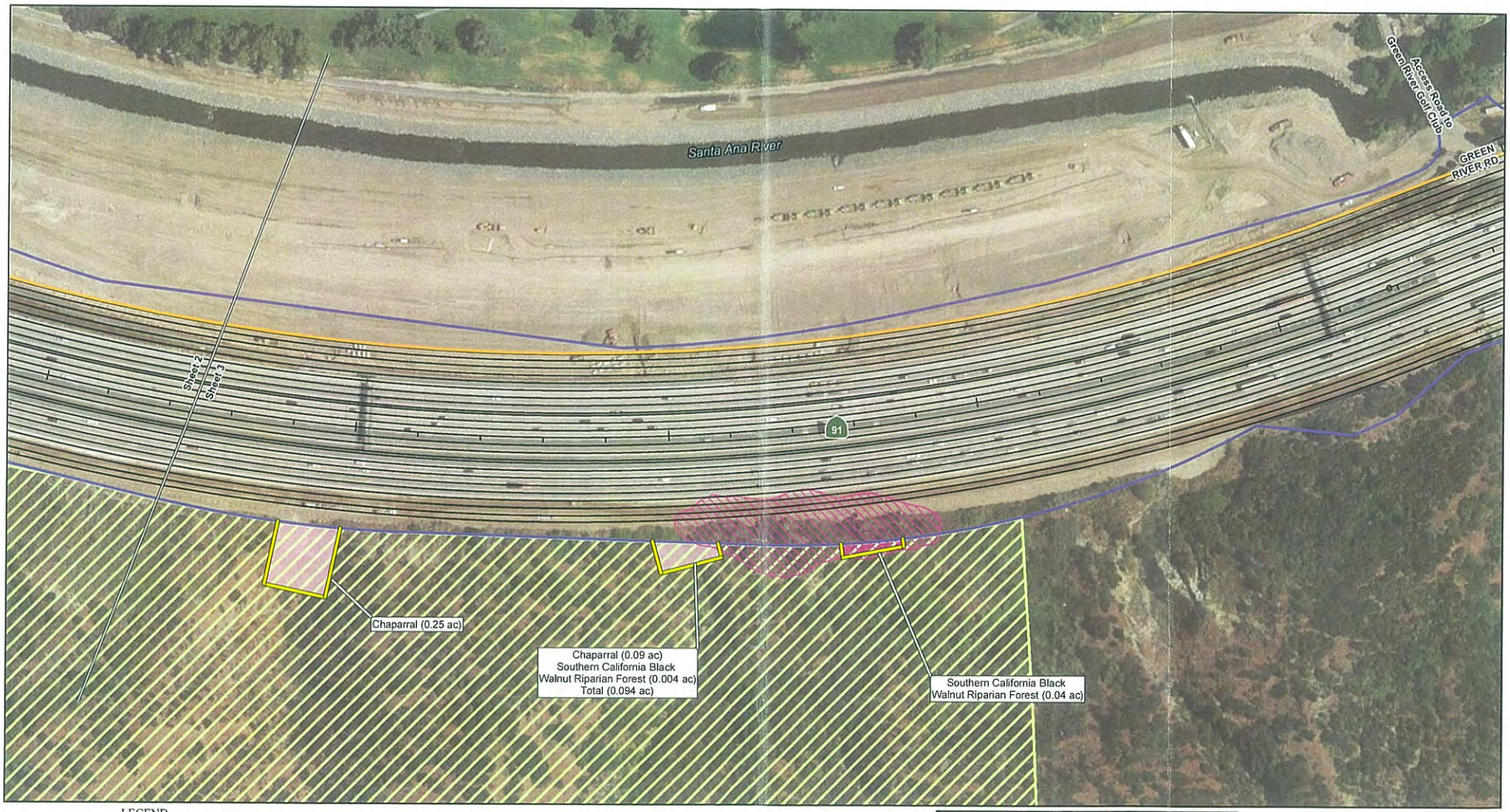
I:\PAZ0701\GIS\4f\ChinoHillsSP_Alt2_BioResources.mxd (12/16/2011)



FIGURE 4
Sheet 2 of 4

SR-91 Corridor Improvement Project
Project Effects at Chino Hills State Park

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Proposed Alignment
- Permanent Aerial Easement
- Permanent Subsurface Easement
- Proposed Retaining Wall/Concrete Barrier
- Bridge Column/Footings
- Temporary Construction Easement (TCE)
- Existing State Right-of-Way
- Chino Hills State Park

Sensitive Plants

- Southern California black walnut

Vegetation Communities

- Chaparral
- Coastal Sage Scrub
- Developed
- Non-native Grassland
- Riparian Forest
- Ruderal and Ornamental

* Impacted areas on Sheets 1-3 are entirely within Coastal California Gnatcatcher Designated Critical Habitat.

0 75 150 FEET



SOURCE: Air Photo USA (c.2010), County of Orange (2008), PB (2010).

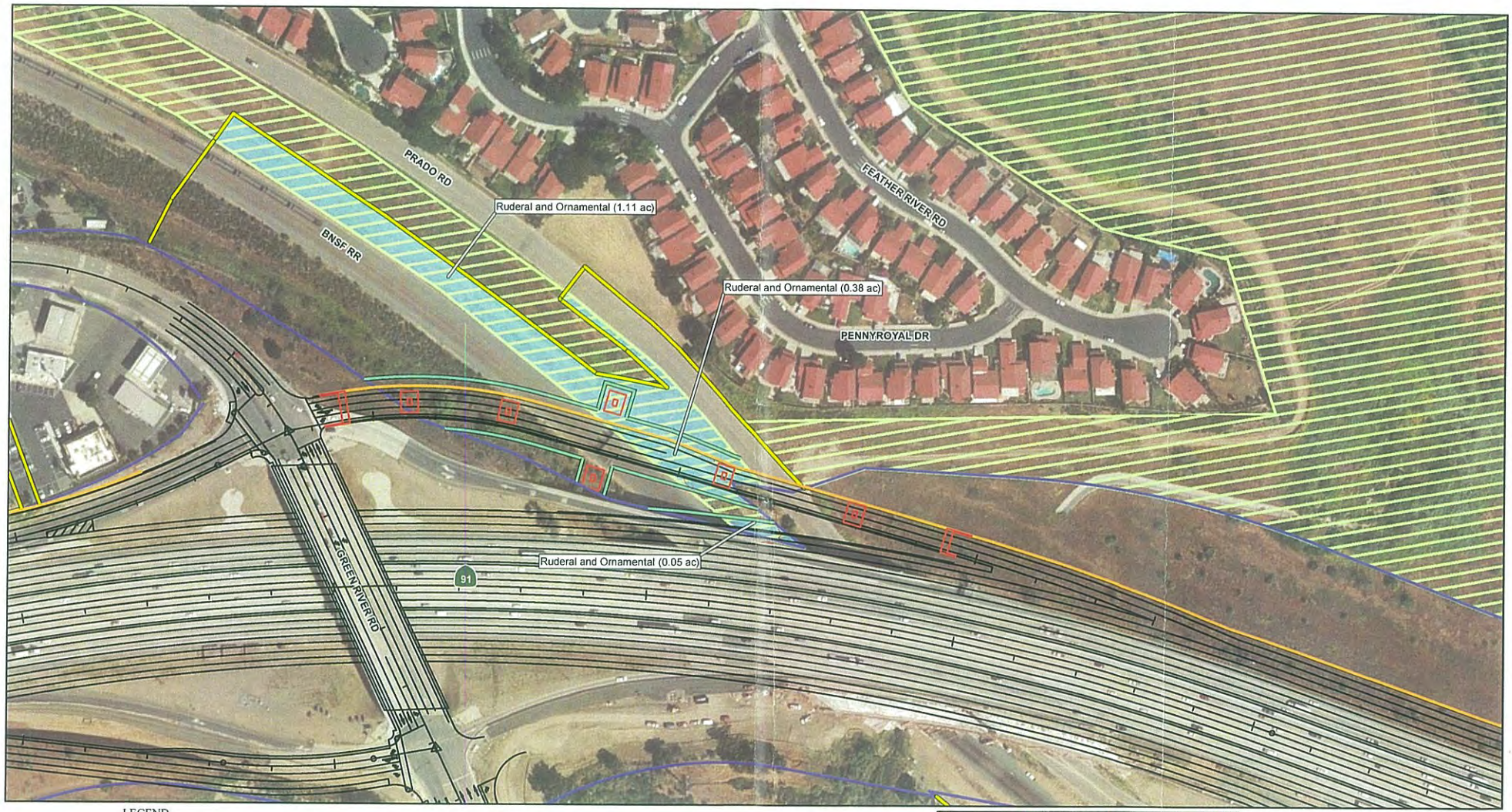
I:\PAZ0701\GIS\4f\ChinoHillsSP_Alt2_BioResources.mxd (12/16/2011)

FIGURE 4
Sheet 3 of 4

SR-91 Corridor Improvement Project

Project Effects at Chino Hills State Park

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Proposed Alignment
- Permanent Aerial Easement
- Permanent Subsurface Easement
- Proposed Retaining Wall/Concrete Barrier
- Bridge Column/Footings
- Temporary Construction Easement (TCE)
- Existing State Right-of-Way
- Chino Hills State Park

Sensitive Plants

- Southern California black walnut

Vegetation Communities

- Chaparral
- Coastal Sage Scrub
- Developed
- Non-native Grassland
- Riparian Forest
- Ruderal and Ornamental

* Impacted areas on Sheets 1-3 are entirely within Coastal California Gnatcatcher Designated Critical Habitat.

0 75 150
FEET

SOURCE: Air Photo USA (c.2010), County of Orange (2008), PB (2010).

I:\PAZ0701\GIS\4f\ChinoHillsSP_Alt2_BioResources.mxd (12/16/2011)



FIGURE 4
Sheet 4 of 4

SR-91 Corridor Improvement Project
Project Effects at Chino Hills State Park

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

This page intentionally left blank

United States Department of the Interior
OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Pacific Southwest Region
1111 Jackson Street, Suite 520
Oakland, California 94607

IN REPLY REFER TO:
ER# 11/0476

Electronically Filed

11 July 2011

Mr. Aaron Burton
California Department of Transportation, District 8
464 West 4th Street, 6th Floor
San Bernardino, CA 92401
Email: aaron_burton@dot.ca.gov

Subject: Review of Draft Environmental Impact Statement and Section 4(f) Evaluation for State Route 91 Corridor Improvement Project, Riverside and Orange Counties, CA

Dear Mr. Burton,

The Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement and Section 4(f) Evaluation for the State Route 91 Corridor Improvement Project, Riverside and Orange Counties, California, and offers the following comments.

SECTION 4(f) EVALUATION COMMENTS

The Department concurs that there is no feasible or prudent alternative to the preferred alternative identified in the document, and that all reasonable measures to minimize harm to Section 4(f) property have been identified.

Thank you for the opportunity to review this document. Should you have any questions about the Section 4(f) comments, please contact Alan Schmierer, National Park Service, Pacific West Regional Office, at 510-817-1441.

Thank you for the opportunity to review this project.

Sincerely,

Patricia Sanderson Port

Patricia Sanderson Port
Regional Environmental Officer

cc:
Director, OEPC
SHPO CA (mwdonaldson@parks.ca.gov)

bcc:
- OEPC (Loretta_Sutton@ios.doi.gov)
- NPS-WASO-EQD (waso_eqd_extrev@nps.gov)
- NPS-PWR-O (alan_schmierer@nps.gov)

State of California • Natural Resources Agency
Edmund G. Brown Jr., *Governor*
DEPARTMENT OF PARKS AND RECREATION
Ruth Coleman, *Director*
Inland Empire District • 17801 Lake Perris Drive • Perris, CA 92571
(951) 443-2423 • FAX (951) 657-2736

April 5, 2012

David Bricker
Caltrans, District 8
464 West 4th Street
San Bernardino, CA 92401

Re: Section 4(f) De Minimis Determination at Chino Hills State Park for SR-91 Corridor Improvement Project

Dear Mr. Bricker:

The Inland Empire District of the California Department of Parks and Recreation (State Parks) with ownership and stewardship authority for Chino Hills State Park (CHSP) appreciates the opportunity to participate in the Section 4(f) concurrence process. State Parks understands that California Department of Transportation (Caltrans) Districts 8 and 12 and the Riverside County Transportation Commission (RCTC) are proposing to improve the existing State Route 91 with the SR-91 Corridor Improvement Project (CIP). The proposed project includes highway widening, bridge widening, modification or construction of new drainage facilities, and retaining walls.

Accommodating the proposed SR 91 CIP with additional lanes will require the Green River Road westbound off-ramp to be relocated north into CHSP. Two columns will support the elevated off-ramp structure or bridge within CHSP between the BNSF railroad tracks and Prado Road. The actual area within CHSP for the two columns (0.04 acre permanent easement) and the "aerial easement" (approximately 0.44 acre) for the bridge structure will total approximately 0.48 acre permanent use of CHSP property. In addition, a permanent subsurface easement/tieback (approximately 1.88 acres) will be required on the southside of SR 91 between Green River Road and Coal Canyon.

Also, seven Temporary Construction Easements (TCE's), approximately 2.1 acres within CHSP at various locations on the north and south side of SR-91 for work on existing culverts and work in and around the BNSF railroad tracks. The duration of the occupancy for each TCE is temporary (less than 6 months) and will be less than the time needed for actual construction with no change in CHSP ownership. The scope of work will be minor and all lands being used will be fully restored with no permanent interference to CHSP resources and uses. My signature below represents written concurrence that the TCE's constitute temporary occupancies and therefore are not uses of parkland under 4(f).

As presented to State Parks by Caltrans Staff, the proposed SR-91 CIP falls under the provisions of The Safe, Accountable, Flexible, Transportation Equity Act – A Legacy for Users (SAFETEA-LU) Section 6009(a). Under this provision, Caltrans, which has been assigned the environmental review and approval authority of the US DOT under SAFETEA-LU Section 6005, determines whether the transportation use of Section 4(f) property would result in a de minimis impact. Caltrans maintains that the de minimis impact finding is appropriate and would be maintained with regards to the potential impacts to CHSP on the activities, features, and attributes that make CHSP eligible for Section 4(f) protection.

My signature below represents written concurrence on the de minimis finding that the State Route 91 CIP would not adversely affect the activities, features, and attributes that qualify CHSP for protection under Section 4(f). The transportation use of the Section 4(f) resource, together with the 4(f) impact avoidance, minimization, and mitigation or enhancement measures incorporated into the State Route 91 Corridor Improvement Project, does not adversely affect the activities, features and attributes that qualify CHSP for protection under Section 4(f). The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource. The signature is conditioned upon the 4(f) impacts and mitigation measures as previously referenced.

Thank you again for coordinating this project with us. For further discussion, please contact me or Enrique Arroyo at (951) 453-6848.

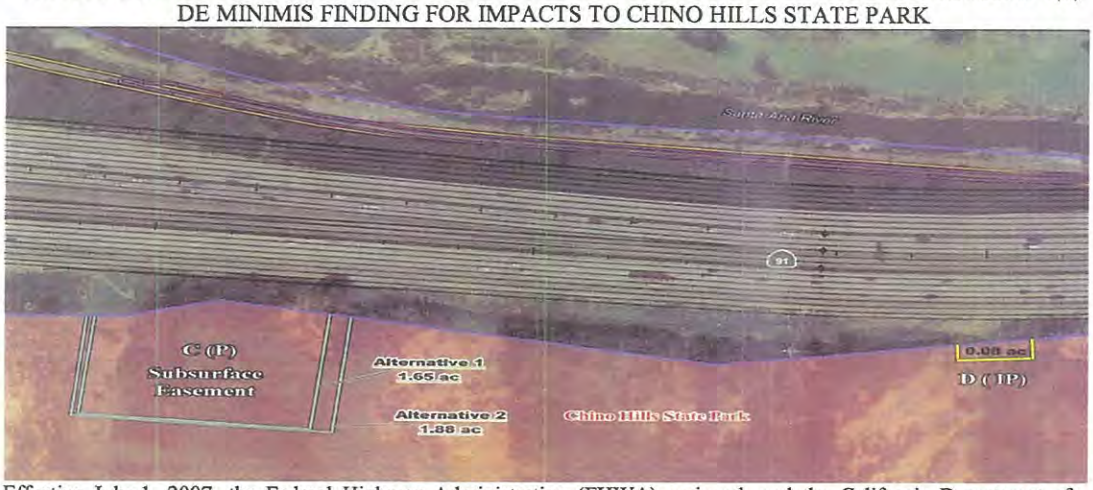
Sincerely,

Ron Krueper
District Superintendent

cc: Ronie Clark, DPR Southern Division Chief
Jay Chamberlin, DPR Chief of Natural Resources
Wildlife Corridor Conservation Authority
Claire Schlotterbeck, Executive Director, Hills for Everyone

PUBLIC NOTICE

NOTICE OF INTENT TO ADOPT A U. S. DEPARTMENT OF TRANSPORTATION ACT SECTION 4(F) DE MINIMIS FINDING FOR IMPACTS TO CHINO HILLS STATE PARK



Effective July 1, 2007, the Federal Highway Administration (FHWA) assigned, and the California Department of Transportation (Caltrans) assumed, all the Secretary of the United States Department of Transportation responsibilities under the National Environmental Policy Act (NEPA) pursuant to 23 U.S.C. 327(a)(2)(A). For purposes of carrying out the responsibilities assumed under this code, Caltrans is deemed to be acting as the FHWA with respect to the environmental review, consultation, and other actions required under those responsibilities including the requirements of Section 4(f).

This notice provides information regarding the State Route 91 Corridor Improvement Project (SR 91 CIP) and the potential Section 4(f) impacts associated with the project on Chino Hills State Park (CHSP). Caltrans and the Riverside County Transportation Commission (RCTC) initiated Section 4(f) consultation with State Parks in March 2008 when it was determined that the project's preliminary design may directly affect CHSP.

SR 91 CIP

The proposed project includes highway widening, bridge widening, modification or construction of new drainage facilities, and retaining walls. Both SR 91 CIP build alternatives have proposed additional lanes which require widening of the existing SR 91 to accommodate these lanes. This widening would also require that the existing Green River Road westbound offramp be relocated to the north. This would require two columns to be placed on CHSP property to support the elevated offramp. The two columns and the associated aerial easement total approximately 0.48 acre of CHSP property.

Both SR 91 CIP build alternatives also require permanent subsurface easements to accommodate subsurface tiebacks for a tieback wall located east of Coal Canyon and south of SR 91 and total approximately 1.88 acres of CHSP property. These tiebacks are underground and have no impact on the surface vegetation of the park.

APPLICABILITY OF SECTION 4(f)

The Safe, Accountable, Flexible, Transportation Equity Act – A Legacy for Users (SAFETEA-LU) Section 6009(a) amended existing Section 4(f) language to allow the U.S. DOT to determine that certain uses of Section 4(f) land are de minimis. When this is the case, and the responsible official with jurisdiction over the resource agrees in writing, compliance with Section 4(f) is completed. De minimis impacts on publicly owned parks are defined as those project impacts that do not adversely affect the activities, features, and attributes that qualify the property for protection under the requirements of Section 4(f).

In the Draft Environmental Impact Statement/Report for the project, circulated to the public between May and July 2011, Caltrans informed the public and agencies of these impacts. In this document, Caltrans initially determined that for the permanent subsurface easements that would accommodate tiebacks for a tieback wall at CHSP, "temporary occupancy" applied and therefore did not constitute a use of land at CHSP under Section 4(f) for the proposed wall and associated easements. Caltrans has re-evaluated the prior temporary occupancy determination and now has determined that a de minimis impact finding is appropriate for the permanent subsurface easements required for the tieback wall, approximately 1.88 acres. This is because there are no potential impacts to CHSP on the activities, features, and attributes that make CHSP eligible for Section 4(f) protection, but there is a permanency of the easements required. Therefore, Caltrans now proposes a de minimis impact finding for both of the project effects at CHSP per 23 CFR 774 (for the subsurface easements as well as the location of the offramp).

If you have any questions or comments regarding this, please call Caltrans Aaron Burton at (909) 383-2841, or write to Caltrans, attn: Aaron Burton, 464 West Fourth Street, 6th floor, San Bernardino, CA 92404

This page intentionally left blank

Attachment D: Summary of Consultation with the City of Corona

This attachment contains a summary of the meetings and letters documenting the Section 4(f) consultation with the City of Corona regarding the potential effects of the SR-91 CIP Build Alternatives on Griffin Park, El Cerrito Sports Park, and the Santa Ana River Trail/Bike Lane.

Date of Consultation	Activity	Description of Activity
May 27, 2009	Letter	Letters from the Department to the City of Corona (Robert Morin, Joanne Coletta, and Kip Field) regarding "Formal Section 4(f) Agency Consultation for the SR-91 Corridor Improvement Project"
June 9, 2009	Meeting	Consultation meeting with the City of Corona regarding Griffin Park
June 15, 2009	Letter[1]	Letter from the City of Corona to the Department regarding the "Section 4(f) Consultation – Griffin Park" (1 page)
March 22, 2011	Letter[1]	Letter from the Department to the City of Corona regarding the "Temporary Occupancy at the El Cerrito Sports Park"
May 13, 2011	Email[1]	Email from the City of Corona to the Department, concurring with the Department's determination that the TCEs at El Cerrito Sports Park satisfy the conditions set forth in 23 CFR 774.13(d) and that the requirements of Section 4(f) will not apply to the TCEs at this park (1 page)
April 10, 2012	Letter[1]	Letter from the Department to the City regarding the "Temporary Occupancy of the Santa Ana River Trail/Bike Lane" and the City's concurrence (April 12, 2012, by the Public Works Department and April 16, 2012, by the Parks and Community Services Department) that Section 4(f) does not apply to the project effects on this resource (4-page letter and 9 pages of attachments)

Source: Riverside County Transportation Commission (2012).
[1] These letters and email are provided on the following pages.
CFR = Code of Federal Regulations
Department = California Department of Transportation
SR-91 = State Route 91
TCEs = temporary construction easements

This page intentionally left blank

PCS02709

OFFICE OF: Parks & Community Services Department

Phone: 951-736-2241
Fax: 951-279-3683

400 S. Vicentia Avenue, Corona, California 92882-2187
City Hall Online All The Time – http://www.discovercorona.com

June 15, 2009

Russell Williams
Environmental Oversight Branch Chief
California Department of Transportation
464 West 4th Street
San Bernardino CA 92401

Subject: Section 4(f) Consultation – Griffin Park Comments

Dear Mr. Williams:

The City of Corona Parks and Community Services Department received a copy of your letter dated May 27, 2009 addressed to Kip Field, Public Works Director, regarding the State Route (SR) 91 Corridor Improvement Project.

As it relates to Griffin Park, below are responses to the review questions provided in your letter for agencies with jurisdiction over a Section 4(f) property:

- Have the appropriate Section 4(f) properties (i.e., publicly owned parks and recreation lands including sports yards at public schools if they are used for recreation purposes outside school hours, wildlife and waterfowl refuges, and historic sites) within your agency's jurisdiction been identified and potential project impacts evaluated? Yes.

- Is the information describing the 4(f) property(ies) within your agency's jurisdiction correct and current? Yes.

- Is there more information about the Section 4(f) property(ies) that your agency would like incorporated in the Section 4(f) Evaluation? No.

- Has the primary purpose of the entire Section 4(f) property, and not just the part used by the SR-91 CIP Build Alternatives, been adequately described? Yes.

- Have the anticipated permanent and/or temporary use effects of the SR-91 CIP Build Alternatives on each Section 4(f) property within your agency's jurisdiction been explained sufficiently? Yes, the only stated use of land from Griffin Park for the SR-91 project is temporary.

- Does the information adequately express the significance or importance of the Section 4(f) property to your agency? Yes.

- Are the anticipated avoidance and mitigation measures for the use effects sufficient? Yes.

- Does your agency have alternative or additional mitigation to propose for inclusion in the project? No, the Department does request that the residents near the park be notified prior to the start of the project construction.

If you have any further questions, please contact Mark Wills, Administrative and Community Services Manager, at (951) 736-2241.

Sincerely,

Gabriel P. Garcia
Parks & Community Services Director

cc:
Kip Field, Public Works Director
Robert Morin, Principal Civil Engineer
Mark Wills, Administrative and Community Services Manager
Tim Brown, Park and Landscape Operations Manager

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY EDMUND G. BROWN JR Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
ENVIRONMENTAL PLANNING
464 WEST 4TH STREET, 6TH FLOOR
SAN BERNARDINO, CA 92401-1400
PHONE (909) 388-7725
FAX (909) 383-6230
TTY (909) 383-6300

Flex your power!
Be energy efficient!

March 22, 2011

File: SR-91 Corridor Improvement Project

City of Corona
Parks and Community Services Department
Director Gabriel P. Garcia
400 South Vicentia Avenue
Corona, California 92882

Dear Mr. Garcia:

Subject: Temporary Occupancy at the El Cerrito Sports Park

Effective July 1, 2007, the Federal Highway Administration (FHWA) assigned, and the California Department of Transportation (Caltrans) assumed, all the United States Department of Transportation (USDOT) Secretary's responsibilities under the National Environmental Policy Act (NEPA) pursuant to Section 6005 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) codified at 23 U.S.C. 327(a)(2)(A). Caltrans assumed all of FHWA's responsibilities under NEPA for projects on California's State Highway System (SHS) and for federal-aid local streets and roads projects under FHWA's Surface Transportation Project Delivery Pilot Program, pursuant to 23 CFR 773. Caltrans also assumed all of FHWA's responsibilities for environmental coordination and consultation under other federal environmental laws pertaining to the review or approval of projects under the Pilot Program. For purposes of carrying out the responsibilities assumed under the Pilot Program, Caltrans is deemed to be acting as the FHWA with respect to the environmental review, consultation, and other action required under those responsibilities.

Caltrans, in cooperation with *the Riverside County Transportation Commission (RCTC),* is preparing an Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the proposed *State Route 91 (SR-91) Corridor Improvement Project (CIP).* That project is located in Riverside and Orange Counties, California, and proposes to widen SR-91 between the State Route 241 (SR-241) interchange in the east part of the City of Anaheim in Orange County to Pierce Street in the City of Riverside in Riverside County; and widen Interstate 15 (I-15) between Cajalco Road in unincorporated Riverside County and Hidden Valley Parkway in the City of Corona in Riverside County. The project location is shown on the attached figure. The proposed improvements are considered necessary to facilitate movement of people and goods between the Orange and Riverside Counties by improving travel conditions for work, recreation, school, commerce, as well as other trip purposes. The Alternatives under consideration include (1) High Occupancy Vehicle (HOV) Lanes, (2) High Occupancy Toll (HOT) Lanes, and (3) taking no action. Analyses supporting the EIR/EIS will determine the type of facility necessary to meet the existing and future transportation needs in the corridor.

The SR-91 CIP Build Alternatives propose the use of four small areas on the west side of the parcel occupied by El Cerrito Sports Park for temporary construction easements (TCEs) during the construction of improved drainage facilities in those areas. The locations of the TCEs are shown on the attached figure.

Caltrans has determined that the SR-91 CIP Build Alternatives satisfy the five conditions set forth in 23 CFR 771.13(d), and that Section 4(f) will not apply. The duration of the temporary occupancy at the park will be less than the time needed for construction of the Build Alternatives and there would be no change in the ownership of the land used for the TCES. The changes to the El Cerrito Sports Park property would be minimal and would not affect any of the sports fields or other recreation facilities at the park. There are not anticipated to be any permanent adverse physical impacts at the park, or interference with the activities or purposes of the park, on either a temporary or permanent basis. The land being used will be fully restored and returned to a condition which is at least as good as that which existed prior to the use of the land for TCEs for the project construction.

We look forward to your response to our determination that the possible impacts of the proposed *SR-91 CIP* Build Alternatives to El Cerrito Sports Park satisfy the five conditions set forth in 23 CFR 774.13(d) and the Section 4(f) will not apply.

If you have any questions or would like to discuss this in more detail please contact Aaron Burton at Caltrans District 8 at (909) 388-1804. In addition, information about the project and the EIR/EIS is available at the SR-91 website at the following url: http://www.sr91project.info/index.php.

Sincerely,

DAVID BRICKER
Deputy District Director
Environmental Planning

Attachment: Project Location map
Project map of TCEs at El Cerrito Sports Park

"Caltrans improves mobility across California"

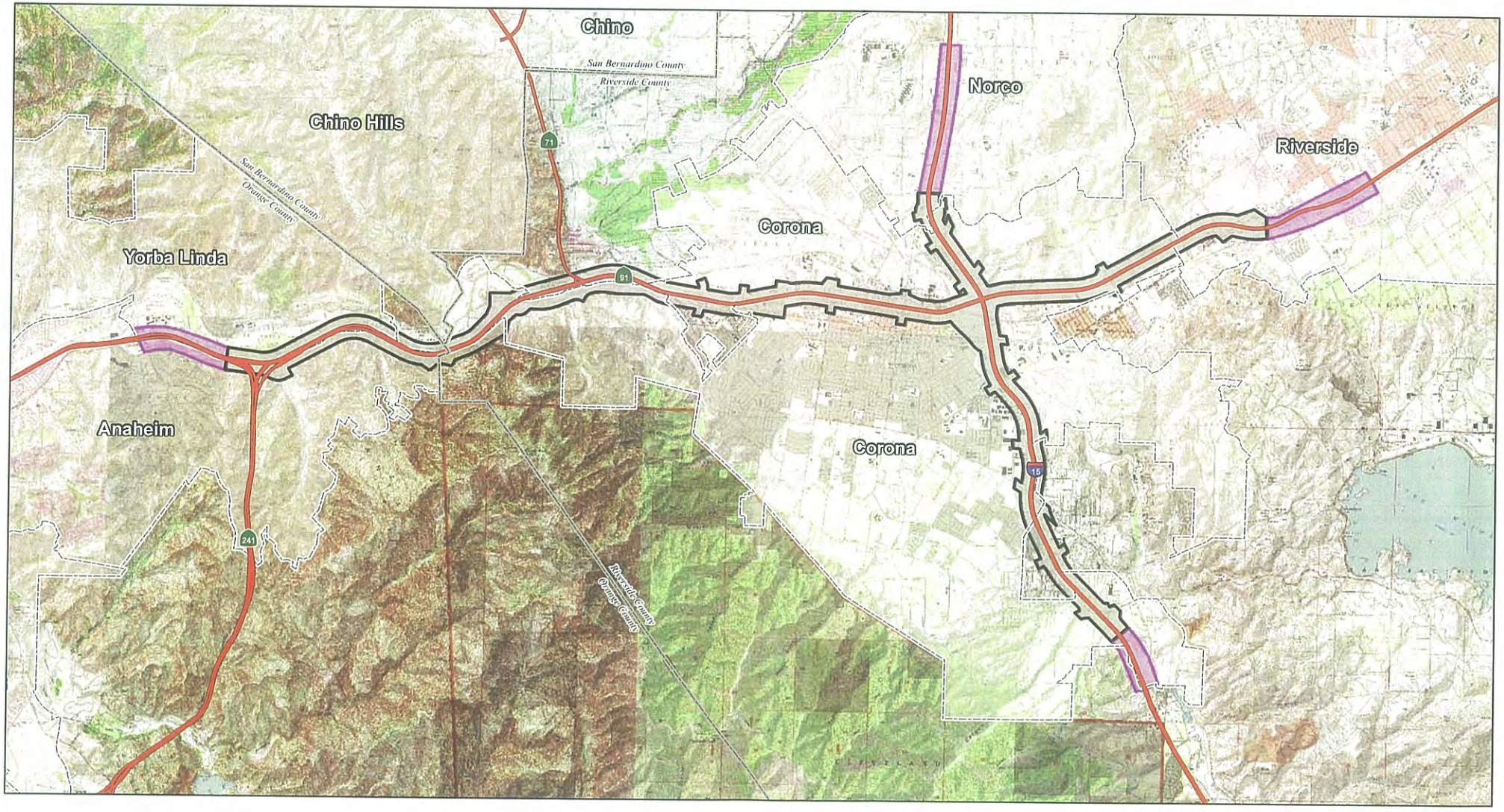


FIGURE 1

LEGEND

SR-91 Study Area

Advanced Signage Area

0 0.75 1.5 Miles

SOURCE: USGS 7.5' QUAD - BLACK STAR CANYON ('88), CORONA NORTH ('81), CORONA SOUTH ('88), PRADO DAM ('81), RIVERSIDE WEST ('81); CALIF.

I:\PAZ0701\GIS\Basemap\Project_Location_Fig1.mxd (5/6/2009)

SR-91 Corridor Improvement Project

Project Location

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Proposed Temporary Construction Easement
- Proposed Roadway Layout
- Parcel Boundary

0 60 120
FEET

SOURCE: Aerial - Bing Maps (2009); Parcels - Riverside County (2008); Engineering - PB (2010)
I:\PAZ0701\GIS\4f\ElCerrito_SportsPark.mxd (3/22/2011)



SR-91 Corridor Improvement Project

Proposed TCEs at El Cerrito Sports Park

12-Ora-91-R14.43/R18.91
08-Riv-91-R.0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

Mark Wills <Mark.Wills@ci.corona.ca.us>

To "'Aaron.Burton@dot.ca.gov'"
<Aaron.Burton@dot.ca.gov>

05/13/2011
08:41 AM

cc

SubjectTemporary Occupancy at the El Cerrito Sports Park

Aaron,

Subject: Temporary Occupancy at the El Cerrito Sports Park

The City of Corona Parks & Community Services Department received a letter on March 22, 2011, regarding the EIR/EIS for the proposed SR-91 Corridor Improvement Project. Specifically, you requested a response to the determination that the possible impacts of the proposed project's build alternatives at El Cerrito Sports Park satisfy the five conditions set forth in 23 CFR 774.13(d) and the Section 4(f) will not apply. Our Department has reviewed the proposed build alternatives and agrees with your determination. Should you require additional information, please contact me at mark.wills@ci.corona.ca.us or (951) 736-2240.

Sincerely,

Mark Wills
Administrative & Community Services Manager
Corona Parks & Community Services

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY EDMUND G. BROWN JR Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
ENVIRONMENTAL STUDIES B (MS 1162)
464 WEST 4TH STREET
SAN BERNARDINO, CA 92401
PHONE (909) 383-7725

Flex your power!
Be energy efficient!

April 10, 2012

File: 08- RIV-91-R0.00/R13.04
08- RIV-91-R0.00/R13.04
08-RIV-15-35.64/45.14
State Route 91 Corridor Improvement Project
EA: 08-0F540
PN: 0800000136

Mr. Robert Morin
City of Corona
Public Works Department
400 South Vicentia Avenue
Corona, CA 92882

Subject: Temporary Occupancy of the Santa Ana River Trail/Bike Lane

Dear Mr. Morin,

Effective July 1, 2007, the Federal Highway Administration (FHWA) assigned, and the California Department of Transportation (Caltrans) assumed, all the United States Department of Transportation (USDOT) Secretary's responsibilities under the National Environmental Policy Act (NEPA) pursuant to Section 6005 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) codified at 23 U.S.C. 327(a)(2)(A). Caltrans assumed all of FHWA's responsibilities under NEPA for projects on California's State Highway System (SHS) and for federal-aid local streets and roads projects under FHWA's Surface Transportation Project Delivery Pilot Program, pursuant to 23 CFR 773. Caltrans also assumed all of FHWA's responsibilities for environmental coordination and consultation under other federal environmental laws pertaining to the review or approval of projects under the Pilot Program. For purposes of carrying out the responsibilities assumed under the Pilot Program, Caltrans is deemed to be acting as the FHWA with respect to the environmental review, consultation, and other action required under those responsibilities.

Caltrans, in cooperation with *the Riverside County Transportation Commission (RCTC)*, is preparing an Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the proposed *State Route 91 (SR-91) Corridor Improvement Project (CIP)*. That project is located in Riverside and Orange Counties, California, and proposes to widen SR-91 between the State Route 241 (SR-241) interchange in the east part of the City of Anaheim in Orange County to Pierce Street in the City of Riverside in Riverside County; and widen Interstate 15 (I-15) between Cajalco Road in unincorporated Riverside County and Hidden Valley Parkway in the City of Corona in Riverside County. The project location is shown on the attached figure. The proposed improvements are considered necessary to facilitate

movement of people and goods between the Orange and Riverside Counties by improving travel conditions for work, recreation, school, commerce, as well as other trip purposes. The Alternatives under consideration include (1) High Occupancy Vehicle (HOV) Lanes, (2) High Occupancy Toll (HOT) Lanes, and (3) taking no action. Analyses supporting the EIR/EIS will determine the type of facility necessary to meet the existing and future transportation needs in the corridor.

The SR-91 CIP Build Alternatives propose temporary occupancy of the Santa Ana River Trail/Bike Lane to relocate a 200-ft long segment of the Class II Bike Lane to the north, which may result in temporary closure of the Trail/Bike Lane for construction. The relocation of the Trail/Bike Lane to the north will accommodate the trail modifications made by the separate United States Army Corps of Engineers (ACOE) Reach 9 Phase 20 Project that moved the trail/bike lane north. Alternative access will be provided during this temporary closure. Also proposed as part of the SR-91 CIP Build Alternatives is a surface parking area with approximately 30 parking spaces for the Santa Ana River Trail/Bike lane users. This parking area will connect the modified section of the trail to the existing bike lane on Green River Road that continues east.

Caltrans has determined that the SR-91 CIP Build Alternatives satisfy the five conditions set forth in 23 CFR 771.13(d), and that Section 4(f) will not apply. The duration of the temporary occupancy will be less than the time needed for construction of the Build Alternatives and there would be no change in the ownership of the land. The changes to the Santa Ana River Trail/Bike Lane will be minimal and will accommodate the ACOE project. There are no anticipated permanent adverse physical impacts, or interference with the activities or purposes of the park, on either a temporary or permanent basis. The land being used will be fully restored and returned to a condition which is at least as good as that which existed prior to the use of the land for TCEs for the project construction.

Caltrans is now requesting your concurrence that Section 4(f) will not apply and the SR-91 CIP Build Alternatives satisfy the five conditions set forth in 23 CFR 771.13(d) for a determination of temporary occupancy. A signature block is provided at the bottom of this letter for your convenience. Your concurrence is critically needed to continue to maintain the schedule for this project. Any delay means this critically-needed project would be delayed. If you have any questions, please do not hesitate to call me at (909) 388-7725 or Aaron Burton at (909) 383-2841.

If you have any questions or would like to discuss this in more detail, please contact Aaron Burton at Caltrans District 8 at (909) 383-2841. In addition, information about the project and the EIR/EIS is available at the SR-91 website at the following url: http://www.sr91project.info/index.php.

Sincerely,

DAVID BRICKER
Deputy District Director
Environmental Planning

Attachments: Figure 4.2 Bike Trail Existing
Figure 4.3 Bike Trail Proposed

Cc: Gabriel P. Garcia, Director, City of Corona, Parks and Community Services Department

"Caltrans improves mobility across California"

City of Corona Public Works Department appreciates the opportunity to participate in the Section 4(f) concurrence process. City of Corona Public Works Department understands that California Department of Transportation (Caltrans) Districts 8 and 12 and the Riverside County Transportation Commission (RCTC) are proposing to improve the existing State Route 91 with the SR-91 Corridor Improvement Project (CIP). The proposed project includes highway widening, bridge widening, modification or construction of new drainage facilities, and retaining walls.

Additionally, SR 91 CIP proposes temporary occupancy of the Santa Ana River Trail/Bike Lane to relocate a 200-ft long segment of the Class II Bike Lane to the north, which may result in temporary closure of the Trail/Bike Lane for construction. The relocation of the Trail/Bike Lane to the north will accommodate the trail modifications made by the separate United States Army Corps of Engineers (ACOE) Reach 9 Phase 20 Project that moved the trail/bike lane north. Alternative access will be provided during this temporary closure. In addition, as part of the SR-91 CIP Build Alternatives is a surface parking area with approximately 30 parking spaces for the Santa Ana River Trail/Bike lane users. This parking area will connect the modified section of the trail to the existing bike lane on Green River Road that continues east.

As presented to City of Corona Public Works Department by Caltrans Staff, the proposed SR-91 CIP falls under the provisions of The Safe, Accountable, Flexible, Transportation Equity Act – A Legacy for Users (SAFETEA-LU) Section 6009(a). Under this provision, Caltrans, which has been assigned the environmental review and approval authority of the US DOT under SAFETEA-LU Section 6005, determines whether the transportation use of Section 4(f) property would result in a temporary occupancy. Caltrans maintains that the temporary occupancy finding is appropriate and would be maintained with regards to the potential impacts to the Santa Ana River Trail/Bike lane on the activities, features, and attributes that make the Santa Ana River Trail/Bike eligible for Section 4(f) protection.

My signature below represents written concurrence on the temporary occupancy finding that the State Route 91 CIP would not adversely affect the activities, features, and attributes that qualify the Santa Ana River Trail/Bike for protection under Section 4(f).

Robert Morin
City of Corona
Public Works Department
400 South Vicentia Avenue
Corona, CA 92882

Date 4/12/2012

City of Corona Parks and Community Services Department appreciates the opportunity to participate in the Section 4(f) concurrence process. City of Corona Parks and Community Services Department understands that California Department of Transportation (Caltrans) Districts 8 and 12 and the Riverside County Transportation Commission (RCTC) are proposing to improve the existing State Route 91 with the SR-91 Corridor Improvement Project (CIP). The proposed project includes highway widening, bridge widening, modification or construction of new drainage facilities, and retaining walls.

Additionally, SR 91 CIP proposes temporary occupancy of the Santa Ana River Trail/Bike Lane to relocate a 200-ft long segment of the Class II Bike Lane to the north, which may result in temporary closure of the Trail/Bike Lane for construction. The relocation of the Trail/Bike Lane to the north will accommodate the trail modifications made by the separate United States Army Corps of Engineers (ACOE) Reach 9 Phase 20 Project that moved the trail/bike lane north. Alternative access will be provided during this temporary closure. In addition, as part of the SR-91 CIP Build Alternatives is a surface parking area with approximately 30 parking spaces for the Santa Ana River Trail/Bike lane users. This parking area will connect the modified section of the trail to the existing bike lane on Green River Road that continues east.

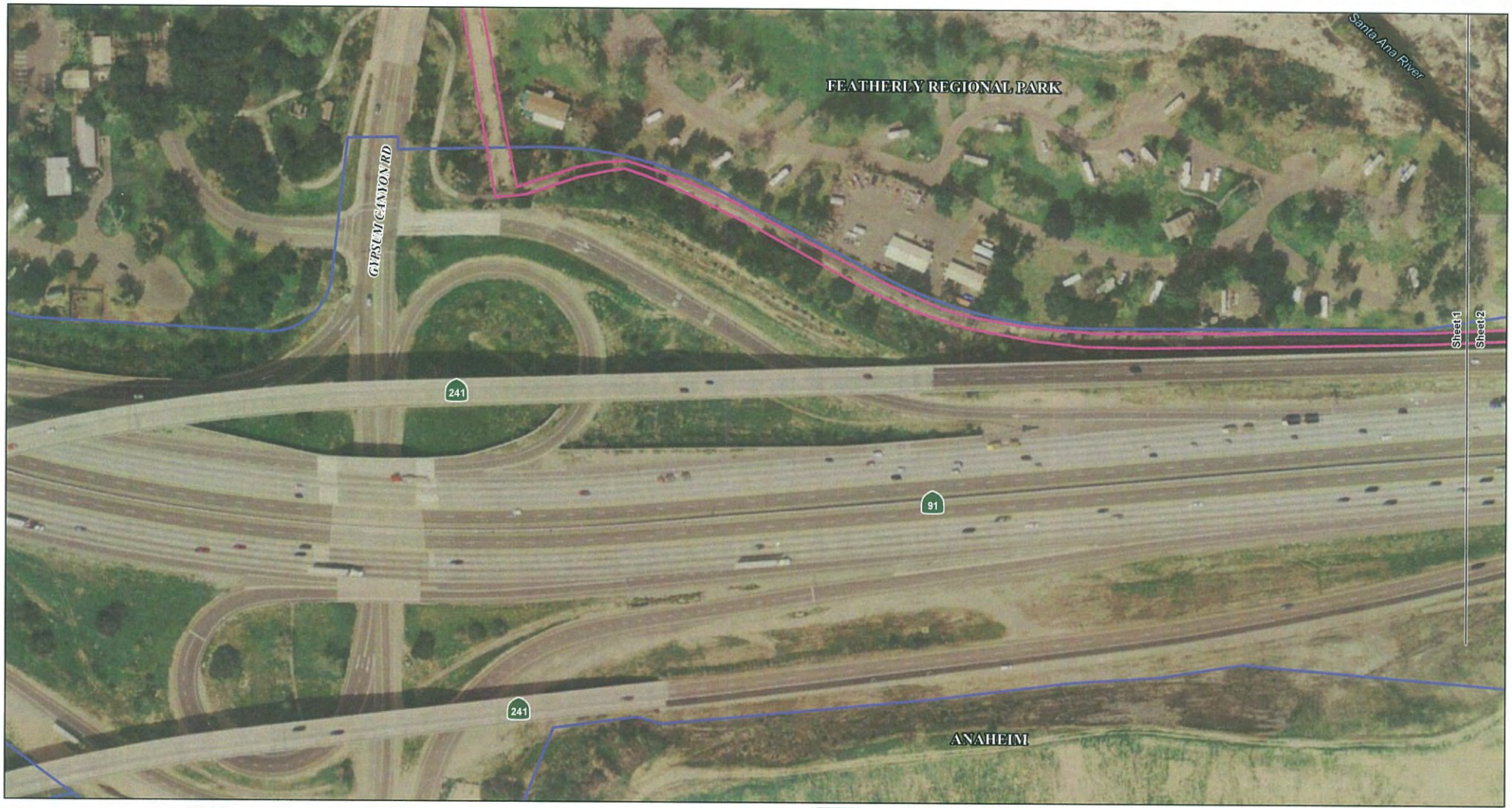
As presented to City of Corona Parks and Community Services Department by Caltrans Staff, the proposed SR-91 CIP falls under the provisions of The Safe, Accountable, Flexible, Transportation Equity Act – A Legacy for Users (SAFETEA-LU) Section 6009(a). Under this provision, Caltrans, which has been assigned the environmental review and approval authority of the US DOT under SAFETEA-LU Section 6005, determines whether the transportation use of Section 4(f) property would result in a temporary occupancy. Caltrans maintains that the temporary occupancy finding is appropriate and would be maintained with regards to the potential impacts to the Santa Ana River Trail/Bike lane on the activities, features, and attributes that make the Santa Ana River Trail/Bike eligible for Section 4(f) protection.

My signature below represents written concurrence on the temporary occupancy finding that the State Route 91 CIP would not adversely affect the activities, features, and attributes that qualify the Santa Ana River Trail/Bike for protection under Section 4(f).

Gabriel P. Garcia
Director
City of Corona
Parks and Community Services Department
400 South Vicentia Avenue
Corona, CA 92882

Date 4-16-12

This page intentionally left blank



LEGEND

- Existing State Right-of-Way
- Existing City Right-of-Way
- Existing Santa Ana River Trail/Bike Lane

0 75 150
FEET



SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2009).

I:\PAZ0701\GIS\4f\BikeTrail_Existing.mxd (4/7/2010)

FIGURE 4.2

Sheet 1 of 7

SR-91 Corridor Improvement Project

Existing Condition Santa Ana River Trail/Bike Lane

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing State Right-of-Way
- Existing City Right-of-Way
- Existing Santa Ana River Trail/Bike Lane

0 75 150
FEET



SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2009).

I:\PAZ0701\GIS\4f\BikeTrail_Existing.mxd (4/7/2010)

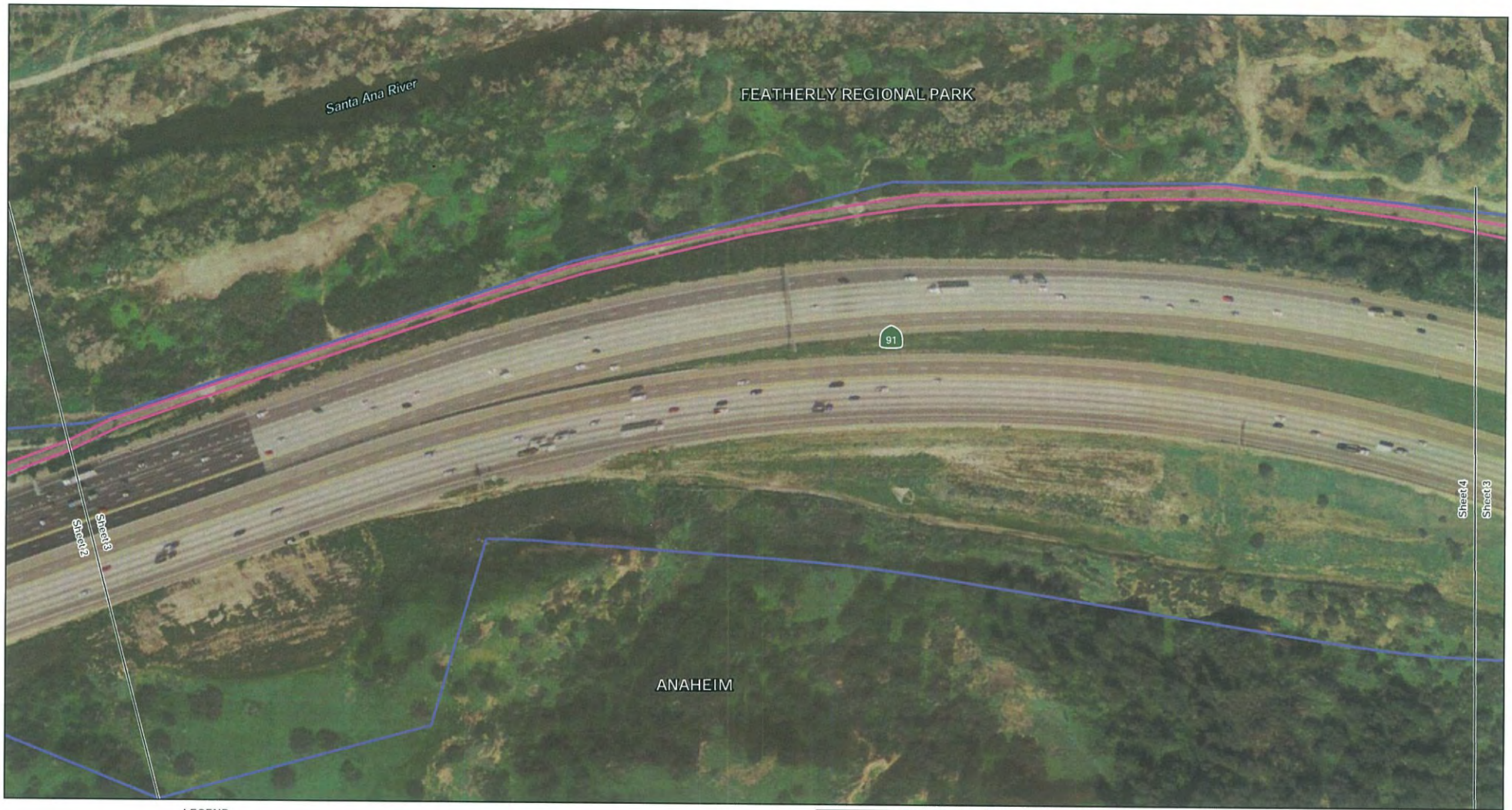
FIGURE 4.2

Sheet 2 of 7

SR-91 Corridor Improvement Project

Existing Condition Santa Ana River Trail/Bike Lane

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing State Right-of-Way
- Existing City Right-of-Way
- Existing Santa Ana River Trail/Bike Lane

N

0 75 150
FEET



SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2009).

I:\PAZ07011\GIS\4f\BikeTrail_Existing.mxd (4/7/2010)

FIGURE 4.2

Sheet 3 of 7

SR-91 Corridor Improvement Project

Existing Condition Santa Ana River Trail/Bike Lane

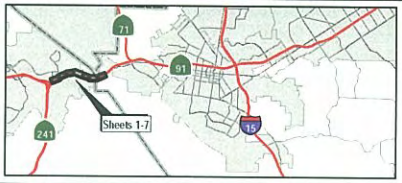
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing State Right-of-Way
- Existing City Right-of-Way
- Existing Santa Ana River Trail/Bike Lane

0 75 150
FEET



SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2009).

I:\PAZ0701\GIS\4fi\BikeTrail_Existing.mxd (4/7/2010)

FIGURE 4.2

Sheet 4 of 7

SR-91 Corridor Improvement Project

Existing Condition Santa Ana River Trail/Bike Lane

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing State Right-of-Way
- Existing City Right-of-Way
- Existing Santa Ana River Trail/Bike Lane

0 75 150
FEET



SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2009).

I:\PAZ0701\GIS\4f\BikeTrail_Existing.mxd (4/7/2010)

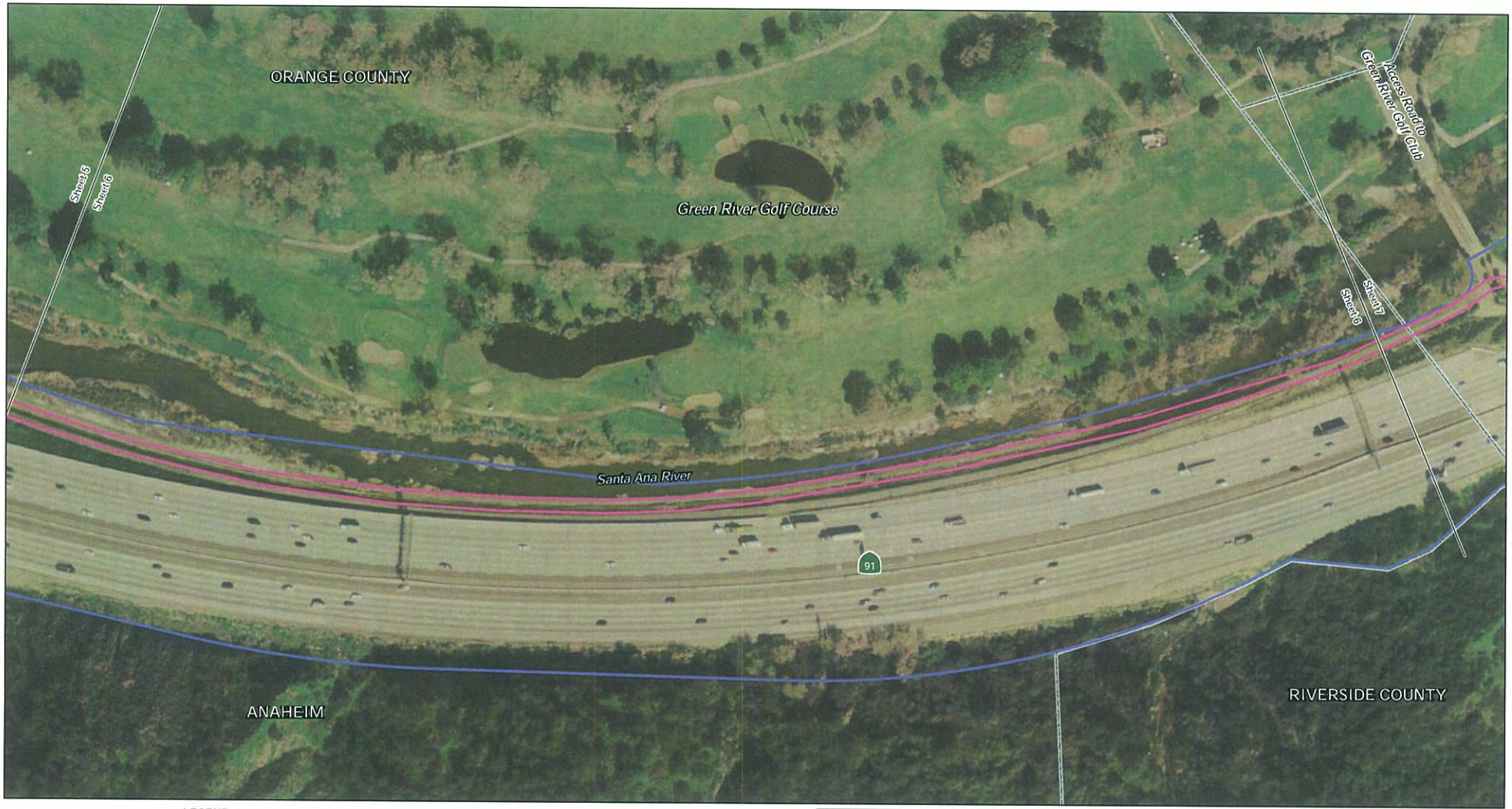
FIGURE 4.2

Sheet 5 of 7

SR-91 Corridor Improvement Project

Existing Condition Santa Ana River Trail/Bike Lane

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing State Right-of-Way
- Existing City Right-of-Way
- Existing Santa Ana River Trail/Bike Lane

N

0 75 150
FEET



SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2009).

I:\PAZ0701\GIS\4f\BikeTrail_Existing.mxd (4/7/2010)

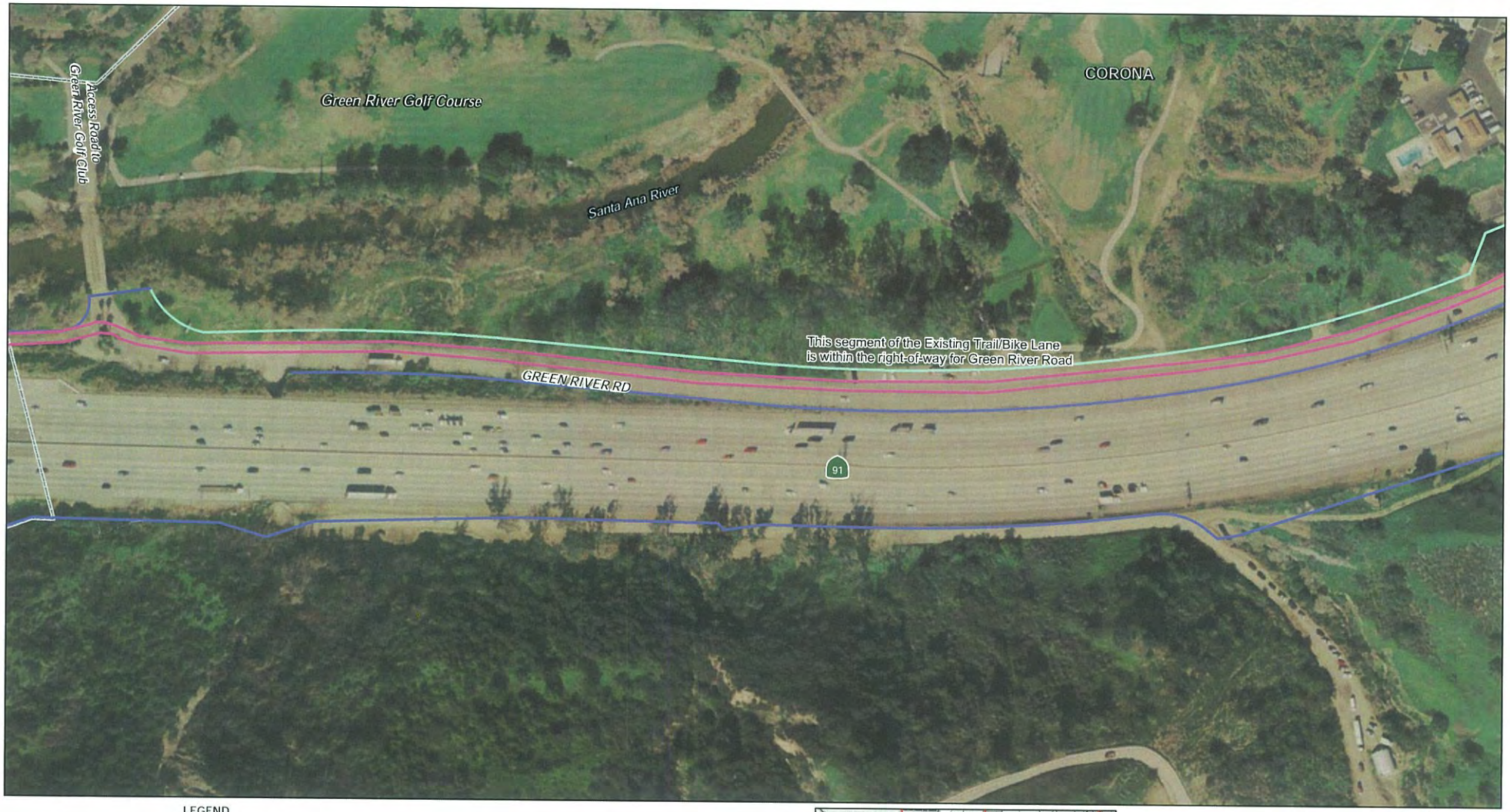
FIGURE 4.2

Sheet 6 of 7

SR-91 Corridor Improvement Project

Existing Condition Santa Ana River Trail/Bike Lane

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing State Right-of-Way
- Existing City Right-of-Way
- Existing Santa Ana River Trail/Bike Lane

0 75 150
FEET



SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2009).

I:\PAZ0701\GIS\4fi\BikeTrail_Existing.mxd (4/7/2010)

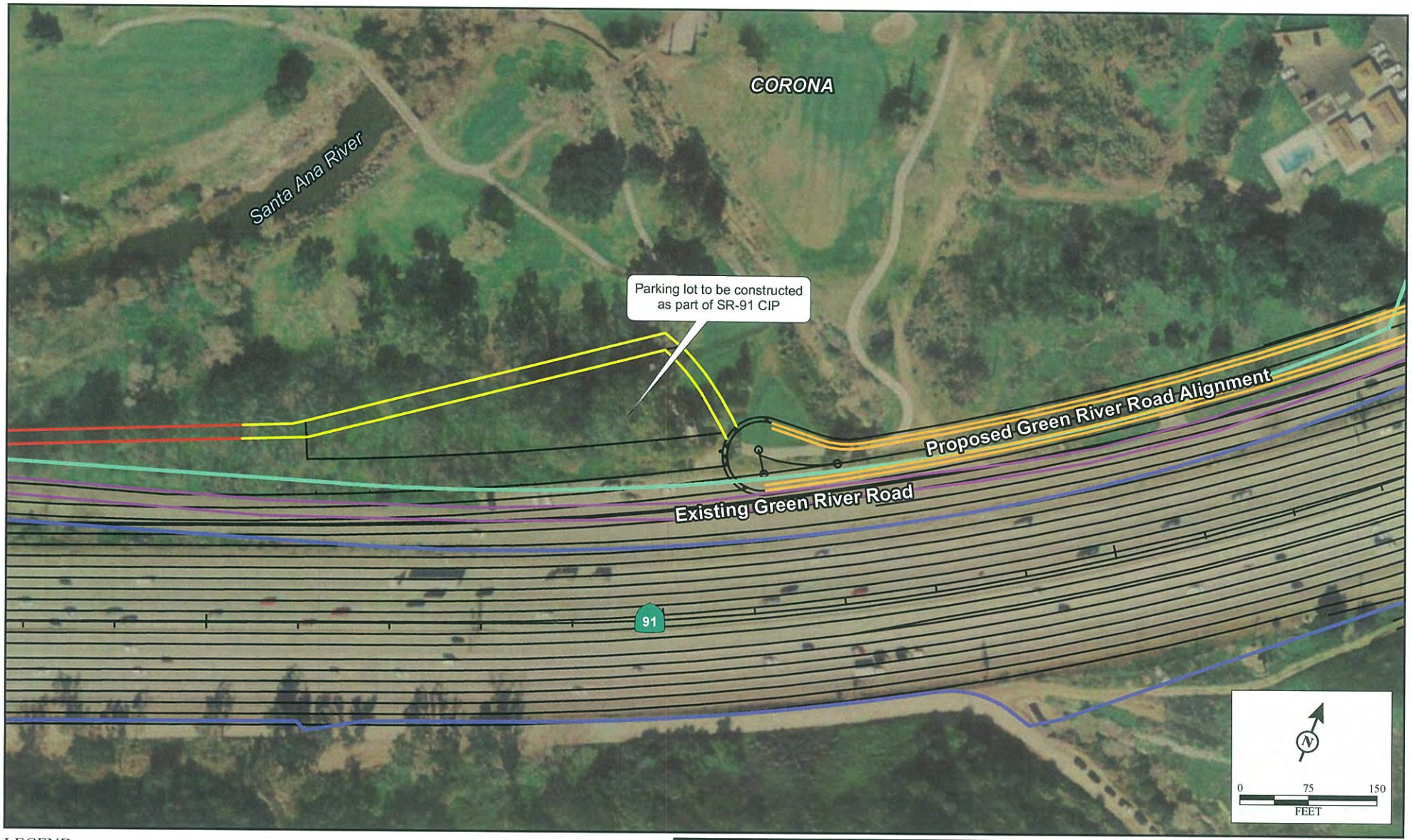
FIGURE 4.2

Sheet 7 of 7

SR-91 Corridor Improvement Project

Existing Condition Santa Ana River Trail/Bike Lane

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing Bike Trail
- Proposed Relocated Trail/Bike Path by Corps
- Proposed Relocated Trail/Bike Path by SR-91 CIP
- Existing Bike Lanes to Remain on Relocated Green River Road
- Segment 1
- Existing City Right-of-Way
- Existing State Right-of-Way



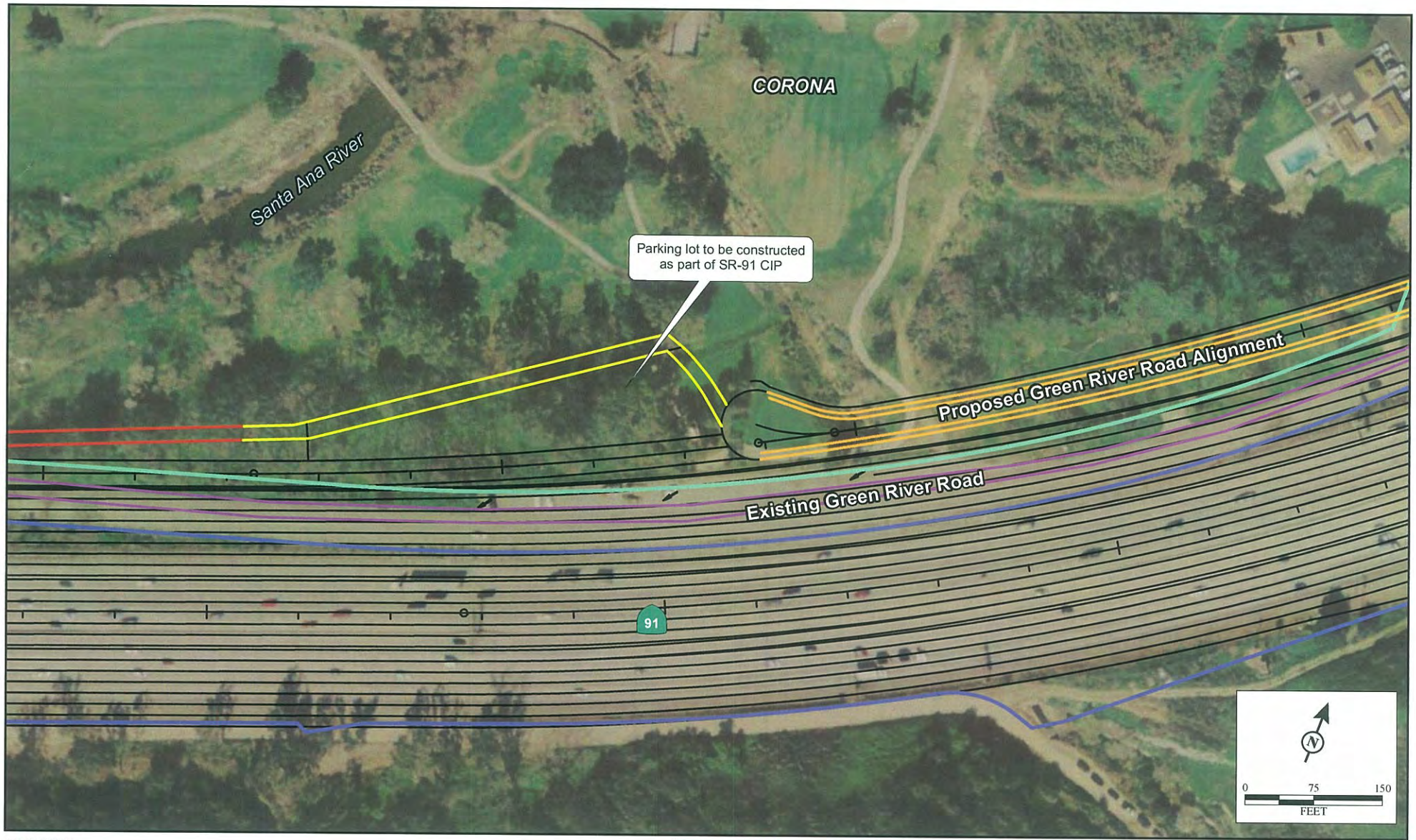
SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2012).
I:\PAZ0701\GIS\4f\BikeTrail_Proposed_Alt1.mxd (4/6/2012)

FIGURE 4.3
Sheet 1 of 2

SR-91 Corridor Improvement Project

Alternative 1 Project
Relocated Santa Ana River Trail/Bike Lane

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing Bike Trail
- Proposed Relocated Trail/Bike Path by Corps
- Proposed Relocated Trail/Bike Path by SR-91 CIP
- Existing Bike Lanes to Remain on Relocated Green River Road
- Segment 1
- Existing City Right-of-Way
- Existing State Right-of-Way



SOURCE: Air Photo USA (2008), County of Orange (2008), PB (2012).
I:\PAZ0701\GIS\4f\BikeTrail_Proposed_Alt2.mxd (4/6/2012)

FIGURE 4.3
Sheet 2 of 2

SR-91 Corridor Improvement Project

Alternative 2 (LPA) Project
Relocated Santa Ana River Trail/Bike Lane

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

This page intentionally left blank

Attachment E: Consultation Letter from the National Park Service

This attachment contains the January 26, 2012, letter (2 pages) from the National Park Service to the Department regarding issues associated with L&WCF Act grants to State Parks for CHSP.

This page intentionally left blank

United States Department of the Interior

NATIONAL PARK SERVICE
Pacific West Region
333 Bush Street, Suite 500
San Francisco, California 94104-2828

IN REPLY REFER TO:
L3219 (PWR-PR)

January 26, 2012

Mr. Brandon S. Walker
Attorney, Caltrans Legal
1120 N Street, MS 57
PO Box 1438
Sacramento, CA 95812-1438

Dear Mr. Walker:

Thank you for consulting with us regarding potential impacts from the proposed SR-91 Corridor Improvement Project relative to the Land and Water Conservation Fund Act protected boundary at Chino Hills State Park. This letter is to inform you of our findings in that regard as well as to discuss questions related to the calculation of converted acreage under the Land and Water Conservation Fund Act (16 USC §460*l* et seq.).

Chino Hills State Park has received three grants from the Land and Water Conservation Fund Act State Assistance Program (LWCF). Any park that receives assistance from the Fund must be preserved in public outdoor recreation use in perpetuity (LWCFA §6(f)(3); 16 USC §460*l*-8(f)(3)). Any land that is converted to uses other than public outdoor recreation are subject to federal regulations specified in 36 CFR §59, and to conversion requirements outlined in the state assistance program manual. At the time a grant closes, the entire area assisted by the grant, at minimum an independently viable public recreation area – in most cases the entire park, is protected by the conversion provisions of the Act. Two of the grants to Chino Hills State Park were acquisition projects: the first for the acquisition of State Park parcel #17, and the second, which closed in 1985, for the acquisition of another parcel farther to the north. Since the third grant is still in progress, the area assisted by the second completed grant is the area that is currently within an LWCFA§6(f) protected boundary; i.e. the entire State Park at the time the grant closed in 1985.

From the documentation you provided to us that locates the proposed highway project relative to State Park land ("Figure 1 – SR-91 Corridor Improvement Project; Proposed Conversion at Chino Hills State Park"), it appears that the project will touch State Park parcel #17 at its southernmost tip, span Prado Road, and then cross over State Park parcel #31 with approximately one and a half bridge column footings falling within the State Park owned parcel 31. The map indicates approximately 0.04 acres taken by the footings, and approximately 0.45 acres total area crossed by the roadbed up to the permanent aerial easement on both sides of the roadway within Parcel 31. No permanent aerial easements are indicated for the roadbed east of parcel 31, including the section touching the southern tip of parcel 17. We have determined that the current §6f protected boundary encompasses parcel 17, but because parcel #31 was acquired by the State Park in 1987, after the close of the last completed LWCF grant, it does not currently fall within the 6f boundary.

TAKE PRIDE IN AMERICA

Based on this information and confirmed by you in conversation, that the project would not encroach at all on State Park parcel #17, but does fall over and within State Park parcel #31, we have determined that LWCFA §6(f)(3) does not now apply to parcel #31, and that the proposed project, were it to be built today, would not cause a LWCFA conversion of parkland on parcel #31.

However, we must point out that we have approved a third major grant to Chino Hills State Park that has been in progress for several years. Once this grant closes, the new §6*f* protected boundary will include all of the existing State Park, including parcel #31. Due to the indeterminate timing of both the LWCF grant completion and the highway project construction, we recommend that CEQA and NEPA environmental compliance treat the property as if §6f applied now, in terms of potential impacts assessment and mitigation measures.

We would also like to clarify the conversion requirements under the LWCF Program, for projects where §6f applies, relating to the calculation of the converted area, and acceptable mitigation measures. Conversion of park land under the LWCF Act relates specifically to the public outdoor recreational uses of the park. Therefore any analysis of potential impacts to a §6f area must relate specifically to the recreational purposes of the park, potential displacement of those uses, and it must include an analysis of impacts to attributes of the area that contribute to the intended uses and visitor experience. Consequently, the area determined to be converted is rarely just the physical footprint of a non-conforming facility, but usually includes the broader area impacted by the intrusion. Analysis of impacts to a §6f area would therefore need to consider airspace, view-sheds, noise, air quality, and remnant pieces. Lacking a full analysis of potential impacts, we are in no position at the present time to make a determination regarding the extent of an LWCF conversion on the parcels in question stemming from the proposed highway project in the event that §6f applies.

Although the complex of mitigation measures for a project may include site enhancements for the area impacted, the only acceptable mitigation for an LWCFA conversion is replacement park land that meets the dual requirements of being of at least equivalent market value, and of reasonably equivalent usefulness and location. As mentioned above, more complete conversion requirements are contained in 36 CFR §59, and in the LWCF Program manual.

Thank you again for consulting with us at this early stage of your project. We greatly appreciate your efforts to design the highway project to be consistent with the public outdoor recreation purposes of the Land and Water Conservation Fund and the extraordinary attributes of Chino Hills State Park. As you know, primary compliance responsibilities for LWCF assisted parks in the State of California lie with the California Department of Parks and Recreation, Office of Grants and Local Services as well as with the managers of Chino Hills State Park. We trust you will continue to work with them as this project develops.

Please feel free to contact me if you have any further questions.

Sincerely,

David Siegenthaler
Program Officer, State and Local Assistance Programs
Pacific West Region
National Park Service

cc: Barbara Baker, California Department of Parks and Recreation, Office of Grants and Local Services
Suzanne Boyce Carlson, Assistant Field Solicitor, U.S. Department of the Interior

This page intentionally left blank

Attachment F: Evaluation of the Potential for Constructive Use Impacts

The EIR/EIS Annotated Outline (SER, accessed June 2012) requires that the potential for proximity impacts under each project alternative be evaluated for each Section 4(f) property. The SER also states "The Draft Section 4(f) Evaluation must address all proximity impacts to determine whether they will substantially impair the qualities of the 4(f) property, resulting in constructive use. The substantial impairment test is applied after consideration of proposed mitigation measures. At a national level, the Federal Highway Administration (FHWA) considers the issue of constructive use very carefully; substantial impairment is a strict standard and constructive use is rarely found."

This Attachment analyzes the potential for the SR-91 CIP Build Alternatives to result in the constructive use of following Section 4(f) properties:

- Chino Hills State Park
- Santa Ana River Trail/Bike Lane
- Featherly Regional Park
- Orange County Park (National Natural Landmark) [New OC Park (NNL)]
- El Cerrito Sports Park
- Griffin Park

This Attachment specifically considers the potential for the SR-91 CIP Build Alternatives to result in constructive use of these Section 4(f) properties for visual and aesthetics, access, ecological impacts, noise, and air quality. The information in this section is summarized from Chapter 3, Affected Environment, Environmental Consequences, and Avoidance, Minimization, and Mitigation Measures, in the EIR/EIS.

In summary, the detailed analyses described in Table F-1 did not identify any proximity impacts resulting from the SR-91 CIP Build Alternatives that would be so severe that they would substantially impair the activities, features, or attributes that qualify those properties for protection under Section 4(f), resulting in a constructive use. The proximity impacts of the SR-91 CIP Build Alternatives in the vicinity of properties that qualify for protection under Section 4(f) described in Table F-1 would not meaningfully reduce or remove the values of those resources in terms of their

Section 4(f) significance. Therefore, the SR-91 CIP Build Alternatives were determined not to result in constructive use of any properties protected under Section 4(f).

Table F-1 Analysis of the Potential for Constructive Uses

Activities, Features, and/or Attributes of the Resource	Assessment of Indirect Impacts	Is There a Constructive Use as a Result of Indirect Impacts on Resource?
Chino Hills State Park		
The activities, features, and attributes that qualify CHSP for protection under Section 4(f) are: • Activities including camping and approximately 60 mi of trails for hiking, biking, and equestrian uses. • The wide range of natural resources in the park • Connections to other open space and wilderness areas for wildlife • The overall experience and enjoyment associated with such a large area of open space in an urbanized area. • A ranch house, barn, windmills, watering troughs, on-site parking, picnic areas, equestrian staging area, pipe corrals, water spigots, and restrooms.	**Visual and Aesthetics:** As discussed in Section 3.7, Visual/ Aesthetics, the majority of the improvements (including the widened freeway mainline, new/modified ramps, overcrossings and bridges, concrete barriers, retaining walls, sound walls, and landscaping) provided by Alternatives 1 and 2 will be visible along the project segments of SR-91 and I-15. Viewers on the north and south sides of SR-91 in CHSP will have views of these improvements. There is a trail in CHSP in the vicinity of the Green River Road westbound off-ramp. Users of that trail have views of existing SR-91, the construction of the Build Alternatives, and the improvements provided by the Build Alternatives. Some other areas in CHSP are at or above the grade of SR-91 and will also potentially have views of the freeway mainline, ramps, overcrossings, undercrossings, and other infrastructure features. In the long term, the views from the parts of CHSP adjacent to SR-91 will include views of the wider mainline cross section and the modified ramp, overcrossing, and undercrossing structures. Measures V-1 through V-4 (in Section 3.7) and PR-2 (in Section 3.1, Land Use) will substantially address the visual effects of the Build Alternatives, including effects at CHSP. Those measures include aesthetic treatments on structures, highway planting, and light, glare, and graffiti control.	In summary, the Build Alternatives will not result in short-or long-term visual and aesthetics effects on CHSP so severe that they would substantially impair the activities, features, or attributes that qualify CHSP for protection under Section 4(f).
	Access: Vehicular access to CHSP is currently available at the park entrances at Rimcrest Drive and Bane Canyon Road on the north side of CHSP, well outside the SR-91 project study area. Pedestrians and bicyclists can access CHSP at those entrances and several trailheads leading to trails in the park, including a trailhead in CHSP off Prado Road just north of Green River Road. That unpaved trail extends east and north from the trailhead, along a maintenance road, into CHSP. There is currently no vehicle parking on Prado Road or Green River Road in the vicinity of this trailhead.	In summary, the Build Alternatives will not result in short-or long-term effects on vehicular and pedestrian access to CHSP so severe that they would substantially impair the activities, features, or attributes that qualify CHSP for protection under Section 4(f).

Table F-1 Analysis of the Potential for Constructive Uses

Activities, Features, and/or Attributes of the Resource	Assessment of Indirect Impacts	Is There a Constructive Use as a Result of Indirect Impacts on Resource?
	The Build Alternatives will not affect the vehicular access to CHSP on the north side of CHSP and will not affect the trail or the trailhead in the vicinity of Green River Road. The Build Alternatives include improvements at the trailhead and the provision of approximately 30 vehicle parking spaces near the trailhead. Measure PR 1 (in Section 3.1) will improve trail connectivity in this area.	
	Ecological Impacts: As discussed in Section 3.17, Natural Communities, the areas in CHSP adjacent to SR-91 include chaparral, coastal sage scrub (CSS), nonnative grasslands, and ruderal/ornamental plant materials. The Build Alternatives will require the use of 2.0 ac in CHSP for 7 TCEs during construction. When the areas used for those TCEs are no longer needed for project construction, they will be revegetated using plant species identified in consultation with State Parks and restored to a condition as good as or better than before those areas were used for TCEs. Although the project construction activities and continued operation of SR-91 adjacent to CHSP could result in adverse impacts related to invasive species in the parts of CHSP adjacent to SR-91, measure IS-1 (in Section 3.22, Invasive Species) is included in the project to minimize that potential impact.	In summary, the Build Alternatives will not result in short- or long-term effects on plant communities at CHSP so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).
	Noise: There are limited user amenities or noise sensitive receptors in the parts of CHSP adjacent to SR-91. Project-related construction noise is addressed by Measures N-2 and N-3 (in Section 3.15, Noise). In addition, Measure PR 3 (in Section 3.1) limits construction hours in Coal Canyon. Noise levels in this area will not be appreciably affected by the operation of the Build Alternatives, and very few park patrons are expected to be exposed to those forecasted increases in noise levels. Also, RCTC will develop a stand-alone project to construct barriers on the south and north sides of SR-91 to shield headlight glare and freeway noise at Coal Canyon.	In summary, the Build Alternatives will not result in short-or long-term noise impacts at CHSP so severe that they would substantially impair the activities, features, or attributes that qualify CHSP for protection under Section 4(f).

Table F-1 Analysis of the Potential for Constructive Uses

Activities, Features, and/or Attributes of the Resource	Assessment of Indirect Impacts	Is There a Constructive Use as a Result of Indirect Impacts on Resource?
	Air Quality: As discussed in Section 3.14, Air Quality, construction of the Build Alternatives has the potential to temporarily increase air quality emissions in the vicinity of CHSP, including equipment emissions and dust. Measures SC-1 through SC-5 (in Section 3.14), which include standard Department and SCAQMD measures, will substantially reduce this short-term impact of the Build Alternatives on CHSP. In the long term as discussed in Section 3.14, the Build Alternatives will reduce regional vehicle emissions and will not delay the attainment of the federal CO, $PM_{2.5}$, and PM_{10} standards. Therefore, the Build Alternatives will not result in long-term adverse air quality impacts at CHSP.	In summary, the Build Alternatives would not result in short- or long-term air quality impacts at CHSP so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).
	Other: State Parks identified a concern regarding the potential for fires on the freeway, which result from vehicle fires or cigarettes thrown from vehicles, spreading into CHSP. Measure UES 4 (in Section 3.5, Utilities/Emergency Services) specifically addresses the potential risk of fires spreading from the freeway right-of-way into CHSP through the provision of barriers along SR-91 adjacent to CHSP. Measures NC-4 (in Section 3.17) and UES-3 (in Section 3.5) specifically focus on construction-related fire prevention activities during the active fire season.	In summary, the Build Alternatives would not result in short- or long-term fire risks at CHSP so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).

Table F-1 Analysis of the Potential for Constructive Uses

Activities, Features, and/or Attributes of the Resource	Assessment of Indirect Impacts	Is There a Constructive Use as a Result of Indirect Impacts on Resource?
Santa Ana River Trail/Bike Lane		
The activities, features, and attributes that qualify the Santa Ana River Trail/Bike Lane for protection under Section 4(f) are: • Its length and route, which extends from western Riverside County into and south across much of Orange County, predominantly along the Santa Ana River • It is an off-street trail/bike lane in a dedicated right-of-way • Views of natural and developed areas along the Trail/Bike Lane alignment • The access the Trail/Bike Lane provides to other recreational facilities, including parks and other trails	**Visual and Aesthetics:** Users of the Santa Ana River Trail/Bike Lane currently have views of the SR-91 mainline, overpasses, ramps, and other infrastructure features. Some Trail/Bike Lane users may see construction activities along SR-91 during construction of the Build Alternatives. However, because Trail/Bike Lane users are transient, they will see views of short-term construction and the project facilities in the long-term for short periods of time as they travel through the area. Measures V-1, V-2, and V-4 (in Section 3.7) will provide aesthetic treatments on project structures, highway planting, and light, glare, and graffiti control, which will improve views for the Trail/Bike Lane users in the vicinity of the project segment of SR-91.	In summary, the Build Alternatives will not result in short- or long-term visual and aesthetic effects on Santa Ana River Trail/Bike Lane so severe that they would substantially impair the activities, features, or attributes that qualify the Trail/Bike Lane for protection under Section 4(f).
	Access: The Santa Ana River Trail/Bike Lane can be accessed by pedestrians and bicyclists at a large number of locations along its alignment. During construction, the Build Alternatives will potentially result in temporary closures of segments of the Trail/Bike Lane for limited periods of time (hours, days). Detours will be provided to ensure the continuity of the Trail/Bike Lane during construction. Measure T-1 (in Section 3.6, Traffic and Transportation/Pedestrian and Bicycle Facilities) includes coordination of such closures with the appropriate agency and provision of signing before each detour to inform Trail/Bike Lane users of the temporary detours. An approximately 200 ft long segment of the Santa Ana River Trail/Bike Lane will be permanently relocated to the north by the Build Alternatives, which will provide for continuity of the Trail/Bike Lane in that area in the long term.	In summary, the Build Alternatives will not result in short- or long-term effects on access to the Santa Ana River Trail/Bike Lane so severe that they would substantially impair the activities, features, or attributes that qualify the Trail/Bike Lane for protection under Section 4(f).
	Ecological Impacts: In the vicinity of the project, the Santa Ana River Trail/Bike Lane is a paved facility and is not vegetated. The Build Alternatives will result in the relocation of an approximately 200 ft long segment of the Trail/Bike Lane into the right-of-way for Green River Road. Because the Trail/Bike Lane will be relocated to within an existing road, it will not impact plant communities.	In summary, the Build Alternatives will not result in short- or long-term effects on plant communities at the Santa Ana River Trail/Bike Lane so severe that they would substantially impair the activities, features, or attributes

Table F-1 Analysis of the Potential for Constructive Uses

Activities, Features, and/or Attributes of the Resource	Assessment of Indirect Impacts	Is There a Constructive Use as a Result of Indirect Impacts on Resource?
	The construction activities adjacent to the Santa Ana River Trail/Bike Lane and the continued operation of SR-91 adjacent to the Trail/Bike Lane could result in adverse impacts related to invasive species in the areas around the Trail/Bike Lane. Measure IS-1 (in Section 3.22) is included in the project to address the potential for invasive species along the Santa Ana River Trail/Bike Lane as a result of the Build Alternatives.	that qualify this Trail/Bike Lane for protection under Section 4(f).
	Noise: Some segments of the Santa Ana River Trail/Bike Lane are close to SR-91 and currently hear noise generated on that facility. Trail/Bike Lane users will experience construction-related noise as they pass active construction areas. However, construction noise is not generally considered a substantial impact because of the temporary nature of that noise and the limited nighttime exposure of sensitive receptors to construction noise. In addition, Trail/Bike Lane users are transient and will be on segments of the Trail/Bike Lane adjacent to active construction areas for only short periods of time. Measures N-2 and N-3 (in Section 3.15) will address construction noise. The existing Trail/Bike Lane is within or very close to the right-of-way for SR-91. Trail/Bike Lane users along that segment of SR-91 currently experience freeway traffic noise. As discussed in Section 3.15, future noise levels in this area under the Build Alternatives are not forecast to noticeably increase from existing conditions. In addition, as noted above, Trail/Bike Lane users are transient and will be on the segments of the Trail/Bike Lane adjacent to SR-91 for only short periods of time. Therefore, Trail/Bike Lane users will not be adversely affected by operations noise under the Build Alternatives in the long term.	In summary, the Build Alternatives will not result in short-or long-term noise impacts at the Santa Ana River Trail/Bike Lane so severe that they would substantially impair the activities, features, or attributes that qualify this resource for protection under Section 4(f).
	Air Quality: The construction of the Build Alternatives has the potential to temporarily increase air quality emissions in the vicinity of the Santa Ana River Trail/Bike Lane, including equipment emissions	In summary, the Build Alternatives would not result in short- or long-term air quality impacts at the Santa Ana

Table F-1 Analysis of the Potential for Constructive Uses

Activities, Features, and/or Attributes of the Resource	Assessment of Indirect Impacts	Is There a Constructive Use as a Result of Indirect Impacts on Resource?
	and dust. Measures SC-1 through SC-5 (in Section 3.14), which include standard Department and SCAQMD measures, will substantially reduce this short-term impact of the Build Alternatives on the Santa Ana River Trail/Bike Lane. As discussed in Section 3.14, in the long term the Build Alternatives will reduce regional vehicle emissions and will not delay the attainment of the federal CO, $PM_{2.5}$, and PM_{10} standards. Therefore, the Build Alternatives will not result in long-term adverse impacts related to air quality at the Santa Ana River Trail/Bike Lane.	River Trail/Bike Lane so severe that they would substantially impair the activities, features, or attributes that qualify this resource for protection under Section 4(f).
Featherly Regional Park		
The activities, features, and attributes that qualify Featherly Regional Park for protection under Section 4(f) are: • Activities including camping, picnics, and biking and walking along the Santa Ana River Trail/Bike Lane • Day use activities in proximity to a large number of users in the developed parts of northeast Orange County • The ability to use the Santa Ana River Trail/Bike Lane to access other area resources • Riparian vegetation and wildlife along the Santa Ana River	**Visual and Aesthetics:** Featherly Regional Park is adjacent to the north side of SR-91. There is a substantial change in grade from the freeway to the park, with most of the park at a substantially lower grade than the freeway. In addition, the interchange ramps for the SR-241/SR-91 interchange are immediately adjacent to and above Featherly Regional Park and are visible from many areas in the park. Because SR-91 is above the grade of the park, it is unlikely that park visitors will notice any substantial change in views of that area during either construction or operation of the Build Alternatives.	In summary, the Build Alternatives will not result in short- or long-term visual and aesthetics effects on Featherly Regional Park so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).
	Access: Vehicular access to Featherly Regional Park is currently available via Gypsum Canyon Road. Pedestrians and bicyclists can access the park at the main entrance on Gypsum Canyon Road or via the Santa Ana River Trail/Bike Lane. During construction, the ramps to/from SR-91 at Gypsum Canyon Road may be closed temporarily and/or the number of lanes on SR-91 and/or the Gypsum Canyon Road ramps may be reduced temporarily, which could result in delays or longer travel times for visitors traveling to/from Featherly Regional Park. However, alternative access will be	In summary, the Build Alternatives will not result in short- or long-term effects on access to Featherly Regional Park so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).

Table F-1 Analysis of the Potential for Constructive Uses

Activities, Features, and/or Attributes of the Resource	Assessment of Indirect Impacts	Is There a Constructive Use as a Result of Indirect Impacts on Resource?
• On-site parking, a visitor center, park benches, picnic tables, campsites, restrooms, and the Santa Ana River Trail/Bike Lane	available by exiting SR-91 at Weir Canyon Road, traveling north on Weir Canyon Road to La Palma Avenue, traveling east on La Palma Avenue to Gypsum Canyon Road, and then traveling south on Gypsum Canyon Road to the park entrance. Featherly Regional Park is also accessible from the Santa Ana River Trail/Bike Lane. As described earlier, there may be temporary detours on the Santa Ana River Trail/Bike Lane during construction, but park visitors would still be able to access Featherly Regional Park from the Trail/Bike Lane. Measure T-1 (in Section 3.6) includes coordination of freeway ramp closures and temporary Trail/Bike Lane detours with the appropriate agencies and provision of signing before each closure/detour to inform travelers destined to/from Featherly Regional Park of the ramp closures and temporary detours on the Trail/Bike Lane. In the long-term, the Build Alternatives will not impact access to Featherly Regional Park.	
	Ecological Impacts: The areas in Featherly Regional Park adjacent to SR-91 include riparian forest, CSS, and nonnative grasslands. The Build Alternatives will require the use of 0.2 ac in Featherly Regional Park for three TCEs during construction. When the areas used for those TCEs are no longer needed for project construction, they will be revegetated using plant species identified in consultation with the County of Orange and restored to a condition as good as or better than before those areas were used for TCEs. Although construction activities and continued operation of SR-91 adjacent to the park could result in adverse impacts related to invasive species, measure IS-1 (in Section 3.22) is included in the project to minimize that potential impact.	In summary, the Build Alternatives will not result in short- or long-term effects on plant communities at Featherly Regional Park so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).

Table F-1 Analysis of the Potential for Constructive Uses

Activities, Features, and/or Attributes of the Resource	Assessment of Indirect Impacts	Is There a Constructive Use as a Result of Indirect Impacts on Resource?
	Noise: Featherly Regional Park is adjacent to SR-91, and park visitors currently hear noise generated on that facility. During the construction of Alternatives 1 and 2, park visitors will experience construction-related noise. However, construction noise is not generally considered a substantial impact because of the temporary nature of that noise and the limited nighttime exposure of sensitive receptors to construction noise. Measures N-2 and N-3 (in Section 3.15) will address project-related construction noise at Featherly Regional Park. Because the Park is immediately adjacent to SR-91, visitors currently experience freeway traffic noise. Future noise levels in this area under the Build Alternatives are not forecast to increase noticeably from existing conditions. As shown on Table 3.15.13 in Section 3.15, projected traffic noise levels on the north side of SR-91 adjacent to Featherly Regional Park will increase by 1 dBA with the Build Alternatives, compared to the existing and future No Build conditions. That level of change will not be perceptible to most park visitors. As a result, the change in noise levels at Featherly Regional Park will not result in long-term noise impacts at this park.	In summary, the Build Alternatives will not result in short-or long-term noise impacts at Featherly Regional Park so severe that they would substantially impair the activities, features, or attributes that qualify this resource for protection under Section 4(f).
	Air Quality: Construction of the Build Alternatives has the potential to temporarily increase air quality emissions in the vicinity of Featherly Regional Park including equipment emissions and dust. Measures SC-1 through SC-5 (in Section 3.14), which include standard Department and SCAQMD measures, will substantially reduce this short-term impact of the Build Alternatives on Featherly Regional Park. In the long term as discussed in Section 3.14, the Build Alternatives will reduce regional vehicle emissions and will not delay the attainment of the federal CO, $PM_{2.5}$, and PM_{10} standards. Therefore, the Build Alternatives will not result in long-term adverse impacts related to air quality at Featherly Regional Park.	In summary, the Build Alternatives would not result in short- or long-term air quality impacts at Featherly Regional Park so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).

Table F-1 Analysis of the Potential for Constructive Uses

Activities, Features, and/or Attributes of the Resource	Assessment of Indirect Impacts	Is There a Constructive Use as a Result of Indirect Impacts on Resource?
New OC Park (NNL)		
The New OC Park (NNL) is currently undeveloped and is open to the public on a limited basis for guided tours. It is not known at this time what recreation uses and facilities would be provided at that park in the future. It is anticipated that the recreation uses would include trails, interpretive signing, and other passive recreation activities.	**Visual and Aesthetics:** Public access to the New OC Park (NNL) is currently very limited. It is possible viewers in this park could see construction equipment and activities in the freeway right-of-way during construction of Alternatives 1 and 2. In the long term, the views from the parts of this park adjacent to SR-91 will include the wider mainline cross section and modified ramp, overcrossing, and undercrossing structures. However, those views will not be substantially different from existing views of the freeway facilities from those areas. Measures V-1 through V-4 (in Section 3.7) will partially the visual effects of the Build Alternatives on the New OC Park (NNL).	In summary, the Build Alternatives will not result in short- or long-term aesthetic and visual effects at the New OC Park (NNL) so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).
	Access: Public access to the New OC Park (NNL) is currently very limited and there is no direct access to this park from SR-91. The permanent subsurface easements in the New OC Park (NNL) will result in no changes to the land surface and, because there is no access to the park from SR-91 in that area, the Build Alternatives will not result in changes to or impacts on access to this park in the future.	In summary, the Build Alternatives will not result in effects on access to the New OC Park (NNL) and, therefore, would not substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).
	Ecological Impacts: The areas in the New OC Park (NNL) adjacent to SR-91 include both native and nonnative plant species. The construction of the Build Alternatives will not result in the disturbance of any land in the New OC Park (NNL) because the subsurface easements will not require any construction activities at the surface in this park. Although construction activities in the freeway right-of-way adjacent to the New OC Park (NNL) and continued operation of SR-91 adjacent to the park could result in adverse impacts related to invasive species, measure IS-1 (in Section 3.22) is included in the project to minimize that impact.	In summary, the Build Alternatives will not result in short- or long-term effects on plant communities at the New OC Park (NNL) so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).

Table F-1 Analysis of the Potential for Constructive Uses

Activities, Features, and/or Attributes of the Resource	Assessment of Indirect Impacts	Is There a Constructive Use as a Result of Indirect Impacts on Resource?
	Noise: The New OC Park (NNL) is adjacent to SR-91, and noise generated on that existing facility can be heard within the park. Park visitors will experience construction-related noise if the Build Alternatives are under construction at a time when park visitors are in the northern part of the New OC Park (NNL). However, construction noise is not generally considered a substantial impact because of the temporary nature of that noise and the limited nighttime exposure of sensitive receptors to construction noise. Measures N-2 and N-3 (in Section 3.15) will address construction noise. Future noise levels in this area under the Build Alternatives are not forecast to increase noticeably from existing conditions. No modeling of future noise levels was conducted within the boundary of the New OC Park (NNL). As shown Table 3.15.13 in Section 3.15, projected traffic noise levels on the north side of SR-91 north of the Green River Road off-ramp will increase by 1 dBA with the Build Alternatives compared to the existing and future No Build conditions. That modeled receptor is closer to SR-91 and the off-ramp than the boundary of the New OC Park (NNL), which is on the south side of SR-91. As a result, the change in noise levels at the New OC Park (NNL) is expected to be 1 dBA or less compared to existing and future No Build conditions. Therefore, the Build Alternatives will not result in long-term noise impacts at the New OC Park (NNL).	In summary, the Build Alternatives will not result in short-or long-term noise impacts at the New OC Park (NNL) so severe that they would substantially impair the activities, features, or attributes that qualify this resource for protection under Section 4(f).
	Air Quality: The construction of the Build Alternatives has the potential to temporarily increase air quality emissions in the vicinity of the New OC Park (NNL), including equipment emissions and dust. Measures SC-1 through SC-5 (in Section 3.14), which include standard Department and SCAQMD measures, will substantially reduce this short-term impact of the Build Alternatives at the New OC Park (NNL). In the long term as discussed in Section 3.14, the Build Alternatives will reduce regional vehicle emissions and will not delay the attainment	In summary, the Build Alternatives would not result in short- or long-term air quality impacts at the New OC Park (NNL) so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).

Table F-1 Analysis of the Potential for Constructive Uses

Activities, Features, and/or Attributes of the Resource	Assessment of Indirect Impacts	Is There a Constructive Use as a Result of Indirect Impacts on Resource?
	of the federal CO, $PM_{2.5}$, and PM_{10} standards. Therefore, the Build Alternatives will not result in long-term adverse impacts related to air quality at the New OC Park (NNL).	
El Cerrito Sports Park		
The activities, features, and attributes that qualify El Cerrito Sports Park for protection under Section 4(f) are: • A 5,000 square foot community center • Two full-size baseball/softball diamonds • Two Little League baseball/softball diamonds • One T-ball/multi-use field • Two full-size soccer fields • Two basketball courts • Off-street parking, restrooms, landscaping, fencing, sports field lighting, tot lots, and a concession stand.	**Visual and Aesthetics:** El Cerrito Sports Park includes a wide range of sport facilities and landscaping. I-15 is visible from within the park. Park visitors will have views of project construction activities and equipment. The segment of I-15 adjacent to the park will be widened in the median of the existing freeway. Park visitors will have views of the widened freeway cross-section in the long term. However, because this is an active sports park and visual quality is not a primary feature or value of the park, the short-term views during construction and the long-term views of the widened freeway will not substantially change the visitor experience at this park.	In summary, the Build Alternatives will not result in visual and aesthetic effects on El Cerrito Sports Park so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).
	Access: Vehicle access to this park is provided via Rudell Road on the northeast side of the park. Pedestrian access to this park is via Rudell Road and El Cerrito Road. There is no direct access to this park from I-15. The construction and operation of the Build Alternatives will not result in any effects on the local streets that provide access to El Cerrito Sports Park.	In summary, the Build Alternatives will not result in effects on access to El Cerrito Sports Park and, therefore, would not substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).
	Ecological Impacts: The areas in El Cerrito Sports Park adjacent to I-15 are currently landscaped as part of the overall landscaping in the park. The Build Alternatives will require the use of 0.19 ac in El Cerrito Sports Park for four TCEs during construction. When the areas used for those TCEs are no longer needed for project construction, they will be revegetated using plant species identified in consultation with the City of Corona and restored to a condition as good as or better than before those areas were used for TCEs.	In summary, the Build Alternatives will not result in short- or long-term effects on plant communities at El Cerrito Sports Park so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).

Table F-1 Analysis of the Potential for Constructive Uses

Activities, Features, and/or Attributes of the Resource	Assessment of Indirect Impacts	Is There a Constructive Use as a Result of Indirect Impacts on Resource?
	Although construction activities and continued operation of I-15 adjacent to the park could result in adverse impacts related to invasive species, measure IS-1 (in Section 3.22) is included in the project to minimize that impact.	
	Noise: El Cerrito Sports Park is adjacent to I-15, and park visitors currently hear noise generated on that facility. Park visitors will experience construction-related noise. However, construction noise is not generally considered a substantial impact because of the temporary nature of that noise and the limited nighttime exposure of sensitive receptors to construction noise. Measures N-2 and N-3 (in Section 3.15) will address project-related construction noise at El Cerrito Sports Park. Because the park is immediately adjacent to I-15, visitors currently experience freeway traffic noise. Future noise levels in this area under the Build Alternatives are not forecast to increase noticeably from existing conditions and, therefore, park visitors will not be adversely affected by facility operations noise under the Build Alternatives in the long term.	In summary, the Build Alternatives will not result in short-or long-term noise impacts at El Cerrito Sports Park so severe that they would substantially impair the activities, features, or attributes that qualify this resource for protection under Section 4(f).
	Air Quality: The construction of the Build Alternatives has the potential to temporarily increase air quality emissions in the vicinity of El Cerrito Sports Park, including equipment emissions and dust. Measures SC-1 through SC-5, which include standard Department and SCAQMD measures, will substantially reduce this short-term impact of the Build Alternatives on El Cerrito Sports Park. In the long term as discussed in Section 3.14, the Build Alternatives will reduce regional vehicle emissions and will not delay the attainment of the federal CO, $PM_{2.5}$, and PM_{10} standards. Therefore, the Build Alternatives will not result in long-term adverse impacts related to air quality at El Cerrito Sports Park.	In summary, the Build Alternatives would not result in short- or long-term air quality impacts at El Cerrito Sports Park so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).

Table F-1 Analysis of the Potential for Constructive Uses

Activities, Features, and/or Attributes of the Resource	Assessment of Indirect Impacts	Is There a Constructive Use as a Result of Indirect Impacts on Resource?
Griffin Park		
The activities, features, and attributes that qualify Griffin Park for protection under Section 4(f) are: • A play area • Paved paths • Picnicking on grassy areas and other passive recreation activities • Community park readily accessible to area residents • On-site parking and benches	**Visual and Aesthetics:** Griffin Park is slightly above the grade of SR-91 and visitors to the park currently have views of SR-91. During construction, viewers in Griffin Park will see construction equipment and activities along SR-91. In the long term, views from Griffin Park will include the wider mainline cross-section on SR-91. Measures V-1 through V-4 (in Section 3.7) will provide aesthetic treatments on structures, highway planting, and light, glare, and graffiti control.	In summary, the Build Alternatives will not result in visual and aesthetics effects at Griffin Park and, therefore, would not substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).
	Access: Vehicular and pedestrian access to Griffin Park is currently available via local streets, including Griffin Way, Bristol Way, and Hillsborough Way. There is no direct access to this park from SR-91. The construction and operation of the Build Alternatives will not result in any effects on the local streets that provide access to Griffin Park.	In summary, the Build Alternatives will not result in effects on access to Griffin Park and, therefore, would not substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).
	Ecological Impacts: The areas in Griffin Park adjacent to SR-91 include CSS and nonnative landscaping. The Alternative 1 and 2 Ultimate Projects will require the use of 0.47 ac in Griffin Park for one TCE during construction. When the area used for that TCE is no longer needed for project construction, it will be revegetated using plant species identified in consultation with the City of Corona and restored to a condition as good as or better than before it was used for a TCE. Although construction activities and continued operation of SR-91 adjacent to the park could result in adverse impacts related to invasive species, measure IS-1 (in Section 3.22) is included in the project to minimize that impact.	In summary, the Build Alternatives will not result in short- or long-term effects on plant communities at Griffin Park so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).
	Noise: Griffin Park is adjacent to SR-91, and park visitors currently hear noise generated on that facility. Park visitors will experience construction-related noise. However, construction noise is not generally considered a substantial impact because of the temporary	In summary, the Build Alternatives will not result in short-or long-term noise impacts at Griffin Park so severe that they would substantially impair the

Table F-1 Analysis of the Potential for Constructive Uses

Activities, Features, and/or Attributes of the Resource	Assessment of Indirect Impacts	Is There a Constructive Use as a Result of Indirect Impacts on Resource?
	nature of that noise and the limited nighttime exposure of sensitive receptors to construction noise. Measures N-2 and N-3 (in Section 3.15) will address construction noise. Because the park is immediately adjacent to SR-91, visitors currently experience freeway traffic noise. Future noise levels in this area under the Build Alternatives are not forecast to increase noticeably from existing conditions and, therefore, park visitors will not be adversely affected by facility operations noise under the Build Alternatives in the long term.	activities, features, or attributes that qualify this resource for protection under Section 4(f).
	Air Quality: The construction of the Build Alternatives has the potential to temporarily increase air quality emissions in the vicinity of Griffin Park, including equipment emissions and dust. Measures SC-1 through SC-5, which include standard Department and SCAQMD measures, will substantially reduce this short-term impact of the Build Alternatives on Griffin Park. As discussed in Section 3.14, in the long term the Build Alternatives reduce regional vehicle emissions and will not delay the attainment of the federal CO, $PM_{2.5}$, and PM_{10} standards. Therefore, the Build Alternatives will not result in long-term adverse impacts related to air quality in the vicinity of Griffin Park.	In summary, the Build Alternatives would not result in short- or long-term air quality impacts at Griffin Park so severe that they would substantially impair the activities, features, or attributes that qualify this park for protection under Section 4(f).

Appendix C Title VI Policy Statement

This page intentionally left blank

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY 711
www.dot.ca.gov

Flex your power!
Be energy efficient!

March 16, 2012

NON-DISCRIMINATION 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, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact Mario Solis, Manager, Title VI and Americans with Disabilities Act Program, California Department of Transportation, 1823 14th Street, MS-79, Sacramento, CA 95811. Phone: (916) 324-1353, TTY 711, fax (916) 324-1869, or via email: *mario_solis@dot.ca.gov*.

MALCOLM DOUGHERTY
Acting Director

This page intentionally left blank

Appendix D Summary of Relocation Benefits

D.1 California Department of Transportation Relocation Assistance Program

D.1.1 Declaration of Policy

"The purpose of this title is to establish a ***uniform policy for fair and equitable treatment*** of persons displaced as a result of federal and federally assisted programs in order that such persons ***shall not suffer disproportionate injuries*** as a result of programs designed for the benefit of the public as a whole."

The Fifth Amendment to the U.S. Constitution states, "No Person shall...be deprived of life, liberty, or property, without due process of law, nor shall private property be taken for public use without just compensation." The Uniform Act sets forth in statute the due process that must be followed in Real Property acquisitions involving federal funds. Supplementing the Uniform Act is the government-wide single rule for all agencies to follow, set forth in 49 Code of Federal Regulations, Part 24. Displaced individuals, families, businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments, as discussed below.

D.1.2 Fair Housing

The Fair Housing Law (Title VIII of the Civil Rights Act of 1968) sets forth the policy of the United States to provide, within constitutional limitations, for fair housing. This Act, and as amended, makes discriminatory practices in the purchase and rental of most residential units illegal. Whenever possible, minority persons shall be given reasonable opportunities to relocate to any available housing regardless of neighborhood, as long as the replacement dwellings are decent, safe, and sanitary and are within their financial means. This policy, however, does not require Caltrans to provide a person a larger payment than is necessary to enable a person to relocate to a comparable replacement dwelling.

Any persons to be displaced will be assigned to a relocation advisor, who will work closely with each displacee 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. At the time of the initiation of negotiations (usually the first written offer to purchase), owner-occupants are given a detailed explanation of the state's relocation services. Tenant

occupants of properties to be acquired are contacted soon after the initiation of negotiations, and also are given a detailed explanation of the Caltrans Relocation Assistance Program. To avoid loss of possible benefits, no individual, family, business, farm, or nonprofit organization should commit to purchase or rent a replacement property without first contacting a Department relocation advisor.

D.1.3 Relocation Assistance Advisory Services

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, the Department will provide relocation advisory assistance to any person, business, farm or nonprofit organization displaced as a result of the acquisition of real property for public use, so long as they are legally present in the United States. The Department will assist eligible displacees in obtaining comparable replacement housing by providing current and continuing information on the availability and prices of both houses for sale and rental units that are "decent, safe and sanitary." Nonresidential displacees will receive information on comparable properties for lease or purchase (For business, farm and nonprofit organization relocation services, see below).

Residential replacement dwellings will be in a location generally not less desirable than the displacement neighborhood at prices or rents within the financial ability 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 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 the supplying of information concerning Federal and State assisted housing programs, and any other known services being offered by public and private agencies in the area.

Persons who are eligible for relocation payments and who are legally occupying the property required for the project will not be asked to move without first being given at least 90 days written notice. Residential occupants eligible for relocation payment(s) will not be required to move unless at least one comparable "decent, safe and sanitary" replacement dwelling, available on the market, is offered to them by the Department.

D.1.4 Residential Relocation Payments

The Relocation Assistance Program will help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for or incidental

to the purchase or rental of a replacement dwelling and actual reasonable moving expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of the 50 miles are the responsibility of the displacee. The Residential Relocation Assistance Program can be summarized as follows:

D.1.4.1 Moving Costs

Any displaced person, who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, will be eligible for reimbursement of 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. Lawful occupants who move into the displacement property after the initiation of negotiations must wait until the Department obtains control of the property in order to be eligible for relocation payments.

D.1.4.2 Purchase Differential

In addition to moving and related expense payments, fully eligible homeowners may be entitled to payments for increased costs of replacement housing.

Homeowners who have owned and occupied their property for 180 days or more prior to the date of the initiation of negotiations (usually 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. The maximum combination of these three supplemental payments that the owner-occupant 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 used (See the explanation of the Last Resort Housing Program below).

D.1.4.3 Rent Differential

Tenants and certain owner-occupants (based on length of ownership) who have occupied the property to be acquired by the Department prior to the date of the initiation of negotiations may qualify to receive a rent differential payment. This payment is made when the Department determines that the cost to rent a comparable "decent, safe and sanitary" replacement dwelling will be more than the present rent of

the displacement 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 amount payable to any eligible tenant and any owner-occupant of less than 180 days, in addition to moving expenses, is $5,250. If the total entitlement for rent supplement exceeds $5,250, the Last Resort Housing Program will be used.

In order to receive any relocation benefits, the displaced person must buy or 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 displacement property, whichever is later.

D.1.4.4 Down Payment

The down payment option has been designed to aid owner-occupants of less than 180 days and tenants in legal occupancy prior to the Department's initiation of negotiations. The down payment and incidental expenses cannot exceed the maximum payment of $5,250. The one-year eligibility period in which to purchase and occupy a "decent, safe and sanitary" replacement dwelling will apply.

D.1.4.5 Last Resort Housing

Federal regulations (49 CFR 24) contain the policy and procedure for implementing the Last Resort Housing Program on 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 residential relocation as explained above. Last Resort Housing has been designed primarily to cover situations where a displacee cannot be relocated because of lack of available comparable replacement housing, or when the anticipated replacement housing payments exceed the $22,500 and $5,250 limits of the standard relocation procedure, because either the displacee lacks the financial ability or other valid circumstances.

After the initiation of negotiations, the Department will within a reasonable length of time, personally contact the displacees to gather important information, including the following:

- Number of people to be displaced;
- Specific arrangements needed to accommodate any family member(s) with special needs;

- Financial ability to relocate into comparable replacement dwelling which will adequately house all members of the family;
- Preferences in area of relocation;
- Location of employment or school.

D.1.5 Nonresidential Relocation Assistance

The Nonresidential Relocation Assistance Program provides assistance to businesses, farms and nonprofit organizations 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 a particular business's specific relocation needs. The types of payments available to eligible businesses, farms and nonprofit organizations are: searching and moving expenses, and possibly reestablishment expenses; or a fixed in lieu payment instead of any moving, searching and reestablishment expenses. The payment types can be summarized as follows:

D.1.5.1 Moving Expenses

Moving expenses may include the following actual, reasonable costs:

- The moving of inventory, machinery, equipment and similar business-related property, including: dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting of personal property. Items acquired in the Right of Way contract may not be moved under the Relocation Assistance Program. If the displacee buys an Item Pertaining to the Realty back at salvage value, the cost to move that item is borne by the displacee.
- Loss of tangible personal property provides payment for actual, direct loss of personal property that the owner is permitted not to move.
- Expenses related to searching for a new business site, up to $2,500, for reasonable expenses actually incurred.

D.1.5.2 Reestablishment Expenses

Reestablishment expenses related to the operation of the business at the new location, up to $10,000 for reasonable expenses actually incurred.

D.1.5.3 Fixed In Lieu Payment

A fixed payment in lieu of moving, searching, and reestablishment payments may be available to businesses which meet certain eligibility requirements. This payment is

an amount equal to half the average annual net earnings for the last two taxable years prior to the relocation and may not be less than $1,000 nor more than $20,000.

D.1.6 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 for the purpose of determining the extent of eligibility of a displacee for assistance under the Social Security Act, or any other law, except for any Federal law providing local "Section 8" Housing Programs.

Any person, business, farm or nonprofit organization which has been refused a relocation payment by the Department relocation advisor or believes that the payment(s) offered by the agency are inadequate, may appeal for a special hearing of the complaint. No legal assistance is required. Information about the appeal procedure is available from the relocation advisor.

California law allows for the payment for lost goodwill that arises from the displacement for a pubic project. A list of ineligible expenses can be obtained from Caltrans Right of Way. California's law and the federal regulations covering relocation assistance provide that no payment shall be duplicated by other payments being made by the displacing agency.

Appendix E Environmental Commitments Record

The purpose of the Environmental Commitments Record (ECR) provided in this appendix is to assign responsibility for the implementation, monitoring, and timing of each avoidance, minimization, and mitigation measure that has been identified to address impacts of the project. The Department is the Lead Agency under NEPA and CEQA for the project. RCTC, as the agency sponsoring the project, would administer the design, right-of-way acquisition, and construction of the project, and manage the design/build contractors. As a result, RCTC is required to ensure compliance with each of the adopted avoidance, minimization, and mitigation measures listed in the ECR. Nearly all of the avoidance, minimization, and mitigation measures listed in the ECR will be the responsibility of RCTC to implement, monitor, and document. There are a few measures the Department will be responsible for implementing.

Table E-1 (starting on page E-3) lists each of the environmental topics evaluated in the environmental document and the avoidance, minimization, and mitigation measures required to reduce or eliminate project impacts related to those topics. One column in the table lists the RCTC or Department staff person or party responsible for ensuring that each measure is implemented. The columns in Table E-1 provide the following information (described by column heading, from left to right):

- **No.:** This column provides the number of each measure, from the measures defined in detail in Chapter 3.
- **Avoidance, Minimization, and/or Mitigation Measures:** This column provides the complete language of each measure, from Chapter 3.
- **Responsible Party:** This column lists the party or parties responsible for ensuring that each measure is properly implemented.
- **Phasing:** This column indicates whether each measure is required for the Initial Phase, Ultimate Project, or the Initial Phase and Ultimate Project.
- **Timing:** This column indicates when each measure is to be implemented.

The last two columns are blank to allow RCTC or the Department to add the actions taken to implement the measures and the verification date of each measure. These columns will be used as a reference for verifying that each mitigation measure is implemented and that ongoing measures are regularly checked.

Once the project is constructed, RCTC will prepare a summary report that will include documentation of the environmental certification and compliance with the measures in the ECR.

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
LAND USE						
LU-1	If a Build Alternative is selected for implementation, the Riverside County Transportation Commission (RCTC) will request the County of Riverside, the County of Orange, and the cities along the alignments of State Route 91 (SR-91) and Interstate 15 (I-15) to amend their respective General Plans to reflect the selected SR-91 Corridor Improvement Project (CIP) alternative and the modification of land use designations for properties that would be acquired for the project which are not currently designated for transportation uses.	RCTC	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
PR-1	During final design/construction of the Initial Phase, RCTC will contribute $100,000 to the planning and implementation of improvements in that area that would support and expand regional trail connectivity.	RCTC	Required during the Initial Phase	During the design/ build phase	--	--
PR-2	During final design/construction of the Initial Phase, RCTC will coordinate with State Parks on the aesthetic features that will be included in the project specifications for the proposed retaining wall facing CHSP between SR-71 and the westbound Green River Road off-ramp, consistent with the aesthetic and features required in Measure V-1. The aesthetic treatment will include a texture to simulate a natural type appearance such as a soil or rock surface, or equivalent.	RCTC's Project Engineer	Required during the Initial Phase	During the design/ build phase	--	--
PR-3	RCTC's Resident Engineer will require the design/build contractor to limit the hours of construction in CHSP to daylight hours (7:00 a.m. to 7:00 p.m.), with the exception of limited periods when evening or night construction is necessary for operational reasons. Operational reasons may include the desire to conduct certain construction activities; such as closing multiple ramps or travel lanes, during night hours to minimize delays to the traveling public. Any night construction must be approved in writing by the RCTC Resident Engineer and coordinated with the District 8 and 12 biologists, the USFWS, and CDFG.	RCTC's Resident Engineer	Required during the Initial Phase and Ultimate Project	During construction	--	--
	The entry gates at Coal Canyon must remain closed at all times except to provide access to and from the construction site for construction workers, materials delivery, and construction equipment, to prevent wildlife from inadvertently entering the freeway area.	RCTC's Resident Engineer	Required during the Initial Phase and Ultimate Project	During construction	--	--
	Other Commitments by RCTC Relevant to Chino Hills State Park. RCTC has committed to an additional action in the Coal Canyon area, as follows. A stand-alone project will be developed to construct barriers on the south and north sides of SR-91 to shield headlight glare and freeway noise. The required barriers are estimated to be approximately 1,500 feet and 1,300 feet long on the south and north sides of SR-91 respectively. The project will follow environmental process requirements and engage subject area experts to establish the specific requirements and effectiveness of the proposed barriers to meet the project purpose as well as ensure safety and structural standards are met. In consideration of and reliance on the needs of State Parks and other open space plans that depend on Chino Hills State Park, and subject to environmental review, RCTC commits to build this barrier in tandem with the completion of the SR-91 widening in this area currently planned for completion in 2035. RCTC intends to work with the Department and other agencies to fund and implement this project.	RCTC's Project Engineer	Required for the Ultimate Project		--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
GROWTH						
No avoidance, minimization, and/or mitigation measures are required.						
FARMLANDS/TIMBERLANDS						
Measure CI-3, provided below under Community Impacts, addresses potential impacts related to remainder parcels and access to agricultural parcels.						
COMMUNITY IMPACTS						
CI-1	The Riverside County Transportation Commission's (RCTC) Project Engineer will ensure that design refinements are incorporated in the design/build process to minimize impacts to existing land uses related to the temporary use and/or permanent acquisition of property.	RCTC's Project Engineer	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	Prior to and during construction, RCTC's Resident Engineer will ensure that the design refinements to minimize impacts to existing land uses related to temporary use and/or permanent acquisition of property are properly implemented by the design/build contractor.	RCTC's Resident Engineer	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
CI-2	Where property acquisition and relocation are unavoidable, RCTC's Right-of-Way Agents will follow the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) and the 1987 Amendments as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs. Appendix D in the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) provides a summary of the RCTC Relocation Assistance Program for implementing the Uniform Act. For properties where a partial acquisition results in the removal of some or all of the parking for the property, RCTC's Right-of-Way Agents will conduct parking studies to investigate the use of adjacent acquisitions for replacement parking, reconfiguring the remaining parking spaces and lots on the property, restriping parking spaces, enlarging parking lots, and reconfiguring driveways and/or delivery locations to reduce the project effects on the parking on the affected property. RCTC is committed to reducing the project effects on parking by implementing either one or more of the actions listed above and/or providing financial compensation for lost parking based on compliance with the Uniform Act.	RCTC's Right-of-Way Agents	Required for the Initial Phase and Ultimate Project	During property acquisition	--	--
CI-3	During final design, RCTC's Right-of-Way Agents and the Project Engineer will work with owners of commercial, agricultural, and industrial uses subject to partial property acquisitions to reconfigure those uses on site consistent with applicable local codes and ordinances in such a manner as to enable them to remain in operation. If a commercial or industrial partial acquisition cannot be reconfigured to allow for continued operation, RCTC's Right-of-Way Agents will work with the property owners to either relocate that use to land designated for that given land use, preferably within the boundaries of the study area or to provide compensation for the land pursuant to the provisions of the Uniform Act. If an agricultural use cannot be reconfigured to allow for its continued operation, the property owner will be compensated pursuant to the provisions of the Uniform Act as required in Measure CI-2 and the agricultural use will be discontinued.	RCTC's Right-of-Way Agents and the RCTC Project Engineer	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
CI-4	During final design and property acquisition, the RCTC Project Engineer and Right-of-Way Agents will work with billboard/property owners, the City of Corona, and the California Department of Transportation's (Department) Outdoor Advertising Unit to find locations for relocating the affected billboards, within the existing sites where the billboards are currently located or other sites in the City where billboards are allowed. The Right-of-Way Agents will work with the City and the Department's Outdoor Advertising Unit to ensure that the sites for the relocated billboards comply with the requirements in the City of Corona Municipal Code and the Outdoor Advertising Act and Regulations. The Right-of-Way Agents will also work with the billboard/property owners to develop Billboard Relocation Agreements with the City of Corona.	RCTC's Project Engineer and Right-of-Way Agents	Required for the Initial Phase and Ultimate Project	During final design and property acquisition	--	--
UTILITIES/EMERGENCY SERVICES						
UES-1	**Utilities.** During final design, the Riverside County Transportation Commission's (RCTC) Project Engineer will prepare utility relocation plans in consultation with the affected utility providers/owners for those utility facilities that will need to be relocated, removed, or protected in-place. If relocation is necessary, the final design will focus on relocating utilities within the State right-of-way or other existing public rights-of-way and/or easements. If relocation outside of existing or the additional public rights-of-way and/or easements required for the project is necessary, the final design will focus on relocating those facilities to minimize environmental impacts as a result of project construction and ongoing maintenance and repair activities. The utility relocation plans will be included in the project specifications.	RCTC's Project Engineer	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	Utilities. Prior to and during construction, the RCTC Resident Engineer will ensure that the components of the utility relocation plans provided in the project specifications are properly implemented by the design/build contractor.	RCTC Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
UES-2	**Law Enforcement, Fire Protection, and Emergency Medical Service Providers.** Prior to and during construction, RCTC's Resident Engineer will require the design/build contractor to coordinate all temporary ramp and lane closures and detour plans with law enforcement, fire protection, and emergency medical service providers to minimize temporary delays in emergency response times as part of the *Final Transportation Management Plan* (TMP) and *Final Ramp Closure Study* required in Measures T-1 and T-2, including the identification of alternative routes and routes across the construction areas for emergency vehicles developed in coordination with the affected agencies.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
UES-3	**Fire Prevention During Construction.** Prior to and during any construction activities, the RCTC Project Engineer will require the design/build contractor to implement the following to minimize the risk of fires during construction: • Coordinate with the applicable local fire department to identify and maintain defensible spaces around active construction areas • Coordinate with the applicable local fire department to identify and maintain firefighting equipment (extinguishers, shovels, water tankers) in active construction areas • Prohibit the use of mechanized equipment or equipment that could throw off sparks in areas adjacent to open space or undeveloped land, including areas adjacent to CHSP • Post emergency services phone numbers (fire, emergency medical, police) in visible locations in all active construction areas.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during any construction activities	--	--
UES-4	**Fire Prevention Adjacent to CHSP.** The final design of the SR-91 CIP Build Alternatives will include closing gaps so there is the equivalent of a continuous barrier 30 to 36 inches high on the edge of the shoulder on both westbound and eastbound SR-91 from SR-71 to SR-241, as follows: • **Initial Phase:** The 36-inch high concrete barrier on westbound SR-91 between SR-71 and Green River Road already included in the design alternatives will meet the requirements for this barrier;	RCTC's Project Engineer	Required for the Initial Phase		--	--
	• **Ultimate Project:** Close gaps to provide an equivalent continuous barrier 30 to 36 inches high on the edge of shoulder on SR-91 in both directions between Green River Road and SR-241 meeting Department standards applicable at the time.	RCTC's Project Engineer	Required for the Ultimate Project		--	--
TRAFFIC AND TRANSPORTATION/PEDESTRIAN AND BICYCLE FACILITIES						
T-1	**Transportation Management Plan.** A preliminary TMP (May 2010) was prepared during the development of the preliminary engineering for the project. The purpose of the TMP is to address the short-term traffic impacts during construction of the project. The objectives of the TMP are to: • Maintain traffic safety during construction • Effectively maintain an acceptable level of traffic flow throughout the transportation system during construction • Minimize traffic delays and facilitate reduction of overall duration of construction activities • Minimize detours and impacts to pedestrians and bicyclists • Foster public awareness of the project and related impacts • Achieve public acceptance of construction of the project and the Final TMP measures. During final design, the RCTC Project Engineer will direct a qualified traffic engineer to prepare the Final TMP, based on the Preliminary TMP prepared during the preliminary engineering. RCTC will submit the Final TMP to the Department for	RCTC's Project Engineer and a qualified traffic engineer	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date

	review and approval during final design and prior to any construction activities.
	
	The existing Preliminary TMP contains the following elements intended to reduce traveler delay and enhance traveler safety. These elements will be refined during final design and incorporated in the Final TMP for implementation during project construction.
	
	• **Public Information/Public Awareness Campaign (PAC).** The primary goal of the PAC is to educate motorists, business owners/operators, residents, elected officials, and government agencies about construction activities and associated impacts. The PAC is an important tool for reaching target audiences with important construction project information and will include, but not be limited to:
	
	  • Rideshare information
	  • Brochures and mailers
	  • Media releases
	  • Paid advertising
	  • Public meetings
	  • Broadcast fax and email services
	  • Telephone hotline
	  • Notification to targeted groups
	  • Commercial traffic reporters/feeds
	  • Project website
	  • Visual information
	  • Local cable television and news
	  • Internet postings
	
	• **Traveler Information Strategies.** The effective implementation of a traveler information system during construction is crucial for enabling motorists to make informed decisions about their travel plans and options with real-time traffic information. That real-time traffic information will include information on lane closures, detours, delays, access to adjacent land uses, “businesses are open” signing, and other signing and information to assist travelers in navigating through and in construction areas. Key components of this system will include, but not be limited to:
	
	  • Fixed changeable message signs
	  • Portable changeable message signs
	  • Ground-mounted signs
	  • Automated work zone information systems
	  • Highway advisory radio
	  • Lane closure website
	  • Department highway information network					

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date

	• Bicycle and pedestrian information
	• Commute Smart website
	• **Incident Management.** Effective incident management will ensure that incidents in construction areas are cleared quickly and do not lead to substantial delays for the traveling public through work zones. Incident management includes, but is not limited to:
	  • Construction Zone Enhanced Enforcement Program (COZEEP)
	  • Freeway service patrol for construction
	  • Traffic surveillance stations
	  • Transportation Management Center Unit 370
	  • Traffic management team
	  • Towing services
	• **Construction Strategies.** The Final TMP will include procedures to lessen the effect of typical construction activities and will include, but not be limited to, consideration of the following:
	  • Conflicts with other projects and special events
	  • Construction staging alternatives
	  • Mainline lane closures
	  • Local road closures
	  • Ramp/connector closures
	  • Pedestrian and bicycle detours and facility closures (detours provided for all closures longer than one day)
	  • Traffic control improvements
	  • Coordination with other projects
	  • Project phasing
	  • Traffic screens
	  • Truck traffic restrictions
	• **Demand Management.** Temporarily reducing the overall traffic volumes on the project segments of State Route 91 (SR-91) and Interstate 15 (I-15) could reduce the short-term adverse effects of construction on traffic operations. The Final TMP will include, but not be limited to, the following strategies that could reduce vehicular demand in the study area during project construction:
	  • Rideshare incentives
	  • Transit services
	  • Shuttle services
	  • Variable work hours/telecommuting
	  • High-occupancy vehicle (HOV) lanes/ramps
	  • Park-and-ride lots					

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	• **Alternate Route Strategies.** The Final TMP will provide strategies for notifying motorists, pedestrians, and bicyclists, especially interregional commuters, of planned construction activities. This notification will allow travelers to make informed decisions about their travel plans, including the consideration of possible alternate routes. The Final TMP will consider the development of alternate routes for motorists to address the following: • Mainline lane closures • Ramp/connector closures • Local road closures • Temporary highway or shoulder use • Local street improvements • Temporary detours and closures of bicycle and pedestrian facilities • Traffic signal coordination					
	RCTC's Resident Engineer will ensure that the measures in the Final TMP are properly implemented by the design/build contractor prior to and during construction.	RCTC's Resident Engineer	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
T-2	**Management of Ramp Closures.** A *Draft Ramp Closure Study* (January 2010) was prepared during the development of the preliminary engineering for the project. During final design, RCTC's Project Engineer will direct a qualified traffic engineer to develop the *Final Ramp Closure Plan* for implementation during construction based on the *Draft Ramp Closure Study,* to address specific short-term impacts associated with ramp closures longer than 10 days during construction. The objectives of the *Final Ramp Closure Plan* will be to: • Minimize inconvenience to the traveling public • Minimize closures • Avoid or minimize concurrently multiple closures • Coordinate closures with other projects and activities	RCTC's Project Engineer and a qualified traffic engineer	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	Prior to and during construction, RCTC's Resident Engineer will ensure that the measures included in the *Final Ramp Closure Plan* are properly implemented by the design/build contractor.	RCTC's Resident Engineer	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
T-3	**Fair Share Contributions.** RCTC's Project Manager will ensure that RCTC pays the fair share contribution for the project-related impacts at area intersections. Those fair shares are shown by intersection in Table T-3.1. The recommended improvements include additional turn and through lanes. Summaries of the improved intersection delays and levels of service (LOS) are provided in Tables T-3.2, T-3.3, and T-3.4 for 2015 with the Initial Phase of Alternative 2, Design Year 2035 with Alternative 1, and Design Year 2035 with Alternative 2 conditions, respectively. Note: The tables cited in this measure are provided following the last page of Table E-1.	RCTC's Project Manager	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
T-4	During final design, the RCTC Project Engineer will ensure that the final design and project specifications for the widened areas in the undercrossings on SR-91 and I-15 include appropriate lighting for vehicles and pedestrians. The RCTC Project Engineer will also assess the need for additional lighting in the original parts of the undercrossings in the event the longer undercrossings result in the need for additional lighting in those areas. That additional lighting, if any, will also be shown in the project specifications.	RCTC's Project Engineer	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	The RCTC Project Engineer will have any lighting considered at Coal Canyon reviewed and approved by the Project Biologist prior to incorporation in the project specifications to ensure the lighting does not affect the use of Coal Canyon as a wildlife crossing.	RCTC's Project Engineer and the Project Biologist	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	During construction, the RCTC Resident Engineer will require the design/build contractor to implement the lighting in undercrossings as shown in the project specifications.	RCTC's Resident Engineer	Required for the Initial Phase and Ultimate Project	During construction	--	--
VISUAL/AESTHETICS						
V-1	**Structure Elements.** To address adverse impacts of the project structures, the RCTC Project Engineer will direct a qualified landscape architect to ensure that the final project design incorporates the mitigation and minimization elements A–D, below, and that these enhancements to structures are incorporated in the design and construction of sound walls, retaining walls, and bridge elements and will not be "follow-up" enhancements.	RCTC's Project Engineer and a qualified landscape architect	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	During construction, RCTC's Resident Engineer will ensure that the design/build contractor constructs the retaining and sound walls, medians, bridges, and other structures consistent with aesthetic and design features included in the project specifications. RCTC's Resident Engineer will ensure that those aesthetic and design features are constructed during the construction phase when the impact occurs.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
	A. Sound walls in low-density, developed areas or those fronting private property will be heavily textured (i.e. split-face or fractured rib) and integrally colored to minimize reflected glare and visual mass. Sound walls facing public-use areas (parks, streets, etc.) will incorporate textures and color as above plus site-specific aesthetic features (local or historical references) to minimize/mitigate impacts to community character and to restore a "sense of place." Specific color selection for sound walls will be determined by the *215/91 Corridor Master Plan*.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
	B. Retaining walls (including walls associated with bridge structures) will be heavily textured (i.e., split-face or fractured rib) to minimize glare and visual mass. Retaining walls facing public use areas (parks, streets, etc.) over 9 feet (ft) high will be heavily textured (i.e., split-face or fractured rib) and include site-specific aesthetic features (local or historical references). Color (integral or applied) is not required for retaining walls.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	C. In addition to texture and color as described in A and B, above, sound walls and retaining walls with low-density development or recreational viewer groups will include planting of trees or trees and shrubs, and vines at the base of the walls (non-motorist side) to minimize loss of visual unity. Plantings will be local native species or ornamental species that require no irrigation after establishment. These plantings will not require permanent irrigation.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
	D. Slope paving in all areas with bicyclist and pedestrian viewers will include texture (i.e. stamped slate). In urban areas, slope paving will incorporate site-specific aesthetic features in addition to texture. Texture and pattern will be used to minimize the visual impacts of increased hard surface, and reinforce community identify, offsetting reduced community connectivity associated with increased bridge widths.	RCTC's Resident Engineer and a qualified landscape architect	Required for the Initial Phase and Ultimate Project	During construction	--	--
V-2	**Highway Planting:** RCTC's Project Engineer will direct a qualified landscape architect to ensure that replacement planting to mitigate the loss of existing landscaping is included in the final design. Replacement planting will be funded with the project's construction and will include no less than 3 years of plant establishment. All planting must be reviewed and approved by the District Landscape Architect.	RCTC's Project Engineer with the approval of a Department District 8 Landscape Architect	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	RCTC's Project Engineer will ensure that the replacement planting is under construction within 2 years of acceptance of the highway contract that damaged or removed the existing planting.	RCTC's Project Engineer	Required for the Initial Phase and Ultimate Project	Within 2 years of acceptance of the highway contract that damaged or removed the existing planting	--	--
	RCTC's Project Engineer will direct a qualified landscape architect to ensure the project plans show that where plantable right-of-way is reduced (as at Main Street), replacement planting will be trees, shrubs, vines, ground cover, permanent irrigation, and enhanced structural elements. Enhanced structural elements will minimize the impact of reduced planting areas. Enhanced structural elements will include enhanced pedestrian facilities (such as pavement treatments, graphics, or above-standard decorative pedestrian lighting) and may incorporate community entry features into the structures.	RCTC's Project Engineer and a qualified landscape architect	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	RCTC's Project Engineer will direct a qualified landscape architect to ensure that the project plans show that where plantable right-of-way is eliminated (as at residential areas on both sides of State Route 91 [SR-91] between just east of Lincoln Boulevard to approximately 400 ft west of East Grand Boulevard), the loss will be mitigated by off-site planting. Planting of street trees or other approved planting such as vines with permanent irrigation in City right-of-way such as at the base of retaining walls at Bollero Place and the 600 to 700 block of West Second Street will minimize the loss of existing landscape. The off-site tree planting will minimize the visual presence of the widened adjacent mainline. Replacement of existing trees by new street trees will be at a 1:1 (new tree to existing tree) ratio. To minimize the visual loss of the mature existing trees, these mitigating/replacement street trees will be planted at no less than 36 in box size.	RCTC's Project Engineer and a qualified landscape architect	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	RCTC's Project Engineer will direct a qualified landscape architect to ensure that where plantable right-of-way is eliminated without the prospect of site-adjacent mitigation (as at the industrial areas just east of East Grand Boulevard or the above residential areas if street planting is not accepted by the City) the loss will be mitigated by planting within the project limits. This planting will be at a 4:1 (new tree to existing tree) ratio. If vehicle recovery distances prohibit tree planting in any selected area, mitigation planting may be achieved at a ratio of 10 new shrubs to 1 existing tree. For this mitigation planting, all trees will be no less than 15-gallon size and all shrubs will be no less than 5-gallon size.	RCTC's Project Engineer and a qualified landscape architect	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	RCTC's Project Engineer will direct a qualified landscape architect to ensure that the project plans show that all mitigation planting within the State right-of-way, where appropriate, will include native tree, shrub, and vine species, and include temporary irrigation for establishment. Replacement planting will include permanent irrigation.	RCTC's Project Engineer and a qualified landscape architect	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	RCTC's Resident Engineer will ensure that the design/build contractor properly implements the landscaping and structural treatment components described in Measures V-1 and V-2.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
V-3	**Light and Glare.** To reduce glare, RCTC's Project Engineer will ensure that the project plans specify lighting fixtures with non-glare hoods and that lighting is designed to illuminate only the right-of-way. The lighting plans will require the review and approval of the Department and applicable cities and counties before construction to assure compliance with their applicable policies regarding public street lighting. RCTC's Project Engineer will coordinate with the City of Corona and other applicable cities and counties to ensure that sufficient lighting is provided as part of the improvements to local streets within the project limits, consistent with applicable local policies and street lighting codes. Increased glare from walls, structures and pavement will be minimized by measures identified in V-1 and V-2.	RCTC's Project Engineer with the review and approval of Caltrans and the applicable Cities	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	RCTC's Resident Engineer will ensure that the project lighting plan included in the project specifications is implemented by the design/build contractor during construction.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
V-4	**Graffiti Reduction, Removal and Control.** During final design, the RCTC Project Engineer will direct a qualified landscape architect to prepare planting plans that incorporate vine planting on all sound barriers in the project specifications to reduce the potential for graffiti and to soften the appearance of those walls, consistent with the Highway Design Manual, Index 902.3(5).	RCTC Project Engineer	Required for the Initial Phase and Ultimate Project		--	--
	After the construction of each sound barrier, the RCTC Resident Engineer will require the design/build contractor to install vine planting consistent with the project specifications and the planting requirements in Measure V-2.	RCTC Resident and the design/ build contractor	Required for the Initial Phase and Ultimate Project		--	--

	The Department and the City of Corona have existing ongoing maintenance programs for the control and removal of graffiti. Those programs would apply to all new and modified structures in Alternatives 1 and 2, on public and private property, as appropriate. Key components of those programs are:
	• **Department Program.** Chapter D1, Litter, Debris, and Graffiti (July 2006), in the Caltrans Maintenance Manual (Volume I, January 2011) describes the Department's maintenance program for the control and removal of graffiti. Key program components applicable to the project features in Alternatives 1 and 2 are:
	  • Use of recycled paint for various structures and matching paint used to cover graffiti with the original paint color on the structure.
	  • Use of physical devices such as rat guards, sign hoods, razor wire, and glare screen patches to limit access to facilities targeted by taggers.
	  • Replacement of ground-mounted signs with signs that have protective coatings or application of protective coatings to signs.
	• **City of Corona Program.** Chapter 9.30, Graffiti Abatement Procedure, in the Corona Municipal Code, describes the City's procedures related to the prohibition of graffiti in the City and the graffiti removal process. Methods for the removal of graffiti include power washing, gel removers, and painting.
		The Department and the City of Corona	Required for the Initial Phase and Ultimate Project	During construction and during operations	--	--

CULTURAL RESOURCES						
	Condition for the Acorn-Style Streetlights in the Grand Boulevard Historic District. The following condition will be implemented during the project design/build phase regarding the removal, temporary storage, and relocation of up to seven existing acorn-style streetlights within the project disturbance limits in the Grand Boulevard Historic District: • The Riverside County Transportation Commission (RCTC) Project Engineer will require the design/build contractor to clearly indicate on the final plans the locations of up to seven acorn-style streetlights in the project disturbance limits	RCTC's Project Engineer in consultation with the City of Corona, and the design/build contractor	Required for the Initial Phase	During the design/ build phase		

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date

	that are to be removed at the beginning of construction in those areas and to identify the locations where the removed streetlights would be reinstalled.
	• The RCTC Resident Engineer will require the design/build contractor to remove and, as necessary, dismantle the affected acorn-style streetlights and to place them in containers appropriate for storing those fixtures during the project construction period.
	• The RCTC Resident Engineer will require the design/build contractor to store the containers holding the acorn-style streetlights in a secure location protected from public access and weather.
	• The RCTC Project Engineer will require the design/build contractor to verify that the locations identified for the reinstallation of the affected streetlights are acceptable to the City of Corona and consistent with the City's requirements for the siting of streetlights.
	• The RCTC Resident Engineer will require the design/build contractor to reinstall the acorn-style streetlights at the locations designated in the final plans when no further construction/disruption will occur at those locations, as follows:
	  • The streetlights will be reinstalled as close to their original locations as possible, based on the project design and available space, in a manner consistent with the other acorn-style streetlights in the Grand Boulevard Historic District and with the City of Corona requirements for the siting of streetlights.
	  • If any of the acorn-style streetlights cannot be reinstalled at or near their original locations, they will be reinstalled elsewhere within the boundaries of the Grand Boulevard Historic District, focusing on locations where acorn-style lights have previously been removed as long as those locations are consistent with the historic spatial relationships of the Historic District and with the City of Corona requirements for the siting of streetlights; and
	  • If the lights cannot be reinstalled as described above, the RCTC Project Engineer will consult with the City of Corona to identify alternative locations.
	• The RCTC Resident Engineer will require the construction contractor to have an architectural historian on site during the removal, dismantling, and reinstallation of the acorn-style streetlights.					

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
CR-1	**Replacement of Trees in the Grand Boulevard Historic District.** The requirements of Measure V-2 in Section 3.7.4, Environmental Consequences, related to highway planting would apply to the replacement of the 18 trees in the Grand Boulevard Historic District. In addition, the following will be implemented during the design/build phase regarding the removal and replacement of the 18 trees in the Grand Boulevard Historic District: • The RCTC Project Engineer will require the design/build contractor to replace all trees removed from the Historic District at a ratio of 1:1. • The RCTC Project Engineer will require the design/build contractor to install replacement trees that are compatible with the existing plantings in the Grand Boulevard Historic District and with the overall character of the Historic District, and that the replacement trees be identified in consultation with the City of Corona, the California Department of Transportation's (Department's) District Landscape Architect, and a Professional Qualified Staff Architectural Historian from the District. • The RCTC Project Engineer will require the construction contractor to install all replacement trees no later than the completion of construction activities in the Grand Boulevard Historic District.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase	Prior to the completion of construction in the Grand Boulevard Historic District	--	--
CR-2	**Discovery of Cultural Materials.** If cultural materials are discovered during construction, the RCTC Resident Engineer will require the design/build contractor to divert all earthmoving activity within and around the immediate discovery area until a qualified archaeologist can assess the nature and significance of the find.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	If cultural materials are discovered during earthmoving and construction activities	--	--
CR-3	**Discovery of Human Remains.** If human remains are discovered during construction, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains and the County Coroner shall be contacted. Pursuant to Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendant (MLD). At that time, the Department's District 8 Environmental Branch Chief or the District 8 Native American Coordinator (Gary Jones, [909] 383-7505) will be contacted so they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	If human remains are discovered during earthmoving and construction activities	--	--
CR-4	During final design, the RCTC Project Manager and Department Cultural Resources Professionally Qualified Staff will coordinate with representatives from the Pechanga Band of Mission Indians to identify areas in the project disturbance limits considered sensitive to the Tribe.	RCTC Project Manager and Department Cultural Resources Professionally Qualified Staff	Required for the Initial Phase and Ultimate Project	During final design	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	During final design, the RCTC Project Engineer will identify on the project plans all areas that require monitoring by a Native American Monitor during site preparation, disturbance, and grading.	RCTC Project Engineer	Required for the Initial Phase and Ultimate Project	During final design	--	--
	During all site preparation, disturbance, and grading, the RCTC Resident Engineer will require the design/build contractor to have a Native American monitor present and conducting monitoring activities in all areas identified by the Pechanga Band of Mission Indians as sensitive, as shown in the project specifications.	RCTC Resident Engineer	Required for the Initial Phase and Ultimate Project	During all site preparation, disturbance, and grading	--	--
HYDROLOGY AND FLOODPLAINS						
	As discussed in Section 3.10, Water Quality and Storm Water Runoff, Construction Site, Design Pollution Prevention, and Treatment best management practices (BMPs) will be implemented to minimize water quality-related impacts to the 100-year floodplain and the associated beneficial uses. As discussed in Section 3.17, Natural Communities, and Section 3.18, Wetlands and Other Waters, measures to minimize impacts and preserve natural and beneficial floodplain values include installation of construction fencing around riparian/riverine vegetation to be preserved and compensatory mitigation for temporary and permanent impacts to riparian and aquatic habitats. With implementation of these measures, no other specific measures for impacts to floodplains are required.	--	Required for the Initial Phase and Ultimate Project		--	--
WATER QUALITY AND STORM WATER RUNOFF						
WQ-1	Prior to and during construction, Riverside County Transportation Commission's (RCTC) Resident Engineer will require the design/build contractor to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002), and any subsequent permit, as they relate to the project construction activities. This will include submission of the Permit Registration Documents, including a Notice of Intent (NOI), risk assessment, site map, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and signed certification statement to the State Water Resources Control Board (SWRCB) at least 14 days prior to the start of construction activity. The SWPPP will meet the requirements of the Construction General Permit and will identify potential pollutant sources associated with construction activities; identify non-storm water discharges; develop a water quality monitoring and sampling plan; and identify, implement, and maintain best management practices (BMPs) to reduce or eliminate pollutants associated with the construction site. The BMPs identified in the SWPPP will be implemented during project construction. A Notice of Termination (NOT) will be submitted to the SWRCB on the completion of construction and the stabilization of the site. RCTC's Resident Engineer will also require the design/build contractor to implement SWRCB Resolution No. 2001-046 requiring sampling and analysis during project construction.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
WQ-2	Prior to and during construction, RCTC's Resident Engineer will require the design/build contractor to comply with the provisions of the General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimus) Threat to Water Quality, Order No. R8-2009-0003, NPDES No. CAG998001, as they relate to discharge of non-storm-water dewatering wastes for the project. This will include submitting to the Santa Ana Regional Water Quality Control Board (RWQCB) an NOI at least 60 days prior to the start of construction, notification of discharge at least 5 days prior to any planned discharges, and monitoring reports by the 30th day of each month following the monitoring period.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
WQ-3	Prior to dewatering activities, RCTC's Resident Engineer will provide the design/ build contractor with a copy of the discharge authorization letter issued by the RWQCB Executive Director.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
WQ-4	Prior to and during construction, RCTC's Resident Engineer will require the design/build contractor to follow the procedures outlined in the California Department of Transportation (Caltrans) Storm Water Quality Handbooks, Project Planning and Design Guide (July 2010 or subsequent issuance) for implementing Design Pollution Prevention and Treatment BMPs for the project. This will include coordination with the Santa Ana RWQCB with respect to the feasibility, maintenance, and monitoring of Treatment BMPs as set forth in the Department's Statewide Storm Water Management Plan (SWMP, May 2003 or subsequent issuance). RCTC's Resident Engineer will also require the design/build contractor to comply with other provisions identified in the NPDES Permit, Statewide Storm Water Permit, and Waste Discharge Requirements for the State of California, Department of Transportation (Order No. 99-06-DWQ, NPDES No. CAS000003). RCTC's Resident Engineer will also require the design/build contractor to comply with other provisions identified in the NPDES Permit and Waste Discharge Requirements for the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the incorporated cities of Riverside County within the Santa Ana Region (Order No. R8-2010-0033, NPDES No. CAS618033); and for the County of Orange, Orange County Flood Control District, and the incorporated cities of Orange County within the Santa Ana Region (Order No. R8-2009-0030), as applicable.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
GEOLOGY/SEISMIC/TOPOGRAPHY						
GEO-1	During final design, the Riverside County Transportation Commission's (RCTC) Project Engineer or a Project Geotechnical Engineer or Project Geologist under contract to RCTC will prepare a *Final Geotechnical Design Report* as required by Topic 113 of the Department's Highway Design Manual (May 2012). This report will document soil-related constraints and hazards such as slope instability, settlement, liquefaction, or related secondary seismic impacts that may be present along the project segments of SR-91 and I-15. The performance standard for this report will be the Department's Geotechnical Manual (2012 or most recent version)) standards as they apply to the project features and structures. RCTC will submit the *Final Geotechnical Design Report* to the Department for review and approval during final design. The report will include but not be limited to: • Evaluation of expansive soils and recommendations regarding construction procedures and/or design criteria to minimize the effect of these soils on the construction of the project and to minimize effects related to expansive soils on project facilities in the long term. • Identification of potential liquefiable areas within the project limits and recommendations for mitigation. • Evaluation of the corrosion potential of soils along those segments of the project alignment not previously tested (i.e., areas along I-15 and the westbound side of SR-91). • Demonstration that no retaining walls or excavations will occur in the existing landslide areas, or that landslide stabilization measures independent of the retaining wall design are included in the final project design. • Demonstration that the design of all retaining walls is geotechnically suitable for project area soils, and verification that project design has considered and addressed the possibility of scour associated with the Santa Ana River. • Demonstration that side slopes can be designed and graded so that surface erosion of the engineered fill is not increased compared to existing, natural conditions. RCTC's Project Engineer will incorporate the measures recommended in the design-level geotechnical report in the final design and project specifications.	RCTC's Project Engineer and RCTC's Project Geotechnical Engineer and/or Project Geologist	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	RCTC's Resident Engineer will require the design/build contractor to implement the measures recommended in the *Final Geotechnical Design Report* as included in the project specifications.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
GEO-2	RCTC's Resident Engineer will maintain a quality assurance/quality control plan during construction. The plan will include observing, monitoring, and testing by the Project Geotechnical Engineer and/or the Project Geologist under contract to RCTC prior to and during construction to confirm that the geotechnical/geologic recommendations from the *Final Geotechnical Design Report* and standard design and construction practices are fulfilled by the design/build contractor, or if different site conditions are encountered, appropriate changes are made to accommodate such issues. The geotechnical engineer will submit weekly reports to RCTC and the Department during all project-related grading, excavation, and construction activities.	RCTC's Resident Engineer and RCTC's Project Geotechnical Engineer and/or Project Geologist; and the design/ build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
GEO-3	During final design, if blasting is required, RCTC's Project Engineer will require the design/build contractor to prepare a blasting plan to minimize potential hazards related to blasting activities. The blasting plan will address all applicable standards in accordance with the United States Department of the Interior, Office of Surface Mining. The issues to be addressed in the blasting plan will include, but are not limited to, the following: hours of blasting activity, notification to adjacent property owners, noise and vibration, and dust control. RCTC's Resident Engineer will require the design/build contractor to implement the blasting plan prior to and during any blasting during construction.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
PALEONTOLOGY						
PAL-1	Following preparation of suitable construction drawings and elevations and during final design, the Riverside County Transportation Commission's (RCTC) Project Engineer will require the Designated Principal Paleontologist under contract to RCTC to prepare a *Paleontological Mitigation Plan* (PMP). The PMP will provide guidance for developing and implementing paleontological mitigation efforts, including field work, laboratory methods, and curation. This PMP will be consistent with guidelines provided in the Department's *Standard Environmental Reference* (SER), Environmental Handbook, Volume I, Chapter 8, Paleontology, the Counties of Riverside and Orange, and the Society of Vertebrate Paleontology (SVP), and will be specifically tailored to the resources and sedimentary formations in the disturbance limits.	RCTC's Project Engineer and RCTC's Designated Qualified Paleontologist	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	The part of the PMP that covers excavation will include but not be limited to: • Prior to any ground disturbance, RCTC's Designated Principal Paleontologist or his/her representative will attend a meeting with the design/build contractor to explain the likelihood for encountering paleontological resources during construction, what resources may be discovered, and the methods that will be employed if anything is discovered.	RCTC's Principal Paleontologist	Required for the Initial Phase and Ultimate Project	Prior to any ground disturbance	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	• RCTC's Principal Paleontologist will conduct a preconstruction field survey in areas identified as having high paleontological sensitivity after vegetation and any pavement are removed, followed by salvage of any observed surface paleontological resources prior to the beginning of additional ground-disturbing activities. The survey will be conducted by the Principal Paleontologist or his/her representative who is qualified to identify vertebrate, invertebrate, and plant fossils.	RCTC's Principal Paleontologist	Required for the Initial Phase and Ultimate Project	Prior to any ground disturbance	--	--
	• During ground disturbance, grading, and excavation, RCTC's Project Engineer will require the design/build contractor to retain a Principal Paleontologist. The Principal Paleontologist will provide a Paleontological Monitor who is qualified to recognize and professionally collect vertebrate, invertebrate, and plant fossils. The qualified Paleontological Monitor will initially be present on site on a full-time basis whenever these types of construction activities occur in sediments that have a high paleontological sensitivity rating and also on a spot-check basis in sediments that have a low sensitivity rating. Monitoring may be reduced to a part-time basis if no resources are being discovered in sediments with a high sensitivity rating. Any reduction or modification in scheduling of monitoring will be determined by the Principal Paleontologist and RCTC's Resident Engineer. The qualified Paleontological Monitor will inspect fresh cuts and/or spoils piles to recover paleontological resources. That monitor will be empowered to temporarily divert construction equipment away from the immediate area of the discovery. The monitor will be equipped to rapidly stabilize and remove fossils to avoid prolonged delays to construction schedules. If large mammal fossils or large concentrations of fossils are encountered, RCTC's Resident Engineer will require the design/build contractor to make heavy equipment available to assist in the removal and collection of large materials.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During ground disturbance, grading, and excavation	--	--
	• Localized concentrations of small (or micro-) vertebrates may be found in all native sediments. As described in the PMP, the qualified Paleontological Monitor will spot-screen native sediments through one-eighth- to one-twentieth-inch mesh screens to determine whether microfossils are present. If microfossils are encountered, a standard sediment sample (up to 3 cubic yards or 6,000 pounds) will be collected and processed through one-twentieth-inch mesh screens to recover additional fossils. As described in the PMP, the processing of large bulk samples will be conducted at a designated location within the project limits that will be accessible throughout the duration of construction and also away from any cut or fill areas or active construction areas. Processing will be completed concurrently with construction and with the intent to have all processing completed before, or just after, project completion.	Paleontological Monitor	Required for the Initial Phase and Ultimate Project	During construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	• RCTC's Project Engineer will require the Principal Paleontologist or his/her representative to prepare any recovered specimens to the point of identification and permanent preservation. This includes sorting any washed mass samples to recover small invertebrate and vertebrate fossils, the removal of surplus sediment from around larger specimens to reduce the volume of storage for the repository and storage cost, and the addition of approved chemical hardeners/ stabilizers to fragile specimens. This preparation will be conducted at a designated laboratory with access to fossil preparation tools, magnifying equipment, storage boxes and vials, and chemical hardeners. The processing of fossils through the lab will be conducted concurrently with construction, especially if numerous fossils are being collected.	RCTC's Project Engineer and Principal Paleontologist	Required for the Initial Phase and Ultimate Project	Concurrently with construction	--	--
	• Specimens will be identified to the lowest taxonomic level possible and curated into an institutional repository with retrievable storage. Repository institutions usually charge a one-time fee based on volume, so removing surplus sediment is important. The repository institution may be a local museum or university that has a curator who can retrieve the specimens on request. RCTC's Project Manager and the California Department of Transportation (Department) will require that a draft curation agreement be in place between the Principal Paleontologist and an approved curation facility prior to the initiation of paleontological monitoring and mitigation activities for the project.	RCTC's Project Manager and the Department	Required for the Initial Phase and Ultimate Project	During and after paleontological monitoring	--	--
	RCTC's Resident Engineer will require the design/build contractor to comply with the provisions of the PMP during all ground disturbance, grading, and excavation activities. This will include appropriate coordination with RCTC's Designated Principal Paleontologist and the provision of qualified paleontological monitors consistent with the provisions of the PMP.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During all ground disturbance, grading, and excavation activities	--	--
	After the completion of all ground disturbance and grading, RCTC's Project Manager will require the design/build contractor to have the design/build contractor's Designated Principal Paleontologist prepare a *Final Paleontological Mitigation Report* (PMR) that summarizes the project area investigated, the field and laboratory methods used, the stratigraphic units inspected, the types of fossils recovered, and the scientific significance of the curated collection. RCTC's Project Manager will retain a copy of the report for the RCTC project files and will provide a copy of the report to the Department.	RCTC's Project Manager and the design/build contractor	Required for the Initial Phase and Ultimate Project	After the completion of all ground disturbance, grading, and excavation activities	--	--
HAZARDOUS WASTE/MATERIALS						
HW-1	A Phase I ESA was conducted for the Mobil No. 18-FLM site (616 Paseo Grande Street, Corona, California), and a Phase I ESA and Phase II Site Investigation were conducted for the Honda Cars of Corona site (231 South Lincoln Avenue, Corona, California) as part of the DSI, in accordance with ASTM Standard E 1527-05. The DSI identified Recognized Environmental Conditions (RECs) associated with on-site releases. Based on the results of the DSI, the following measures will be implemented for these two sites of potential environmental concern:	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase	During final design and prior to any ground disturbance activities	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	• **Honda Cars of Corona Site:** During final design and prior to any ground disturbance, RCTC's Resident Engineer will require the design/build contractor to consult with regulators, confirm that the final confirmation sampling has been completed at the site, and that contaminant investigation for the site has received regulatory site closure. In addition, prior to the completion of final design, the RCTC Resident Engineer will require the design build/build contractor to properly abandon all monitoring wells and vapor extraction wells on the site in accordance with regulatory requirements. • **Mobil No. 18-FLM Site:** During final design and prior to any ground disturbance, RCTC's Resident Engineer will require the design/build contractor to conduct further investigation on contaminants in soils on site after a work plan is prepared and additional information is available.					
HW-2	During final design and prior to any ground disturbance activities, RCTC's Resident Engineer will require the design/build contractor to conduct site investigations for any new release sites that are within the project right-of-way. RCTC's Resident Engineer will require the design/build contractor to conduct these site investigations in compliance with applicable federal, State, and local regulations and in accordance with ASTM Standard E 1527-05. If contaminants are determined to be present during the site investigations, RCTC's Resident Engineer may require the design/build contractor to prepare and implement recommendations in one or more of the following specialized reports: Remedial Actions Options Report, Sensitive Receptor Survey, Human Health/Ecological Risk Assessment, and/or Quarterly Monitoring Report.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During final design and prior to any ground-disturbing activities	--	--
HW-3	During final design and prior to any ground disturbance activities, RCTC's Resident Engineer will require the design/build contractor to conduct an aerially deposited lead (ADL) study for soil if excavation will exceed 3 feet (ft) below ground surface (bgs) in unpaved locations adjacent to the State right-of-way between Gypsum Canyon Road and Magnolia Avenue, or 5 ft bgs in unpaved locations in areas where there would be fiber-optic signage along eastbound State Route 91 (SR-91) from east of the Weir Canyon Road undercrossing to east of the Gypsum Canyon Road undercrossing.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During final design and prior to any ground-disturbing activities	--	--
	During construction, if soils within the project disturbance limits along SR-91 are removed off site, RCTC's Resident Engineer will require the design/build contractor to treat the soils as State hazardous waste and to properly dispose of those soils at an appropriate State-certified landfill facility. In addition, during construction, RCTC's Resident Engineer will require the design/build contractor to test all soils imported on site as fill. RCTC's Resident Engineer will require the design/build contractor to use only clean soils as imported fill on site.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
HW-4	Predemolition asbestos and/or LBP surveys were conducted for 21 road structures that will be renovated or demolished during project construction. Based on the results of the ACM surveys of the 21 freeway structures, the SR-91/State Route 71 (SR-71) Separation (Bridge No. 56-0587), East SR-91/North SR-71 Connector Separation (Bridge No. 56-0635), Prado Overhead (Bridge No. 56-0637), West Grand Boulevard Undercrossing (UC) (Bridge No. 56-0445 L/R), El Cerrito Road UC (Bridge No. 56-0558 L/R), and Serfas Club Drive UC (Bridge No. 56-0368 L/R) contain ACMs. Therefore, prior to any disturbance associated with renovation or demolition of these bridges, RCTC's Resident Engineer will require the design/build contractor to have a licensed asbestos contractor properly remove and dispose of asbestos-containing railing brace pads from these structures.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during renovation or demolition of the structures.	--	--
	Based on the results of the LBP surveys of the 21 freeway structures, the Main Street UC (Bridge No. 56-0448 L/R), McKinley Street UC (Bridge No. 56-0365), and Buchanan Street Overcrossing (Bridge No. 56-0368) contain LBPs. Therefore, prior to any disturbance associated with renovation or demolition of these bridges, RCTC's Resident Engineer will inform the design/build contractor of the presence of LBPs in those structures. RCTC's Resident Engineer will require the design/build contractor to protect construction workers from exposure to lead dust when disturbing LBP during bridge renovation or demolition activities.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during renovation or demolition of the structures.	--	--
	In addition, a hazardous materials survey identified two areas with potential hazardous materials. Based on the results of the visual hazardous materials survey of the bridges, light fixture components and possible lead metal railing braces may pose an additional concern. These components include: • Light fixtures (some flush-mounted) on the undersides of many of the bridges. At a few of the bridges that cross over the freeway, there are light posts. The light bulbs in these fixtures may contain mercury. • The Temescal Wash Bridge overhead has some metal braces and wire tension cable at joint locations on the underside of the bridge. While no suspected ACMs were observed or sampled at these locations, the presence of metal washers and spacers, which may contain lead, was noted. • Soft metal railing brace pads that may be composed of lead metal were observed at the following bridges: Pierce Street UC (Bridge No. 56-0369 L/R) and Buchanan Street Overcrossing (Bridge No. 56-0368) Therefore, during final design and prior to any disturbance of these facilities and materials, RCTC's Resident Engineer will inform the design/build contractor of the presence and location of the hazardous materials in the freeway structures described above.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During final design and prior to any disturbance of the cited facilities	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	Prior to the disturbance of freeway structures, RCTC's Resident Engineer will require the design/build contractor to have asbestos-containing railing brace pads removed and disposed of by a licensed asbestos abatement contractor. If abated, RCTC's Resident Engineer will require the design/build contractor to remove non-friable ACMs in accordance with Category II asbestos abatement procedures as defined in Federal Occupational Safety and Health Administration (Fed-OSHA) 29 Code of Federal Regulations (CFR) 1926.1101. However, if mechanical means are utilized for abatement of ACMs, RCTC's Resident Engineer will require the design/build contractor to convert these non-friable materials into a friable state during removal activities and manage these materials under Class I asbestos abatement procedures.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to disturbance of the freeway structures	--	--
	Prior to disturbance of freeway structures, RCTC's Resident Engineer will require the design/build contractor to properly test any areas that have not been previously tested, and remove and dispose of any materials from these structures that exceed California Health and Safety Code criteria for hazardous waste at an appropriate State-certified landfill facility.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to disturbance or renovation of freeway structures	--	--
	During final design and prior to any ground disturbance, demolition, or renovation activities, RCTC's Project Engineer will require the design/build contractor to conduct predemolition asbestos, LBP, polychlorinated biphenyl (PCB), and/or mercury surveys of any buildings that will be renovated or demolished.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase	During final design and prior to any ground-disturbing activities	--	--
	During construction, RCTC's Resident Engineer will require the design/build contractor to properly remove and dispose of any materials from these structures that exceed California Health and Safety Code criteria for hazardous waste at an appropriate State-certified landfill facility.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase	During construction	--	--
HW-5	During final design and prior to any ground disturbance activities, RCTC's Resident Engineer will require the design/build contractor to conduct inspections for potential PCBs in utility pole-mounted transformers that will be relocated or removed as part of the project.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During final design and prior to any ground-disturbing activities	--	--
	RCTC's Resident Engineer will require the design/build contractor to consider leaking transformers a PCB hazard unless tested and confirmed otherwise, and to handle them accordingly.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
HW-6	During construction, RCTC's Resident Engineer will require the design/build contractor to test, remove, and dispose of any yellow traffic striping and pavement marking materials in accordance with the California Department of Transportation (Department) Construction Manual, Chapter 7, Section 106.	RCTC's Resident Engineer	Required for the Initial Phase and Ultimate Project	During construction	--	--
HW-7	During final design and prior to any dewatering activities, RCTC's Resident Engineer will require the design/build contractor to conduct additional coordination with the Riverside County Department of Environmental Health when groundwater dewatering will occur in the vicinity of contaminated soils or contaminated groundwater sites.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During final design and prior to any dewatering activities	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
HW-8	During final design and prior to any ground disturbance activities, RCTC's Project Engineer will require the design/build contractor to sample soil adjacent to the Burlington Northern Santa Fe (BNSF) railroad tracks that will be disturbed during construction for the presence of petroleum hydrocarbons, metals, solvents, and other potential contaminants (e.g., polynuclear aromatic hydrocarbons [PNAs], kerosene, ACMs, chlorinated hydrocarbons, pesticides, and herbicides). That testing will determine whether the soils require special handling and disposal during construction.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During final design and prior to any ground-disturbing activities	--	--
	During construction, RCTC's Resident Engineer will require the design/build contractor to properly dispose of all soils exceeding the criteria for State or federal hazardous waste at an appropriate State-certified landfill facility.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
HW-9	Prior to the start of construction, RCTC's Project Engineer will require the design/build contractor to prepare a site-specific Health and Safety Plan (HASP) by a certified industrial hygienist. The HASP will be based on evaluation of proposed construction activities, the potential hazards identified in the Phase I Environmental Site Assessment and Phase II testing, and any future assessments prepared for the project. The HASP will outline specific procedures for encountering expected and unexpected contaminants. It will include safe work practices, contaminant monitoring, the need for personal protective equipment, emergency response procedures, and safety training requirements to protect construction workers and third parties working on site. The HASP will be in compliance with the requirements of 29 CFR 1910 and 1926 and all other applicable federal, State, and local regulations and requirements.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to construction	--	--
	During construction, RCTC's Resident Engineer will require the design/build contractor to implement the requirements in the HASP.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
HW-10	Prior to the start of construction, RCTC's Project Engineer will require the design/build contractor to prepare a soils and groundwater Contaminant Management Plan (CMP). The CMP will include procedures for contaminant monitoring and identification as well as temporary storage, handling, treatment, and disposal of hazardous waste and materials in accordance with applicable federal, State, and local regulations and requirements.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to construction	--	--
	Prior to and during construction, RCTC's Resident Engineer will require the design/build contractor to implement the soils and groundwater CMP.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
HW-11	Prior to the start of construction, RCTC's Project Engineer will require the design/build contractor to prepare a Construction Contingency Plan (CCP) in accordance with the Department's Unknown Hazards Procedures for Construction. The CCP will include provisions for emergency response in the event that unidentified underground storage tanks (USTs), hazardous materials, petroleum hydrocarbons, or hazardous or solid wastes are discovered during construction activities. The CCP will address UST decommissioning, field screening, contaminant materials testing methods, mitigation and contaminant management requirements, and health and safety requirements for construction workers.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to construction	--	--
	RCTC's Resident Engineer will require the design/build contractor to implement the CCP during all construction activities.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
	During construction, RCTC's Resident Engineer will require the design/build contractor to cease work immediately if an unexpected release of hazardous substances is found in reportable quantities. If an unexpected release of hazardous substances is found in reportable quantities, RCTC's Resident Engineer will require the design/build contractor to notify the National Response Center by calling 1-800-424-8802. RCTC's Resident Engineer will require the design/build contractor to perform cleanup of unexpected releases under the appropriate federal, State, or local agency oversight.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
HW-12	RCTC's Resident Engineer will require the design/build contractor to notify Underground Service Alert (USA) at least 2 days prior to excavation by calling 811 to require that all utility owners within the project disturbance limits identify the locations of underground transmission lines and facilities.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	At least 2 days prior to any excavation	--	--
HW-13	RCTC's Resident Engineer will require the design/build contractor to submit the fees to the South Coast Air Quality Management District (SCAQMD) at least 10 days prior to proceeding with any demolition or renovation of a structure (refer to SCAQMD Rule 1403). RCTC's Resident Engineer will require the design/build contractor to adhere to the requirements of SCAQMD Rule 1403 during renovation and demolition activities.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	At least 10 days prior to any demolition or renovation of structures	--	--
HW-14	During final design and prior to any ground disturbance, RCTC's Resident Engineer will require the design/build contractor to test all wooden utility poles, railroad ties, and other treated wood waste material that will be removed and disposed of as part of the project are tested for wood treatments/preservatives. RCTC's Resident Engineer will also require the design/build contractor to test soils surrounding railroad ties for wood treatments/preservatives.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During final design and prior to any ground-disturbing activities	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	Prior to and during construction, RCTC's Resident Engineer will require the design/build contractor to properly dispose of all treated wood waste as required by the Alternative Management Standards for Wood Treated Waste in Section 67386.6(a)(2)(B)(3) of the California Code of Regulations (CCR). In addition, RCTC's Resident Engineer will require the design/build contractor to require any personnel who come in contact with treated wood waste or contaminated soils to follow all applicable requirements under Section 67386.6(a)(2)(B)(3) of the CCR and be trained in the proper identification, disposal, and safe handling of treated wood waste and contaminated soils.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
AIR QUALITY						
SC-1	**Construction Emissions Mitigation Plan.** Prior to any site preparation, grading and/or construction activities, the Riverside County Transportation Commission (RCTC) Project Engineer will require the design/build contractor to finalize the project-specific Construction Emissions Mitigation Plan. That plan will specifically incorporate measures for controlling particulate and other emissions during construction from the following sources: • California Department of Transportation (Department) Standard Specifications Sections 10 and 18 (Dust Control) • Department's Standard Specifications Section 39-3.06 (Asphalt Concrete Plant Emissions) • South Coast Air Quality Management District (SCAQMD) Rule 403, including control measures from Tables 1, 2, and 3 in that rule The plan will also include the following measures: • Control of ozone precursor emissions from construction equipment vehicles by maintaining equipment engines in good condition and in proper tune per the manufacturers' specifications. • Control of material on all trucks hauling excavated or graded material from the site by compliance with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2), and (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to any site preparation, grading, and/or construction activities	--	--
SC-2	**Implementation of the Construction Emissions Mitigation Plan.** During all site preparation, grading, construction, clean-up, and other activities during construction, RCTC's Resident Engineer will require the design/build contractor to comply with the measures in the Construction Emissions Mitigation Plan. RCTC's Resident Engineer will conduct site inspections at least once a month to ensure that the design/build contractor is complying with the provisions of the Construction Emissions Mitigation Plan.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During all site preparation, grading, construction, clean-up, and other activities during construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
SC-3	Prior to any construction activities, RCTC's Project Engineer will ensure that the grading plans and project specifications show the anticipated duration of construction in individual construction areas along the project alignment.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to construction	--	--
SC-4	During final design and prior to any ground disturbance, RCTC's Project Geologist will conduct appropriate testing to determine whether there are asbestos-containing materials (ACMs) present in the project disturbance limits.	RCTC's Project Geologist and the design/build contractor	Required for the Initial Phase and Ultimate Project	During final design and prior to any ground disturbance	--	--
SC-5	If RCTC's Project Geologist determines that ACMs are present in the project disturbance limits during that final preconstruction inspection, RCTC's Resident Engineer will require the design/build contractor to properly remove and dispose of those ACMs.	RCTC's Project Geologist and the design/build contractor	Required for the Initial Phase and Ultimate Project	During the final preconstruction inspection	--	--
NOISE						
N-1	Based on studies completed to date, Riverside County Transportation Commission (RCTC) intends to incorporate noise abatement in the form of reasonable and feasible barriers at 15 to 16 locations, depending on the selected alternative, ranging in height from 8 feet (ft) to 14 ft, depending on the alternative and the design variations. Calculations based on preliminary design data indicate that the barriers will reduce noise levels by 5 to 15 A-weighted decibels (dBA) for 333 to 419 homes and the Green River Golf Club, depending on the design variation. If during final design conditions have substantially changed, noise abatement at some of these locations may not be necessary. The final decision on noise abatement will be made on completion of the project design and the public involvement processes for the environmental document.	RCTC's Project Engineer	Required for the Initial Phase	During final design	--	--
	RCTC's Resident Engineer will require the design/build contractor to construct the noise abatement measures included in the final design and project specifications.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase	During construction	--	--
N-2	RCTC's Resident Engineer will require the design/build contractor to control noise from construction activity consistent with the California Department of Transportation's (Department's) Standard Specifications, Section 14-8.02, "Noise Control," and Standard Special Provisions (SSP) S5-310. RCTC's Resident Engineer will require the design/build contractor to ensure that noise levels from construction operations within the State right-of-way between the hours of 9:00 p.m. and 6:00 a.m. not exceed 86 dBA at a distance of 50 ft. The noise level requirement will apply to the equipment on the job site or related to the job, including, but not limited to trucks, transit mixers, or transient equipment that may or may not be owned by the contractor. RCTC's Resident Engineer will require the design/build contractor to use an alternative warning method instead of a sound signal unless required by safety laws. In addition, RCTC's Resident Engineer will require the design/build contractor to equip all internal combustion engines with the manufacturer-recommended mufflers and not operate any internal combustion engine on the job site without the	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	appropriate mufflers. As directed by RCTC's Resident Engineer, the design/build contractor will implement appropriate additional noise mitigation measures, including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.					
N-3	In accordance with the Municipal Codes of the Cities of Anaheim, Corona, Riverside, and Norco, RCTC's Resident Engineer will require the design/build contractor to limit construction activities to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, excluding weekends and holidays. If construction is needed outside those hours or days, RCTC's Resident Engineer will require the design/build contractor to coordinate with the affected local jurisdiction. If the local jurisdiction approves construction hours that are different from those imposed by this measure, then the design/build contractor will immediately request that RCTC's Resident Engineer consider a modification to this measure in accordance with CEQA to allow construction during the new hours that the local jurisdiction approved. In addition to Measure N-3, Measure GEO-3 specifically addresses potential noise control in the event blasting is necessary during construction along State Route 91 (SR-91) east of Interstate 15 (I-15).	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
N-4	If noise barriers proposed for I-15 (with the exception of Noise Barrier [NB] K1-A), as part of a separate project, are not constructed within 5 years of the completion of the construction of the SR-91 CIP, the RCTC will initiate a separate project to construct those walls.	RCTC's Project Manager	Required for the Initial Phase and Ultimate Project	Five years after the completion of construction of the SR-91 CIP	--	--
N-5	Residences that would experience a severe traffic noise impact of 75 dBA equivalent continuous sound level (L_{eq}) or higher would qualify for consideration of unusual and extraordinary abatement under Alternative 2f. NBs M-3 and D1-B are considered unusual and extraordinary noise abatement. During the design/build phase, RCTC will contract with a qualified acoustical specialist to conduct interior noise analyses at residences projected to experience severe traffic noise impacts. Interior noise abatement for each of these homes will be evaluated on a case-by-case basis per the guidance on "Unusual and Extraordinary Abatement" in the Department's *Traffic Noise Analysis Protocol* (August 2006).	RCTC and a qualified acoustical specialist	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
ENERGY						
No avoidance, minimization, and/or mitigation measures are required.						
NATURAL COMMUNITIES						
	Compensatory Mitigation. Compensatory mitigation for the effects to coastal sage scrub (CSS) vegetation within Riverside County will be achieved through project consistency with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Permanent effects to CSS vegetation in Orange County occupied by coastal California gnatcatcher (CAGN) or within CAGN-designated critical habitat will be mitigated as described in the Biological Opinion received from the United States Fish and Wildlife Service (USFWS) on November 30, 2011. Specifically, 16.03 acres (ac) of habitat (e.g., CSS) suitable for CAGN breeding, dispersal, and foraging will be restored in Chino Hills State Park (CHSP)	RCTC's Project Manager, RCTC's Resident Engineer, and the Department	Required for the Initial Phase	During the design/ build phase	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	(or another off-site area approved by the USFWS) during construction of the Initial Phases under Alternatives 1 and 2. This will increase the amount of conserved habitat available for CAGN in the area. Temporarily impacted CSS and other vegetation communities used by CAGN for dispersal and foraging will be restored with in-kind or better vegetation during and after construction as the construction in each disturbed area is completed (e.g., after each phase of construction). Measures TE-1 through TE-17, provided later in the Environmental Commitments Record (ECR), were developed from the Biological Opinion. The plant palette used for restored areas in the project limits and CHSP (or other areas approved by the USFWS) will be approved by the District Biologist at each location. The District Biologist may consult with local responsible agencies (e.g., local fire agencies) regarding the plant palettes if the District Biologist determines that such consultation would be appropriate. Compensatory mitigation for riparian communities in both counties will be required for United States Army Corps of Engineers (Corps) Section 404 and California Department of Fish and Game (CDFG) Section 1600 permitting. Typically, riparian habitat subject to Corps and CDFG jurisdiction is mitigated at a minimum mitigation-to-effect ratio of 2:1 for permanent effects and 1:1 for temporary effects, which is consistent with Corps and CDFG policies for no net loss of riparian/riverine habitat (e.g., wetlands) standards. Mitigation for permanent effects will be conducted in advance during the Initial Phases in the form of habitat restoration and/or enhancement in on- or off-site areas where similar riparian habitat exists. Temporary effects to riparian communities will be mitigated at a minimum mitigation ratio of 1:1 to be replaced on site in kind after the temporary impact has occurred. Final details for compensatory mitigation will be coordinated and environmental clearance will be obtained (if necessary) through coordination among the Riverside County Transportation Commission (RCTC), the California Department of Transportation (Department), the resource agencies, and third-party landowners. Prior to beginning construction, a Habitat Mitigation and Monitoring Plan (HMMP) will be developed in coordination with the Corps, CDFG, and USFWS that ensures no net loss of riparian habitat value or acreage. Final details for compensatory mitigation will be evaluated through coordination among the Department, RCTC, and the resource agencies. That compensatory mitigation plan will be based on the performance criterion of no net loss of habitat value or acreage, thus ensuring that adequate mitigation will be provided for the project impacts. The HMMP will comply with all terms and conditions set forth in the permits and opinions issued by the resource agencies for the project and will include, at a					

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	minimum, the following provisions: • Permanent impacts to riparian/riverine areas will be replaced on or off site at a minimum ratio of 3:1 with in-kind habitat. • Permanent effects to native habitat will be replaced on or off site at a minimum 2:1 ratio with in-kind habitat. Temporary effects to native vegetation will be replaced at a minimum 1:1 ratio with in-kind habitat restored in place within the project area. If off-site restoration is conducted, it will be done within the same watershed as the project. • The HMMP will identify a success criterion of at least 80 percent cover of native riparian vegetation or composition structure similar to existing adjacent high-quality riparian vegetation. • Further criteria specified in the HMMP will include an establishment period for the replacement habitat, regular trash removal, and regular maintenance and monitoring activities to ensure the success of the mitigation plan. After construction, annual summary reports of biological monitoring will be provided to the Corps, CDFG, and USFWS documenting the monitoring effort. The duration of the monitoring and reporting will be established by resource agency permit conditions. • Compensatory mitigation for effects to oak trees (excluding California scrub oaks) with trunk sizes above 8 inches in diameter at breast height (dbh) will involve replacement at a mitigation-to-effect ratio of 3:1. Heritage oaks (oaks with a greater than 36-inch dbh) will be replaced at a mitigation-to-effect ratio of 10:1, if feasible. If the replacement trees cannot be planted in the immediate vicinity of where the previous trees were located, they may be planted elsewhere in the project area, subject to approval by the Department Landscape Architect and the affected local jurisdiction, if any. All compensatory mitigation for the entire project, both the Initial Phases and Ultimate Projects, will be provided in the Initial Phases of the SR-91 CIP Build Alternatives. • RCTC will provide appropriate funds, to be maintained in a non-wasting endowment, to Chino Hills State Park to provide for the long-term maintenance and management of the restored areas within the park to support gnatcatcher habitat in perpetuity.					
NC-1	During final design, RCTC's Project Engineer will coordinate with the Designated Qualified Biologist to delineate all environmentally sensitive areas (ESAs) within the project footprint and the immediately surrounding areas in the project specifications. ESAs include CSS, chaparral, and riparian/riverine vegetation; the protected zone of any oak tree (5 feet [ft]) outside the dripline or 15 ft from the trunk of the tree, whichever is greater) or oak habitat; and designated critical habitat (with constituent elements). In addition, all restoration and mitigation areas at Coal Canyon adjacent to the project footprint will be designated ESAs on the project plans.	RCTC's Project Engineer and the Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	Prior to clearing or construction, RCTC's Resident Engineer will require the design/build contractor to install highly visible barriers (such as orange construction fencing) around all designated ESAs. No grading or fill activity of any type will be permitted within the ESAs. In addition, no construction activities, materials, or equipment will be allowed within the ESAs. All construction equipment will be operated in a manner so as to prevent accidental damage to nearby preserved areas. No structure of any kind, or incidental storage of equipment or supplies, will be allowed within the ESAs. Silt fence barriers will be installed at the ESA boundaries to prevent accidental deposition of fill material in areas where vegetation is adjacent to planned grading activities.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to clearing or construction	--	--
NC-2	RCTC's Resident Engineer will require the design/build contractor to have a Designated Qualified Biologist under contract. The Designated Qualified Biologist will monitor construction in the vicinity of the ESAs for the duration of construction to flush any wildlife species present prior to construction and to ensure that all vegetation removal, best management practices (BMPs), ESAs, and all avoidance and minimization measures are properly implemented.	RCTC's Project Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
NC-3	To avoid effects to nesting birds, RCTC's Resident Engineer will require the design/build contractor to conduct any native or exotic vegetation removal or tree trimming activities outside of the nesting bird season (i.e., February 15–September 15). In the event that vegetation clearing is necessary during the nesting season, RCTC's Resident Engineer will require the design/build contractor to have the Designated Qualified Biologist conduct a preconstruction survey within 300 ft of construction areas no more than 7 days prior to construction to identify the locations of nests. Should nesting birds be found, an exclusionary buffer of 300 ft will be established by the Designated Biologist around each nest site. This buffer will be clearly marked in the field by construction personnel under guidance of the design/ build contractor's Designated Qualified Biologist, and construction or clearing will not be conducted within this zone until the Designated Qualified Biologist determines that the young have fledged or the nest is no longer active. In the event that construction must occur within the 300 ft buffer, the Designated Biologist will take steps to ensure that construction activities do not disturb or disrupt nesting activities. If the Designated Biologist determines that construction activities are disturbing or disrupting nesting activities, the Designated Biologist will notify the Resident Engineer, who has the authority to halt construction to reduce the noise and/or disturbance to the nests. Responses may include, but are not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest and the construction activities, and/or working in other areas until the young have fledged.	RCTC's Resident Engineer and the design/build contractor's Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
NC-4	When work is conducted during the fire season (as identified by the Orange County Fire Authority [OCFA], Riverside County Fire Department [RCFD], City of Norco Fire Department, and/or the City of Corona Fire Department) adjacent to any vegetated open space, RCTC's Resident Engineer will require the design/build contractor to ensure that appropriate firefighting equipment (e.g., extinguishers, shovels, water tankers) is available on site during all phases of project construction to help minimize the potential for human-caused wildfires. Shields, protective mats, and/or other fire-preventive methods will be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards, preventive actions, and responses to fires will advise contractors regarding fire risk from all construction-related activities. If a responsible fire agency (OCFA, RCFD, City of Norco Fire Department, or City of Corona Fire Department) requires the RCTC to clear defensible spaces during construction, the RCTC's Resident Engineer, the design/build contractor, and the design/build contractor's Designated Qualified Biologist will coordinate with the USFWS prior to this clearing effort. In the event there are resources in the areas identified for defensible clearing, RCTC's Resident Engineer and the Designated Qualified Biologist will coordinate with any applicable permitting agencies regarding possible effects to those resources prior to approving the defensible clearing of any areas by the contractor.	RCTC's Resident Engineer and the design/build contractor's Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	During construction	--	--
	During all Red Flag Warning periods as issued by the National Weather Service, the design/build contractor will not be allowed to operate mechanized equipment or equipment that could throw off sparks or potentially start fires in any areas of natural open space in CHSP or other areas.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During all Red Flag Warning periods issued by the National Weather Service	--	--
NC-5	During final design, the Project Engineer will coordinate with the Designated Qualified Biologist to identify developed or nonsensitive upland habitat areas appropriate for use during construction for equipment maintenance, staging, dispensing of fuel and oil, or any other such activities and will delineate and identify those areas on the project specifications. The Designated Qualified Biologist will specifically identify developed or nonsensitive upland habitat areas to prevent any spill runoff on those sites from entering waters of the United States.	RCTC's Resident Engineer and the Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	Required for the Initial Phase and Ultimate Project During the design/ build phase	--	--
	During construction, RCTC's Resident Engineer will require the design/build contractor to ensure that all equipment maintenance, staging, dispensing of fuel and oil, or any other such activities occur in developed or designated nonsensitive upland habitat areas designated in the project specifications for those uses.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Required for the Initial Phase and Ultimate Project During construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
NC-6	During final design, RCTC's Project Engineer will coordinate with the Designated Qualified Biologist to identify the locations of all existing wildlife fencing and will delineate and identify those areas on the project specifications.	RCTC's Project Engineer and the Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	Prior to and during construction, RCTC's Resident Engineer will require the design/build contractor to install new fencing prior to the removal of any existing wildlife fencing to protect against wildlife-vehicle incidents. The new fencing must be the same or greater height than the previous wildlife fence.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
	The RCTC Resident Engineer will require the design/build contractor to ensure that the fencing is maintained and functional throughout the project construction.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
	The Department will ensure that the fencing is maintained and functional throughout the life of the project to prevent wildlife-vehicle incidents.	The Department	Required for the Initial Phase and Ultimate Project	During operations	--	--
NC-7	During final design, RCTC's Project Engineer will coordinate with the Designated Qualified Biologist to identify the habitat adjacent to Coal Canyon, B Canyon, Fresno Canyon/Wardlow Wash, and Bedford Wash that is anticipated to be disturbed by construction activities and will delineate those areas on the project specifications.	RCTC's Project Engineer and the Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	As detailed in the project specifications, RCTC's Resident Engineer will require the design/build contractor to restore habitat adjacent to Coal Canyon, B Canyon, Fresno Canyon/Wardlow Wash, and Bedford Wash that was disturbed during construction as construction in the affected areas is completed. That restoration will be provided on a 1:1 ratio, using native vegetation as determined by RCTC and the Department in coordination with the resource agencies.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During and after construction	--	--
NC-8	During final design, RCTC's Project Engineer will coordinate with the Designated Qualified Biologist to delineate all wildlife corridors within the project footprint and the immediately surrounding areas as Environmentally Sensitive Areas (ESAs) in the project specifications.	RCTC's Project Engineer and the Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	Prior to and during construction, RCTC's Resident Engineer will require the design/build contractor to ensure that equipment maintenance, lighting, and staging are limited to designated areas away from wildlife corridor entrances.	RCTC's Resident Engineer and the design/build contractor		Prior to and during construction	--	--
NC-9	During final design, RCTC's Project Engineer will develop design and construction management measures to direct temporary construction noise and nighttime construction lighting and permanent facility lighting away from the wildlife corridors, bridges (structures potentially occupied by bats), biologically sensitive areas, Western Riverside County MSHCP Conservation Areas, vegetated drainages, CSS in CAGN-designated critical habitat with long-term conservation value for covered species. Those design measures will be approved by the Department's District 8 and District 12 Biology/Environmental for areas within Riverside and Orange Counties, respectively, prior to the completion of final design.	RCTC's Project Engineer with the approval of Department's Biology/ Environmental	Required for the Initial Phase and Ultimate Project	Prior to the completion of PS&E	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	If construction work must be done at night, RCTC's Resident Engineer will require the design/build contractor to properly implement the measures developed during final design to direct noise and direct lighting away from the wildlife corridors, bridges, and biologically sensitive areas during those nighttime construction activities.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During any nighttime construction near wildlife corridors, bridges (potentially occupied by bats), and biologically sensitive areas	--	--
NC-10	Prior to and during construction, RCTC's Resident Engineer will require the design/build contractor to keep the wildlife corridors clear of all equipment or structures that could potentially serve as barriers to wildlife passage.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
NC-11	During final design, RCTC's Project Engineer will ensure that the existing overcrossings and culvert structures that will be extended or modified by the project are designed so they provide openness ratios suitable for large mammals (1.96) and medium-sized mammals (0.81), as appropriate, at each crossing. The design and openness ratio for each crossing will be reviewed with the Department District Biologist during final design. The specific required openness ratios and designs will be provided in the project specifications for each such crossing.	RCTC's Project Engineer	Required for the Initial Phase and Ultimate Project	During final design	--	--
	The RCTC Resident Engineer will require the design/build contractor to construct the overcrossings and culvert structures consistent with the project specifications to ensure the appropriate openness ratios are provided at each crossing.	RCTC's Resident Engineer and the design/build contractor		During construction	--	--
NC-12	Within Coal Canyon, B Canyon, Fresno Canyon/Wardlow Wash, and Bedford Wash, RCTC's Resident Engineer will require the design/build contractor to limit the hours of construction within 1,000 ft of the centerline of each of these crossings to daylight hours (7:00 a.m. to 7:00 p.m.) to ensure continued use of these wildlife corridors during construction, with the exception of limited periods when evening or night work is required for operational reasons. Operational reasons may include the desire to conduct certain construction activities, such as closing multiple ramps or travel lanes, during evening and night hours to minimize delays to the traveling public. Any night construction must be approved in writing by the RCTC Resident Engineer, and coordinated with the District 8 and 12 biologists, the USFWS, and CDFG.	RCTC's Resident Engineer and the design/build contractor		During construction	--	--
NC-13	During final design, RCTC's Project Engineer will ensure that the design and construction process for all structures required for bridge and/or culvert work within Coal Canyon, B Canyon, Fresno Canyon/Wardlow Wash, and Bedford Wash, will not block the main underpass at these locations during construction. RCTC's Project Engineer will ensure that the design of the scaffolding and false work is restricted to the sides of the underpass and limits of the existing exclusionary chain-link fence to maintain the existing width of the wildlife corridor during construction activities.	RCTC's Project Engineer		During the design/ build phase	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	During construction within Coal Canyon, B Canyon, Fresno Canyon/Wardlow Wash, and Bedford Wash, RCTC's Resident Engineer will require the design/build contractor to ensure that all structures required for bridgework are installed and constructed consistent with the final design specifically to avoid blocking the main underpass during construction and to restrict all scaffolding and false work to the sides of the underpass and limits of the existing exclusionary chain-link fence to maintain the existing width of the wildlife corridor during construction activities.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
NC-14	Minimal equipment staging area is available at the eastbound Coal Canyon off-ramp along the sides of the paved road and will be used for the staging of equipment for Coal Canyon work only. During final design, RCTC's Project Engineer will ensure that the available area for construction staging at the eastbound Coal Canyon off-ramp is delineated on the project specifications.	RCTC's Project Engineer	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	RCTC's Resident Engineer will require the design/build contractor to minimize the use of this area during construction and, where possible, to avoid the area from February 15 to September 1. RCTC's Resident Engineer will require the design/ build contractor to ensure that vehicles staged in this area are equipped with security lights.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
NC-15	During construction within Coal Canyon, RCTC's Resident Engineer will require the design/build contractor to keep the Coal Canyon on- and off-ramps open at all times for emergency and police personnel. RCTC's Resident Engineer will require the design/build contractor to ensure that use of the emergency access road as a turnaround or shortcut for any construction or non-emergency traffic is prohibited. That road will only be used during bridge construction and general road construction at Coal Canyon. RCTC's Resident Engineer will also require the design/build contractor to ensure that, in general, no hauling is allowed at night through underpasses and freeway off-ramps.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
NC-16	During construction in Coal Canyon, RCTC's Resident Engineer will require the design/build contractor to close the gates at Coal Canyon at the end of each construction day. The locations of those gates will be shown on the project specifications.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
NC-17	During final design, RCTC's Project Engineer will coordinate with the Designated Qualified Biologist to identify existing and proposed conservation areas within the project footprint or in the immediately surrounding areas and will designate those areas on the project specifications. To reduce impacts where the project interfaces with existing or proposed conservation areas prior to and during construction, RCTC's Project Manager will ensure that the project complies with the Urban/ Wildlands Interface Guidelines in Section 6.1.4 of the Western Riverside County MSHCP. The project specifications will include applicable guidelines from the Western Riverside County MSHCP.	RCTC's Project Engineer and the Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	Prior to and during construction, RCTC's Resident Engineer will require the design/build contractor to comply with guidelines from the Western Riverside County MSHCP included in the project specifications.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
NC-18	During final design, RCTC's Project Engineer will coordinate with the Designated Qualified Biologist to identify existing Criteria Areas within the project footprint or in the immediately surrounding areas and will designate those areas on the project specifications.	RCTC's Project Engineer and the Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	To reduce impacts where the project is located within the Criteria Area, RCTC's Project Manager will ensure that the project complies with the applicable siting and design criteria and the Construction Guidelines in Section 7.5.2 of the Western Riverside County MSHCP. The project specifications will include applicable guidelines from the Western Riverside County MSHCP.	RCTC's Project Manager	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	During construction, RCTC's Resident Engineer will require the design/build contractor to comply with guidelines from the Western Riverside County MSHCP included in the project specifications.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
NC-19	The SR-91 CIP is a covered activity under the Western Riverside County MSHCP. Therefore, RCTC's Resident Engineer will require the design/build contractor to comply with all Western Riverside County MSHCP Construction Guidelines and Standard BMPs prior to and during construction.	RCTC's Resident Engineer	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
WETLANDS AND OTHER WATERS						
WET-1	Riverside County Transportation Commission's (RCTC) Project Manager will ensure that prior to any clearing or construction, a Section 404 Nationwide Permit is obtained through the United States Army Corps of Engineers (Corps) pursuant to the Clean Water Act (CWA).	RCTC's Project Manager	Required for the Initial Phase and Ultimate Project	Prior to clearing or construction	--	--
	RCTC's Resident Engineer will retain a copy of the Corps permit at the construction site and will ensure that the conditions in that permit are properly implemented prior to and during construction.	RCTC's Resident Engineer	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
WET-2	RCTC's Project Manager will ensure that prior to any clearing or construction, a Streambed Alteration Agreement with California Department of Fish and Game (CDFG) is obtained.	RCTC's Project Manager'	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	RCTC's Resident Engineer will retain a copy of the CDFG agreement at the construction site and will ensure that the conditions in that agreement are properly implemented prior to and during construction.	RCTC's Resident Engineer	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
WET-3	RCTC's Project Manager will ensure that prior to any clearing or construction, a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB) is obtained.	RCTC's Project Manager	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	RCTC's Resident Engineer will retain a copy of the Section 401 certification at the construction site and will ensure that the conditions in that certification are properly implemented prior to and during construction.	RCTC's Resident Engineer	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
PLANT SPECIES						
The measures provided in Sections 3.17, Natural Communities, and 3.21, Threatened and Endangered Species, will adequately avoid and minimize impacts to special-status plant species during construction of the Build Alternatives. Although no additional avoidance, minimization, or mitigation is required, Measure PS-1 will be implemented as part of the project to minimize the loss of Southern California black walnut and Coulter's matilija poppy.						

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
PS-1	As part of the SR-91 CIP Habitat Mitigation and Monitoring Plan, trees and shrubs will be planted at appropriate locations, and the species list to be used for those plantings will include Southern California black walnut and Coulter's matilija poppy. At a minimum, 30 Southern California black walnut trees will be planted.	RCTC's Project Manager	Required for the Initial Phase	During the design/ build phase	--	--
ANIMAL SPECIES						
AS-1	During final design, the Riverside County Transportation Commission's (RCTC) Project Engineer will coordinate with the Designated Qualified Biologist to identify all areas of potential burrowing owl (BUOW) habitat within the project footprint or in the immediately surrounding areas and will designate those areas on the project specifications.	RCTC's Project Engineer and the Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	To ensure that any BUOW that may occupy the site in the future are not affected by construction activities, RCTC's Resident Engineer will require the design/build contractor to have preconstruction BUOW surveys conducted by a Designated Qualified Biologist within 30 days prior to any phase of construction in the areas identified as potential BUOW habitat. These preconstruction surveys are also required to comply with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), the federal Migratory Bird Treaty Act (MBTA), and the California Fish and Game Code. If any of the preconstruction surveys determine that BUOW are present, one or more of the following mitigation measures will be required: (1) avoidance of active nests/burrows and surrounding buffer area during construction activities; (2) passive relocation of individual owls; (3) active relocation of individual owls; and (4) preservation of on-site habitat with long-term conservation value for the owl. Because any documented presence of BUOW will have unique site characteristics, the RCTC Project Manager will coordinate with the Department District Biologist, RCTC's Resident Engineer, the design/build contractor, the design/build contractor's Designated Qualified Biologist, CDFG, and USFWS to determine which specific measure(s) will be implemented.	RCTC's Project Manager and Resident Engineer, the Designated Qualified Biologist, the Department District Biologist, and resource agencies	Required for the Initial Phase and Ultimate Project	Prior to any construction in areas identified as potential BUOW habitat	--	--
	RCTC's Resident Engineer will ensure that any BUOW measures determined to be required based on the results of the preconstruction surveys and the required coordination described above are properly implemented by the design/build contractor prior to and during construction in the BUOW areas identified in the surveys.	RCTC's Resident Engineer	Required for the Initial Phase and Ultimate Project	Prior to and during construction in BUOW areas identified in the preconstruction surveys	--	--
AS-2	During final design, RCTC's Project Engineer will coordinate with the Designated Qualified Biologist to identify all areas of potential bat habitat within and immediately adjacent to the project footprint and will designate those areas on the project specifications.	RCTC's Project Engineer and the Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	RCTC's Project Manager will require the design/build contractor to have a Designated Qualified Bat Biologist survey all potential bat habitat in June, prior to construction, to assess the potential for the presence of maternity roosts because maternity roosts are generally formed in late spring. The Designated Qualified Bat Biologist will also perform preconstruction surveys because bat roosts can change seasonally. The surveys will include structure inspection, sampling, exit counts, and acoustic surveys.	RCTC's Project Manager, the design/build contractor, and the Designated Qualified Bat Biologist	Required for the Initial Phase and Ultimate Project	In June and prior to construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
AS-3	To avoid direct mortality to bats roosting in areas subject to effects from construction activities, RCTC's Resident Engineer will require the design/build contractor to ensure that any structure with potential bat habitat will have temporary bat exclusion devices installed under the supervision of the Designated Qualified Bat Biologist prior to construction. The installation of the exclusion devices will be conducted during the fall (September or October) to avoid trapping flightless young inside during the summer months or hibernating individuals during the winter. Such exclusion efforts must be continued to keep the structures free of bats until the completion of construction. Replacement roosting habitat may also be needed to minimize effects to excluded bats. All bat exclusion techniques and replacement roosting habitat will be coordinated among the California Department of Transportation (Department) District 8 Biologist, the Department District 12 Biologist, RCTC's Project Manager, RCTC's Resident Engineer, the design/build contractor, the design/build contractor's Designated Qualified Bat Biologist, CDFG, and USFWS.	RCTC's Resident Engineer in coordination with the RCTC Project Manager, the Designated Qualified Bat Biologist, the Department District 8 Biologist, the resource agencies, and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to construction at structures with potential bat habitat	--	--
AS-4	As required in Measure NC-10, RCTC's Resident Engineer will ensure that all construction work on bridges will take place during the day to the best extent feasible. Limited evening and/or night construction may be required for safety and/or operations reasons. The RCTC Project Engineer will require the design/build contractor to include construction management measures to direct lighting and noise away from bat night roosting areas in the project specifications.	RCTC's Resident Engineer, and the design/build contractor	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	The RCTC Resident Engineer will require the design/build contractor to implement those measures during evening and night construction as much as possible while providing for safe facility operations and construction worker safety.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction on bridges	--	--
AS-5	RCTC's Project Engineer will ensure that the final design specifically addresses keeping riparian vegetation delineated on the project specifications that is adjacent to bat roosting sites (which include crevices in bridges, culverts, and overhead structures) intact during construction per measures included in the project specifications.	RCTC's Project Engineer	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	Prior to and during construction, RCTC's Resident Engineer will require the design/build contractor to properly implement the measures in the project specifications to keep riparian vegetation adjacent to bat roosting sites intact.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
AS-6	To prevent project effects to bridge- and crevice-nesting birds (i.e., swifts and swallows), RCTC's Resident Engineer will require the design/build contractor to ensure that all work on existing bridges with potential habitat that is conducted between February 15 and October 31 includes removal of all bird nests prior to construction under the guidance and observation of the Designated Qualified Biologist prior to February 1 of that year, before the swallow colony returns to the nesting site. Removal of swallow nests that are under construction must be repeated as frequently as necessary to prevent nest completion or until a nest exclusion device is installed (such as netting or a similar mechanism that keeps birds from building nests). Nest removal and exclusion device installation will be	RCTC's Resident Engineer and Project Manager, the Designated Qualified Biologist in coordination with the Department District 8 Biologist and the resource	Required for the Initial Phase and Ultimate Project	Prior to construction at structures with potential habitat for bridge- and crevice-nesting birds	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	monitored by the Designated Qualified Biologist. Such exclusion efforts must be continued to keep the structures free of swallows until September or completion of construction. All nest exclusion techniques will be coordinated among the Department District 8 Biologist, the Department District 12 Biologist, RCTC's Project Manager, RCTC's Resident Engineer, the design/build contractor, the design/build contractor's Designated Qualified Biologist, CDFG, and USFWS.	agencies, and the design/build contractor				
AS-7	During final design, RCTC's Project Manager, the Department District 8 Biologist, the Department District 12 Biologist, and the Designated Qualified Biologist will determine whether structural features providing existing bat roosting habitat cannot be permanently retained following construction. If that is the case, RCTC's Project Manager, RCTC's Project Engineer, the Department District 8 Biologist, the Department District 12 Biologist, and the Designated Qualified Biologist will identify alternative roosting habitat to be installed during project construction. The project specifications will include suitable designs and specifications for bat exclusion and habitat replacement structures.	RCTC's Project Manager, the Department District 8 Biologist, and the Designated Qualified Biologist		During the design/ build phase	--	--
	Prior to and during construction, RCTC's Resident Engineer will require the design/build contractor to properly implement the designs and specifications for bat exclusion and habitat replacement structures included in the project specifications. The installation and maintenance of those structures will be monitored by the Designated Qualified Biologist.	RCTC's Resident Engineer, the Designated Qualified Biologist, and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
AS-8	RCTC's Resident Engineer will require the design/build contractor to install and maintain silt fence barriers at all staging or construction areas at Coal Canyon and areas within Chino Hills State Park (CHSP) to prevent small animals from entering those areas.	RCTC's Resident Engineer, and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
THREATENED AND ENDANGERED SPECIES						
TE-1	Prior to any ground disturbing activities, an individual will be identified as the Designated Biologist by the RCTC Project Manager. A qualified Designated Biologist must have a Bachelor's degree with an emphasis in ecology, natural resource management, or related science; 3 years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or The Wildlife Society; previous experience with applying the terms and conditions of a Biological Opinion; and the appropriate permit and/or training if conducting focused or protocol surveys for listed species.	RCTC's Project Manager and the Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	Prior to any ground disturbing activities	--	--
	The Riverside County Transportation Commission (RCTC) will ensure the Designated Biologist position is filled throughout the construction period. Each successive Designated Biologist (if applicable) will be approved by the United States Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) (hereafter referred to as the Wildlife Agencies).	RCTC's Project Manager	Required for the Initial Phase and Ultimate Project	Throughout construction	--	--
	The Designated Biologist will have the authority to ensure compliance with conservation measures and will be the primary agency contact for the implementation of these measures. The Designated Biologist will have the authority and responsibility to halt activities that are in violation of the conservation measures.	Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	Throughout construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
TE-2	To minimize adverse effects from dust during all site disturbance, grading, and construction activities, the design/build contractor will water all active parts of the construction site a minimum of twice daily or more often when needed due to dry or windy conditions to prevent excessive amounts of dust. Additionally, the design/build contractor will sufficiently water all stockpiled material to prevent excessive amounts of dust.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During all site disturbance, grading, and construction activities	--	--
TE-3	All erosion and sediment control devices during project construction and operation, including fiber rolls and bonded fiber matrix, will be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.	RCTC's Resident Engineer	Required for the Initial Phase and Ultimate Project	During construction and operation	--	--
TE-4	During all site disturbance, grading, and construction activities, the design/build contractor will control noise from construction activity consistent with California Department of Transportation (Caltrans) Standard Specifications, Section 14-8.02, "Noise Control," and the Caltrans Standard Special Provisions S5-310. Noise levels from construction operations within the State right-of-way between the hours of 9:00 p.m. and 6:00 a.m. will not exceed 86 A-weighted decibels (dBA) at a distance of 50 feet (ft) from the noise source. The noise level requirement will apply to the equipment on the job site or related to the job, including, but not limited to, trucks, transit mixers, or transient equipment that may or may not be owned by the contractor.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During all site disturbance, grading, and construction activities	--	--
TE-5	During all site disturbance, grading, and construction activities in and immediately adjacent to biologically sensitive areas, Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Conservation Areas, vegetated drainages, and coastal sage scrub (CSS) in coastal California gnatcatcher (CAGN) designated critical habitat, the design/build contractor will control noise from construction activity by using an alternative warning method instead of a sound signal unless required by safety laws. In addition, the contractor will equip all internal combustion engines with the manufacturer-recommended mufflers and will not operate any internal combustion engine on the job site without the appropriate mufflers. As directed by the RCTC Resident Engineer, the contractor will implement appropriate additional noise mitigation measures, including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During all site disturbance, grading, and construction activities	--	--
TE-6	In accordance with the Municipal Codes of the Cities of Anaheim, Corona, Riverside, and Norco, the design/build contractor will limit construction activities to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, excluding weekends and holidays. If construction is needed outside those hours or days, the design/build contractor will be required to coordinate with the affected local jurisdiction. If the local jurisdiction approves construction hours that are different from those imposed by this measure, then the design/build contractor will immediately request that RCTC consider a modification to this measure to allow construction during the new hours that the local jurisdiction approved.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
TE-7	In the major wildlife movement corridors at, Coal Canyon, Wardlow Wash, and Fresno Canyon, and areas adjacent to least Bell's vireo and CAGN occupied areas (approximately Post Mile [PM] ORA-91-R17.16 to PM ORA-91-R18.74), construction activities will be limited to the hours between 7:00 a.m. and 7:00 p.m., Monday through Friday. Should an exception to this measure be necessary, RCTC and the Department will consult with the Wildlife Agencies to determine effective measures to avoid and minimize adverse impacts to these species and movement corridors.	RCTC's Resident Engineer, RCTC and the Department	Required for the Initial Phase and Ultimate Project	During construction	--	--
TE-8	**Braunton's Milk-vetch Conservation Measures**. A pre-construction survey will be conducted prior to ground disturbing activities in the vicinity of the historical occurrence in Coal Canyon in Orange County. This survey will be conducted by a biologist familiar with the species and during the appropriate time of year to optimize detection. Should Braunton's milk-vetch be found during surveys, the Designated Biologist will consult with the USFWS to determine effective measures to avoid and minimize adverse impacts to this species.	RCTC's Project Manager	Required for the Initial Phase and Ultimate Project	Prior to ground disturbing activities	--	--
TE-9	**Coastal California Gnatcatcher Conservation and Compensatory Measure.** The Designated Biologist (or his/her designee) will monitor construction in Orange County within the vicinity of CAGN-designated critical habitat areas prior to and during site preparation, grading, and construction activities, to flush any wildlife species present prior to construction and to ensure that vegetation removal, best management practices (BMPs), Environmentally Sensitive Areas (ESAs), and all avoidance and minimization measures are properly implemented and followed.	RCTC's Project Manager and the Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	Prior to and during site preparation, grading, and construction activities	--	--
TE-10	RCTC will offset the permanent loss of 8.42 acres (ac) of occupied CAGN habitat in Orange County, including 6.32 ac of designated critical habitat, by restoring 16.03 ac of habitat suitable for CAGN breeding, dispersal, and foraging in Chino Hills State Park (CHSP) to be conducted during the Initial Phase of the project. If restoration is unable to be conducted in CHSP, another location will be selected on approval of the Wildlife Agencies.	RCTC's Project Manager	Required for the Initial Phase	Prior to construction	--	--
TE-11	RCTC will offset the temporary loss of 3.01 ac of occupied CAGN habitat in Orange County, including 2.09 ac of CAGN-designated critical habitat, with in-kind, or better, on-site restoration after the completion of project construction.	RCTC's Project Manager	Required for the Initial Phase	Prior to construction and after the completion of project construction	--	--
TE-12	Prior to site preparation, grading or construction activities, a restoration plan will be developed by a qualified biologist for the permanent and temporary impacts to occupied CAGN habitat in Orange County, including designated critical habitat in Orange County. The plan will be submitted to the USFWS for review and approval. This plan will include, at a minimum, a detailed description of restoration methods, slope stabilization/erosion control, criteria for restoration to be considered successful, and monitoring and reporting protocol(s).	RCTC's Project Manager and a qualified biologist	Required for the Initial Phase and Ultimate Project	Prior to site preparation, grading or construction activities	--	--
	The restoration plan will be implemented for a minimum of 5 years, unless success criteria are met earlier and all artificial watering has been off for at least 2 years.	RCTC's Resident Engineer	Required for the Initial Phase and Ultimate Project	During construction and operation	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
TE-13	During all site preparation, grading, and construction activities in Orange County, the RCTC Resident Engineer will require the design/build contractor to use shielded lighting for any nighttime construction adjacent to coastal sage scrub in CAGN-designated critical habitat.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During all site preparation, grading, and construction activities	--	--
TE-14	**Riparian Birds Conservation Measures.** During the bird breeding season (i.e., February 15–September 15), the Designated Biologist (or his/her designee) will monitor riparian and riverine areas within 500 ft of active construction areas for the duration of the construction in those areas to survey for active nests and/or nesting activity to ensure breeding activities are not disrupted and to ensure vegetation removal, BMPs, ESAs, and all avoidance and minimization measures are properly implemented.	RCTC's Project Manager and the Designated Qualified Biologist	Required for the Initial Phase and Ultimate Project	Construction activities during the bird breeding season (i.e., February 15–September 15)	--	--
TE-15	**Measure for Light Intrusion and Wildfires.** To minimize adverse effects from light intrusion from vehicle headlights and the potential threat of increased fires from the operation of State Route 91 (SR-91), during final design, the Department and RCTC will work with the USFWS to investigate the possibility of adding features along SR-91 in the vicinity of the Coal Canyon wildlife crossing in Orange County. For example, consideration can be given to the placement of K-rail, concrete walls, and/or hardscaping barriers along the shoulder of SR-91. In investigating these features, consideration must be given to motorist safety, freeway operations, vehicle headlight mitigation, and the potential fire threat.	The Department and RCTC	Required for the Initial Phase and Ultimate Project	During final design	--	--
TE-16	**Santa Ana Sucker Conservation Measures.** The United States Army Corps of Engineers (Corps) is in the process of constructing the Santa Ana River (SAR) Reach 9 Phase 2 Green River Golf Club Embankment Protection Project within the action area. Following completion of the embankment construction, perennial stream habitat for the Santa Ana sucker will be reestablished within the construction footprint. The Department and RCTC will coordinate with the Corps during construction of the SR-91 CIP to ensure these restoration areas will not be temporarily or permanently impacted during construction of the SR-91 CIP.	The Department and RCTC	Required for the Initial Phase and Ultimate Project	During construction	--	--
TE-17	The Department and RCTC will coordinate with the Corps during construction to ensure that the SR-91 CIP will not affect releases from Prado Dam or result in a permanent reduction of acreage within the Santa Ana River Canyon Habitat Management Area.	The Department and RCTC	Required for the Initial Phase and Ultimate Project	During construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
INVASIVE SPECIES						
IS-1	During final design, the Riverside County Transportation Commission's (RCTC's) Project Engineer will direct a qualified landscape architect to develop a Weed Abatement Program/Non-Standard Special Provisions (Program/NSSP) for inclusion in the project specifications. That Program/NSSP will be developed in compliance with Executive Order (EO) 13112 to minimize the potential for intrusion or export of invasive plant species to and from the biological study area (BSA) during project construction. At a minimum, the following will be included in the Weed Abatement Program/NSSP and implemented prior to and during construction to address potential effects associated with invasive species. The Weed Abatement Program/NSSP will define the specific details, frequency, and, if applicable, performance standards for the following individual activities and requirements:	RCTC's Project Engineer and a qualified landscape architect	Required for the Initial Phase and Ultimate Project	During the design/ build phase	--	--
	• RCTC's Resident Engineer will require the design/build contractor to inspect and clean construction equipment at the beginning and end of each day and prior to transporting equipment from one project location to another.	RCTC's Resident Engineer	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
	• RCTC's Resident Engineer will require the design/build contractor to limit soil and vegetation disturbance to those areas specifically required for the project construction.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to and during construction	--	--
	• RCTC's Resident Engineer will require the design/build contractor to obtain soil, gravel, and rock from weed-free sources.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
	• RCTC's Resident Engineer will require the design/build contractor to use only certified weed-free straw, mulch, and/or fiber rolls for erosion control during construction.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
	• Prior to the completion of construction, RCTC's Resident Engineer will require the design/build contractor to revegetate affected areas adjacent to native vegetation with plant species that are native to the vicinity and approved by the California Department of Transportation's (Department's) District 8 and District 12 Biologists.	RCTC's Resident Engineer with the approval of the Department District 8 Biologist, and the design/build contractor	Required for the Initial Phase and Ultimate Project	Prior to the completion of construction	--	--
	• RCTC's Resident Engineer will require the design/build contractor to not use any species listed in the California Invasive Plant Council (Cal-IPC) California Invasive Plant Inventory with a high or moderate rating in revegetation.	RCTC's Resident Engineer and the design/build contractor		Prior and during construction	--	--

Table E-1 Environmental Commitments Record

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party	Phase	Timing	Action Taken to Comply with Measures	Date
	• After construction, RCTC's Resident Engineer will ensure that erosion control and revegetation sites are monitored until achievement of the project-specific performance standards defined in the Program/NSSP or a period of 3 years, whichever is greater, after installation to detect nonnative species prior to the establishment of the native vegetation.	RCTC's Resident Engineer	Required for the Initial Phase and Ultimate Project	After the completion of project construction	--	--
	• RCTC's Resident Engineer will require the design/build contractor and the post-construction monitors to implement eradication procedures (e.g., spraying and/or hand weeding) should an infestation occur. The use of herbicides will be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the Department District 8 and District 12 Biologists during and after project construction.	RCTC's Resident Engineer under supervision by Caltrans District Biologist, and the design/build contractor	Required for the Initial Phase and Ultimate Project	During and after project construction	--	--
	• During construction, RCTC's Resident Engineer will require the design/build contractor to reduce indirect impacts of exotic plant infestations and litter by regular roadside maintenance at least once daily during construction to remove litter and weeds from the right-of-way.	RCTC's Resident Engineer and the design/build contractor	Required for the Initial Phase and Ultimate Project	During construction	--	--
RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF THE HUMAN ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY						
No avoidance, minimization, and/or mitigation measures are required.						
IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES THAT WOULD BE INVOLVED IN THE PROPOSED ACTION						
No avoidance, minimization, and/or mitigation measures are required.						
CUMULATIVE IMPACTS						
No avoidance, minimization, and/or mitigation measures are required beyond those listed above for Alternatives 1 and 2.						

[1] The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) provides this measurement in metric units.

Measure T-3:
Table T-3.1 Fair-Share Analysis for Intersection Deficiencies in 2015 and Design Year 2035

Intersection	Recommended Improvements	Fair-Share (%)		
		2015 Alt 1	2015 Initial Phase of Alt 2	Design Year 2035 Alt 2
Green River Road/SR-91 WB ramps	Add WBL	0%	76%	0%
Green River Road/SR-91 EB ramps	Restripe shared EBL-T to shared EBT-R and add EBL	12%	23%	36%
Auto Center Drive/SR-91 WB ramps	Add 2nd NBL	0%	No mitigation required	0%
Maple Street/Pomona Road	Add 2nd SBT	0%	No mitigation required	0%
Lincoln Avenue/SR-91 WB ramps	Add 2nd NBL; Add 3rd SBT	74%	60%	68%
Lincoln Avenue/SR-91 EB ramps	Restripe shared NBT-R to 2nd NBT and add 3rd NBT and exclusive NBR; Add 2nd SBL	92%	86%	94%
Main Street/North Grand Boulevard	Restripe shared NBT-R to NBT, Add NBR, Add 2nd SBL	63%	38%	96%
Main Street/SR-91 WB ramps	Add 3rd NBT; Restripe SBR to shared SBT-R and add 4th SBT	0%	0%	0%
Main Street/SR-91 EB ramps	Add shared NBT-R; Add 3rd SBT	100%	100%	100%
Main Street/Third Street	Add 3rd NBT; Add 3rd SBT	43%	69%	100%
McKinley Street/Griffin Way	Restripe shared EBT-R to 1st EBT and add 2nd EBR	20%	No mitigation required	16%
McKinley Street/Sampson Avenue	Add 3rd NBT	27%	No mitigation required	48%
Pierce Street/Magnolia Avenue	Add 2nd SBT; Add 2nd EBL and 3rd EBT	0%	0%	0%
Hamner Avenue/Second Street	Add 3rd NBT; Restripe exclusive SBR to shared SBT-R	0%	No mitigation required	1%
Hamner Avenue/Hidden Valley Parkway	Add 3rd NBT and 2nd NBR; Add 2nd SBL and restripe exclusive SBR to shared SBT-R; Add 2nd WBL and restripe shared WBL-T to 2nd WBT	4%	11%	17%
Rimpau Avenue/Magnolia Avenue	Add 2nd NBT; Add 2nd SBT; Restripe shared EBT-R to 3rd EBT and add EBR	0%	No mitigation required	0%
El Sobrante /Magnolia Avenue	Restripe shared NBT-R to 1st NBT and add NBR; Restripe share WBT-R to 2nd WBT, add 3rd WBT and WBR	0%	No mitigation required	0%
I-15 SB ramps/Magnolia Avenue	2035: Restripe shared SBL-T to shared SBL-T-R; Restripe 3rd WBT to 2nd WBL	0%	No mitigation required	0%
I-15 SB ramps/Ontario Avenue	2015: Add 3rd WBT	0%	6%	22%
	2035: Add 2nd EBR; Add 3rd WBT	0%	NA	0%
Bedford Canyon Road/Cajalco Road	Add 2nd SBL; Add 3rd WBT	0%	6%	5%

Source: Riverside County Transportation Commission (2010).

Alt = Alternative
EB = eastbound
EBL = eastbound left
EBL-T = eastbound left-through
EBR = eastbound right
EBT = eastbound through
EBT-R = eastbound through-right
NB = northbound
NBL = northbound left
NBR = northbound right
NBT = northbound through
NBT-R = northbound through-right
SB = southbound
SBL = southbound left
SBL-T = southbound left-through
SBL-T-R = southbound left-through-right
SBR = southbound right
SBT = southbound through
SBT = southbound through
SBT-R = southbound through-right
WB = westbound
WBL = westbound left
WBL-T = westbound left-through
WBR = westbound right
WBT = westbound through
WBT-R = westbound through-right

Measure T-3:
Table T-3.2 2015 Initial Phase of Alternative 2 Recommended Intersection Improvements

Intersection	2015 No Build				2015 Initial Phase of Alt 2				2015 Initial Phase of Alt 2 With Improvements				Recommended Improvements[1]
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	
Green River Road/SR-91 WB ramps	62.6	E	26.2	C	68.9	**E**	31.8	C	60.6	**E**	24.9	C	Add westbound left
Green River Road/SR-91 EB ramps	29.7	C	96.6	**F**	29.5	C	114.9	**F**	31.8	C	35.0	C	Restripe shared EB left-through to shared EB through-right and add EB left
Lincoln Avenue/SR-91 WB ramps[2]	–	–	–	–	18.5	B	14.2	B	17.0	B	13.2	B	***Add 2nd NB left; add 3rd SB through***
Lincoln Avenue/SR-91 EB ramps[2]	24.9	C	141.9	**F**	93.5	**F**	104.3	**F**	13.4	B	28.4	C	***Restripe shared NB through-right to 2nd NB through, add 3rd NB through and NB right; add 2nd SB left***
Main Street/North Grand Boulevard	32.3	C	71.7	**E**	30.9	C	74.3	**E**	28.3	C	67.3	**E**	***Add exclusive NB right; add 2nd SB left***
Main Street/SR-91 WB ramps[3]	29.3	C	87.9	**F**	24.4	C	73.5	E	20.0	B	49.7	D	***Add 3rd NB through; restripe SB right to shared SB through-right and add 4th SB through***
Main Street/SR-91 EB ramps[3]	14.5	B	20.0	B	16.9	B	33.7	C	15.0	B	23.7	C	***Add shared NB through-right; add 3rd SB through***
Main Street/Third Street	45.7	D	29.9	C	60.5	**E**	41.0	D	38.9	D	29.4	C	***Add 3rd NB through; add 3rd SB through***
Pierce Street/Magnolia Avenue	33.1	C	61.9	**E**	31.1	C	57.1	**E**	30.7	C	47.4	D	Add 2nd SB through; add 3rd EB through
Hamner Avenue/Hidden Valley Parkway	39.3	D	85.5	**F**	40.8	D	90.6	**F**	28.9	C	44.5	D	Add 3rd NB through and 2nd NB right; restripe shared WB left-through to 2nd WB left
I-15 SB ramps/Ontario Avenue	79.1	**E**	38.1	D	81.7	**F**	47.2	D	38.7	D	47.1	D	Add 3rd WB through

Source: Synchro as presented in the *Final Traffic Impact Report* (July 2010).

Note: A black box (**F**) represents a deficient segment.

[1] Bold italic type denotes improvement measures that differ from 2015 No Build conditions.
[2] Geometrics for Alternative 2 represent a diamond configuration.
[3] Geometrics for Alternative 2 are the configuration of a WB slip-ramp from the SR-91 mainline into the collector-distributor facility for the I-15 NB and SB connectors to WB SR-91 to exit at Main Street.

Alt = Alternative
EB = eastbound
I-15 = Interstate 15
LOS = level of service
NB = northbound
SB = southbound
sec = seconds
SR-91 = State Route 91
WB = westbound

Measure T-3:
Table T-3.3 Design Year 2035 Alternative 1 Recommended Intersection Improvements

Intersection	Design Year 2035 No Build				Design Year 2035 Alt 1				Design Year 2035 Alt 1 With Improvements				Recommended Improvements[1]
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	
Green River Road/ SR-91 WB ramps	85.0	**F**	31.6	C	73.8	**E**	31.7	C	69.1	**E**	23.3	C	***Add WB left***
Green River Road/ SR-91 EB ramps	42.6	D	158.4	**F**	38.7	D	163.1	**F**	39.2	D	53.9	D	Restripe shared EB left-through to shared EB through-right and add EB left
Auto Center Drive/ SR-91 WB ramps[2]	82.2	**F**	19.2	B	63.6	**E**	14.0	B	20.3	C	13.9	B	Add 2nd NB left
Maple Street/ Pomona Road	79.1	**E**	49.8	D	76.0	**E**	50.9	D	43.0	D	45.8	D	Add 2nd SB through
Lincoln Avenue/ SR-91 WB ramps[3]	–	–	–	–	96.6	**F**	33.7	C	15.9	B	15.3	B	***Add 2nd NB left; add 3rd SB through***
Lincoln Avenue/ SR-91 EB ramps[3]	35.8	D	66.5	E	183.1	**F**	123.2	**F**	17.2	B	14.2	B	***Restripe shared NB through-right to 2nd NB through; add 3rd NB through and NB right; add 2nd SB left***
Main Street/Grand Boulevard	36.9	D	97.6	**F**	42.0	D	81.0	**F**	37.8	D	70.6	**E**	***Restripe shared NB through-right to 2nd NB through and add exclusive NB right; add 2nd SB left***
Main Street/SR-91 WB ramps[4]	25.5	C	137.9	**F**	43.0	D	119.1	**F**	31.0	C	78.6	E	***Add 3rd NB through; restripe SB right to shared SB through-right and add 4th SB through***
Main Street/SR-91 EB ramps[4]	20.7	C	25.3	C	44.9	D	38.4	D	21.7	C	30.4	C	***Add shared NB through-right; add 3rd SB through***
Main Street/Third Street	65.4	**E**	62.5	**E**	76.6	**E**	61.9	**E**	50.7	D	34.6	C	Add 3rd NB through; ***add 3rd SB through***
McKinley Street/ Griffin Way	29.3	C	63.7	**E**	31.1	D	69.0	**E**	28.7	C	42.9	D	Restripe shared EB through-right to 1st EB through and add 2nd EB right
McKinley Street/ Sampson Avenue	38.2	D	53.1	D	40.3	D	56.5	**E**	41.4	D	44.1	D	Add 3rd NB through; restripe shared WB through-right to WB right
Pierce Street/ Magnolia Avenue	56.5	**E**	143.0	**F**	46.6	D	116.4	**F**	39.5	D	53.9	D	Add 2nd SB through; add 2nd EB left and 3rd EB through
Hamner Avenue/ Hidden Valley Parkway	257.1	**F**	184.0	**F**	225.6	**F**	181.4	**F**	56.2	**E**	50.9	D	Add 3rd NB through and 2nd NB right; add 2nd SB left and restripe SB right to shared SB through-right; add 2nd WB left and restripe shared WB left-through to 2nd WB through
Rimpau Avenue/ Magnolia Avenue	87.1	**F**	85.2	**F**	84.6	**F**	83.1	**F**	40.2	D	37.5	D	Add 2nd NB through; add 2nd SB through; restripe shared EB through-right to 3rd EB through and add EB right

Measure T-3:
Table T-3.3 Design Year 2035 Alternative 1 Recommended Intersection Improvements

Intersection	Design Year 2035 No Build				Design Year 2035 Alt 1				Design Year 2035 Alt 1 With Improvements				Recommended Improvements[1]
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	
El Sobrante Road/ Magnolia Avenue	67.6	**E**	97.2	**F**	58.6	**E**	68.7	**E**	34.3	C	50.8	D	Restripe shared WB through-right to 3rd WB through; add exclusive WB right
I-15 SB ramps/ Magnolia Avenue	87.4	**F**	104.1	**F**	81.3	**F**	93.1	**F**	44.8	D	51.6	D	Restripe shared SB left-through to shared SB left-through-right
I-15 SB ramps/ Ontario Avenue	75.0	**E**	44.2	D	62.2	**E**	37.4	D	24.5	C	29.6	C	Add 2nd EB right; add 3rd WB through
Bedford Canyon Road/Cajalco Road	21.2	C	183.3	**F**	23.2	C	167.8	**F**	17.3	B	27.9	C	Add 2nd SB left; add 3rd WB through

Source: Synchro as presented in the *Final Traffic Impact Report* (July 2010).

Note: A black box (**F**) represents a deficient segment.

[1] Bold italic type denotes the improvement measures in addition to 2035 No Build conditions.
[2] EB braids and WB split diamond configuration are assumed as Alternative 1 conditions.
[3] Geometrics for the Alternative 1 Project represent diamond configuration.
[4] Geometrics for the Alternative 1 Project are the configuration of a WB slip-ramp from the SR-91 mainline into the collector-distributor facility for the I-15 NB and SB connectors to WB SR-91 to exit at Main Street.

Alt = Alternative
EB = eastbound
I-15 = Interstate 15
LOS = level of service
NB = northbound
SB = southbound
sec = seconds
SR-91 = State Route 91
WB = westbound

Measure T-3:
Table T-3.4 Design Year 2035 Alternative 2 Recommended Intersection Improvements

Intersection	Design Year 2035 No Build				Design Year 2035 Alt 2				Design Year 2035 Alt 2 With Improvements				Recommended Improvements[1]
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	
Green River Road/ SR-91 WB ramps	85.0	**F**	31.6	C	79.1	**E**	33.3	C	73.5	**E**	20.6	C	***Add WB left***
Green River Road/ SR-91 EB ramps	42.6	D	158.4	R	41.3	D	144.2	F	42.1	D	50.1	D	Restripe shared EB left-through to shared EB through-right and add EB left
Auto Center Drive/ SR-91 WB ramps[2]	82.2	**F**	19.2	B	59.3	**E**	13.6	B	19.0	B	11.7	B	Add 2nd NB left
Maple Street/ Pomona Road	79.1	**E**	49.8	D	70.6	**E**	46.7	D	46.4	D	39.6	D	Add 2nd SB through
Lincoln Avenue/ SR-91 WB ramps[3]	–	–	–	–	82.4	**F**	32.9	C	15.1	B	17.2	B	***Add 2nd NB left; add 3rd SB through***
Lincoln Avenue/ SR-91 EB ramps[3]	35.8	D	66.5	E	168.3	**F**	135.0	**F**	16.2	B	12.4	B	***Restripe shared NB through-right to 2nd NB through; add 3rd NB through and NB right; add 2nd SB left***
Main Street/Grand Boulevard	36.9	D	97.6	**E**	39.5	D	79.0	**E**	32.1	C	64.6	**E**	***Restripe shared NB through-right to 2nd NB through and add exclusive NB right; add 2nd SB left***
Main Street/SR-91 WB ramps[4]	25.5	C	137.9	**F**	27.9	C	107.7	**F**	25.0	C	69.5	E	***Add 3rd NB through; restripe SB right to shared SB through-right and add 4th SB through***
Main Street/SR-91 EB ramps[4]	20.7	C	25.3	C	22.8	C	51.6	D	19.0	B	30.8	C	***Add shared NB through-right; add 3rd SB through***
Main Street/Third Street	65.4	**E**	62.5	**E**	108.1	**F**	54.9	D	66.6	**E**	35.1	D	Add 3rd NB through; ***add 3rd SB through***
McKinley Street/ Griffin Way	29.3	C	63.7	E	30.9	C	68.0	E	30.6	C	40.8	D	Restripe shared EB through-right to 1st EB through and add 2nd EB right
McKinley Street/ Sampson Avenue	38.2	D	53.1	D	36.3	D	57.2	E	29.9	C	48.6	D	Add 3rd NB through; restripe shared WB through-right to WB right
Pierce Street/ Magnolia Avenue	56.5	**E**	143.0	**F**	49.7	D	114.4	**F**	41.6	D	52.0	D	Add 2nd SB through; add 2nd EB left and 3rd EB through
Hamner Avenue/ Hidden Valley Parkway	257.1	**F**	184.0	**F**	229.7	**F**	178.5	**F**	61.5	**E**	49.1	D	Add 3rd NB through and 2nd NB right; add 2nd SB left and restripe SB right to shared SB through-right; add 2nd WB left and restripe shared WB left-through to 2nd WB through
Rimpau Avenue/ Magnolia Avenue	87.1	**F**	85.2	**F**	85.3	**F**	80.5	**F**	40.5	D	37.2	D	Add 2nd NB through; add 2nd SB through; restripe shared EB through-right to 3rd EB through and add EB right

Measure T-3:
Table T-3.4 Design Year 2035 Alternative 2 Recommended Intersection Improvements

Intersection	Design Year 2035 No Build				Design Year 2035 Alt 2				Design Year 2035 Alt 2 With Improvements				Recommended Improvements[1]
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	
El Sobrante Road/ Magnolia Avenue	67.6	**E**	97.2	**F**	55.6	**E**	78.9	**E**	33.2	C	51.3	D	Restripe shared WB through-right to 3rd WB through; add exclusive WB right
I-15 SB ramps/ Magnolia Avenue	87.4	**F**	104.1	**F**	74.6	**E**	90.3	**F**	40.5	D	52.1	D	Restripe shared SB left-through to shared SB left-through-right
I-15 SB ramps/ Ontario Avenue	75.0	**E**	44.2	D	60.2	**E**	31.5	C	28.9	C	27.9	C	Add 2nd EB right; add 3rd WB through
Bedford Canyon Road/Cajalco Road	21.2	C	183.3	**F**	23.7	C	191.0	**F**	17.8	B	29.1	C	Add 2nd SB left; add 3rd WB through

Source: Synchro as presented in the *Final Traffic Impact Report* (July 2010).

Note: A black box (**F**) represents a deficient segment.

[1] Bold italic type denotes the improvement measures in addition to 2035 No Build conditions.
[2] EB braids and WB split diamond configuration are assumed as Alternative 2 conditions.
[3] The geometrics for Alternative 2 represent a diamond configuration.
[4] The geometrics for Alternative 2 are the configuration of a WB slip-ramp from the SR-91 mainline into the collector-distributor facility for the I-15 NB and SB connectors to WB SR-91 to exit at Main Street.

Alt = Alternative
EB = eastbound
I-15 = Interstate 15
LOS = level of service
NB = northbound
SB = southbound
sec = seconds
SR-91 = State Route 91
WB = westbound

This page intentionally left blank

Appendix F List of Acronyms

°C	degrees Celsius
°F	degrees Fahrenheit
µg/kg	micrograms per kilogram
µg/L	micrograms/liter
µg/m^3	micrograms per cubic meter
AADT	annual average daily traffic
AAQS	ambient air quality standards
AB	Assembly Bill
ac	acre/acres
ACMs	asbestos-containing materials
ACP	asbestos cement pipe
ADA	Americans with Disabilities Act
ADI	Area of Direct Impacts
ADL	Aerially Deposited Lead
ADT	average daily traffic
AFD	Anaheim Fire Department
AHERA	Asbestos Hazard Emergency Response Act
AHS	American Housing Survey
Alternative 1	Add General-Purpose Lanes (GP Lanes Alternative)
Alternative 2	Add General-Purpose Lanes and Extend Express Lanes (GP + Express Lanes Alternative)
amsl	above mean sea level
APE	Area of Potential Effects
APN	Assessor's Parcel Number
APUD	Anaheim Public Utilities Department
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
ARTBA	American Road and Transportation Builders Association
ARTIC	Anaheim Regional Transportation Intermodal Center
ASGCA	American Society of Golf Course Architects
ASR	Archaeological Survey Report
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
AT&T	AT&T/PacBell
AUSD	Alvord Unified School District
BA	Biological Assessment
BACM	best available control measures

Basin	South Coast Air Basin
Basin Plan	Regional Water Quality Control Board Water Quality Control Plan
BAT/BCT	Best Available Technology (Economically Feasible)/Best Conventional Pollutant Control Technology
bgs	below ground surface
BMPs	best management practices
BNSF	Burlington Northern Santa Fe
BO	Biological Opinion
BSA	biological study area
BTEX	benzene, toluene, ethylbenzene, and xylenes
BTU	British thermal unit
BUOW	burrowing owl
C_2F_6	Hexafluoroethane
CAA	Clean Air Act
CAB	Capital Appreciation Bond
$CaCO_3$	calcium carbonate
CAGN	California gnatcatcher
CAL FIRE	California Department of Forestry and Fire Protection
Cal/EPA	California Environmental Protection Agency
California Register	California Register of Historical Resources
Cal-IPC	California Invasive Plant Council
Cal-OSHA	California Division of Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CASSA	Criteria Area Species Survey Area
CCAA	California Clean Air Act
CCP	Construction Contingency Plan
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDMG	California Department of Mines and Geology
CDPR	California Department of Parks and Recreation
CE	Categorical Exclusion (under NEPA); also Categorical Exemption (under CEQA)
CE/CE	Categorical Exemption/Categorical Exclusion
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CER	Cost Estimate Review

CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CERFA	Community Environmental Response Facilitation Act
CESA	California Endangered Species Act
CETAP	Community and Environmental Transportation Acceptability Process
CF_4	tetrafluoromethane
CFD	Corona Fire Department
CFR	Code of Federal Regulations
cfs	cubic feet per second
CGS	California Geological Survey
CGV	Compass Growth Vision
CH_4	methane
CHHSL	California Human Health Screening Level
CHP	California Highway Patrol
CHSP	Chino Hills State Park
CIA	*Community Impact Assessment*
CIB	Current Interest Bond
CIDH	cast in drilled hole
CIP	Corridor Improvement Project
CMP	Contaminant Management Plan
CNDDB	California Natural Diversity Database
CNF	Cleveland National Forest
CNPS	California Native Plant Society
CNUSD	Corona-Norco Unified School District
CO	carbon monoxide
CO_2	carbon dioxide
CO-CAT	The Coastal and Ocean Resources Working Group for the Climate Action Team
COLD	cold freshwater habitat
CORP	California Outdoor Recreation Plan
Corps	United States Army Corps of Engineers
COZEEP	Construction Zone Enhanced Enforcement Program
CPA	Consumer Power and Conservation Financing Authority
CPTC	California Private Transportation Company
CPUC	California Public Utilities Commission
CSC	Customer Service Center
CSS	coastal sage scrub
CVC	California Vehicle Code
CWA	Clean Water Act

CZMA	Coastal Zone Management Act of 1972
dB	decibels
dBA	A-weighted decibels
dbh	diameter at breast height
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethylene
DDT	dichlorodiphenyltrichloroethane
Department	California Department of Transportation
Department Master Plan	*215/91 Landscape Corridor Master Plan*
DHHS	Department of Health and Human Services
DOI	United States Department of Interior
DOT	United States Department of Transportation
DPM	diesel particulate matter plus diesel exhaust organic gases
DRIR	*Draft Relocation Impact Report*
DSA	Disturbed Soil Area
DSI	Detailed Site Investigation
DTSC	California Department of Toxic Substances Control
DUs	dwelling units
EA	Environmental Assessment
ECR	Environmental Commitments Record
EDR	Environmental Database Report
EIR	Environmental Impact Report
EIR/EIS	Environmental Impact Report/Environmental Impact Statement
EIS	Environmental Impact Statement
El.	elevation
EO	Executive Order
EOS	edge of shoulder
EPA	United States Environmental Protection Agency
ESAs	Environmentally Sensitive Areas
ESF	Environmental Screening Form
ESL	English as a Second Language
ETC	electronic toll collection
FAQ	Frequently Asked Question
Fed-OSHA	Federal Occupational Safety and Health Administration
FEIR	Final Environmental Impact Report
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHA	Federal Housing Administration
FHWA	Federal Highway Administration

FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FIRMs	Flood Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
FOE	Finding of Effect
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FRA	Federal Railroad Administration
FRIR	Final Relocation Impact Report
ft	feet/foot
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
GHG	greenhouse gas
GIS	geographic information system
GMAs	Growth Management Areas
GMC	Growth Management Chapter
GP	general-purpose (lane)
ha	hectare(s)
HASP	Health and Safety Plan
HCM	*Highway Capacity Manual*
HCP	Habitat Conservation Plan
HCS	Highway Capacity Software
HEC-RAS	Hydrologic Engineering Center River Analysis System
HEI	Health Effects Institute
HFC-134a	s,s,s,2-tetrafluoroethane
HFC-152a	difluoroethane
HFC-23	fluoroform
HFCs	hydrofluorocarbons
HMMP	Habitat Mitigation and Monitoring Plan
HOT	high-occupancy toll
HOV	high-occupancy vehicle
HPSR	Historic Property Survey Report
HRER	Historical Resources Evaluation Report
HSR	High Speed Rail
HUD	Department of Housing and Urban Development
I-110	Interstate 110
I-15	Interstate 15
I-215	Interstate 215
I-5	Interstate 5
IEOC	Inland Empire-Orange County
IEPR	Integrated Energy Policy Report

IFP	Initial Financial Plan
in	inch/inches
in/sec	inches per second
in/yr	inches per year
Inventory	California Invasive Plant Inventory
IPCC	Intergovernmental Panel on Climate Change
IRIS	Integrated Risk Information System
IS	Initial Study
ISA	*Initial Site Assessment*
JPARP	Joint Project Acquisition/Review Process
JPR	Joint Project Review
JTU	Jackson turbidity units
JUA	Joint use agreement
kV	kilovolt
kWh	kilowatt-hour(s)
L&WCF	Land and Water Conservation Fund
LACM	Natural History Museum of Los Angeles County
LBP	lead-based paint
LBV	least Bell's vireo
LDV	light-duty vehicle
LED	light-emitting diode
LEDPA	Least Environmentally Damaging Practicable Alternative
L_{eq}	equivalent noise level
$L_{eq}(h)$	equivalent continuous noise level over a specified period of time
LHS	Location Hydraulic Study
LOMR	Letter of Map Revision
LOS	levels of service
LPA	Locally Preferred Alternative
LPS	Locally Preferred Strategy
LUST	leaking underground storage tank
MA	metropolitan area
Master Plan	*215/91 Landscape Corridor Master Plan*
MBTA	Migratory Bird Treaty Act
MCE	Maximum Credible Earthquake
MCP	Mid County Parkway
MDP	Master Drainage Plan
mg/L	milligrams per liter
mi	miles
MIS	Major Investment Study
MIS Corridor	Riverside County-Orange County MIS Corridor

mL	milliliters
MLD	Most Likely Descendant
MLS	Multiple Listing Service
M_{max}	maximum moment magnitude
MND	Mitigated Negative Declaration
MOU	Memorandum of Understanding
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
MRZ	Mineral Resources Zone
MS4	Municipal Separate Storm Sewer System
MSAT	Mobile Source Air Toxics
MSHCP	Multiple Species Habitat Conservation Plan
MTBE	methyl tertiary-butyl ether
MUN	municipal water supply
MUTCD	*Manual on Uniform Traffic Control Devices*
mya	million years ago
N	nitrogen
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NAC	noise abatement criteria
NADR	*Noise Abatement Decision Report*
NAHC	Native American Heritage Commission
NATA	National Air Toxics Assessment
National Register	National Register of Historic Places
NB	Noise Barrier
NCCP	Natural Communities Conservation Plan
NCHRP	National Cooperative Highway Research Program
ND	Negative Declaration
NEPA	National Environmental Policy Act
NEPSSA	Narrow Endemic Plant Species Survey Area
NES	*Natural Environment Study*
New OC Park (NNL)	New Orange County Park (National Natural Landmark)
NFA	No Further Action
NFD	City of Norco Fire Department
NH_3-N	ammonia nitrogen
NHPA	National Historic Preservation Act of 1966
NNL	National Natural Landmark
NO_2	nitrogen dioxide
NO_3	nitrate

NOA	naturally occurring asbestos
NOAA	National Oceanic and Atmospheric Administration
NOD	Notice of Determination
NOI	Notice of Intent
NOP	Notice of Preparation
NOT	Notice of Termination
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NSR	*Noise Study Report*
NTU	nephelometric turbidity units
O_3	ozone
OC	Orange County
OC Parks	Orange County Parks
OCFA	Orange County Fire Authority
OCFCD	Orange County Flood Control District
OCG	Orange County Gateway
OCHCA	Orange County Health Care Agency
OCPW	Orange County Public Works
OCSD	Orange County Sheriff's Department
OCTA	Orange County Transportation Authority
OCTAM	Orange County Transportation Analysis Model
OCWD	Orange County Water District
OHP	Office of Historic Preservation
OHWM	ordinary high water mark
OINCC	Operational Independence and Non-Concurrent Construction
OSHA	Occupational Safety and Health Act
OSTP	Office of Science and Technology Policy
PA	Programmatic Agreement
PA&ED	Project Approval and Environmental Document
PAC	Public Information/Public Awareness Campaign
PAH	polycyclic aromatic hydrocarbons
Pb	lead
pc/mi/ln	passenger cars per mile per lane
PCBs	polychlorinated biphenyls
PCE	perchloroethylene; also Programmatic Categorical Exemption
pCi/L	picocuries per liter
PCL	Proposed Constrained Linkage
PDF	Project Design Feature

PDPM	Project Development and Procedures Manual
PDT	Project Development Team
PeMS	Performance Monitoring System
PFCs	perfluorocarbons
pH	percentage of hydrogen
Phase I ESA	Phase I Environmental Site Assessment
PM	Post Mile
PM_{10}	particulate matter less than 10 microns in size
$PM_{2.5}$	particulate matter less than 2.5 microns in size
PMP	*Paleontological Mitigation Plan*; also Project Management Plan
PMR	*Paleontological Mitigation Report*
PNAs	polynuclear aromatic hydrocarbons
POAQC	project of air quality concern
POF	Plan of Finance
POM	polycyclic organic matter
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppm	parts per million
PPV	peak particle velocity
PR/ED	Project Report/Environmental Document
PRC	Public Resources Code
Preservation Society	Corona Historic Preservation Society
Protocol	(Department) Transportation Project-Level Carbon Monoxide Protocol
PS&E	Plans, Specifications and Estimates
psig	pounds per square inch gauge
PSR/PDS	Project Study Report/Project Development Support
PYLUSD	Placentia-Yorba Linda Unified School District
QA/QC	quality assurance/quality control
RAP	Relocation Assistance Program
RARE	Rare, Threatened, or Endangered Species
RCA	Regional Conservation Authority
RCB	reinforced concrete box
RCCHA	Riverside County Community Health Agency
RCDEH	Riverside County Department of Environmental Health
RCFC&WCD	Riverside County Flood Control and Water Conservation District
RCFD	Riverside County Fire Department
RCP	Regional Comprehensive Plan
RCPG	Regional Comprehensive Plan and Guide
RCRA	Resource Conservation and Recovery Act of 1976
RCSD	Riverside County Sheriff's Department

RCTC	Riverside County Transportation Commission
RCTD	Riverside County Transportation Department
REC1	Water Contact Recreation
REC2	Noncontact Water Recreation
RECs	Recognized Environmental Conditions
Resources Agency	California Resources Agency
RMM	Riverside Municipal Museum
ROD	Record of Decision
ROGs	reactive organic gases
RPWs	relatively permanent waters
RSA	resource study area
RSL	Regional Screening Level
RTA	Riverside Transit Agency
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RUSD	Riverside Unified School District
RV	recreational vehicle
RWQCB	Regional Water Quality Control Board
SAFETEA-LU	Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users
SANBAG	San Bernardino Associated Governments
SARI	Santa Ana River Interceptor
SAWA	Santa Ana Water Association
SAWPA	Santa Ana Watershed Project Authority
SB 1316	Senate Bill 1316
SBCM	San Bernardino County Museum
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison Company
SCG	Southern California Gas Company
SCH	State Clearinghouse
SCRRA	Southern California Regional Rail Authority
SDC	Seismic Design Criteria
SEA	Supplemental Environmental Assessment
SEIS	Supplemental Environmental Impact Statement
SER	Standard Environmental Reference
sf	square foot/feet
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SHS	State Highway System

SI	Site Investigation
SIP	State Implementation Plan
SJBL	San Jacinto Branch Line
SKR	Stephens' kangaroo rat
SKR HCP	Stephens' Kangaroo Rat Habitat Conservation Plan
SLF	Sacred Lands File
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMGB	State Mining and Geology Board
SO_2	sulfur dioxide
SOC	Statement of Overriding Considerations
SOI	Sphere of Influence
SOx	sulfur oxide
SPWN	Spawning Habitat (beneficial use)
sq mi	square miles
SR-1	State Route 1
SR-133	State Route 133
SR-241	State Route 241
SR-55	State Route 55
SR-57	State Route 57
SR-60	State Route 60
SR-71	State Route 71
SR-74	State Route 74
SR-79	State Route 79
SR-91	State Route 91
SSP	Standard Special Provisions
Sta.	Station
State Parks	State Parks Department
STIP	State Transportation Improvement Program
SVE	soil vapor extraction
SVP	Society of Vertebrate Paleontology
SWDR	Storm Water Data Report
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SWWF	southwestern willow flycatcher
TCA	Transportation Corridor Agencies
TCAP	Temescal Canyon Area Plan
TCE	temporary construction easement
TCM	Transportation Control Measure
TCWG	Transportation Conformity Working Group

TDM	Transportation Demand Management
TDS	total dissolved solids
TEA	Transportation Enhancement Activities
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIGAR	The Inland Gateway Association of Realtors
TMDL	total maximum daily load
TMP	Transportation Management Plan
TNM	Traffic Noise Model
TNWs	traditional navigable waters
TOC	Toll Operations Center
TOG	total organic gas
TPH-g	total petroleum hydrocarbons gasoline
TSCA	Toxic Substances Control Act
TSM	Transportation Systems Management
TSS	total suspended solids
TUMF	Transportation Uniform Mitigation Fee
UCL	upper confidence limit
UCMP	University of California, Berkeley Museum of Paleontology
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
UPRR	Union Pacific Railroad
USA	Underground Service Alert
USC	United States Code
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
v/c	volume-to-capacity (ratio)
VA	Value Analysis
VCP	vitrified clay pipe
VHD	vehicle hours of delay
VHT	vehicle hours traveled
VIA	*Visual Impact Assessment*
VMT	vehicle miles traveled
VOC	volatile organic compound
vpd	vehicles per day
vph	vehicles per hour
vplph	vehicles per lane per hour
WARM	Warm Freshwater Habitat

WCB	Wildlife Conservation Board
WILD	Wildlife Habitat
WPCP	Water Pollution Control Plan
WRCOG	Western Riverside Council of Governments
ZEV	zero emission vehicle

This page intentionally left blank

Appendix G List of Technical Studies

The following reports were prepared for the project and were used in the development of this EIR/EIS. These reports are available for review, pursuant to Title 14 CCR 151501 and Title 40 CFR 1502.21, at the RCTC office, 4080 Lemon Street, Third Floor, Riverside, California 92501, during regular business hours. In addition to the RCTC office, the EIR/EIS and associated technical studies are available for review at the following locations:

- **California Department of Transportation, District 8**
  464 West 4th Street, 6th Floor
  San Bernardino, CA 92401
- **Corona Public Library**
  650 South Main Street
  Corona, CA 92882
- **City of Corona Public Works Department**
  400 South Vicentia Avenue, 2nd Floor, Suite 210
  Corona, CA 92882

The following technical studies are referenced throughout this EIR/EIS:

- *Air Quality Conformity Analysis* (LSA Associates, Inc., June 2012)
- *Archaeological Survey Report* (LSA Associates, Inc., 2010)
- *Biological Assessment* (LSA Associates, Inc., June 2011)
- *Final Air Quality Assessment Report* (LSA Associates, Inc., May 2010)
- *Final Biological Opinion* (United States Fish and Wildlife Service, November 30, 2011)
- *Final Community Impact Assessment* (LSA Associates, Inc., December 2010)
- *Final Cumulative Impacts Analysis Report* (LSA Associates, Inc., July 2010)
- *Final Energy Report* (LSA Associates, Inc., March 2010)
- *Final Historic Property Survey Report* (LSA Associates, Inc., July 2010)
- *Final Jurisdictional Delineation Report* (LSA Associates, Inc., November 2009)
- *Final Natural Environment Study* (LSA Associates, Inc., June 2010)
- *Final Paleontological Resources Identification and Evaluation Report* (LSA Associates, Inc., January 2010)
- *Final Visual Impact Assessment* (LSA Associates, Inc., May 2010)
- *Final Water Quality Assessment Report* (LSA Associates, Inc., May 2010)

- *Finding of Effect* (LSA Associates, Inc., August 2011)
- *Finding of No Adverse Effect for State Route 91 Corridor Improvement Project* (2011)
- *Historical Resources Evaluation Report* (LSA Associates, Inc., 2010)
- *SR-91 Corridor Improvement Project – Particulate Matter Hot Spot Analysis* (LSA Associates, Inc., March 17, 2011)
- *Summary of Floodplain Encroachment for the State Route 91 Corridor Improvement Project* (LSA Associates, Inc., May 2010)

The following additional reports were prepared for the project:

- *Conceptual Drainage Study Report* (RCTC, April 2010)
- *Constructability Report* (PB Americas, Inc., January 2010)
- *Detailed Site Investigation Report* (SCS Engineers, December 2011)
- *Draft Life Cycle Cost Analysis Report – Pavement Life Cycle Cost Analysis* (PB Americas, Inc., June 2010)
- *Draft Modified Access Report* (PB Americas, Inc., June 2010)
- *Draft Preliminary Drainage Report* (RBF Consulting/RMC, Inc., April 2010)
- *Draft Relocation Impact Report* (Overland, Pacific & Cutler, Inc., June 2010)
- *Final Aerially Deposited Lead Survey Report* (Kleinfelder West, Inc., December 2008 [revised June 2010])
- *Final Aerially Deposited Lead Survey Report Addendum* (Kleinfelder West, Inc., July 2009 [second revision June 2010])
- *Final Asbestos, Lead-Based Paint, and Hazardous Materials Survey Report* (November 2011)
- *Final High-Occupancy Vehicle/High-Occupancy Toll (HOV/HOT) Report* (PB Americas, Inc., January 2010)
- *Final Initial Site Assessment* (PB Americas Inc., July 2010)
- *Final Mainline Workzone Analysis Report* (PB Americas, Inc., January 2010)
- *Final Noise Abatement Decision Report* (PB Americas Inc., July 2010)
- *Final Noise Study Report* (PB Americas Inc., April 2010)
- *Final Preliminary Transportation Management Plan* (PB Americas, Inc., May 2010)
- *Final Ramp Closure Study* (PB Americas, Inc., February 2010)
- *Final Relocation Impact Report* (Overland, Pacific & Cutler, Inc., November 2011)

- *Final Storm Water Data Report* (PB Americas, Inc./RBF Consulting, January 2010)
- *Final Transportation Management Plan* (PB Americas, Inc., May 2010)
- *Location Hydraulic Study* (California Department of Transportation, May 2010)
- *Location Hydraulic Study Segment 1* (RBF Consulting, May 2010)
- *Location Hydraulic Study Segments 2 and 3* (RBF Consulting/RMC, Inc., May 2010)
- *Project Report* (PB Americas, Inc., September 2011)
- *Record of Public Hearing* (LSA Associates, Inc., 2011).
- *Scoping Summary Report* (LSA Associates, Inc., March 19, 2010).
- *SR-91 Corridor Improvement Project Revised Final Traffic Volumes Report* (PB Americas, Inc., January 2010)
- *SR-91 Project Study Report/Project Development Support (PSR/PDS)* (Caltrans, December 4, 2006)
- *SR-91 CIP Express Lanes – Toll Systems Description Report* (PB Americas, Inc., July 2010)
- *Supplemental Historic Property Survey Report* (Department District 8, August 2011)
- *Supplemental Initial Site Assessment* (PB Americas, Inc., August 2011)
- *Traffic Study Report* (PB Americas, Inc., July 2010)
- *Updated Preliminary Geotechnical Design Report* (Kleinfelder West, Inc., July 2010)
- *Value Analysis Study Report* (Value Management Strategies, Inc., October 2008)

This page intentionally left blank

Appendix H References

The following references were used in the preparation of this environmental document.

H.1 References

Bureau of Equalization, Taxable Sales in California, 2008.

California Air Resources Board, February 16, 2010.

California Climate Change Center. 2006. *Our Changing Climate: Assessing the Risks to California*. July. p.1.

California Department of Conservation. 2009. Farmland Mapping and Monitoring Program. February.

California Department of Transportation. 1989. Route Concept Report.

California Department of Transportation. 1995. Design Information Bulletin (DIB) 9, Number 77 – Interchange Spacing. January 31.

California Department of Transportation. 1997. *Policy on High and Low Risk Underground Facilities within the Highway Rights-of-Way,* from *Caltrans Right-of-Way Manual.* January.

California Department of Transportation. 2000. *Highway Capacity Manual*.

California Department of Transportation. 2000. *State Route 101 Crack-and-Seat Vibration Study*. Sacramento, CA.

California Department of Transportation. 2003. *State Route 91 Congestion Relief Alternatives Analysis.* January.

California Department of Transportation. 2003. Statewide Storm Water Management Plan. May.

California Department of Transportation. 2004. *Transportation- and Construction-Induced Vibration Guidance Manual*. June.

California Department of Transportation. 2006. 215/91 Landscape Corridor Master Plan.

California Department of Transportation. 2006. Storm Water Management Program, Regional Work Plan, Santa Ana Region 8, Fiscal Year 2006-2007. April 1.

California Department of Transportation, Division of Environmental Analysis. 2006. *Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects.* August.

California Department of Transportation, District 8. 2004–2007 Traffic Accident and Surveillance and Analysis System.

California Department of Transportation. Performance Measurement System, as disclosed in the *Final Draft Traffic Impact Report* (July 2010).

California Department of Transportation. 2011. Maintenance Manual, Vol. I. Chapter D1, Litter, Debris, and Graffiti (July 2006).

California Department of Transportation. 2012. *Highway Design Manual,* Chapter 500, Traffic Interchanges, Section 504, Interchange Design Standards. May 7.

California Department of Transportation. 2012. *Highway Design Manual,* Chapter 500, Traffic Interchanges, Section 504.7, Weaving Sections. May 7.

California Department of Transportation. 2012. Officially Designated State Scenic Highways, http://www.dot.ca.gov/hq/LandArch/scenic/schwy.htm. Accessed April 17, 2012.

California Department of Transportation, 2012. Officially Designated State Scenic Highways and Parkways. http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm. Accessed April 17, 2012.

California Department of Transportation. 2012. Standard Environmental Reference (SER), Environmental Handbook Volume 1, Chapter 11-Air Quality. http://www.dot.ca.gov/ser/vol1/vol1.htm

California Department of Water Resources. 2003. *California's Groundwater,* Bulletin 118 Update.

California Energy Commission. 2000. *California Energy Demand 2000–2010*. Sacramento, CA. June.

California Energy Commission. 2005. *Forecasts of California Transportation Energy Demand 2005–2025*. April. CEC-600-2005-008.

California Energy Commission. 2006. *Staff Final Report: Inventory of California Greenhouse Gas Emissions and Sinks: 1990–2004*. December. Figure 12, p. 22.

California Energy Commission. 2007. *2007 Integrated Energy Policy Report.*

California Energy Commission. 2009. *2009 Integrated Energy Policy Report, Draft Committee Report*. September. CEC-100-2009-003-CTD.

California Environmental Protection Agency, California Air Resources Board. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April.

California Geological Survey, Department of Conservation. 2006. Aggregate Availability in California Map. December.

California Native Plant Society (CNPS) Electronic Inventory. 2008.

California Natural Diversity Database (CNDDB). 2008. *Orange, Black Star Canyon, Prado Dam,* and *Yorba Linda, California* USGS 7.5-minute quadrangles. p. 3.21-2.

California Regional Water Quality Control Board, Santa Ana Region. 2008. Water Quality Control Plan for the Santa Ana River Basin. Updated February.

California Stormwater Quality Association. 2003. *Construction BMP Handbook*. January.

City of Anaheim General Plan. 2004. Circulation Element, pages C-21 and C-23, May.

City of Anaheim General Plan. 2004. Figure S-4, Mining Activity and Oil and Gas Wells. May.

City of Corona General Plan. 2004. Adopted March 17. Page 29.

City of Corona General Plan. 2007. Circulation Element.

City of Corona General Plan. 2004. Technical Background Report and Figures 4.5-7, 4.5-10, and 5.1-1.

City of Norco General Plan. 2012. Land Use Map, updated May 25.

City of Riverside General Plan. 2007. Circulation and Mobility Element.

County of Riverside. 2005. Toscana Specific Plan No. 327, Draft Environmental Impact Report No. 439.

Federal Emergency Management Agency Federal Insurance Rate Map (FIRM) Map Nos. 06059C0180H, February 18, 2004; 06059C0185H, February 18, 2004; 06065C1335G, August 28, 2008; 06065C0668G, August 28, 2008; 06065C0669G, August 28, 2008; 06065C0688G, August 28, 2008; 06065C0689G, August 28, 2008; and 06065C0693G, August 28, 2008.

Federal Highway Administration. 1981. *Visual Impact Assessment for Highway Projects.* August.

Federal Highway Administration. 2009. *Interim Guidance on Air Toxics Analysis for NEPA Documents*. September 30. http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/100109guidmem.cfm.

Federal Highway Administration. 2009. *Manual on Uniform Traffic Control Devices* (MTUCD), Section 2E-52.

Federal Highway Administration. 2009. *MSAT Guidance,* Page 3.14-33.

Federal Highway Administration. 2010. Interim Guidance on the Application of Travel and Land Use Forecasting in the National Environmental Policy Act. March.

Federal Transit Administration. 1995. *Transit Noise and Vibration Impact Assessment.* DOT-T-95-16. Office of Planning. Washington, DC. Prepared by Harris Miller Miller & Hanson, Inc., Burlington, MA.

Foothill Sentry. 2010. “County Accepts Large Piece of OC from Bren.” June 13.

Hendrix, Michael, and Cori Wilson. 2007. *Recommendations by the Association of Global Climate Change in CEQA Documents*. March 5. Page 2.

Hickman, J.C., ed. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley.

Highway Capacity Software results, as disclosed in the *Final Draft Traffic Impact Report* (July 2010).

Intergovernmental Panel on Climate Change. 2007. *Climate Change 2007: The Physical Science Basis: Summary for Policymakers.* Pages 5 and 10.

Jahns, R.H. 1954. Geologic Guide for the Northern Part of the Peninsular Range Province, Southern California; California Division of Mines and Geology Bulletin 170, Geologic Guide No. 5, 59 p.

Kleinfelder, Inc. 2007. *Preliminary Geotechnical Information Report for the Eastbound SR-91 Lane Addition from SR-241 to SR-71*. April.

Los Angeles Times. 2010. "Big Gift Swells O.C. Park Acreage." June 30.

MetroLink. 2007. *Strategic Assessment*. January 19.

Orange County Transportation Authority. 2003. State Route 91 Implementation Plan.

Orange County Transportation Authority. 2006. *Riverside County-Orange County Major Investment Study Final Project Report: Locally Preferred Strategy Report*. January.

Orange County Transportation Authority, Riverside County Transportation Commission, and Transportation Corridor Agencies. 2005. *Riverside County-Orange County Major Investment Study Final Draft Screening Report*. November.

PB Americas, Inc. 2011. *SR-91 Implementation Plan for 2011*.

RBF Consulting. 2011. SR-91 CIP System Interchange Ramp Metering Overview for Ultimate Project Table.

Riverside County General Plan. 2003. Circulation Element, Figure C-9, Appendix 1 Elsinore, October.

Riverside County General Plan. 2008. Temescal Canyon Area Land Use Plan.

Riverside County General Plan. 2008. Integrated Project Multipurpose Open Space Element.

Riverside County Office of the Assessor. 2007.

Riverside County Transportation Commission. 2008. *Grade Separation Funding Strategy: A Blueprint for Advancing Projects*.

Riverside County Transportation Commission. 2011. *2011 Riverside County Congestion Management Program*, prepared by VRPA Technologies, Inc. December 14.

Riverside County Transportation Commission. 2012. Riverside County Transportation Commission 91 Express Lane Toll Policy, adopted June 7.

Santa Ana Regional Water Quality Control Board. 2006. Watershed Management Initiative. November.

Society of Vertebrate Paleontology. 1995. *Assessment and Mitigation of Adverse Impacts to Nonrenewable Paleontologic Resources: Standard Guidelines.* Society of Vertebrate Paleontology News Bulletin, No. 163. January. pp. 22–27.

Southern California Association of Governments. 2001. 2001 Regional Transportation Plan update.

Southern California Association of Governments. 2001. *Employment Density Study Summary Report*.

Southern California Association of Governments. 2004. Regional Screenline Traffic Count Program. June 24.

Southern California Association of Governments. 2005. The Southern California Strategy for Goods Movement: A Plan for Action. March.

Southern California Association of Governments. 2008. 2008 RTP Growth Forecast.

Southern California Association of Governments. 2010. 2010 RTP Growth Forecast.

Southern California Association of Governments. 2011. *Express Travel Choices Study*.

SR-91 System Interchange Ramp Metering Overview for Ultimate Project. 2011.

State Water Resources Control Board. 2010. *2010 Integrated Report.*

Thomas Bros. Map Reference: Orange County Street Guide (2006), San Bernardino & Riverside Counties Street Guide (2007).

Transportation Research Board. 2000. *Highway Capacity Manual*, Chapter 23, Basic Freeway Segments Methodology, pages 23-2 and 23-3.

United States Army Corps of Engineers. 2001. *Prado Basin and Vicinity, Including Reach 9 and Stabilization of the Bluff Toe at Norco Bluffs Supplemental Environmental Impact Statement/Environmental Impact Report (SEIS/EIR).* November.

United States Census Bureau. 1990 Census.

United States Census Bureau. 2000 Census.

United States Department of Agriculture Farmland Conversion Impact Rating Form for the SR-91 CIP (June 2010; provided in Appendix A) and the California Department of Transportation (June 17, 2010).

United States Environmental Protection Agency. 2007. *EPA Guidance on the use of AP-42 for re-entrained road dust for SIP development and conformity.* Page 3.14-17. August.

United States Geological Survey. *Water Data Reports*. 1994–1997.

University of California, Davis, Institute of Transportation Studies. 1997. *Transportation Project-Level Carbon Monoxide Protocol.* December.

Value Management Strategies, Inc. 2008. *Value Analysis Study Report*. October.

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

H.2 Persons and Organizations Contacted and References from Websites

Brady, Mike. Air Quality/Conformity Coordinator, California Department of Transportation, DOTP-ORIP, Sacramento, CA. January 6, 2010. Email to Shannon Hill of ICF International about California-specific information applicable to the *Update on Mobile Source Air Toxic Analysis in NEPA Documents*.

California Air Resources Board, http://www.arb.ca.gov/desig/desig.htm, accessed 2008.

California Air Resources Board, http://www.arb.ca.gov/adam/welcome.html, accessed July 2009.

California Air Resources Board, http://www.consrv.ca.gov/cgs/information/publications/ms/Documents/MS_52_map.pdf, accessed January 27, 2010.

California Department of Conservation, http://www.conservation.ca.gov/dlrp/cfcp/funding/Pages/grant_categories.aspx, accessed November 11, 2011.

California Department of Forestry and Fire Protection, http://www.fire.ca.gov, accessed August 2009.

California Department of Transportation, Chapter 1.1, Introduction, in Design Information Bulletin No. 83-02, Caltrans Supplement to FHWA Culvert Repair Practices Manual, accessed June 25, 2012.

California Department of Transportation, Chapter 11.1, Other Considerations, in Design Information Bulletin No. 83-02, Caltrans Supplement to FHWA Culvert Repair Practices Manual, accessed June 25, 2012.

California Department of Transportation. Community Impact Assessment, Standard Environmental Reference Environmental Handbook, Volume 4, http://www.dot.ca.gov/ser/vol4/vol4.htm, accessed January 4, 2012.

California Energy Information Administration, http://tonto.eia.doe.gov/state/state_energy_profiles.cfm?sid=CA, accessed December 14, 2009.

California Outdoor Recreation Plan (2008), http://www.parks.ca.gov?/oage_id=23880, accessed August 2, 2011.

California Watershed Portal, http://cwp.resources.ca.gov/browser/, accessed September 27, 2008.

City of Anaheim General Plan, Appendix B, 2004, http://www.anaheim.net/generalplan/docs/AnaheimGP_AppendixB_AnaheimBicycleMasterPlan.pdf, accessed August 6, 2009.

City of Corona, www.ci.corona.ca.us/documents/communitydev/environment_impact_rpt.pdf, accessed April 2009.

City of Corona Employee Labor Force, http://www.edd.ca.gov, accessed June 3, 2010.

City of Corona Municipal Code Title 9, Section IV, Chapter 9.30 Graffiti Abatement Procedure, at http://www.amlegal.com/nxt/gateway.dll/California/corona/title9publicpeacemoralsandwelfare/ivoffensesagainstthepublicpeace/chapter9.30graffitiabatementprocedure, accessed July 19, 2011.

City of Corona, Public Works Department, "Graffiti Removal" at http://www.ci.corona.ca.us/City-Departments/Public-Works/Public-Services-and-Information/Graffiti-REmoval, accessed July 19, 2011.

City of Riverside, http://aquarius.riversideca.gov/clerkdb/docview.aspx?id=58399, accessed May 2009.

County of Orange General Plan, Transportation Element, 2006, http://www.ocplanning.net/docs/GeneralPlan2004/04_Transportation.pdf, accessed August 7, 2009.

Dos Lagos Specific Plan, SE Corporation, 2000, amended June 2002, doslagos.net/news/pdf/Specific_Plan/ExecutiveSummary.pdf, accessed April 2009; and http://www.doslagos.net/, accessed January 22, 2010.

Energy Information Administration, State/Territory Energy Profiles, http//tonto.eia.doe.gov/state/state_energy_profiles.cfm?sid=CA, accessed November 13, 2009.

Federal Highway Administration, Interim Guidance on Air Toxic Analysis in NEPA Documents, http://www.fhwa.dot.gov/environment/airtoxic/100109guidmem.htm.

Gath, E.M., E.E. Runnerstrom, and L.B. Grant. 2003. *Active deformation and earthquake potential of the southern Los Angeles Basin, Orange County, California.* United States Geological Survey Final Technical Report, National Earthquake Hazards Reduction Program Grant 01HQGR0117, 27p. Published online by the United States Geological Survey at http://erpweb.er.usgs.gov/reports/abstract/2001/sc/final_report.pdf.

Greenroads Manual, "Energy and Road Construction – What's the Mileage of Roadway?" February 21, 2012. http://www.pavementinteractive.org/2012/02/21/energy-and-road-construction-whats-the-mileage -of-roadway/>, accessed June 25, 2012.

Hanson, Carl. Personal communication with David Buehler, October 24, 2001.

National Register of Historic Places, http://www.nationalregisterofhistoricplaces.com, accessed March 1, 2012.

Orange County Transportation Authority, http://www.octa.net/SR-57/Classic.aspx, accessed November 12, 2011.

Orange County Transportation Authority. *Riverside Freeway SR-1 Improvement Project Factsheet*. November 30, 2010. Website http://www.octa.net/pdf/91%20Eastbound%20Factsheet.pdf, accessed November 11, 2011.

Riverside County Clerk of the Board, http://www.clerkoftheboard.co.riverside.ca.us/proceeds/2009/p2009_06_30_files/16.01.pdf, accessed January 29, 2010.

Riverside County Transportation and Land Management Agency, Riverside County General Plan (October 2003), http://www.rctlma.org/genplan/content/gp/chapter04.html#TOC3_15, accessed August 6, 2009.

Riverside County Transportation and Land Management Agency, www.rctlma.org/, accessed April 2009.

Riverside County Transportation and Land Management Agency, www.rctlma.org/planning/content/hearings/pc/2009/pc041509_agenda/ sr_5.1.pdf, accessed May 2009.

Riverside County Transportation Commission, http://www.rctc.org/commuterassistance.asp, accessed August 13, 2010.

Santa Ana Watershed Project Authority, http://www.sawpa.org/about/watershed.htm, accessed September 8, 2008.

Southern California Association of Governments comment letter in response to the Notice of Preparation for a Draft Environmental Impact Report for the State Route 91 Corridor Improvement Project, August 6, 2008.

Southern California Association of Governments response to Notice of Preparation letter, August 2008.

Southern California Association of Governments, http://www.scag.gov/forecast/downloads/excel/RTP07_CityLevel.xls.

Southern California Association of Governments, www.scag.ca.gov/igr/pdf/Clearinghouse/2009/, accessed April 2009.

Southern California Association of Governments, http://www.scag.gov/resources/profiles.htm.

Southern California Wetlands Recovery Project Information Station, http://wrpinfo.scc.ca.gov/watersheds/sa/sa_profile.html, accessed September 27, 2008.

Tam, V. (consultant to the City of Corona). July 3, 2012. Email to T. Manuel (City Manager) and V. Cook (consultant to RCTC) on affordable housing in the City of Corona.

The Health Effects Institute, http://pubs.healtheffects.org/view.php?id=282.

United States Department of Health and Human Services. 2009. 2009 Poverty Guidelines, www.aspe.hs.gov/poverty/09poverty.shtml.

United States Department of Transportation, Federal Highway Administration, http://www.fhwa.dot.gov/environment/airtoxic/100109guidmem.htm.

United States Environmental Protection Agency, Air Toxics, http://www.epa.gov/ttn/atw/nata1999/.

United States Environmental Protection Agency, http://www.epa.gov/air/data/monvals.html?st~CA~California, accessed March 2009.

United States Environmental Protection Agency, Integrated Risk Information System, http://www.epa.gov/ncea/iris/index.html.

United States Environmental Protection Agency, Risk Assessment Portal – Basic Information, http://www.epa.gov/risk/basicinformation.htm#g.

United States Environmental Protection Agency, Technology Transfer Network – 1999 National-Scale Air Toxics Assessment, http://www.epa.gov/ttn/atw/nata1999.

United States Environmental Protection Agency, Technology Transfer Network – Alternative Models, http://www.epa.gov/scram001/dispersion_alt.htm#hyroad.

United States Geological Survey National Water Quality Assessment Program – Santa Ana Basin, http://ca.water.usgs.gov/sana_nawqa/index.html, accessed October 12, 2008.

Updated Growth Forecast for WRCOR Subregion, http://www.wrcog.cog.ca.us.

Western Regional Climatic Center, http://www. wrcc.dri.edu, accessed December 3, 2008.

Appendix I USFWS Species List

This page intentionally left blank

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road, Suite 101
Carlsbad, California 92011

OCT 04 2010

In Reply Refer To:
FWS-WRIV/OR-08B0733-11SL0005

Scott Quinnell
Associate Environmental Planner
California Department of Transportation - District 8
Environmental Planning (MS 1222)
464 West 4th Street, 6th Floor
San Bernardino, California 92401-1400

Subject: Request for a List of Proposed, Threatened, or Endangered Species Potentially Occurring in the vicinity of the State Route 91 (SR-91) Corridor Improvement Project (CIP) in Riverside and Orange Counties, California

Dear Mr. Quinnell:

This letter is in response to your request, received by our office on August 31, 2010, for information on federally endangered, threatened, proposed, and candidate species that may occur in the vicinity of the SR-91 CIP Riverside and Orange Counties. To assist you in evaluating the potential occurrence of federally listed endangered, threatened, proposed, and candidate species that may occur in the vicinity of the proposed action, we are providing the enclosed list.

Because we do not have site-specific information for the proposed project, we recommend that you seek assistance from a biologist familiar with the habitat conditions and associated species in and around the project site to assess the actual potential for direct, indirect, and cumulative impacts likely to result from the proposed activity. We also suggest that you contact the California Department of Fish and Game regarding State-listed and sensitive species that may occur within the project area. Please note that State-listed species are protected under the provisions of the California Endangered Species Act.

As a reminder, if a proposed project is authorized, funded, or carried out by a Federal agency and may affect a federally listed species, then section 7 consultation pursuant to the Endangered Species Act of 1973 (Act), as amended, is required.

Please note that due to out-of-date data on the U. S. Fish and Wildlife Service Critical Habitat Portal, the Carlsbad Fish and Wildlife Office is now hosting all critical habitat GIS data within our jurisdictional area on our website at http://www.fws.gov/carlsbad. Select the GIS DATA link to access current critical habitat layers.

TAKE PRIDE® IN AMERICA

Should you have any questions regarding the species listed or your responsibilities under the Act, please contact Sally Brown of this office at (760) 431-9440, extension 278.

Sincerely,

Sally Brown

for Karen A. Goebel
Assistant Field Supervisor

Enclosure

Federally Endangered, Threatened, Proposed, and Candidate Species and Critical Habitat that May Occur in the Vicinity of the SR-91 CIP, Riverside and Orange Counties, California
October 4, 2010

Common Name	Scientific Name	Federal Status	Critical Habitat in Vicinity
Plants			
Braunton's milk-vetch	*Astragalus brauntonii*	endangered	present
Munz's onion	*Allium munzii*	endangered	none
thread-leaved brodiaea	*Brodiaea filifolia*	threatened	none
San Diego ambrosia	*Ambrosia pumila*	endangered	none
San Fernando Valley spineflower	*Chornizanthe parryi var. fernandina*	candidate	N/A
Santa Ana River woolly-star	*Eriastrum densifolium ssp. sanctorum*	endangered	N/A
Slender-horned spine flower	*Dodecahema leptoceras*	endangered	N/A
Brand's phacelia	*Phacelia stellaris*	candidate	N/A
Invertebrates			
Riverside fairy shrimp	*Streptocephalus woottoni*	endangered	none
San Diego fairy shrimp	*Branchinecta sandiegonensis*	endangered	none
Quino checkerspot butterfly	*Euphydryas editha quino*	endangered	none
Delhi Sands flower-loving fly	*Rhaphiomidas terminatus abdominalis*	endangered	N/A
Fish			
Santa Ana sucker	*Catostomus santaanae*	threatened	present
Birds			
coastal California gnatcatcher	*Polioptila californica californica*	threatened	present
least Bell's vireo	*Vireo bellii pusillus*	endangered	present
southwestern willow flycatcher	*Empidonax traillii extimus*	endangered	none

Federally Endangered, Threatened, Proposed, and Candidate Species and Critical Habitat that May Occur in the Vicinity of the SR-91 CIP, Riverside and Orange Counties, California
October 4, 2010

Common Name	Scientific Name	Federal Status	Critical Habitat in Vicinity
yellow-billed cuckoo	*Coccyzus americanus*	candidate	N/A
Mammals			
San Bernardino kangaroo rat	*Dipodomys merriami parvus*	endangered	none
Stephens' kangaroo rat	*Dipodomys stephensi*	endangered	N/A

* N/A = Not Applicable

Appendix J Utility Relocations

This appendix contains Table J.1, Utility Relocations for Alternatives 1 and 2. The information provided in this table is described briefly below and referenced by column. The columns on Table J.1 are lettered left to right from A through N.

- **Column A – Utility Facility:** Identification of specific utility facilities including their owners/operators. The utility facilities listed in Column A include electric, sewer, domestic water, communications, natural gas, cable television, and wells.
- **Column B – Location/Description:** The information in this column describes the location of the relocated or encased utility facilities.
- **Column C – Approximate Relocation Length:** This column lists the approximate linear feet of each utility facility that would be relocated.
- **Column D – High-Risk Facility:** This column indicates whether a specific utility facility is categorized as high risk (Yes) or not high risk (No). Refer to Section 3.5, Utilities/Emergency Services, for additional discussion regarding high-risk facilities.
- **Columns E, F, G, H, I, and J – Impacted Alternatives and Cost of Relocation/ Encasement:** These columns identify whether a specific relocation/encasement would occur under Alternative 1 and/or Alternative 2 and under which design variations. Cells with a dollar amount indicate that the specific utility would be affected by the Alternative/design variations listed in the column heading and the cost to relocate/encase that affected utility facility. The Alternatives and design variations are grouped when they have common effects on utility facilities as follows:
  - **Column E:** This is the utility relocations/encasements for Alternative 1a only.
  - **Column F:** This is the utility relocations/encasements for Alternatives 1b, 1c, and 1d.
  - **Column G:** This is the utility relocations/encasements for Alternatives 2a and 2b.
  - **Column H:** This is the utility relocations/encasements for Alternatives 2c and 2d.
  - **Column I:** This is the utility relocations/encasements for Alternatives 2e and 2f.

  - **Column J:** This is the utility relocations/encasements for Alternatives 2g and 2h.

- **Column K – Prior Rights:** This column indicates whether a given utility facility owner/company has any prior rights associated with that facility. Prior rights by a utility company over a public agency determine which party is responsible for relocation costs.
- **Column L – Schedule Impacts:** This column indicates whether the relocation/ encasement of a specific utility would have effects on the project implementation schedule (Yes) or not (blank cell).
- **Column M – Crossing ID #:** Utility crossing identification as shown on the preliminary utility plans.
- **Column N – Occurs in the Initial Phases?:** This column indicates whether a specific utility relocation/encasement would occur in the Initial Phases of Alternatives 1 and 2 and their design variations (Yes) or not (No; i.e., it would occur in the Ultimate Project).

Table J.1 Utility Relocations for Alternatives 1 and 2

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I	Column J	Column K	Column L	Column M	Column N
Utility Facility	Location/Description	Approximate Relocation Length (ft)	High- Risk Facility (Yes/No)	Impacted Alternatives and Cost (Note 5) of Relocation/Encasement: Alternative 1a	Alternatives 1b, 1c, and 1d (Note 6)	Var 1 Diamond Alternatives 2a and 2b (Note 7)	Var 2 Mid City Diamond Alternatives 2c and 2d (Note 8)	Var 3 Direct Alternatives 2e and 2f (Note 9)	Var 4 Mid City Direct Alternatives 2g and 2h (Note 10)	Prior Rights	Schedule Impacts	Crossing ID #	Occurs in the Initial Phases? (Note 11)
16" HP oil line in 20" steel casing Four Corners Pipe Line Co. (Questar)	Crossing at 19+09 CL SR-91. Protect in place. Extend 20" steel casing 200 LF to NW.	200	Yes	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000	Yes		3013 R	Yes
4" SCG	Relocate along realigned Green River Road north of SR-91 between Sta. 16+00 and 26+00.	1,400	Yes	$89,000	$89,000	$89,000	$89,000	$89,000	$89,000	No		1014 R	Yes
12" PVC City of Corona Water	Relocate along realigned Green River Road north of SR-91 between Sta. 16+00 and 26+00.	1,400	No	$371,000	$371,000	$371,000	$371,000	$371,000	$371,000			1015 R	Yes
AT&T underground	Relocate along realigned Green River Road north of SR-91 between Sta. 16+00 and 26+00.	1,450	No	$408,000	$408,000	$408,000	$408,000	$408,000	$408,000	No		1016 R	Yes
SCE overhead 12 kV distribution	Relocate along realigned Green River Road north of SR-91 between Sta. 21+00 and 26+00.	1,100	No	$319,000	$319,000	$319,000	$319,000	$319,000	$319,000	Yes		1018 R	Yes
AT&T underground	Bore and jack casing and install new cable crossing at SR-91 Sta. 21+60.	400	No	$491,000	$491,000	$491,000	$491,000	$491,000	$491,000	Yes		1022 R	Yes
SCE overhead 12 kV distribution	Relocate poles for overhead line that crosses SR-91 at Sta. 23+30.	400	No	$153,000	$153,000	$153,000	$153,000	$153,000	$153,000	Yes		1024 R	Yes
SCE overhead 12 kV distribution	Relocate poles and underground system along Prado Road north of SR-91 between Sta. 56+00 and Sta. 58+00.	560	No	$141,500	$141,500	$141,500	$141,500	$141,500	$141,500	Yes 50%		1030 R	Yes
AT&T overhead	Relocate poles and underground system along Prado Road north of SR-91 between Sta. 56+00 and Sta. 58+00.	800	No	$32,000	$32,000	$32,000	$32,000	$32,000	$32,000	No		1032 R	Yes
16" HP oil line Four Corners Pipe Line Co. (Questar)	Crossing at 60+29 CL SR-91. Relocate 210 LF of oil line (2 locations) to miss footing at WB off-ramp to Green River Road and footing at West Prado Road overhead westbound widening.	210	Yes	$1,050,000	$1,050,000	$1,050,000	$1,050,000	$1,050,000	$1,050,000	Yes		3015 R	Yes
AT&T underground	Bore and jack casing and install new cable crossing at SR-91 Sta. 70+50.	400	No	$491,000	$491,000	$491,000	$491,000	$491,000	$491,000	?		1044 R	Yes
3" SCG	Bore and jack casing and relocate 3" gas crossing at SR-91 Sta. 109+50.	400	No	$491,000	$491,000	$491,000	$491,000	$491,000	$491,000	Yes		1052 R	Yes
16" HP Oil Line Four Corners Pipe Line Co. (Questar)	Crossing at 149+85 CL SR-91. Protect in place. Place New 20" sleeve to NE 120' and SW 100'.	220	Yes	$44,000	$44,000	$44,000	$44,000	$44,000	$44,000	Yes		1056 R	Yes
TOTAL COST FOR SEGMENT 1 RIVER 1				**$4,120,500**	**$4,120,500**	**$4,120,500**	**$4,120,500**	**$4,120,500**	**$4,120,500**				
3" SCG	Relocate along realigned Wardlow Road north of SR-91 between Sta. 160+00 and 180+00.	1,800	No			$98,000	$98,000	$98,000	$98,000	No		1064 R	Yes
18" VCP City of Corona Sewer	Relocate along realigned Wardlow Road north of SR-91 between Sta. 160+00 and 168+00.	400	No			$114,000	$114,000	$114,000	$114,000	Yes		1065 R	Yes
AT&T underground	Relocate along realigned Wardlow Road north of SR-91 between Sta. 160+00 and 180+00.	1,700	No			$110,000	$110,000	$110,000	$110,000	No		1066 R	Yes
12"-14" City of Corona Water	Relocate along realigned Wardlow Road north of SR-91 between Sta. 160+00 to 180+00.	1,700	No			$484,500	$484,500	$484,500	$484,500			1067 R	Yes
SCE underground 12 kV distribution	Relocate along realigned Wardlow Road north of SR-91 between Sta. 160+00 to 180+00.	1,650	No			$392,000	$392,000	$392,000	$392,000	No 75%		1068 R	Yes
AT&T underground	Relocate along south side of SR-91 between Sta. 169+00 to 189+00 west of Auto Center Drive.	2,000	No	$112,500	$112,500	$112,500	$112,500	$112,500	$112,500	No		1072 R	Yes
AT&T underground	Relocate along Auto Center Drive lowered profile at Sta. 192+00.	800	No	$120,000	$120,000	$120,000	$120,000	$120,000	$120,000	No		1074 R	Yes
6" SCG	Relocate along Auto Center Drive lowered profile at Sta. 192+00.	1,100	Yes	$96,000	$96,000	$96,000	$96,000	$96,000	$96,000	No		1076 R	Yes
24" DIP Reclaimed Water City of Corona	Protect in place at Sta. 192+00. Extend 36" steel casing 100' north and 100' south.	200	No	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000			1077 P	Yes
6-4" AT&T underground	Relocate along Auto Center Drive lowered profile at Sta. 192+00, requires an interim relocation.	1,100	No	$372,000	$372,000	$372,000	$372,000	$372,000	$372,000	No		1078 R	Yes
15" DIP City of Corona Sewer	Protect in place at Sta. 192+00. Place concrete encasement over the top.	700	No	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	Yes		1079 P	Yes
SCE underground 12 kV distribution	Relocate along Auto Center Drive lowered profile at Sta. 192+00, requires an interim relocation.	1,200	No	$557,000	$557,000	$557,000	$557,000	$557,000	$557,000	No		1080 R	Yes
12" ACP City of Corona Water	Replace with new 14" water line – 1,000 LF.	1,100	No	$291,500	$291,500	$291,500	$291,500	$291,500	$291,500			1081 N	Yes
10" ACP City of Corona Water	Relocate along realigned Frontage Road south of SR-91 between SR-91 Sta. 193+00 and 215+00.	2,600	No	$637,000	$637,000	$637,000	$637,000	$637,000	$637,000			1083 R	Yes
AT&T underground	Relocate along realigned Frontage Road south of SR-91 between SR-91 Sta. 193+00 and 226+00 (2 lines).	5,400	No	$1,451,000	$1,451,000	$1,451,000	$1,451,000	$1,451,000	$1,451,000	No 75%	Yes	1084 R	Yes
SCE overhead 12 kV distribution	Relocate crossing of Auto Center Drive south of SR-91 at Sta. 192+00.	900	No	$81,000	$81,000	$81,000	$81,000	$81,000	$81,000	Yes		1086 R	Yes
SCE overhead 12 kV distribution	West of Via Josepha on south side of SR-91 Sta. 213+00.	200	No	$28,000	$28,000	$28,000	$28,000	$28,000	$28,000	No		1088 R	Yes
SCE overhead 12 kV distribution	Relocate system along Via Josepha on south side of SR-91 Sta. 213+00.	700	No	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	Yes 50%		1092 R	Yes
SCE overhead 12 kV distribution	System that crosses SR-91 Sta. 215+50.	450	No	$68,000	$68,000	$68,000	$89,000	$230,000	$230,000	Yes JUA		1094 R	Yes

Table J.1 Utility Relocations for Alternatives 1 and 2

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I	Column J	Column K	Column L	Column M	Column N
				Impacted Alternatives and Cost (Note 5) of Relocation/Encasement									
Utility Facility	Location/Description	Approximate Relocation Length (ft)	High- Risk Facility (Yes/No)	Alternative 1a	Alternatives 1b, 1c, and 1d (Note 6)	Var 1 Diamond Alternatives 2a and 2b (Note 7)	Var 2 Mid City Diamond Alternatives 2c and 2d (Note 8)	Var 3 Direct Alternatives 2e and 2f (Note 9)	Var 4 Mid City Direct Alternatives 2g and 2h (Note 10)	Prior Rights	Schedule Impacts	Crossing ID #	Occurs in the Initial Phases? (Note 11)
SCE overhead 12 kV distribution	Relocate along Maple Street north of SR-91 at Sta. 222+00.	800	No	$116,000	$116,000	$116,000	$116,000	$116,000	$116,000	Yes 50%		1100 R	Yes
3" SCG	Relocate along Maple Street north of SR-91 at Sta. 222+00.	400	No	$31,500	$31,500	$31,500	$31,500	$31,500	$31,500	No		1102 R	Yes
SCE underground 12 kV distribution	Relocate along Maple Street north of SR-91 at Sta. 222+00.	450	No	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	Yes 50%		1104 R	Yes
SCE overhead 12 kV distribution	Relocate over realigned Frontage Road south of SR-91 at Sta. 224+00 and west of Paseo Grande.	200	No	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	Yes		1108 R	Yes
8" VCP City of Corona Sewer	Relocate portion of line that crosses SR-91 at Sta. 225+20.	200	No	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	Yes		1107 R	Yes
12" City of Corona Water	Relocate and extend casing north and south on line that crosses SR-91 at Sta. 228+75.	300	No	$79,500	$79,500	$79,500	$79,500	$79,500	$79,500			1111 R	Yes
AT&T underground	Bore and jack casing and install new cable crossing at SR-91 Sta. 236+30.	400	No	$491,000	$491,000	$491,000	$491,000	$491,000	$491,000	No JUA		1112 R	Yes
8" VCP City of Corona Sewer	Relocate portion of line along Yorba Street that crosses SR-91 at Sta. 236+40.	500	No				$112,500		$112,500	Yes		1113 R	Yes
4" SCG	Extend casing and gas line north and south that crosses SR-91 at Sta. 237+50.	190	No	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	?		1114 R	Yes
10" City of Corona Water	Relocate and extend casing north and south on line that crosses SR-91 at Sta. 237+60.	480	No	$117,600	$117,600	$117,600	$117,600	$117,600	$117,600			1115 R	Yes
6" SCG	Relocate along realigned Pomona Road north of SR-91 between Sta. 234+00 to 249+00.	1,700	Yes	$148,000	$148,000	$148,000	$148,000	$148,000	$148,000	No		1118 R	Yes
6" to 2" SCG	Relocate along realigned Pomona Road north of SR-91 between Sta. 238+00 to 242+00.	470	Yes	$47,000	$47,000	$47,000	$47,000	$47,000	$47,000	No		4022 R	Yes
10" City of Corona Water	Relocate along realigned Pomona Road north of SR-91 between Sta. 234+00 to 249+00.	1,650	No	$404,250	$404,250	$404,250	$404,250	$404,250	$404,250			1121 R	Yes
6" SCG	Relocate portion of line at the Smith Avenue/Pomona Road intersection north of SR-91.	500	Yes				$108,000		$108,000	No		2124 R	Yes
1" SCG	Relocate portion of line at the Smith Avenue/Pomona Road intersection north of SR-91.	250	No				$13,000		$13,000	Yes		2126	Yes
SCE underground 12 kV distribution	Relocate from west side of Smith Avenue into east side of Smith Avenue.	1,600	No				$275,000		$275,000	Yes 50%		2128 R	Yes
SCE overhead 12 kV distribution	Relocate line west of Smith Avenue along south side of SR-91 between Sta. 244+00 and 250+00.	1150	No				$103,000		$103,000	Yes		2130 R	Yes
AT&T underground	Relocate from west side of Smith Avenue into east side of Smith Avenue.	1,450	No				$163,200		$163,200	Yes 50%		2134 R	Yes
Cable TV	Relocate from west side of Smith Avenue into east side of Smith Avenue.	1,600	No				$32,500		$32,500	No		2136 R	Yes
6" SCG	Relocate portion of line along Smith Avenue south of SR-91 to Pleasant View Avenue.	500	Yes				$71,000		$71,000	No		2138 R	Yes
6" City of Corona Water	Bore and jack casing and relocate 6" water line crossing SR-91 at Sta. 250+42.	400	No	$491,000	$491,000	$491,000	$491,000	$491,000	$491,000			2139 R	Yes
TOTAL COST FOR SEGMENT 1 RIVER 2				**$6,054,850**	**$6,054,850**	**$7,253,350**	**$8,152,550**	**$7,415,350**	**$8,293,550**				
SCE overhead 12 kV distribution	Relocate along realigned Pomona Road north of SR-91 between Sta. 258+00 and 284+00.	2,700	No	$497,000	$497,000	$497,000	$497,000	$497,000	$497,000	Yes ?		1150 R	Yes
Cable TV overhead	Relocate along realigned Pomona Road north of SR-91 between Sta. 258+00 and 269+00 (West of Sherman Avenue).	1,100	No	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	No		1152 R	Yes
10" City of Corona Water	Relocate along realigned Pomona Road north of SR-91 between Sta. 258+00 and 284+00.	2,750	No	$673,750	$673,750	$673,750	$673,750	$673,750	$673,750			1153 R	Yes
2" SCG	Relocate along realigned Pomona Road north of SR-91 between Sta. 258+00 and 269+00 (West of Sherman Avenue).	900	No	$49,500	$49,500	$49,500	$49,500	$49,500	$49,500	No		1156 R	Yes
AT&T underground	Relocate along realigned Pomona Road north of SR-91 between Sta. 268+00 and 284+00 (East of Sherman Avenue).	2,000	No	$243,000	$243,000	$243,000	$243,000	$243,000	$243,000	?		1158 R	Yes
6" SCG	Extend casing that crosses SR-91 at Sherman Avenue at Sta. 268+70 on each side of SR-91.	100	Yes	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	No JUA		1160 P	Yes
SCE overhead 12 kV distribution	Relocate pole that crosses SR-91 at Sherman Avenue at Sta. 268+50 on north side of SR-91.	80	No	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	No		1162 R	Yes
SCE overhead 66 and 12 kV and Communication	Relocate pole that crosses SR-91 at Sherman Avenue at Sta. 269+05 on north side of SR-91.	80	No	$26,000	$26,000	$26,000	$26,000	$26,000	$26,000	No		1164 R	Yes
8" ACP City of Corona Water	Bore and jack casing and relocate 8" water line crossing SR-91 at Sta. 268+90.	550	No	$675,000	$675,000	$675,000	$675,000	$675,000	$675,000			1163 R	Yes
SCE Substation	Relocate Edison Substation to adjacent position on south side of SR-91 at Sta. 268+00 as well as overhead lines crossing SR-91.	NA	Yes				$1,150,000		$1,150,000	Yes	Yes	1165	Yes

Table J.1 Utility Relocations for Alternatives 1 and 2

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I	Column J	Column K	Column L	Column M	Column N
Utility Facility	Location/Description	Approximate Relocation Length (ft)	High- Risk Facility (Yes/No)	Impacted Alternatives and Cost (Note 5) of Relocation/Encasement						Prior Rights	Schedule Impacts	Crossing ID #	Occurs in the Initial Phases? (Note 11)
				Alternative 1a	Alternatives 1b, 1c, and 1d (Note 6)	Var 1 Diamond Alternatives 2a and 2b (Note 7)	Var 2 Mid City Diamond Alternatives 2c and 2d (Note 8)	Var 3 Direct Alternatives 2e and 2f (Note 9)	Var 4 Mid City Direct Alternatives 2g and 2h (Note 10)				
2" SCG	Relocate along realigned Pomona Road north of SR-91 between Sta. 279+00 and 284+00 (East of Sherman Avenue).	1,050	No	$56,000	$56,000	$56,000	$56,000	$56,000	$56,000	No		1166 R	Yes
Well No. 15, City of Corona	Reconstruct Water Well no. 15, LT 284+20.	0	No	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	Yes		3017	Yes
6" City of Corona Water	Bore and jack casing and relocate 6" water line crossing SR-91 at Sta. 285+25.	800	No	$982,000	$982,000	$982,000	$982,000	$982,000	$982,000			1167 R	Yes
Private Electrical	Relocate line within motor home park south side between Lincoln Avenue and Buena Vista Avenue.	500	No	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	Yes		4026 R	Yes
14" City of Corona Water	Bore and jack casing and relocate 14" water line crossing SR-91 at Sta. 285+30.	700	No	$887,000	$887,000	$887,000	$887,000	$887,000	$887,000	Yes		1169 R	Yes
SCE overhead 66 and 12 kV and Communication	Relocate line along west side of Lincoln Avenue that crosses SR-91 at Sta. 285+40.	1,400	No	$432,000	$432,000	$432,000	$432,000	$432,000	$432,000	Yes	Yes	1170 R	Yes
Cable TV overhead	Relocate line along west side of Lincoln Avenue that crosses SR-91 at Sta. 285+40.	1,400	No	$46,200	$46,200	$46,200	$46,200	$46,200	$46,200	No		1172 R	Yes
SCE overhead 12 kV distribution	Relocate along realigned Sofia Lane south of SR-91 between Sta. 277+00 and 285+00 (west of Lincoln Avenue).	800	No	$24,000	$24,000	$24,000	$24,000	$24,000	$24,000	Yes		1176 R	Yes
City of Corona Water	Relocate along realigned Sofia Lane south of SR-91 between Sta. 279+00 and 282+20 (west of Lincoln Avenue).	300	No	$79,000	$73,500	$73,500	$73,500	$73,500	$73,500			1177 R	Yes
2" SCG	Relocate along realigned Sofia Lane south of SR-91 between Sta. 282+50 and 284+00 (west of Lincoln Avenue).	160	No	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	Yes		1178 R	Yes
SCE overhead and underground 12 kV distribution	Relocate north of the realigned westbound off-ramp to Lincoln Avenue north of SR-91 between Sta. 286+50 and 290+50.	500	No	$36,000	$36,000	$36,000	$36,000	$36,000	$36,000	Yes		1180 R	Yes
12" VCP City of Corona Sewer	Relocate along new Frontage Road south of SR-91 between Sta. 285+00 and 303+00 (east of Lincoln Avenue – extension of West D Street).	1,250	No	$331,250	$331,250	$331,250	$331,250	$331,250	$331,250	Yes		1181	Yes
SCE underground 12 kV distribution	Relocate along new Frontage Road south of SR-91 between Sta. 285+00 and 292+00 (east of Lincoln Avenue – extension of West D Street).	550	No	$141,000	$141,000	$141,000	$141,000	$141,000	$141,000	Yes		1184 R	Yes
SCE overhead 12 kV distribution	Relocate along Vicentia Avenue south of SR-91 at Sta. 310+50.	150	No	$34,000	$34,000	$34,000	$34,000	$34,000	$34,000	? JUA		1194 R	Yes
4" SCG	Relocate along Buena Vista Avenue lowered profile at Sta. 302+95.	940	No	$219,000	$219,000	$219,000	$219,000	$219,000	$219,000	Yes		3020 R	Yes
2" TRD AT&T underground	Relocate along Buena Vista Avenue lowered profile at Sta. 303+12.	460	No	$115,000	$115,000	$115,000	$115,000	$115,000	$115,000	Yes		3022 R	Yes
10" ACP City of Corona Water	Relocate along Buena Vista Avenue lowered profile at Sta. 303+22.	900	No	$220,500	$220,500	$220,500	$220,500	$220,500	$220,500	Yes		3023 R	Yes
8" VCP City of Corona Sewer	Relocate/encase along Vicentia Avenue north and south of SR-91 at Sta. 310+20.	450	No	$101,250	$101,250	$101,250	$101,250	$101,250	$101,250	Yes		1193 R	Yes
6" City of Corona Water	Bore and jack casing and relocate 6" water line crossing SR-91 at Sta. 310+35.	400	No	$491,000	$491,000	$491,000	$491,000	$491,000	$491,000			1195 R	Yes
3" SCG	Extend casing along Vicentia Avenue north and south of SR-91 at Sta. 310+45.	200	No	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	? JUA		1196 P	Yes
TOTAL COST FOR SEGMENT 2 WEST				**$7,276,450**	**$7,270,950**	**$7,270,950**	**$8,420,950**	**$7,270,950**	**$8,420,950**				
3" SCG	Relocate along realigned 2nd Street south of SR-91 between Sta. 310+50 and 315+00 (east of Vicentia Avenue).	450	No	$33,000	$33,000	$33,000	$33,000	$33,000	$33,000	No		1198 R	Yes
SCE overhead 12 kV distribution	Place new overhead pole at northeast corner of School Street and West Frontage Road north of SR-91 at Sta. 319+20.	20	No	$28,000	$28,000	$28,000	$28,000	$28,000	$28,000	?		1206 R	Yes
6" City of Corona Water	Bore and jack casing, and relocate 6" water line crossing SR-91 at Sta. 318+85.	400	No	$491,000	$491,000	$491,000	$491,000	$491,000	$491,000	Yes		1205 R	Yes
8" VCP City of Corona Sewer	Bore and jack casing and relocate 8" VCP sewer crossing SR-91 at Sta. 318+95.	400	No	$491,000	$491,000	$491,000	$491,000	$491,000	$491,000	Yes		1207 R	Yes
3" SCG	Extend casing south of SR-91 at Sta. 319+10 (northwest corner of 2nd Street and Grand Boulevard).	40	No	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	JUA		1208 P	Yes
4" SCG	Relocate along realigned West Frontage Road north of SR-91 between Sta. 319+00 to 322+00 (between School Street and Grand Boulevard).	340	No	$29,000	$29,000	$29,000	$29,000	$29,000	$29,000	No		1210 R	Yes
AT&T underground	Relocate along realigned West Frontage Road north of SR-91 between Sta. 319+00 and 324+50 (between School Street and Grand Boulevard).	550	No	$35,000	$35,000	$35,000	$35,000	$35,000	$35,000	No		1212 R	Yes
SCE overhead	In-line relocation north and south of SR-91 for crossing at Sta. 324+20.	200	No	$26,000	$26,000	$26,000	$26,000	$26,000	$26,000	Yes		1216 R	Yes
8" VCP City of Corona Sewer	Bore and jack casing and relocate 8" VCP sewer crossing SR-91 at Sta. 324+25.	400	No	$491,000	$491,000	$491,000	$491,000	$491,000	$491,000	Yes		1217 R	Yes
18" City of Corona Sewer	Extend casing on north side of SR-91 for crossing at Sta. 326+10 (Sheridan Street crossing).	40	No	$11,400	$11,400	$11,400	$11,400	$11,400	$11,400	Yes		1218 R	Yes

Table J.1 Utility Relocations for Alternatives 1 and 2

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I	Column J	Column K	Column L	Column M	Column N
				Impacted Alternatives and Cost (Note 5) of Relocation/Encasement									
Utility Facility	Location/Description	Approximate Relocation Length (ft)	High- Risk Facility (Yes/No)	Alternative 1a	Alternatives 1b, 1c, and 1d (Note 6)	Var 1 Diamond Alternatives 2a and 2b (Note 7)	Var 2 Mid City Diamond Alternatives 2c and 2d (Note 8)	Var 3 Direct Alternatives 2e and 2f (Note 9)	Var 4 Mid City Direct Alternatives 2g and 2h (Note 10)	Prior Rights	Schedule Impacts	Crossing ID #	Occurs in the Initial Phases? (Note 11)
18" City of Corona Water	Bore and jack casing and relocate 18" water line crossing SR-91 at Sta. 326+10 (Sheridan Street crossing).	400	No	$507,000	$507,000	$507,000	$507,000	$507,000	$507,000	Yes		1219 R	Yes
SCE overhead 12 kV distribution	Relocate 2 poles and line in alley south of SR-91 for system at Sta. 328+10 (west of Belle Avenue).	200	No	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	No		1220 R	Yes
4" SCG	Extend casing north and south of SR-91 for crossing at Sta. 328+00 (west of Belle Avenue).	350	No	$41,000	$41,000	$41,000	$41,000	$41,000	$41,000	Yes		1222 P	Yes
6" VCP City of Corona Sewer	Bore and jack casing and relocate 6" VCP sewer crossing SR-91 for crossing at Sta. 328+05.	400	No	$491,000	$491,000	$491,000	$491,000	$491,000	$491,000	Yes		1221 R	Yes
10" City of Corona Water	Relocate along realigned 2nd Street south of SR-91 between Sta. 324+50 and 330+00 (west of Grand Boulevard).	450	No	$110,250	$110,250	$110,250	$110,250	$110,250	$110,250			1223 R	Yes
8" VCP City of Corona Sewer	Relocate along realigned 2nd Street south of SR-91 between Sta. 324+50 and 330+00 (west of Grand Boulevard).	600	No	$135,000	$135,000	$135,000	$135,000	$135,000	$135,000	Yes		1225 R	Yes
3" SCG	Extend casing north and south of SR-91 for crossing at Sta. 331+90 (east of Belle Avenue).	200	No	$37,000	$37,000	$37,000	$37,000	$37,000	$37,000	Yes		1226 P	Yes
SCE overhead 12 kV distribution	Relocate north of SR-91 between Sta. 328+00 and 332+00.	400	No	$19,000	$19,000	$19,000	$19,000	$19,000	$19,000	Yes		1228 R	Yes
Well No. 24, City of Corona	Replace water well Rt. Sta. 332+00.	0	No	$2,200,000	$2,200,000	$2,200,000	$2,200,000	$2,200,000	$2,200,000	Yes		3031	Yes
10" ACP City of Corona Water	Relocate along Main Street lowered profile at SR-91 Sta. 337+28.	900	No	$220,500	$220,500	$220,500	$220,500	$220,500	$220,500			3033 R	Yes
Level 3 communication ducts	Relocate along Main Street lowered profile at SR-91 Sta. 337+85.	700	No	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000			3036 R	Yes
6-2" Time Warner Cable	Relocate along Main Street lowered profile at SR-91 Sta. 337+92.	700	No	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	Yes		3038 R	Yes
1" SCE Underground	Reconnect to signals along Main Street.	100	No	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000			3040 R	Yes
SCE underground 12 kV distribution	Extend casing, remove and replace wire north and south of SR-91 for crossing at Sta. 341+50.	200	No	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	Yes JUA		1238 P	Yes
SCE overhead	Relocate on new poles for crossing on SR-91 at Sta. 345+30.	700	No	$73,000	$73,000	$73,000	$73,000	$73,000	$73,000	JUA		1242 R	Yes
8" VCP City of Corona Sewer	Bore and jack casing and relocate 8" VCP sewer crossing SR-91 at Sta. 347+00.	500	No	$614,000	$614,000	$614,000	$614,000	$614,000	$614,000	Yes		1241 R	Yes
6" VCP City of Corona Sewer	Relocate along south side between 347+00 and 361+00.	400	No	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	Yes		1243 R	Yes
2" SCG	Extend casing and gas line north and south of SR-91 for crossing at Sta. 347+10.	200	No	$33,600	$33,600	$33,600	$33,600	$33,600	$33,600	Yes JUA		1246 R	Yes
8" ACP City of Corona Water – Increase to 12"	Relocate due to removal of 2nd Street south of SR-91 between Sta. 345+00 and 355+00. (Between Victoria Avenue and Grand Boulevard)	900	No	$220,500	$220,500	$220,500	$220,500	$220,500	$220,500			1247 R	Yes
8" VCP City of Corona Sewer	Relocate due to removal of 2nd Street south of SR-91 between Sta. 352+00 and 354+50.	500	No	$112,500	$112,500	$112,500	$112,500	$112,500	$112,500	Yes		1251 R	Yes
2" SCG	Relocate from joy to alley without joy due to removal of 2nd Street south of SR-91 between Sta. 350+80 and 352+50.	200	No	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	?		1250 R	Yes
AT&T underground	Relocate Line to East Grand Boulevard.	1500	No	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	?		1254 R	Yes
10" VCP City of Corona Sewer	Relocate 10" VCP sewer crossing East Grand Boulevard at Pearl Street.	600	No	$147,000	$147,000	$147,000	$147,000	$147,000	$147,000	Yes		4011 R	Yes
8" SCG	Relocate north of SR-91 between Sta. 351+00 and 352+70.	250	Yes	$87,000	$87,000	$87,000	$87,000	$87,000	$87,000	No		1248 R	Yes
2" SCG	Relocate along realigned Pearl Street north of SR-91 between Sta. 352+70 and 357+00.	370	No	$26,000	$26,000	$26,000	$26,000	$26,000	$26,000	No		1252 R	Yes
8" City of Corona Water	Relocate along realigned Pearl Street north of SR-91 between Sta. 352+70 and 357+00.	400	No	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000			1253 R	Yes
Gas Regulation Station SCG	Relocate to new location at intersection of East Grand Boulevard and Pearl Street.	N/A	No	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	No		4024 R	Yes
16" City of Corona Steel Water	Relocate along East Grand Boulevard lowered profile at Sta. 353+02.	1200	No	$318,000	$318,000	$318,000	$318,000	$318,000	$318,000			3041 R	Yes
8" HP SCG Gas	Relocate along East Grand Boulevard lowered profile at Sta. 353+65.	1200	No	$350,000	$350,000	$350,000	$350,000	$350,000	$350,000			3042 R	Yes
SCE overhead	Relocate portion of line to accommodate realignment of Pearl Street north of SR-91 at Sta. 356+20.	200	No	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	?		1256 R	Yes
15" VCP City of Corona Sewer	Relocate along new EB SR-91 on-ramp from Main Street south of SR-91 between Sta. 355+00 and 365+00.	1,000	No	$285,000	$285,000	$285,000	$285,000	$285,000	$285,000	Yes		1257 R	Yes
SCE overhead 12 kV distribution	Relocate with aerial and underground for crossing of SR-91 at Sta. 368+25.	1100	No	$268,500	$268,500	$268,500	$268,500	$268,500	$268,500	Yes JUA	Yes	1260 R	Yes
City of Corona Water	Relocate south of SR-91 between Sta. 369+50 and 372+00.	200	No	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000			1261 R	Yes
SCE overhead 12 kV distribution	Relocate with aerial and underground for crossing of SR-91 at Sta. 368+25.	1,500	No	$171,000	$171,000	$171,000	$171,000	$171,000	$171,000	Yes JUA	Yes	1264 R	Yes
21" VCP City of Corona Sewer	Relocate 400 LF 21" VCP sewer crossing at 370+50 CL SR-91 to miss Bent No. 3 of N15/S15-W91 connector BOH.	400	No	$220,000	$220,000	$220,000	$220,000	$220,000	$220,000	?		3051 R	Yes

Table J.1 Utility Relocations for Alternatives 1 and 2

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I	Column J	Column K	Column L	Column M	Column N
Utility Facility	Location/Description	Approximate Relocation Length (ft)	High- Risk Facility (Yes/No)	Impacted Alternatives and Cost (Note 5) of Relocation/Encasement: Alternative 1a	Alternatives 1b, 1c, and 1d (Note 6)	Var 1 Diamond Alternatives 2a and 2b (Note 7)	Var 2 Mid City Diamond Alternatives 2c and 2d (Note 8)	Var 3 Direct Alternatives 2e and 2f (Note 9)	Var 4 Mid City Direct Alternatives 2g and 2h (Note 10)	Prior Rights	Schedule Impacts	Crossing ID #	Occurs in the Initial Phases? (Note 11)
21" DIP City of Corona Sewer	Relocate 1,100 LF 21" DIP sewer right of 374+50 CL SR-91 to miss Bent No. 7 of E91-N15/S15 connector BOH.	1100	No	$430,000	$430,000	$430,000	$430,000	$430,000	$430,000	?		3053 R	Yes
10" VCP City of Corona Sewer	Extend casing on north side of SR-91 at Sta. 437+55.	30	No	$4,900	$4,900	$4,900	$4,900	$4,900	$4,900	Yes		1267 R	No
24" City of Corona Water	Bore and jack casing and relocate 24" water line crossing SR-91 at Sta. 437+70.	300	No	$386,000	$386,000	$386,000	$386,000	$386,000	$386,000	Yes		1269 R	No
SCE underground 12 kV distribution	Relocate on north side of SR-91 at back of shopping center between Sta. 476+00 and 483+00 (west of McKinley Street).	570	No	$91,000	$91,000	$91,000	$91,000	$91,000	$91,000	Yes		1270 R	No
24" City of Corona Water	Bore and jack casing and relocate 24" water line crossing SR-91 at Sta. 550+90.	300	No	$386,000	$386,000	$386,000	$386,000	$386,000	$386,000	Yes		1273 R	No
10" VCP City of Corona Sewer	Bore and jack casing and relocate 10" VCP sewer crossing SR-91 at Sta. 506+05.	300	No	$368,000	$368,000	$368,000	$368,000	$368,000	$368,000	Yes		1275 R	No
TOTAL COST FOR SEGMENT 2 IC				**$10,842,150**	**$10,842,150**	**$10,842,150**	**$10,842,150**	**$10,842,150**	**$10,842,150**				
12" City of Corona Water	Bore and jack casing and relocate 12" water line crossing SR-91 at Sta. 535+50.	300	No	$380,000	$380,000	$380,000	$380,000	$380,000	$380,000			1277 R	No
10" VCP City of Corona Sewer	Bore and jack casing and relocate 10"VCP sewer crossing SR-91 at Sta. 535+55.	300	No	$368,000	$368,000	$368,000	$368,000	$368,000	$368,000	Yes		1279 R	No
24" City of Corona Water	Bore and jack casing and relocate 24" water line crossing SR-91 at Sta. 544+10.	300	No	$386,000	$386,000	$386,000	$386,000	$386,000	$386,000	Yes		3061 R	No
8" City of Corona Water	Bore and jack casing and relocate 8" water line crossing SR-91 at Sta. 544+20.	300	No	$368,000	$368,000	$368,000	$368,000	$368,000	$368,000	Yes		3063 R	No
4" City of Corona Water	Bore and jack casing and relocate 4" water line crossing SR-91 at Sta. 545+30.	300	No	$368,000	$368,000	$368,000	$368,000	$368,000	$368,000	Yes		3065 R	No
15" City of Corona Water	Bore and jack casing and relocate 15" water line crossing SR-91 at Sta. 558+35.	300	No	$380,000	$380,000	$380,000	$380,000	$380,000	$380,000	Yes		3067 R	No
12" City of Corona Water	Bore and jack casing and relocate 12" water line crossing SR-91 at Sta. 558+42.	300	No	$380,000	$380,000	$380,000	$380,000	$380,000	$380,000	Yes		3069 R	No
36" City of Corona Water	Bore and jack casing and relocate 36" water line crossing SR-91 at Sta. 558+50.	300	No	$386,000	$386,000	$386,000	$386,000	$386,000	$386,000	Yes		3071 R	No
SCE overhead 12 kV distribution	Relocate portion of line to accommodate realignment of SR-91 eastbound off-ramp to Pierce Street south of SR-91 between Sta. 564+00 and 573+00.	900	No	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	Yes		1298 R	No
TOTAL COST FOR SEGMENT 2 EAST				**$3,091,000**	**$3,091,000**	**$3,091,000**	**$3,091,000**	**$3,091,000**	**$3,091,000**				
SUB TOTAL PROJECT				$31,384,950	$31,379,450	$32,577,950	$34,627,150	$32,739,950	$34,768,150				
CONTINGENCY 20%				$6,276,990	$6,275,890	$6,515,590	$6,925,430	$6,547,990	$6,953,630				
TOTAL COST FOR PROJECT				**$37,661,940**	**$37,655,340**	**$39,093,540**	**$41,552,580**	**$39,287,940**	**$41,721,780**				

Source: *Draft Project Report* (May 2011).

Notes and Assumptions:

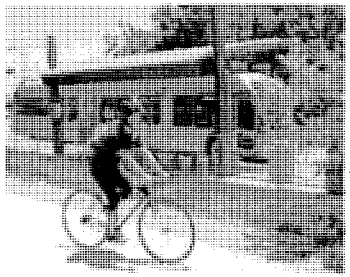
1) All stations are SR-91 stationing.
2) There are currently no utility relocations along I-15 (Seg 3).
3) The longest anticipated relocation length is shown (may vary by alternative).
4) All costs are total construction costs.
5) The costs shown are the utility relocation costs for Alternatives 1 and 2.
6) The utility relocation costs for Alternatives 1b, 1c, and 1d are the same for each design variation.
7) The utility relocation costs for Alternatives 2a and 2b are the same for these two design variations.
8) The utility relocation costs for Alternatives 2c and 2d are the same for these two design variations.
9) The utility relocation costs for Alternatives 2e and 2f are the same for these two design variations.
10) The utility relocation costs for Alternatives 2g and 2h are the same for these two design variations.
11) A "Yes" indicates this utility relocation would occur in the Initial Phase of Alternatives 1 and 2. A "No" indicates this utility relocation would occur after the Initial Phase of Alternatives 1 and 2.

BOH = bridge and overhead
DIP = ductile iron pipe
ft = feet/foot
I-15 = Interstate 15
JUA = Joint Use Agreement
kV = kilovolt
LF = linear feet
NE = northeast
PVC = polyvinyl chloride
SCE = Southern California Edison
SCG = Southern California Gas
SR-91 State Route 91
stn = Station
SW = southwest
TD = tile duct
VCP = vitrified clay pipe

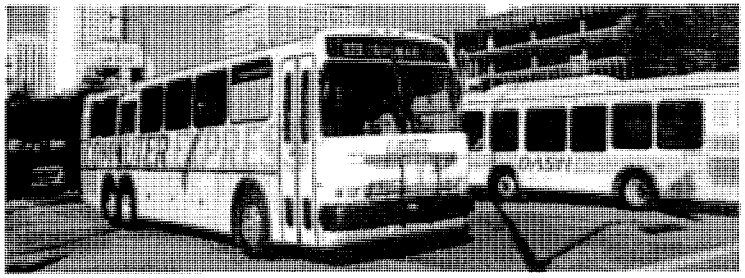
This page intentionally left blank

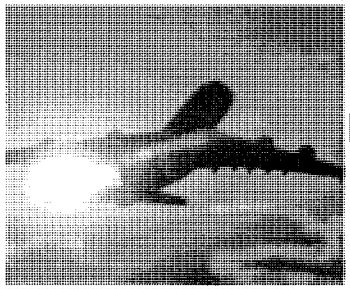
Appendix K 2012 RTP and 2011 FTIP (Amendment 24) Project Listings

This page intentionally left blank



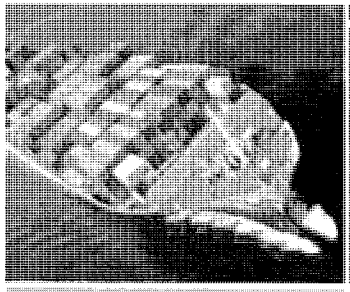






REGIONAL TRANSPORTATION PLAN
2012–2035
SUSTAINABLE COMMUNITIES STRATEGY
Towards a Sustainable Future

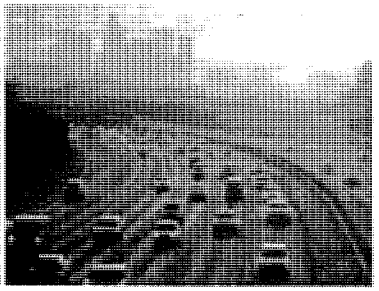
RTP











Southern California Association of Governments

ADOPTED APRIL 2012

Financially Constrained RTP Projects									
County	RTP ID	System	Route #	Route Name	From	To	Description	Project Completion By*	Project Cost ($1,000's)
RIVERSIDE	RIV080101	STATE HIGHWAY	86				AT SR86S/AIRPORT BLVD (AVE 66). CONSTRUCT NEW IC (3 LANE OC – 2 LNS (1 LN IN EA DIR) + 1 MEDIAN LN), AND RAMPS (1 LANE) FROM APPROX DESERT CACTUS DR TO 57TH AVE (EA: 47960, PPNO: 0078L)	2012	$35,610
RIVERSIDE	3M0717	STATE HIGHWAY	86				AT SR86S/AVENUE 52 (FROM APPROX 1.57 KM S/O AVE 52 TO 0.52 KM S/O AVE 50): CONSTRUCT 6 LANE IC AND RAMPS (2 LANES), REALIGN/ RELOCATE POLK ST (APPROX 1 MILE E/O AVE 52/ POLK ST INTERSECTION) AND AVE 52 (APPROX ½ MILE E/O POLK ST), INCLUDE EXTENDED RAMP ACCELERATION/DECELERATION LANES (EA: 0C960)	2018	$17,328
RIVERSIDE	RIV071250B	STATE HIGHWAY	91	SR-91	SR-241	PIERCE	ON SR-91/I-15: SR91 – ADD 1 MFL EA DIR (SR241-SR71)(I15-PIERCE); I15 – ADD TEL MED DIR CONNCT SB15 TO WB91 & EB91 TO NB15, 1 TEL EA DIR HIDDEN VALLEY-SR91 DIR CONNCT AND ONTARIO IC TO CAJALCO IC.	2035	$386,160
RIVERSIDE	3M01WT024	STATE HIGHWAY	91	SR-91 (PM 10.6 TO 11.6)	AT MAGNOLIA AVE	BTWN MERCED DR AND FILLMORE ST	RECONSTRUCT/WIDEN IC UC FROM 4 TO 6 LANES AND RECONSTRUCT/WIDEN RAMPS	2020	$23,164
RIVERSIDE	3M01WT026	STATE HIGHWAY	91	SR-91 (PM 12.9 TO 13.1)	AT TYLER ST	BTWN DIANA AVE & INDIANA AVE	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS	2030	$48,311
RIVERSIDE	3M01WT022	STATE HIGHWAY	91	SR-91 (PM 15.50 TO 15.70)	AT ADAMS ST	BTWN DIANA AVE & INDIANA AVE	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS	2020	$23,164
RIVERSIDE	3M01WT023	STATE HIGHWAY	91	SR-91 (PM 16.15 TO 17.15)	AT MADISON ST	BTWN GARDEN ST & INDIANA AVE	RECONSTRUCT/WIDEN IC AND RECONSTRUCT/WIDEN RAMPS	2020	$23,164
RIVERSIDE	RIV070308	STATE HIGHWAY	91				AT SR91/71 JCT: REPLACE EB 91 TO NB 71 CONNECTOR W/ DIRECT FLY-OVER CONNECTOR, AND RECONSTRUCT THE GREEN RIVER ROAD EB ON-RAMP (EA: 0F541) ($1,501/$639/$200 TOLL CREDITS WILL BE USED IN PS&E TO MATCH DEMO-SAFETEALU/DEMO-TEA21/STP, RESPECTIVELY. $159 TOLL CREDITS WILL BE USED IN R/W TO MATCH DEMO-SAFETEALU.)	2018	$122,658

*For modeled projects, represents the Plan network year for which the project was analyzed for the RTP modeling and regional emissions analysis

Financially-Constrained RTP Projects									
County	RTP ID	System	Route #	Route Name	From	To	Description	Project Completion By*	Project Cost ($1,000s)
RIVERSIDE	RIV050702	STATE HIGHWAY	91				GREEN RIVER RD LANDSCAPE ENHANCEMENTS: NEAR CORONA FROM 1.0 KM E/O ORANGE/RIVERSIDE CNTY LINE TO 1.35 KM W/O SR 71/91 SEP – INSTALL LANDSCAPE ENHANCEMENTS (EA: 45662, PPNO: 0072G)	2015	$1,832
RIVERSIDE	RIV010212	STATE HIGHWAY	91				ON SR91 – ADAMS TO 60/215 IC: ADD ONE HOV LN IN EACH DIRECTION, RESTRIPE TO EXTEND 4TH WB MIXED FLOW LANE FROM 60/215 IC TO CENTRAL OFF-RAMP, RESTRIPE TO EXTEND 5TH WB MIXED FLOW LANE FROM 60/215 IC TO 14TH ST OFF-RAMP, AUX LNS (MADISON-CENTRAL), BRIDGE WIDENING & REPLACEMENTS, EB/WB BRAIDED RAMPS, IC MOD/ RECONSTRUCT + SOUND/RETAINING WALLS	2018	$278,456
RIVERSIDE	30M0701-RIV071250	STATE HIGHWAY	91				ON SR-91/I-15: SR91 – CONST 1 MF LN (SR71-I15)/1 AUX LN VAR LOCS(SR241-PIERCE) (OC PM 14.43-18.91), CD SYSTEM (2/3/4 LNS MAIN-I15), 1 TOLL EXPR LN (TEL) & CONVERT HOV TO TEL EA DIR (OC-I15); I15- CONST TEL MED DIR CONNCT NB15 TO WB91 AND EB91 TO SB15, 1 TEL EA DIR SR91 DIR CONNCT-ONTARIO IC (I15 PM 37.56-42.94).	2018	$1,104,240
RIVERSIDE	3A07131	STATE HIGHWAY	111				IN PALM SPRINGS HWY 111 (VISTA CHINO) WIDENING: HWY 111 FROM 5 TO 6 THRU LNS (ADD A 3RD WB LN) BTWN VOLTURNO RD AND SUNRISE WY, INC. INT IMP @ SUNRISE WY/HWY 111 & FARRELL DR/HWY 111; AND WID. FROM 4 TO 6 THRU LNS (ADD A 3RD WB & EB LN) BTWN VOLTURNO RD & GENE AUTRY TR, INC. INT IMP AT GENE AUTRY TR/HWY 111. OTHER IMP INC. INT IMP @ HWY 111/ INDIAN CYN DR & PALM CYN DR/ HWY 111.	2020	$17,000
RIVERSIDE	3A04A27	STATE HIGHWAY	215	I-215 (PM 15.95 TO 16.95)	AT GARBANI RD	BTWN HAUN RD & ANTELOPE RD	CONSTRUCT NEW 4 LANE (2 LNS EAC DIR) AND RAMPS	2030	$44,813
RIVERSIDE	3M0719	STATE HIGHWAY	215	I-215 (PM 20.34 TO 21.34)	AT MCCALL BLVD	BTWN BRADLEY RD & ENCANTO DR	RECONSTRUCT/WIDEN IC FROM 4 TO 6 LANES AND RECONSTRUCT RAMPS	2030	$22,265

**For modeled projects, represents the Plan network year for which the project was analyzed for the RTP modeling and regional emissions analysis*

2011 Federal Transportation Improvement Program
Amendment #11-24
Riverside County
State Project Listing
Cost in Thousands

ProjectID	County	Air Basin	Model	RTP ID	Program	Route	Begin	End	System	Conformity Category	Amendment
RIV071250	Riverside	SCAB	0203	30M0701	CAX62	91		11.55	S	NON-EXEMPT	24
Description:							PTC	1,104,240	Agency	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	

ON SR-91/I-15: SR91 - CONST 1 MF LN (SR71-I15)/1 AUX LN VAR LOCS(SR241-PIERCE) (OC PM 14.43-18.91), CD SYSTEM (2/3/4 LNS MAIN-I15), 1 TOLL EXPR LN (TEL) & CONVERT HOV TO TEL EA DIR (OC-I15); I15- CONST TEL MED DIR CONNCT NB15 TO WB91 AND EB91 TO SB15, 1 TEL EA DIR SR91 DIR CONNCT-ONTARIO IC (I15 PM 37.56-42.94).

Fund	ENG	R/W	CON	Total	Prior	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	Total
AGENCY	244,990	157,730	699,520	1,102,240	32,000			1,070,240				1,102,240
NATIONAL HWY SYSTEM - RIP			2,000	2,000			2,000					2,000
RIV071250 Total	244,990	157,730	701,520	1,104,240	32,000		2,000	1,070,240				1,104,240

ProjectID	County	Air Basin	Model	RTP ID	Program	Route	Begin	End	System	Conformity Category	Amendment
RIV060106	Riverside	SCAB	0203	RIV060106	CARH3	91	3.71	3.71	S	NON-FEDERAL/NON-REGIONAL	24
Description:							PTC	3,133	Agency	CORONA	

AT SR91/SERFAS CLUB DR IC: WIDEN UC ARTERIAL (BTWN WARDLOW & FRONTAGE) 5 TO 6 LNS (FOR 2ND LEFT-TURN LN), ADD SB RIGHT-TURN LN TO WB ENTRY RAMP, & WIDEN EB EXIT RAMP 2 TO 3 LNS

Fund	ENG	R/W	CON	Total	Prior	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	Total
CITY FUNDS	483		2,650	3,133	483		2,650					3,133
RIV060106 Total	483		2,650	3,133	483		2,650					3,133

ProjectID	County	Air Basin	Model	RTP ID	Program	Route	Begin	End	System	Conformity Category	Amendment
RIV090901	Riverside	SCAB	0203	3M0802	NCN21	91	12.2	12.9	S	NON-EXEMPT	24
Description:							PTC	3,440	Agency	RIVERSIDE, CITY OF	

IN THE CITY OF RIVERSIDE ON SR-91, CONSTRUCT EB AUXILIARY LANE FROM LA SIERRA AVE ON-RAMP TO TYLER ST OFF-RAMP (EA 0N320)

Fund	ENG	R/W	CON	Total	Prior	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	Total
CITY FUNDS	440		3,000	3,440	3,440							3,440
RIV090901 Total	440		3,000	3,440	3,440							3,440

ProjectID	County	Air Basin	Model	RTP ID	Program	Route	Begin	End	System	Conformity Category	Amendment
RIV091008	Riverside	SSAB		3A07131	CAX63	111	51.6	53.9	S	NON-EXEMPT	24
Description:							PTC	17,000	Agency	PALM SPRINGS	

IN PALM SPRINGS HWY 111 (VISTA CHINO) WIDENING: HWY 111 FROM 5 TO 6 THRU LNS (ADD A 3RD WB LN) BTWN VOLTURNO RD AND SUNRISE WY, INC. INT IMP @ SUNRISE WY/HWY 111 & FARRELL DR/HWY 111; AND WID. FROM 4 TO 6 THRU LNS (ADD A 3RD WB & EB LN) BTWN VOLTURNO RD & GENE AUTRY TR, INC. INT IMP AT GENE AUTRY TR/HWY 111. OTHER IMP INC. INT IMP @ HWY 111/ INDIAN CYN DR & PALM CYN DR/HWY 111.

Fund	ENG	R/W	CON	Total	Prior	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	Total
CITY FUNDS	2,000	5,000		7,000				2,000			5,000	7,000
RIV091008 Total	2,000	5,000		7,000				2,000			5,000	7,000

ProjectID	County	Air Basin	Model	RTP ID	Program	Route	Begin	End	System	Conformity Category	Amendment
RIV110122	Riverside	SCAB	0203	3M0738	CAX63	215	8	10	S	NON-EXEMPT	24
Description:							PTC	13,000	Agency	RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	

ON I-215 IN SW RIVERSIDE COUNTY FROM MURRIETA HOT SPRINGS RD TO I-215/I-15 JUNCTION, CONSTRUCT A THIRD MIXED FLOW LANE SOUTHBOUND (WIDENS I-215/I-15 CONNECTOR FROM 2 TO 3 LANES)

Fund	ENG	R/W	CON	Total	Prior	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	Total
RIV CO SALES TAX	1,800	400	10,800	13,000		900	1,300			10,800		13,000
RIV110122 Total	1,800	400	10,800	13,000		900	1,300			10,800		13,000

Appendix L Project Features

This appendix contains mapbooks that show the project footprints for Alternatives 1 and 2 and their design variations. It also contains a figure showing the No Build Alternative.

This appendix is organized as follows:

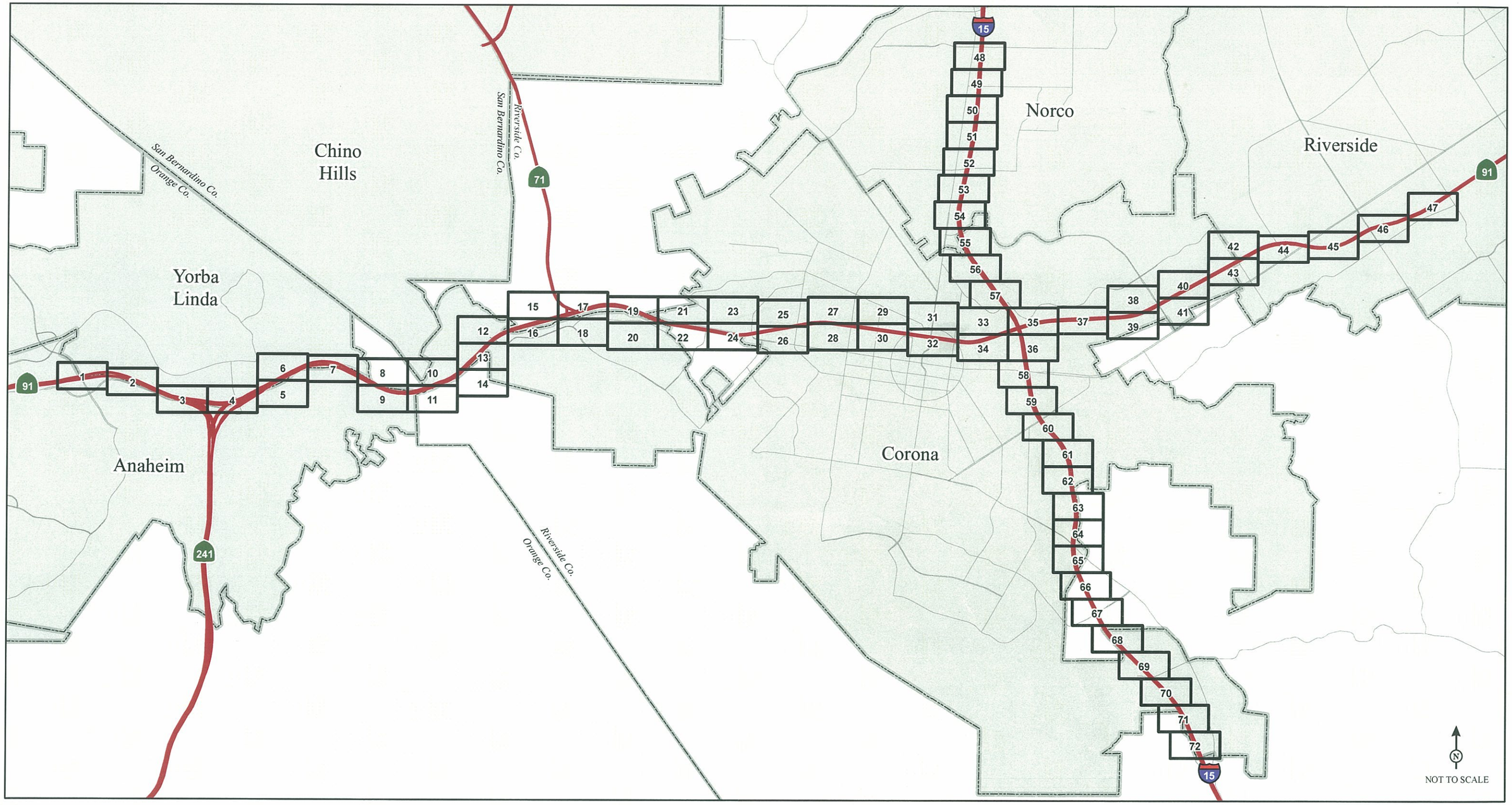
- **Appendix L1:** Alternative 1 Project Features (73 sheets)
- **Appendix L2:** Alternative 2 Project Features (80 sheets)
- **Appendix L3:** No Build Alternative (17 sheets)

This page intentionally left blank

Appendix L1

Alternative 1 Project Features

This page intentionally left blank



LEGEND

- Map Page
- County/Unincorporated Boundary
- City Boundary

APPENDIX L1

Index

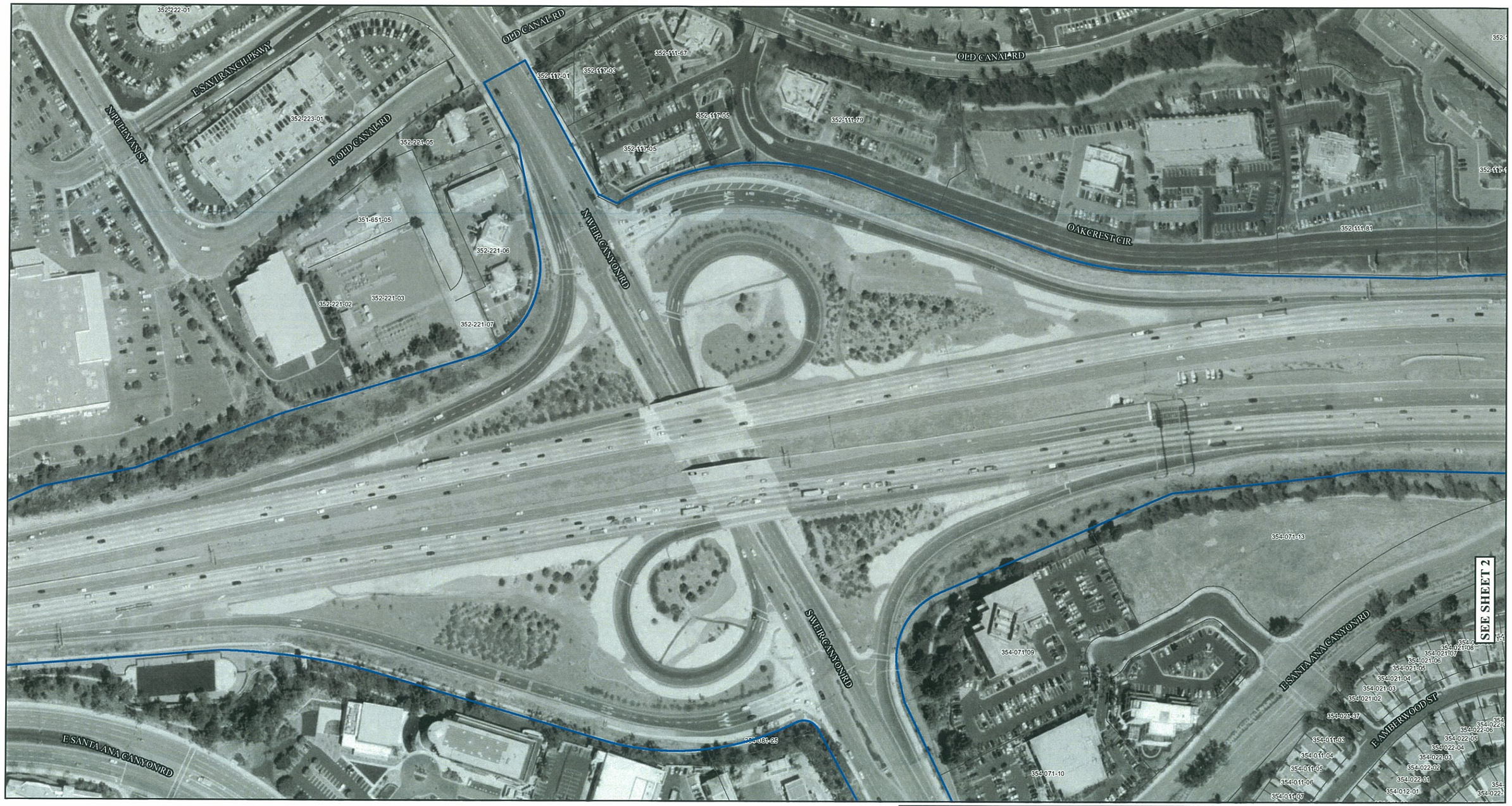
SR-91 Corridor Improvement Project

Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

SOURCE: Parsons Brinckerhoff (2008), Thomas Bros. (2007).

I:\PAZ0701\GIS\Basemap\INDEX_ALT1_ProjectFeatures.mxd (10/7/2010)



N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



APPENDIX L1
Sheet 1 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

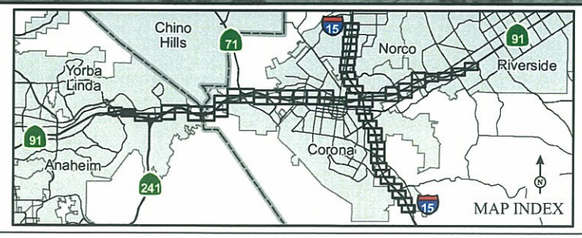
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



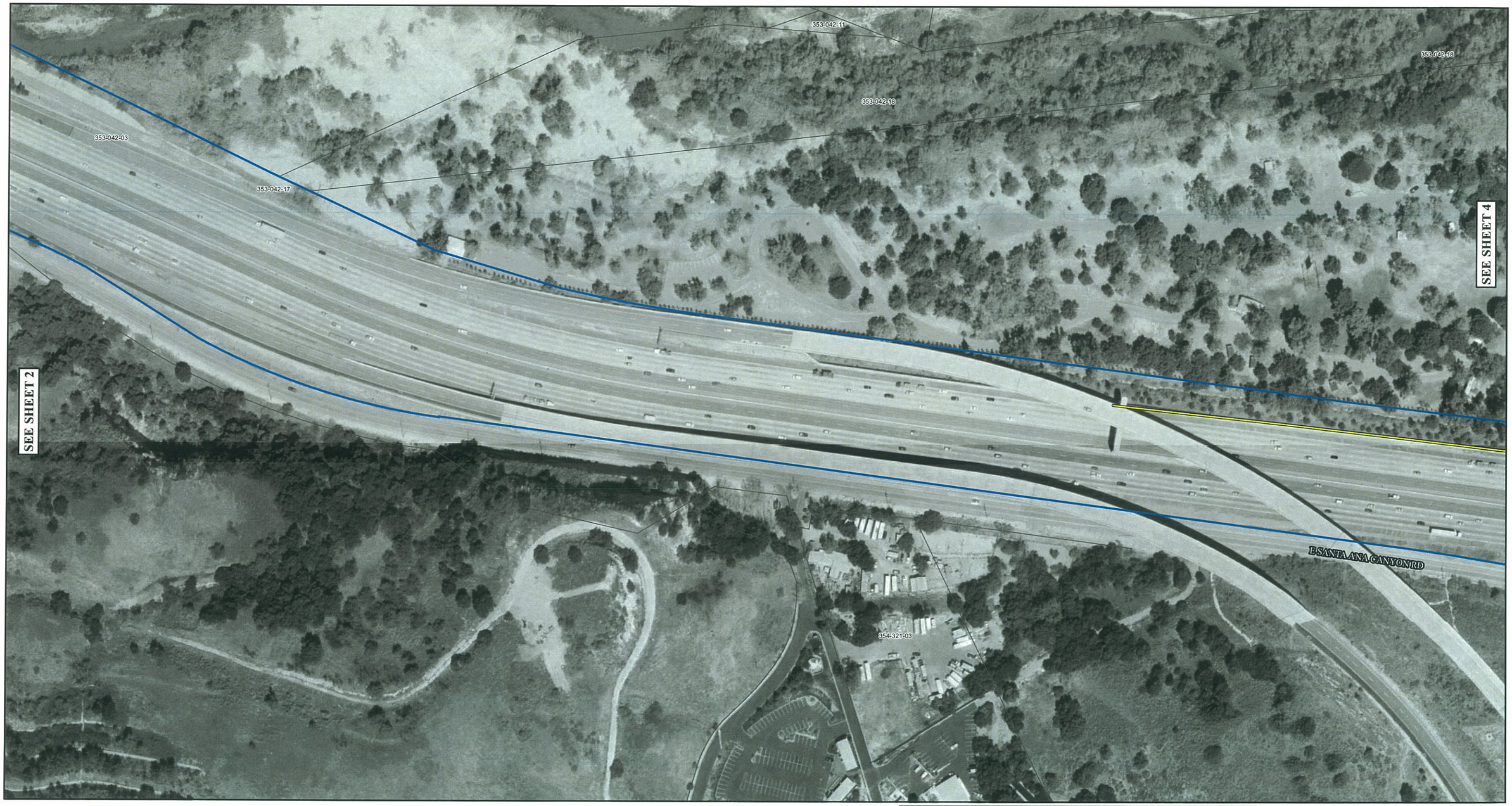
AP

SR-91 Corridor Improven

Alternative 1 - Proje

12-Ora-9
08-Riv-
08-Ri

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)

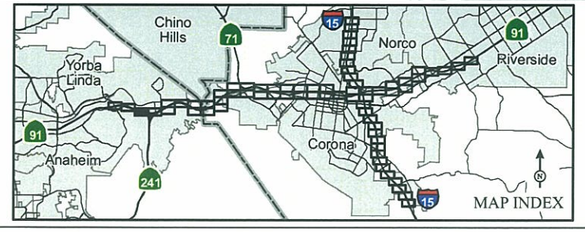


N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

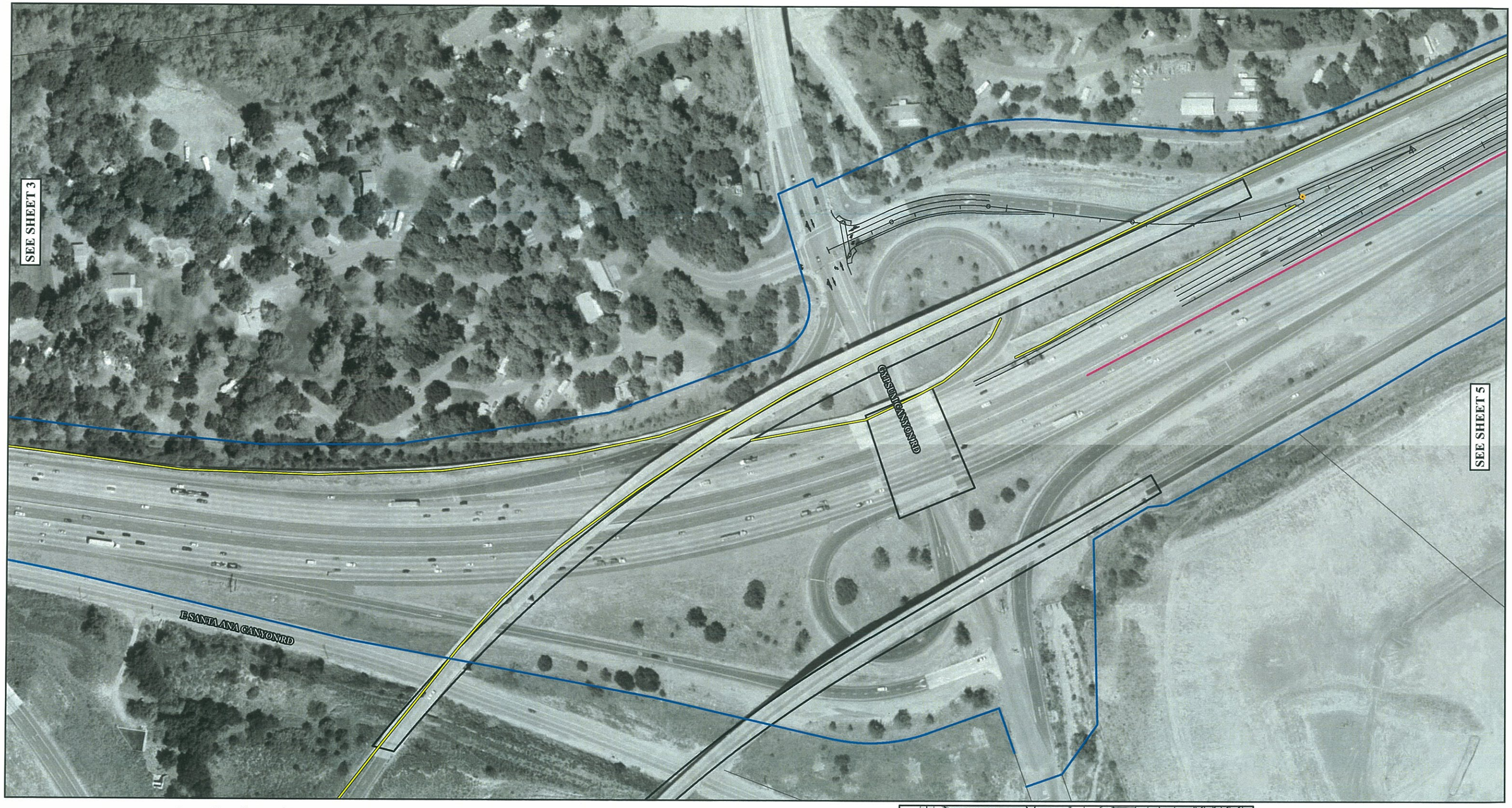


APPENDIX L1
Sheet 3 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



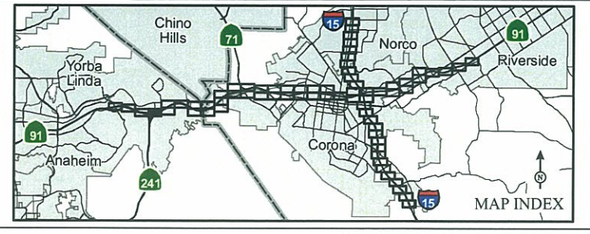
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

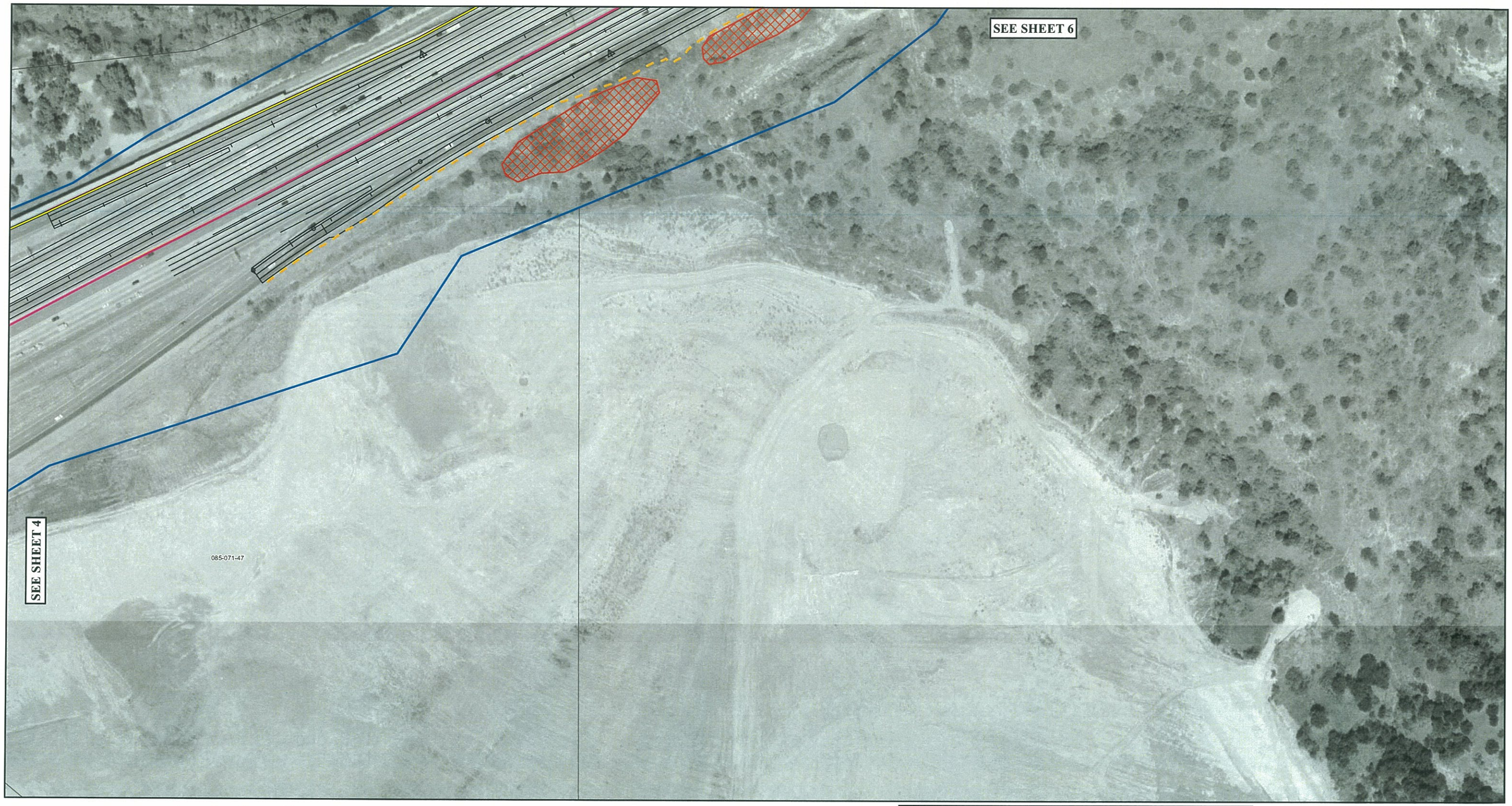
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 4 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

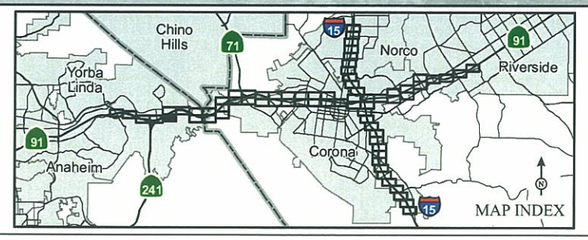


Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 5 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

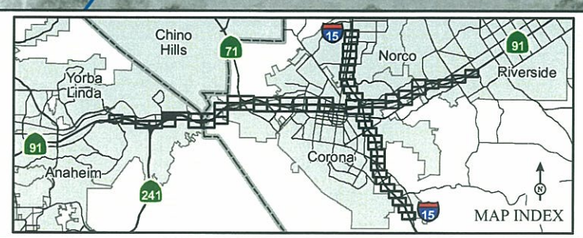


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

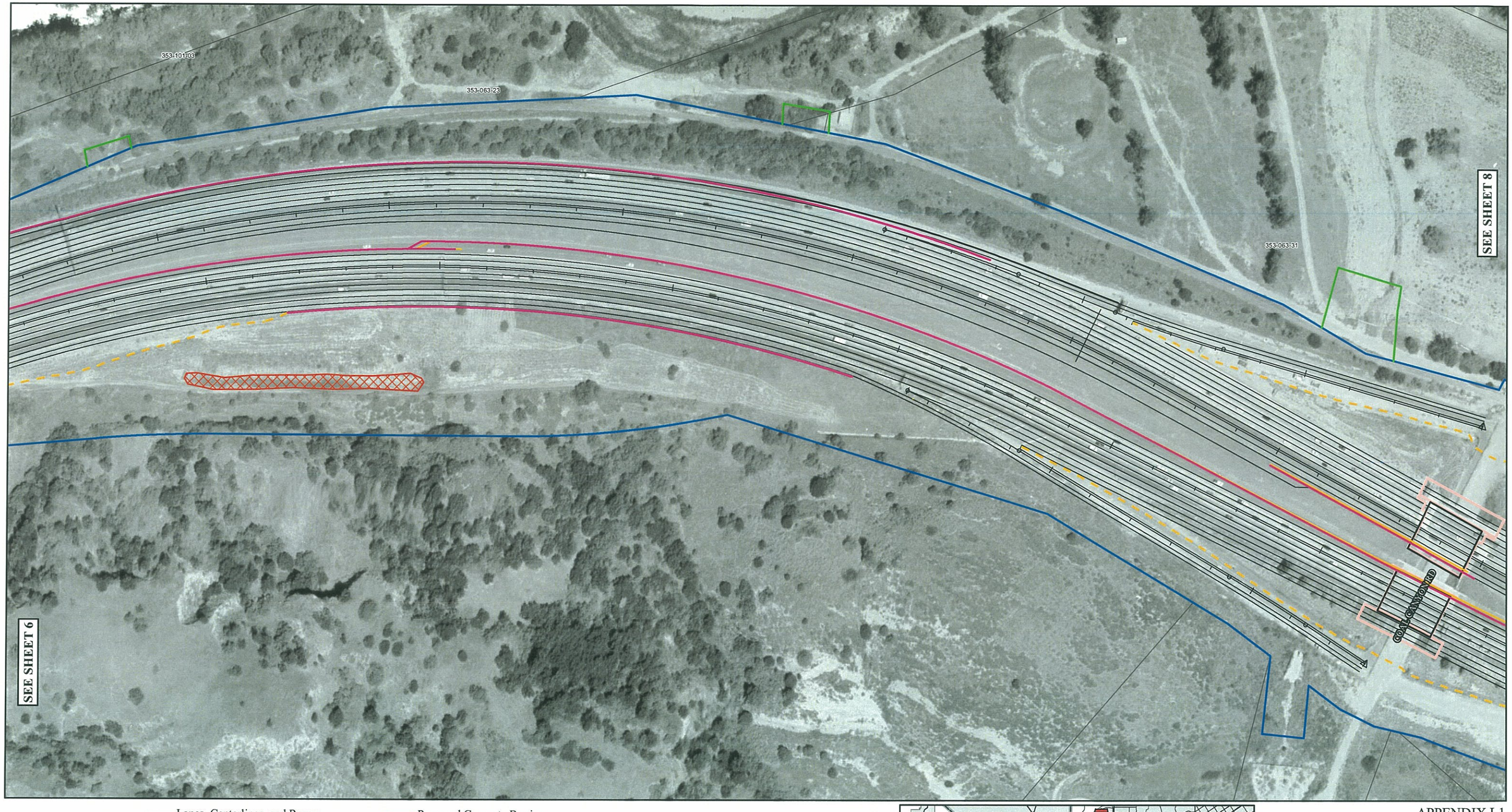
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 6 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

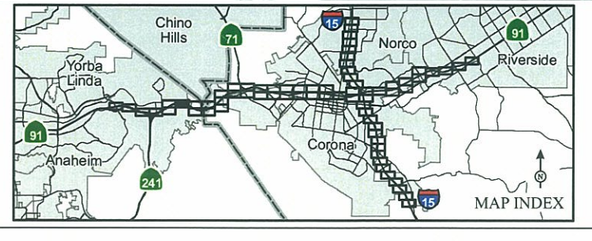


Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 7 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



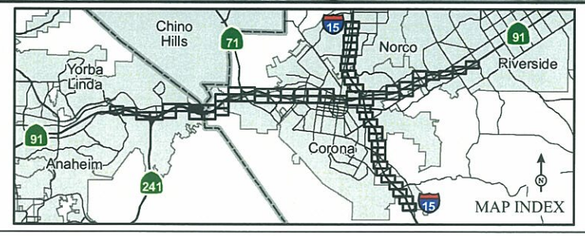
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

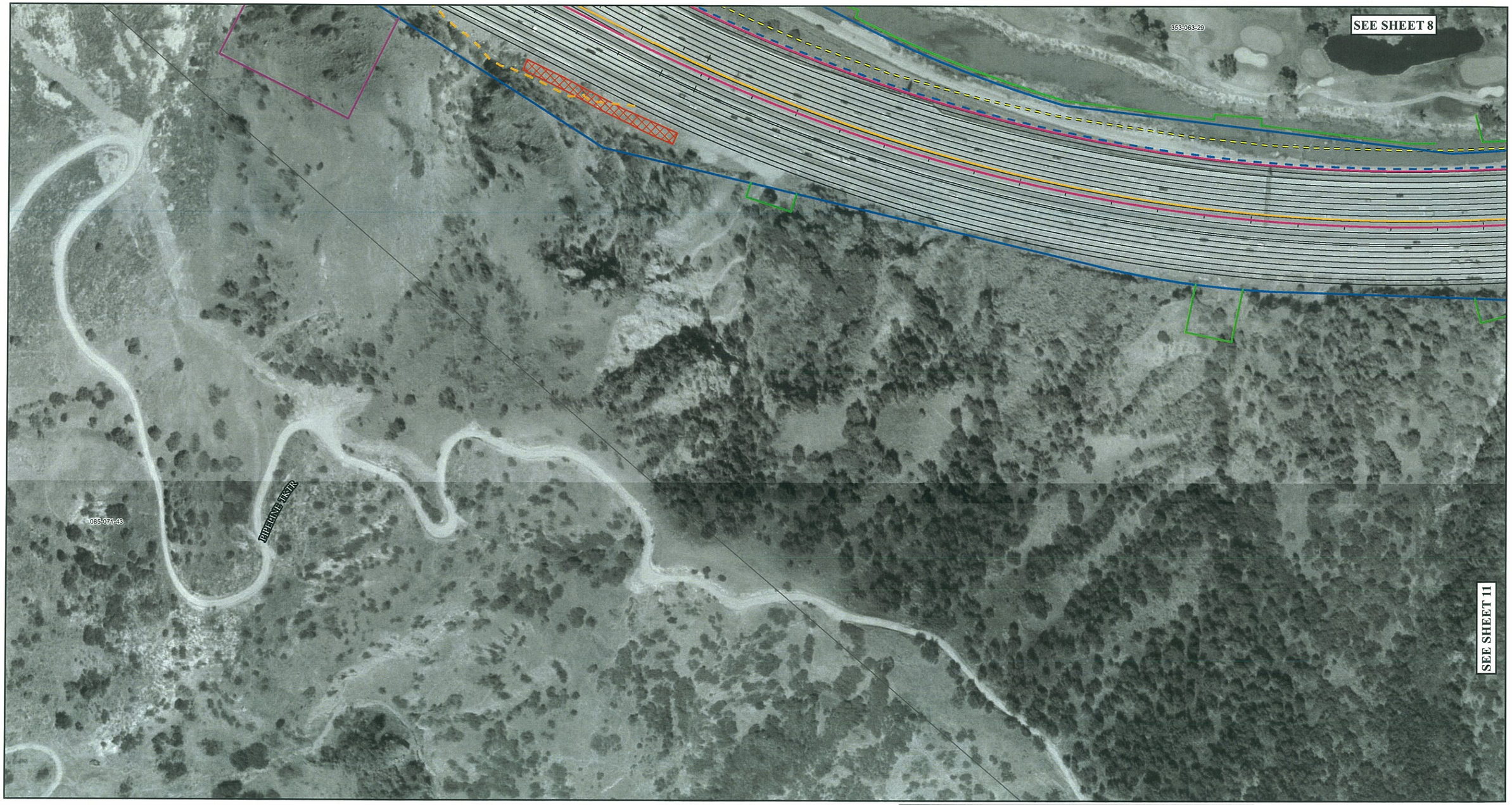
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 8 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



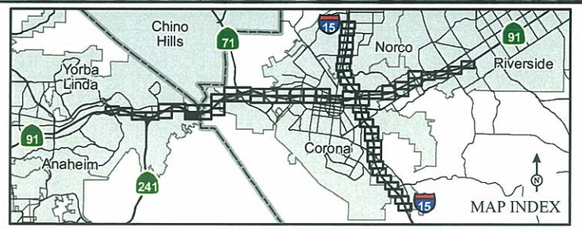
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 9 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



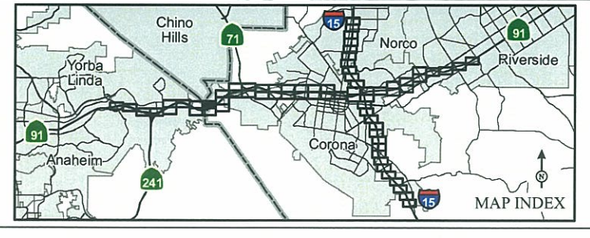
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

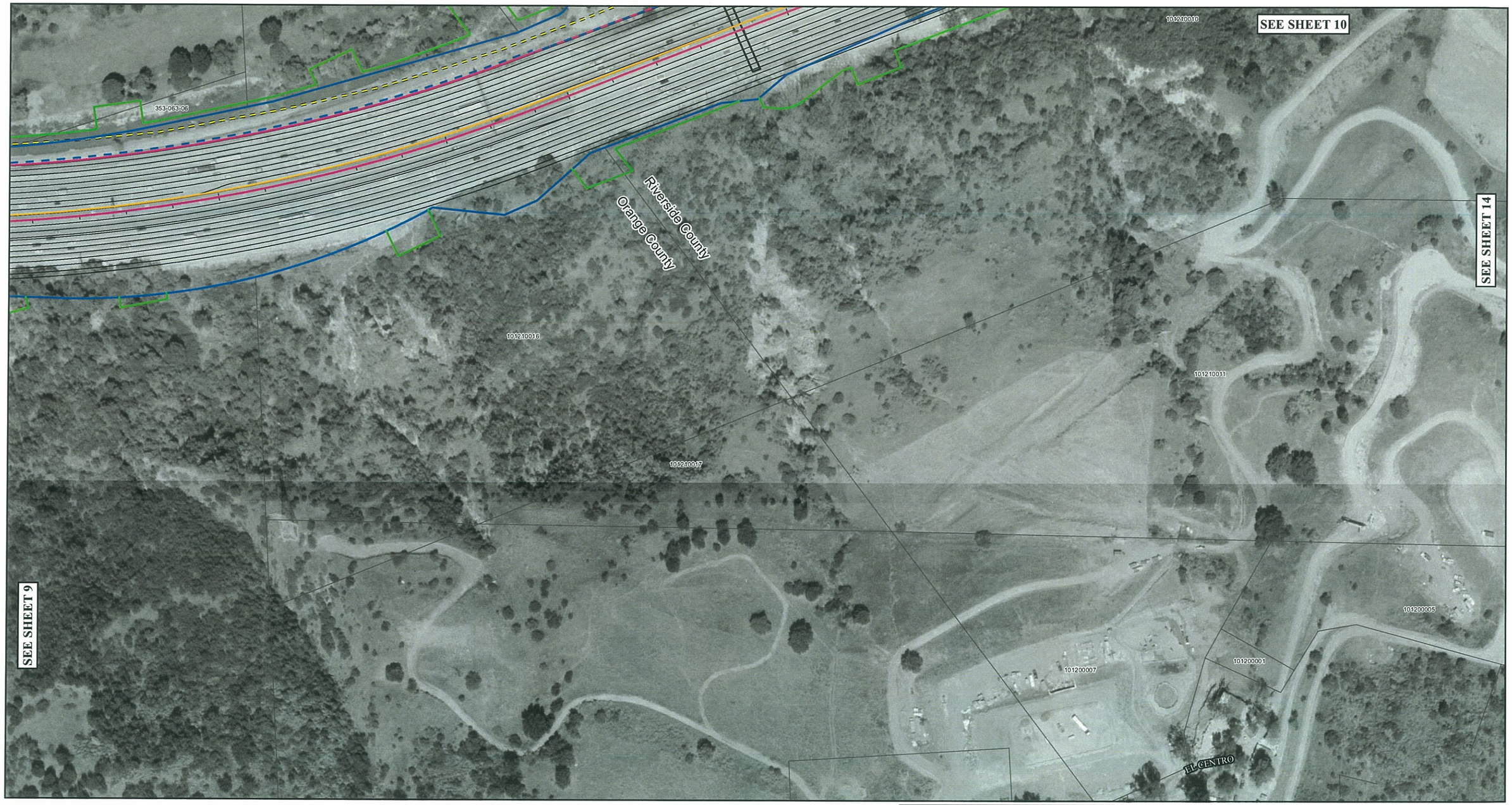
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 10 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



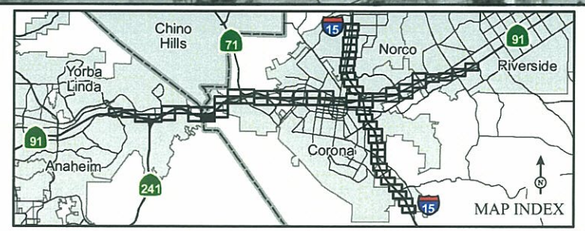
N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)

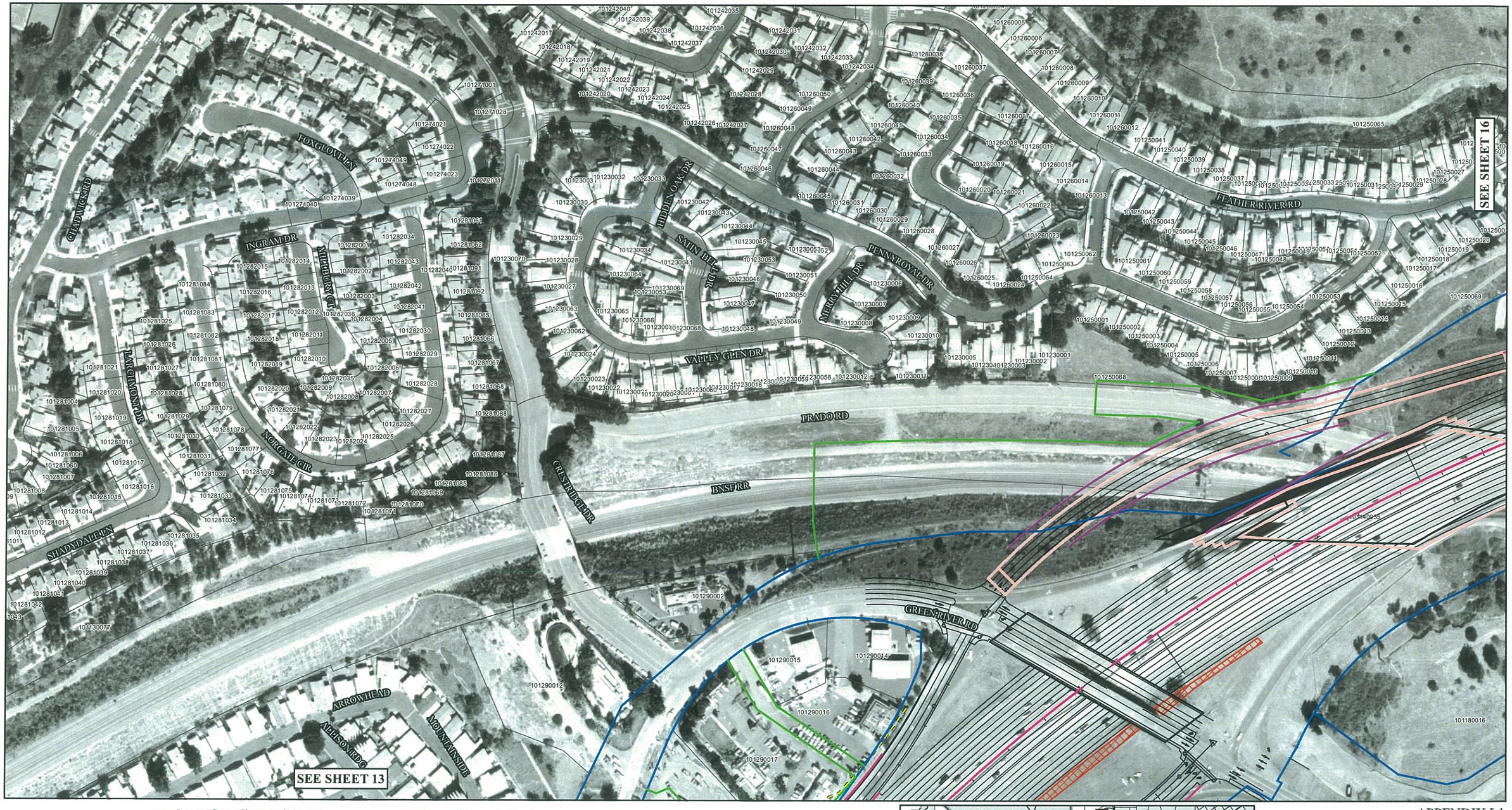
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



APPENDIX L1
Sheet 11 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



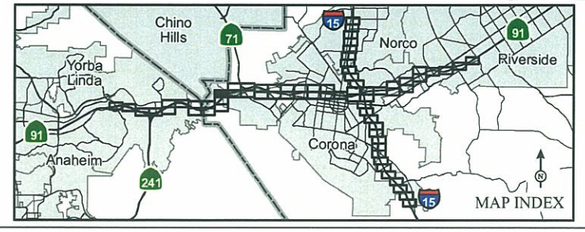
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

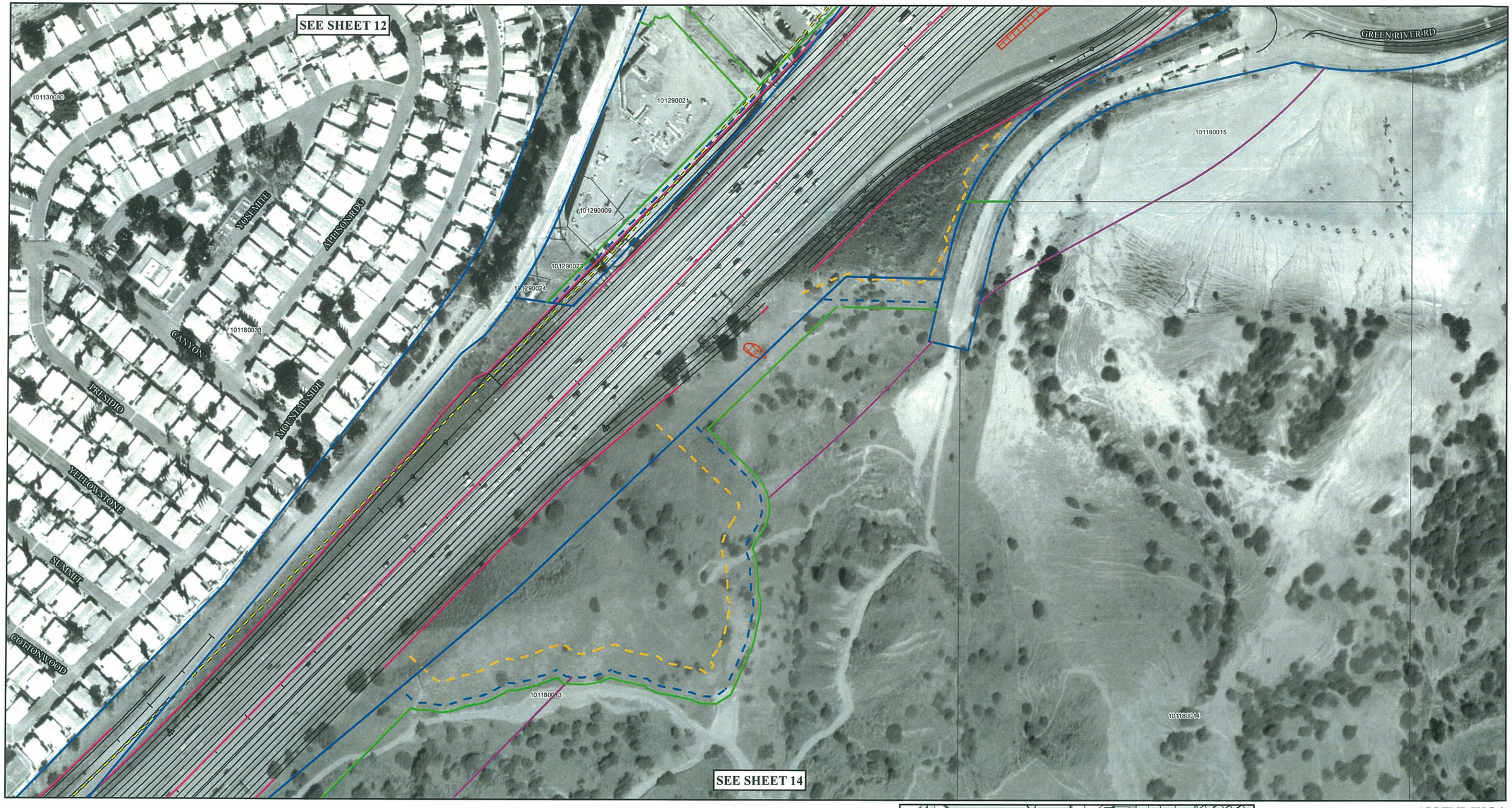
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 12 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



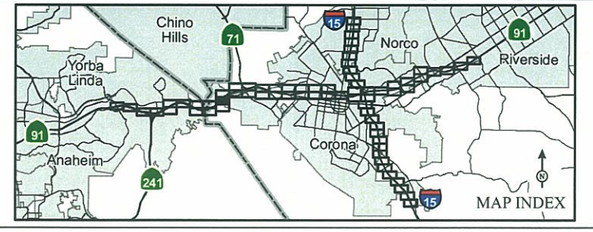
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 13 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

SEE SHEET 13

SEE SHEETS 10 & 11

101210003

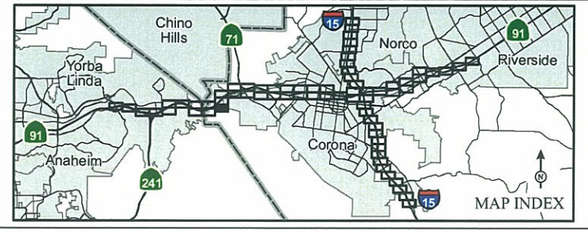
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 14 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

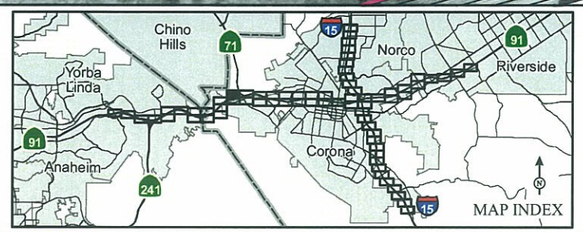


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 15 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 16 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

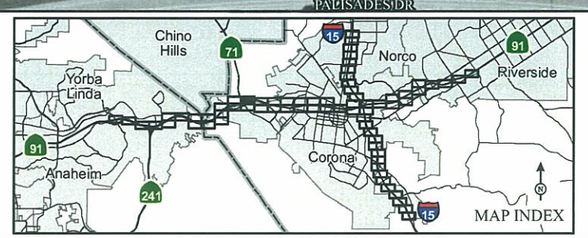
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)

APPENDIX L1
Sheet 17 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

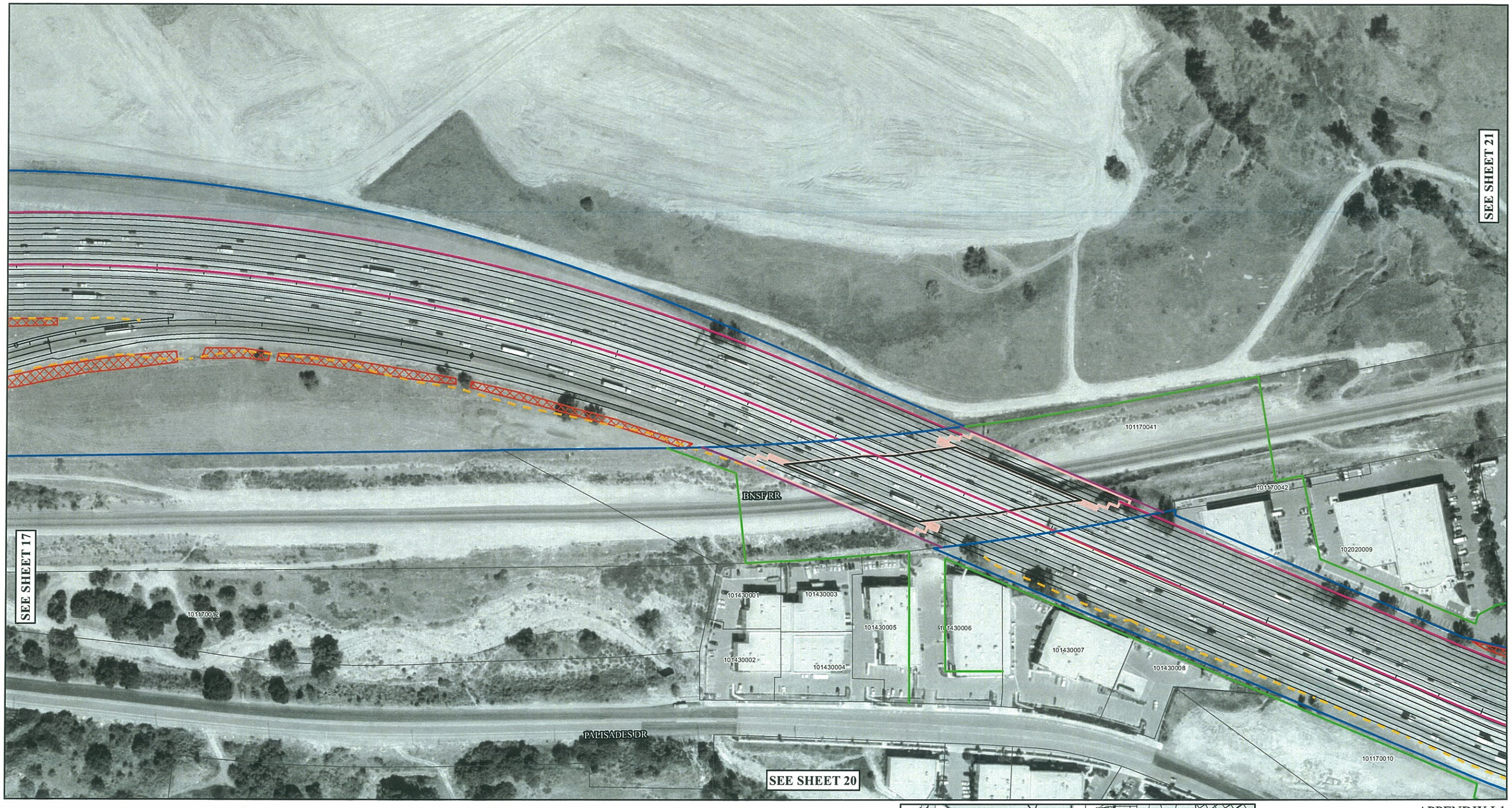
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 18 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



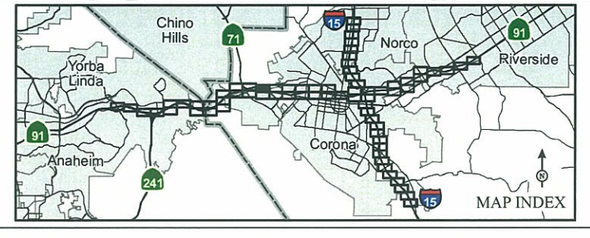
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 19 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

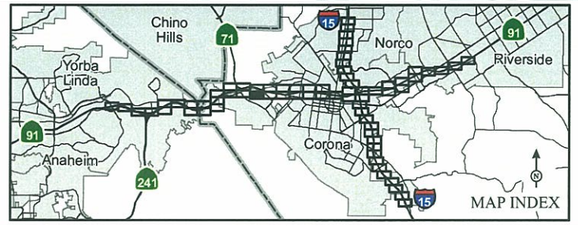


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 20 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

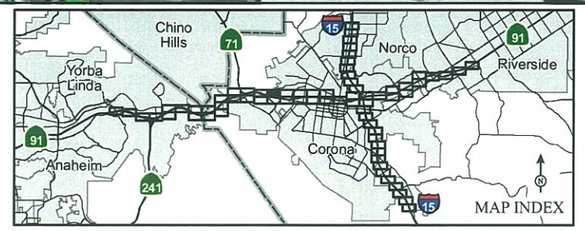
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 21 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)

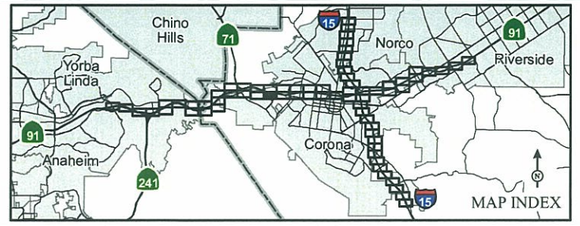


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 22 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

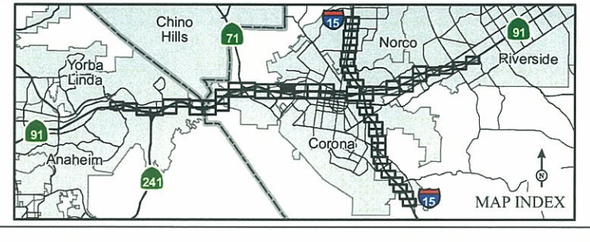


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

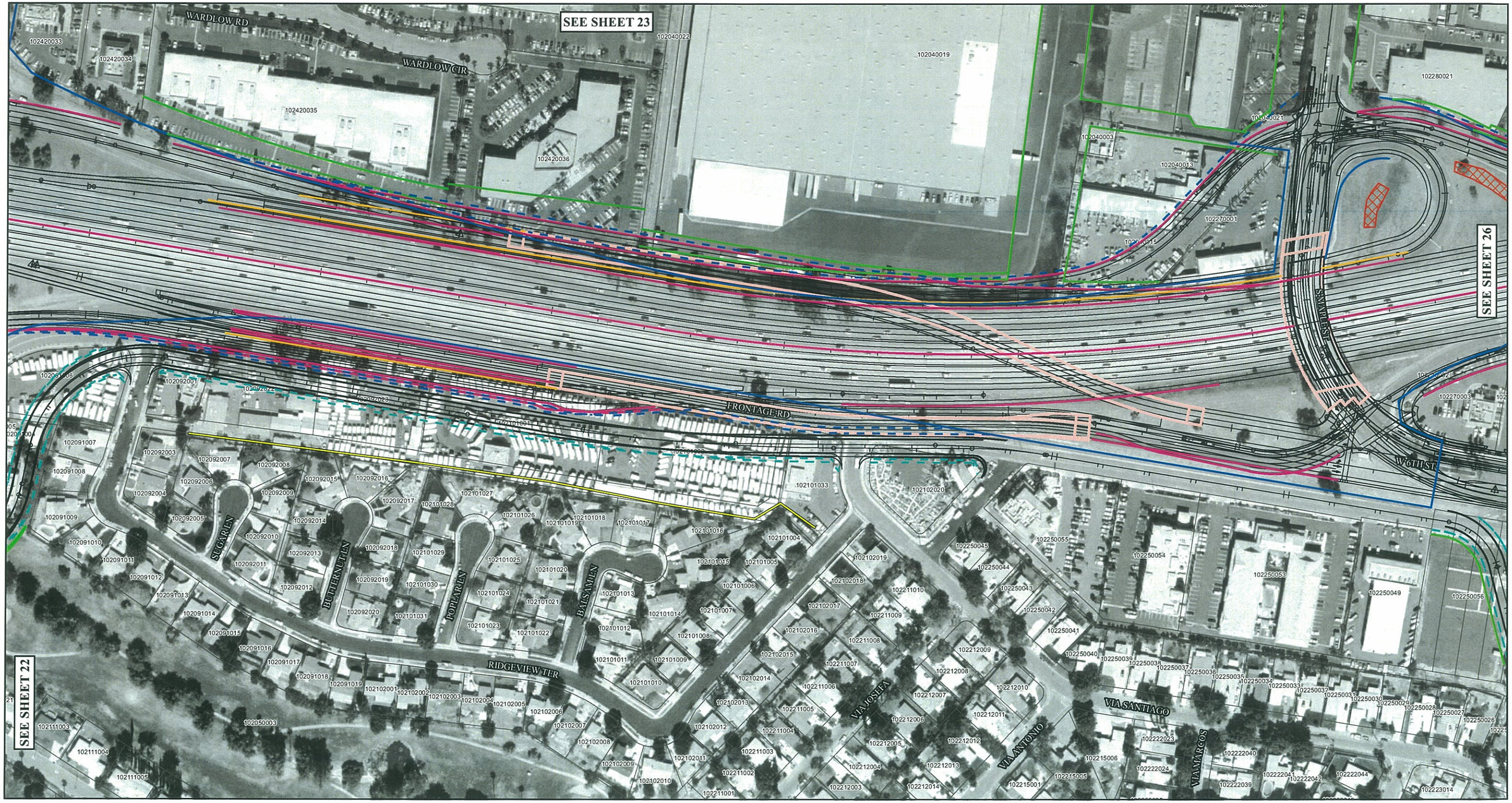
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 23 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

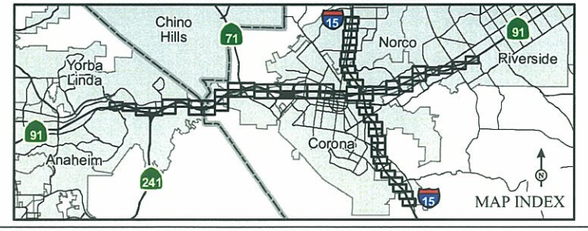


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 24 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



APPENDIX L1
Sheet 25 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



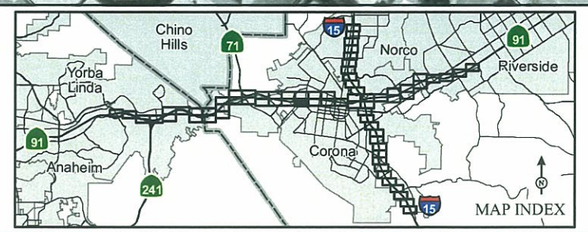
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 26 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

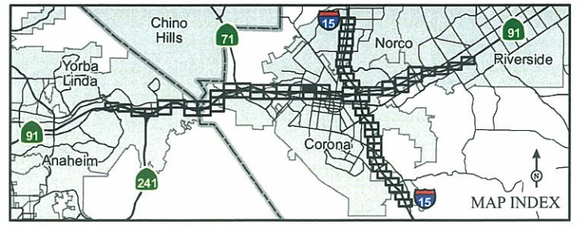
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



APPENDIX L1
Sheet 27 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

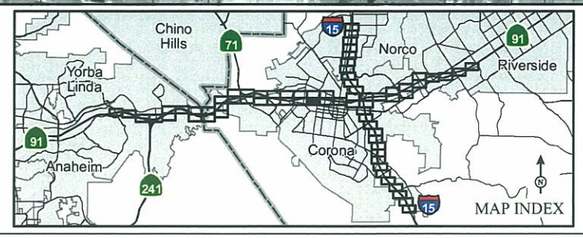
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 28 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

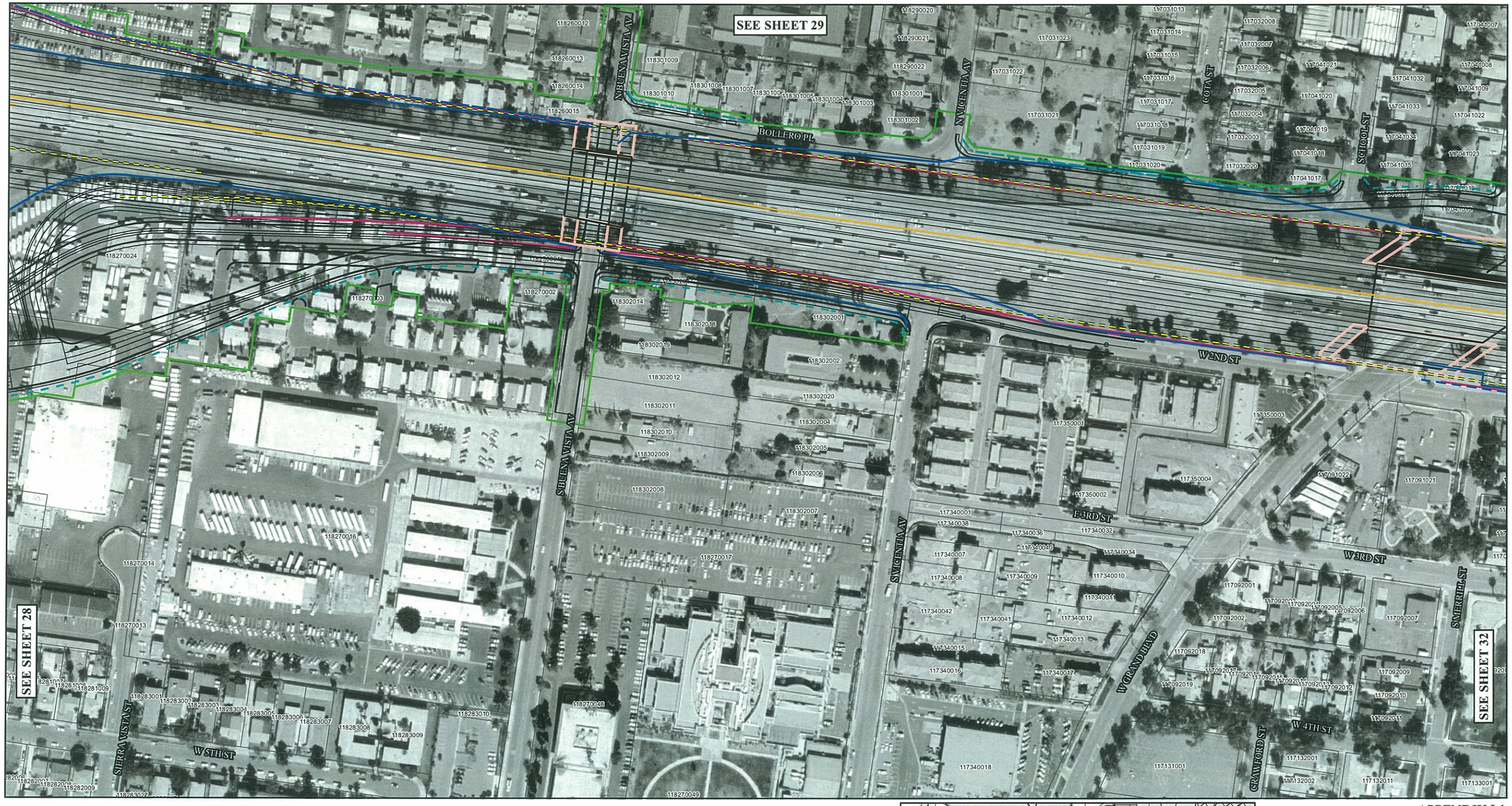
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 29 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

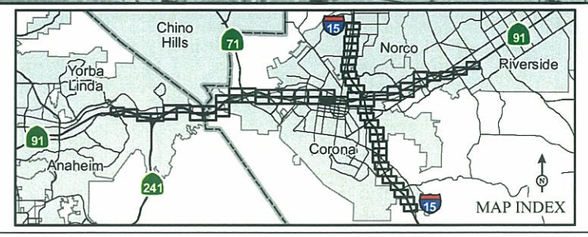
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 30 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 31 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

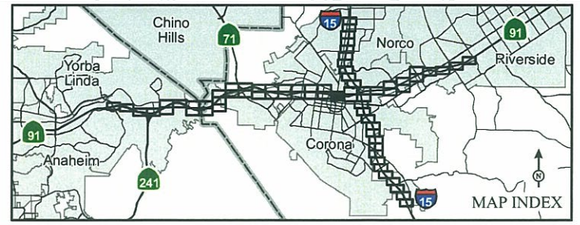


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 32 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

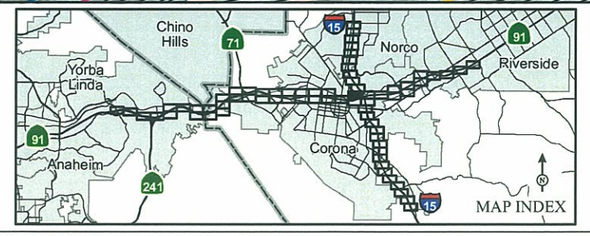


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

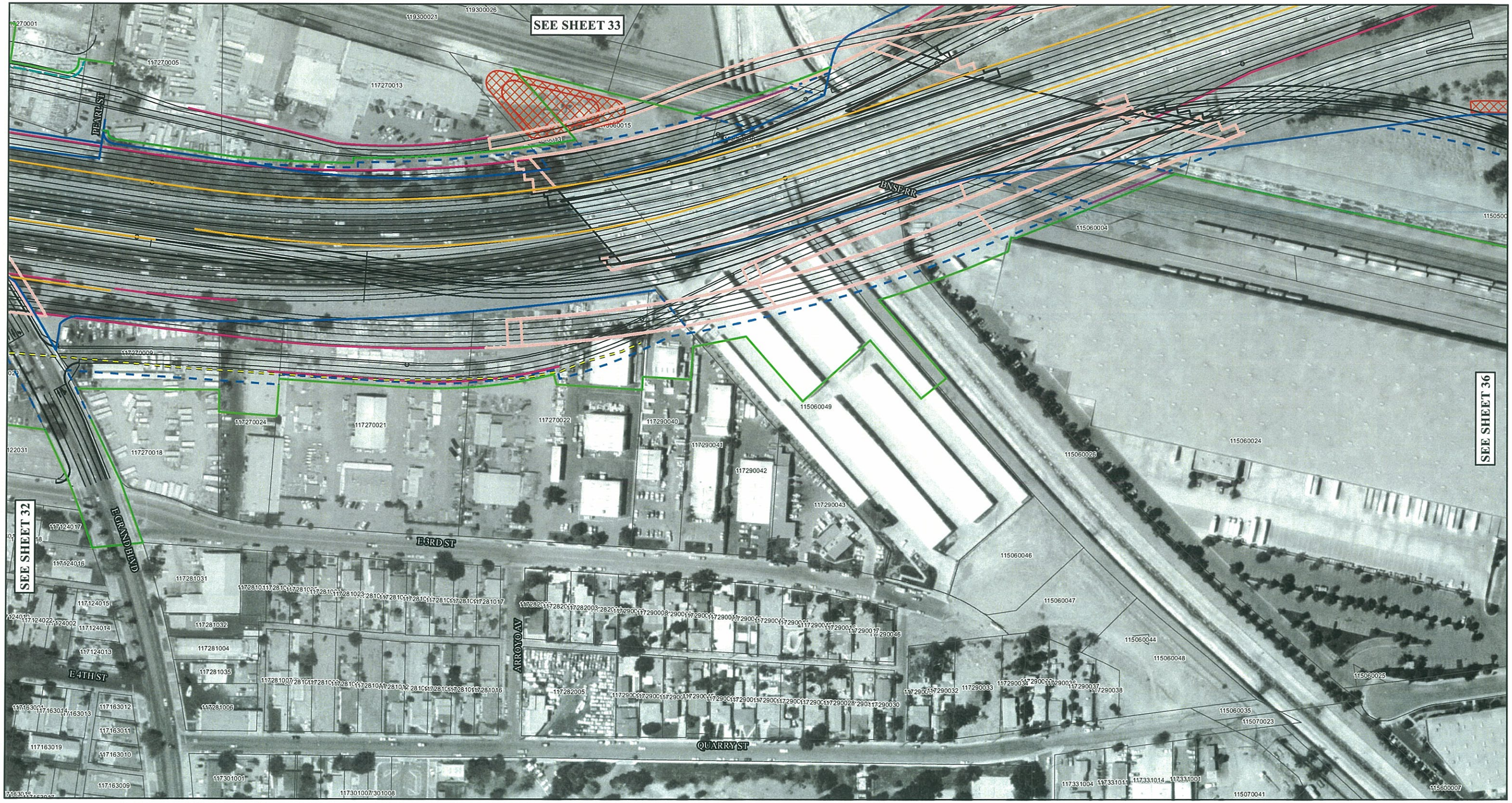
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 33 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

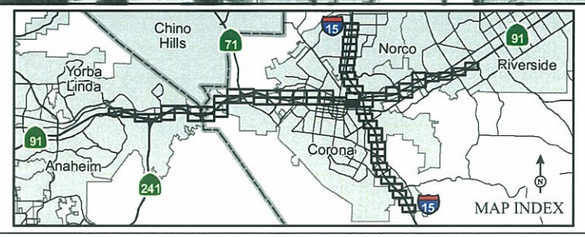
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 34 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

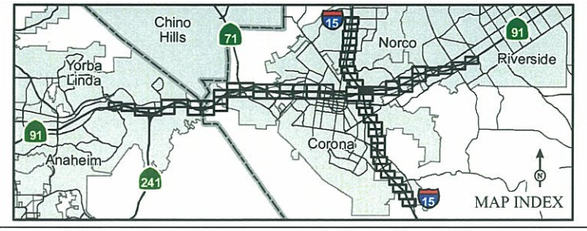
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 35 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



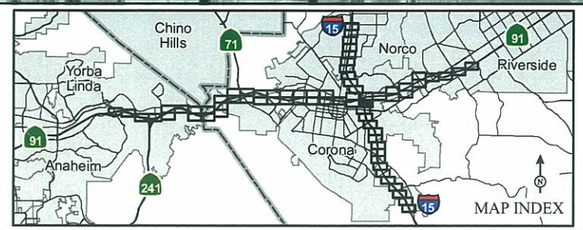
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

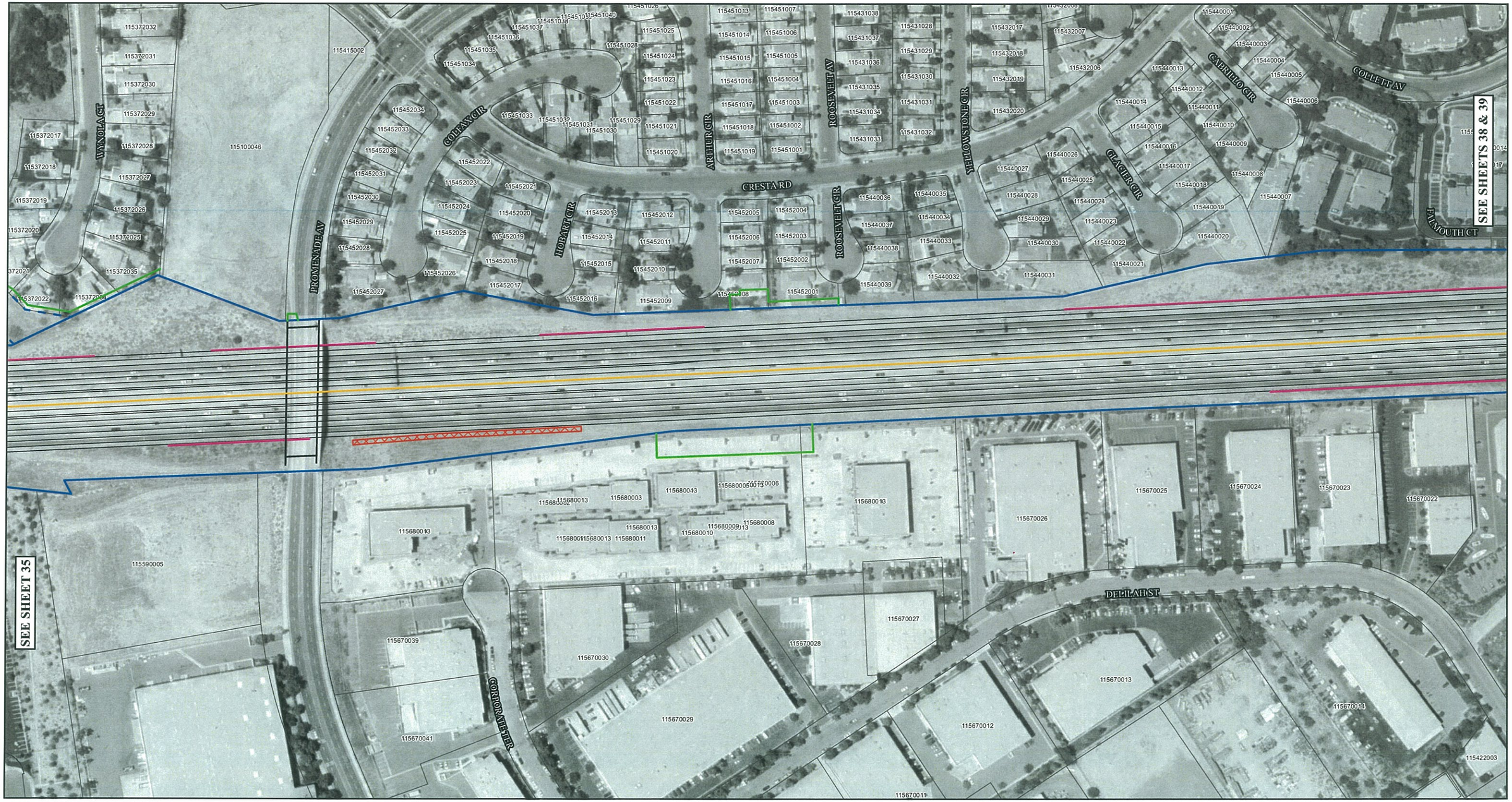
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 36 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

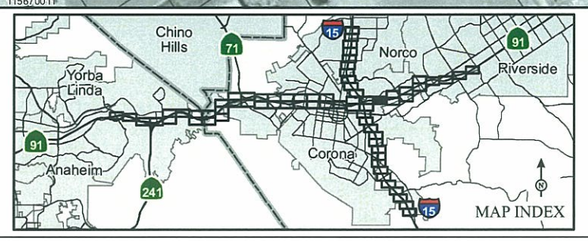
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

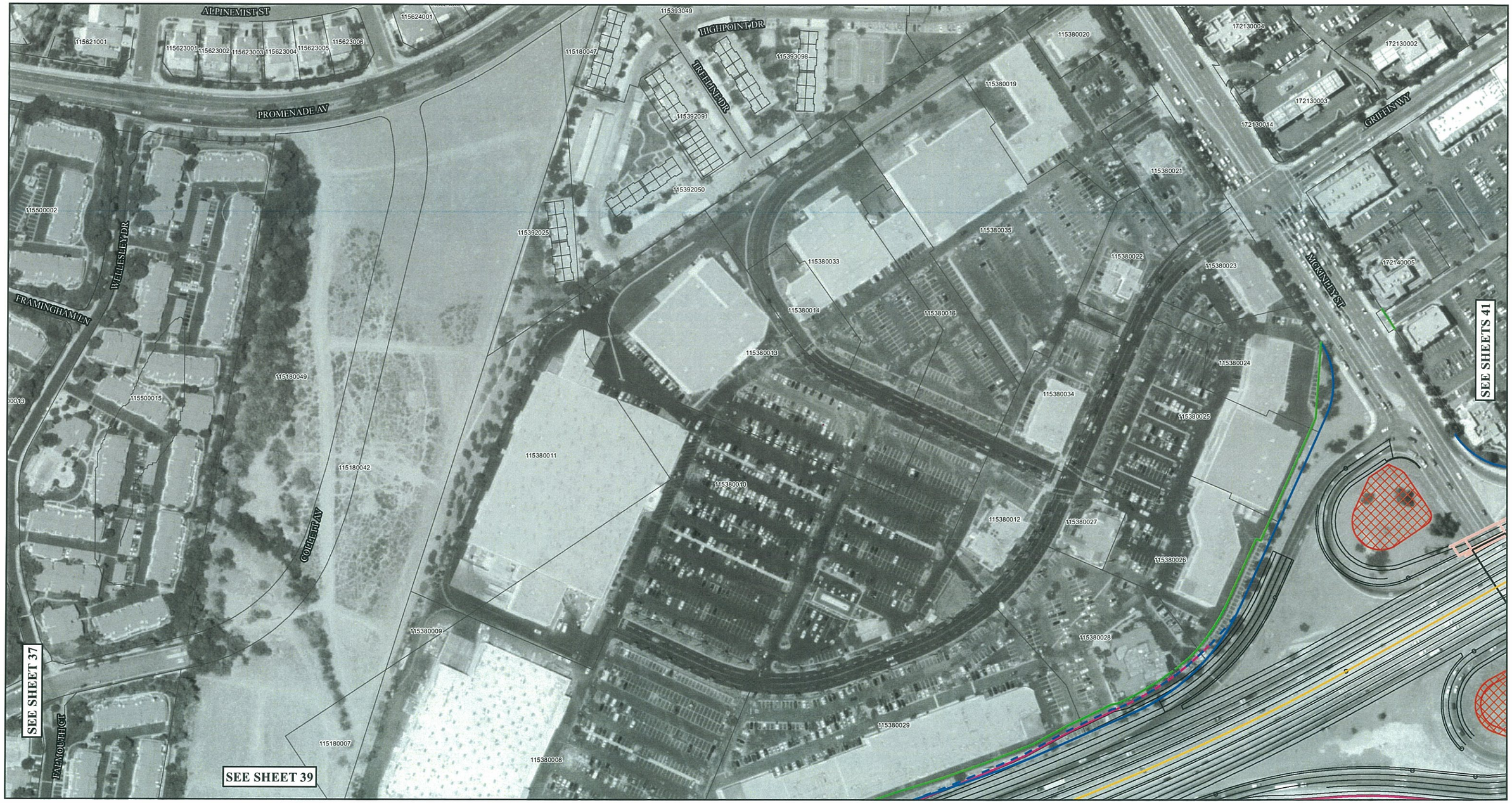


APPENDIX L1
Sheet 37 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 38 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

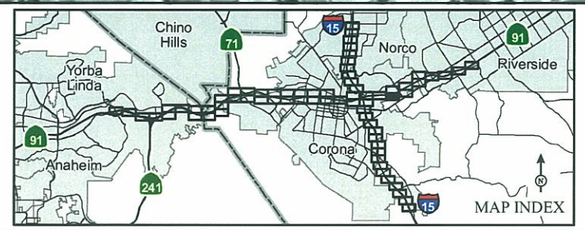


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 39 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

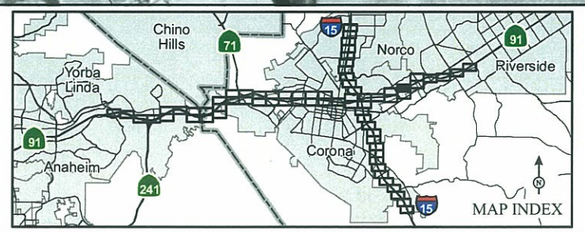
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 40 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

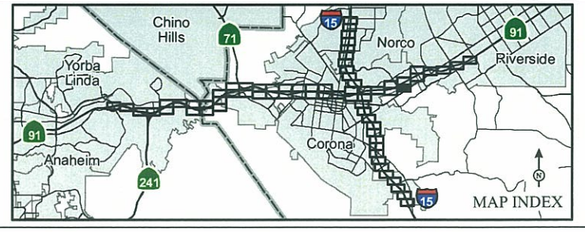
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 41 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

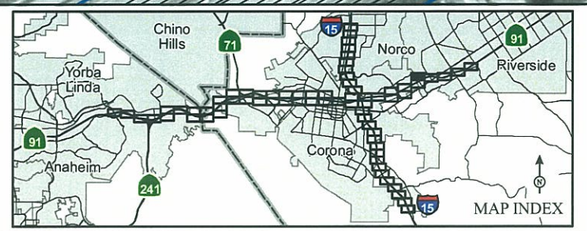
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



APPENDIX L1
Sheet 42 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)

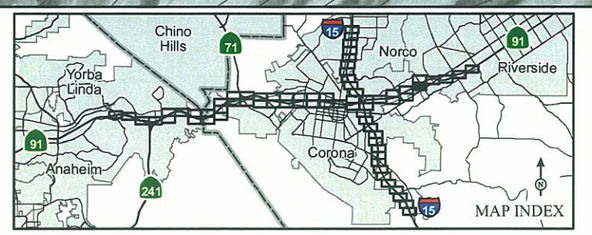


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

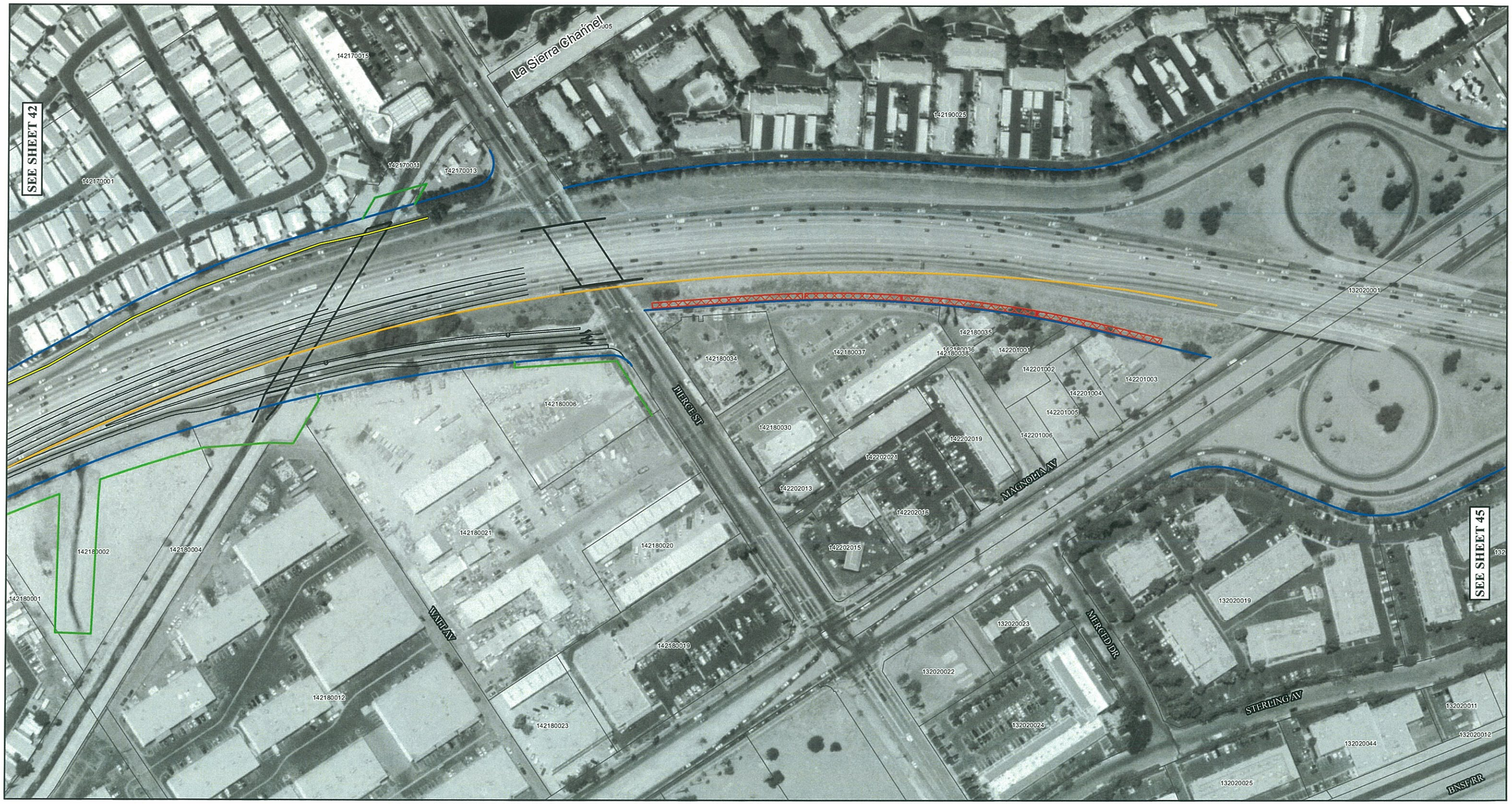
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 43 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 44 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)

APPENDIX L1
Sheet 45 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

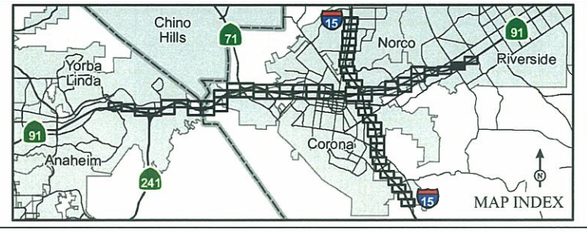
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 46 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)

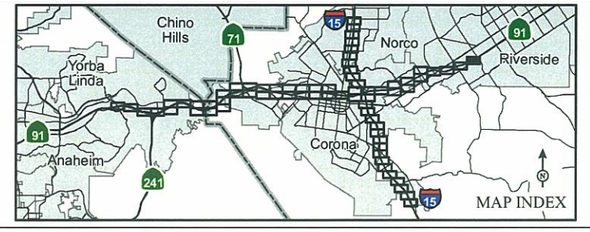


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

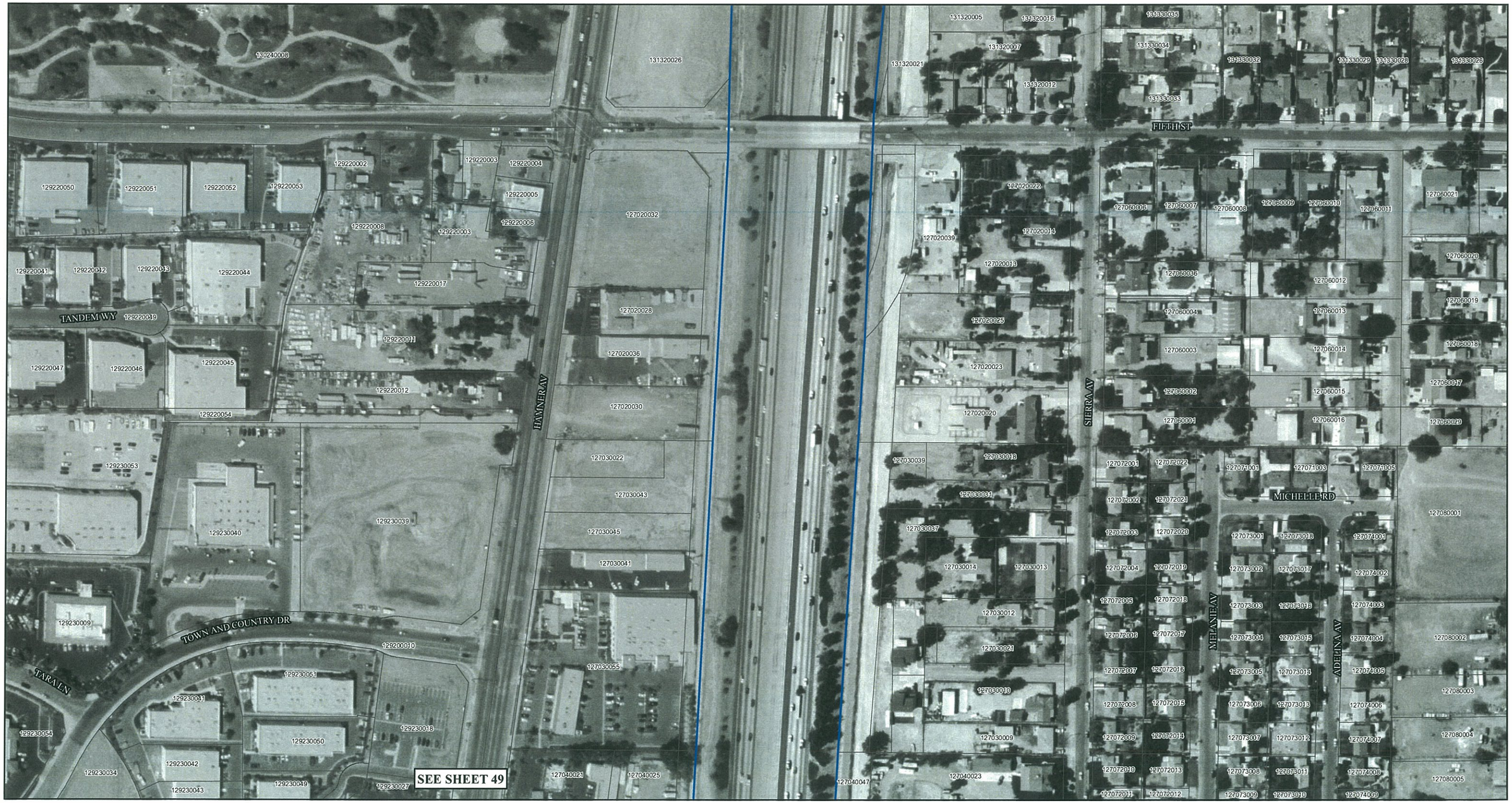
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 47 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

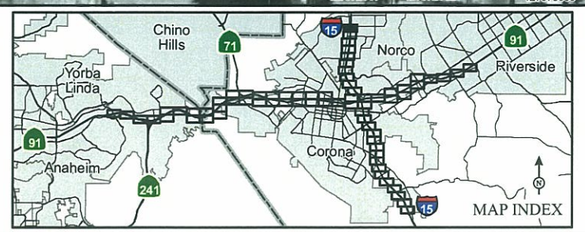
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

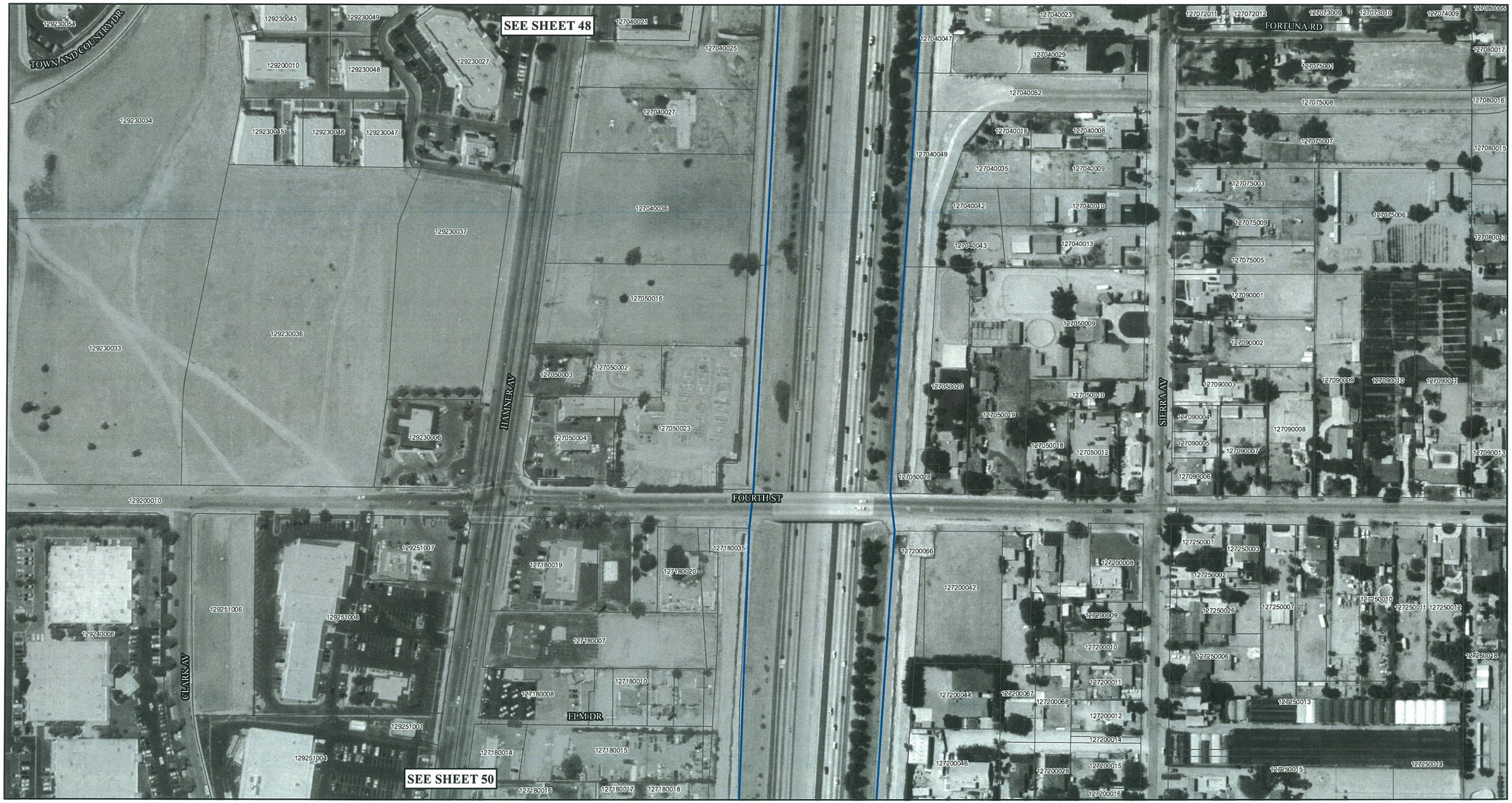


APPENDIX L1
Sheet 48 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)

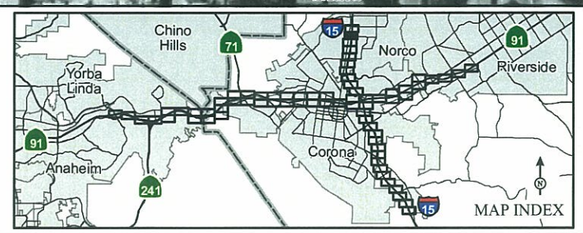


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 49 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 50 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

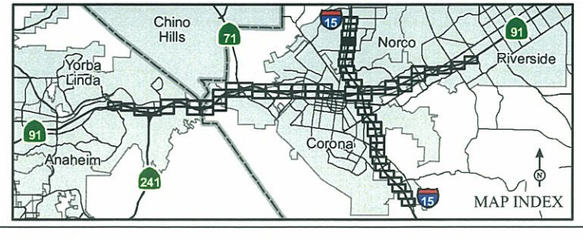


Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 51 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

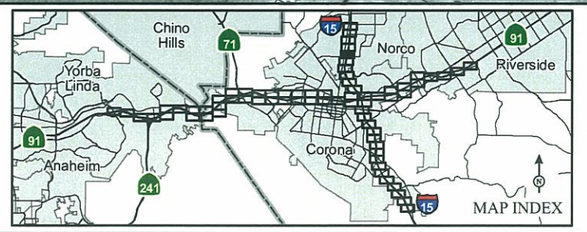


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 52 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

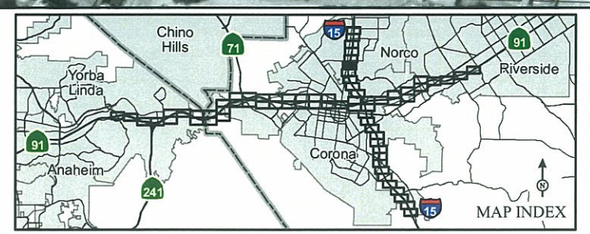
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 53 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

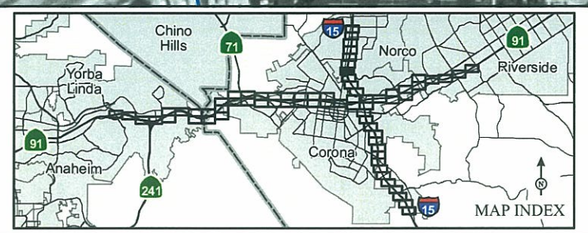
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



APPENDIX L1
Sheet 54 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

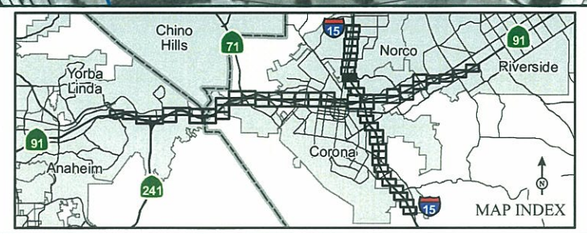
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



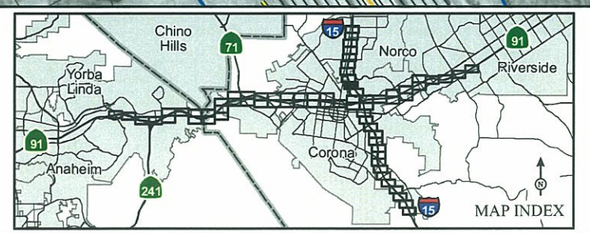
APPENDIX L1
Sheet 55 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



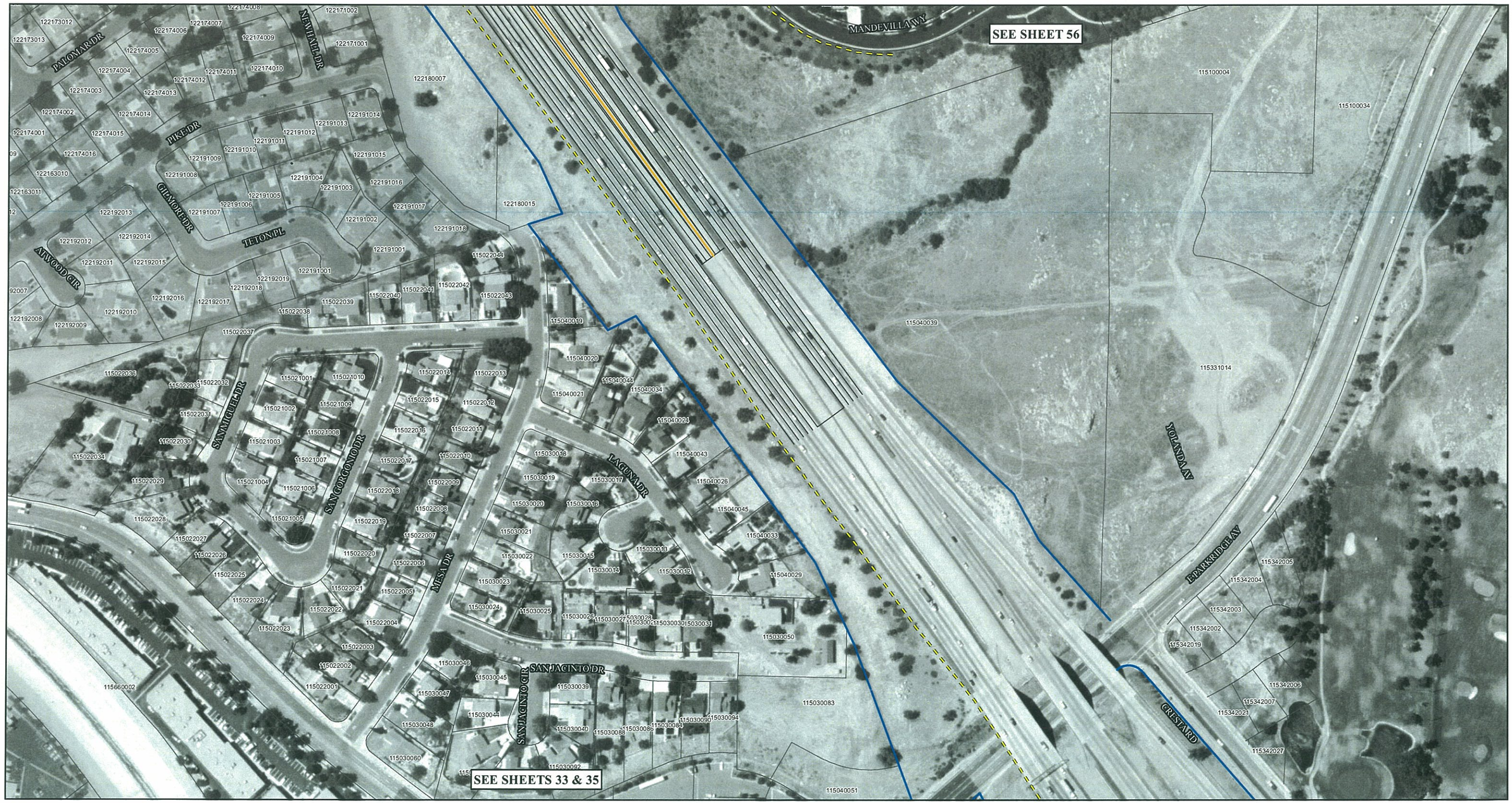


I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)

APPENDIX L1
Sheet 56 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

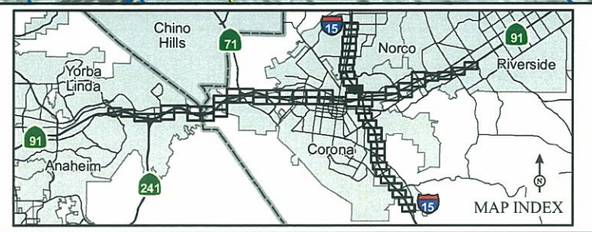


Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 57 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

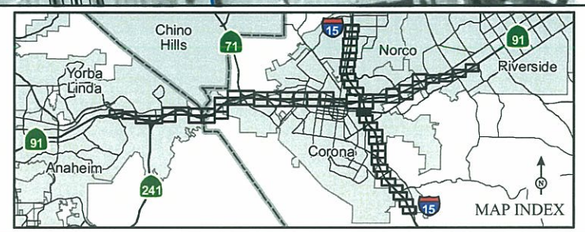


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 58 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

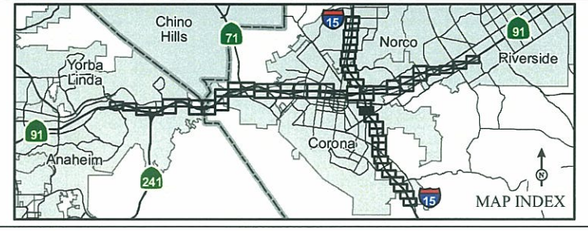


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 59 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

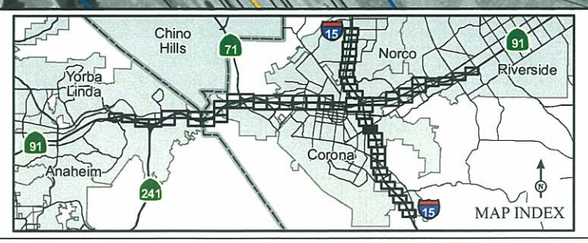


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 60 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 61 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 62 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 63 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

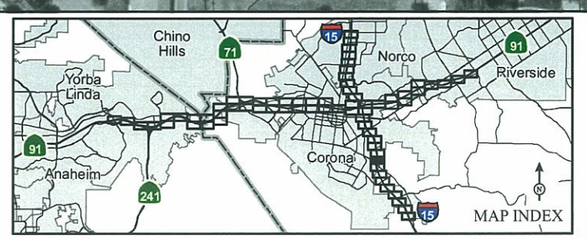
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



APPENDIX L1
Sheet 64 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

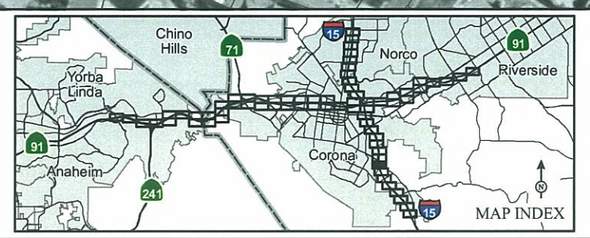
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 65 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)

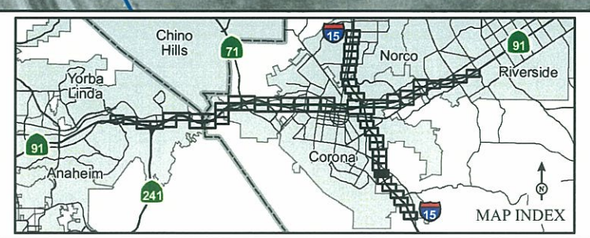


Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 66 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

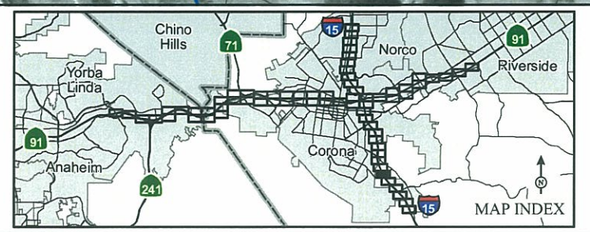
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 67 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L1
Sheet 68 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

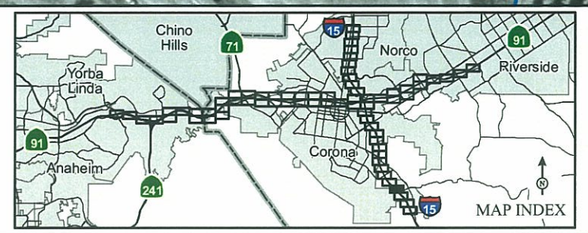
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



APPENDIX L1
Sheet 69 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



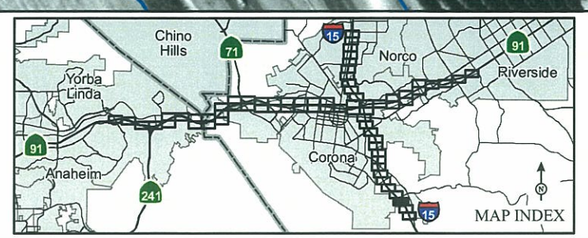
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

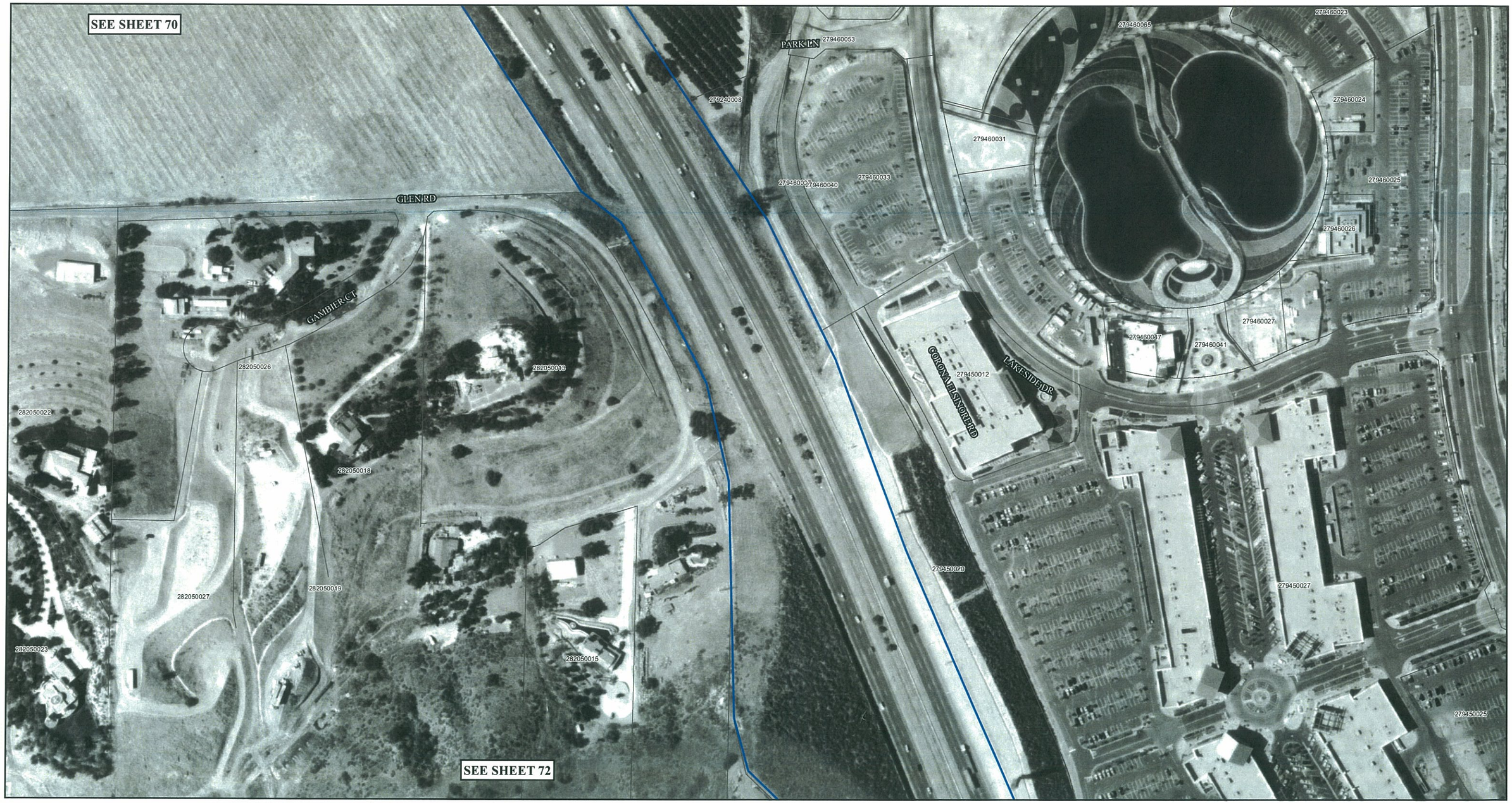
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 70 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

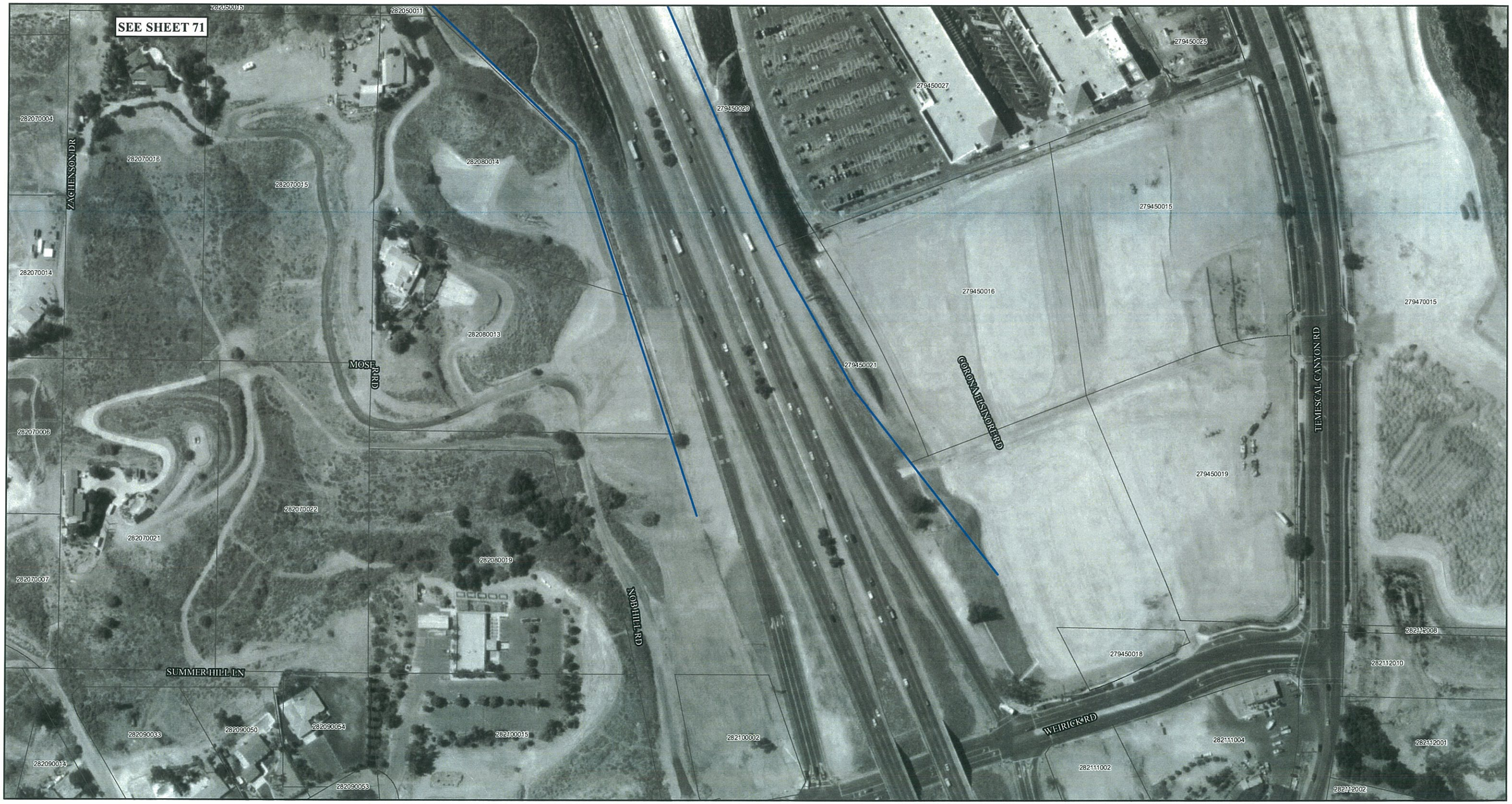
I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 71 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



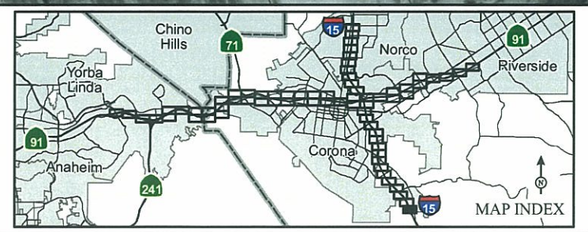
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative1_Project Features.mxd (10/27/2010)



APPENDIX L1
Sheet 72 of 72

SR-91 Corridor Improvement Project
Alternative 1 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

Appendix L2

Alternative 2 Project Features

This Appendix contains the following:

- **Index Sheet (1 sheet):** This index sheet shows the locations of the 72 map sheets that detail all the improvements in the Alternative 2 Ultimate Project.
- **Project Features Maps (73 sheets):** These sheets show all the improvements in the Alternative 2 Ultimate Project, including the design variations at the Auto Center Drive/Maple Street interchange, Smith Avenue, and the Lincoln Avenue interchange. There are two design variations possible at each of these three locations for Alternative 2, as shown in Table A.1. As a result, eight combinations of design variations are possible for Alternative 2.

  Regardless of the design variations at the three locations shown in Table A.1, all the remaining improvements in the Initial Phase and Ultimate Project for Alternative 2 are the same along the alignments of SR-91 and I-15. As a result, the majority of the project features for Alternative 2 shown on these map sheets are the same for Alternative 2 with any design variation, including Alternative 2f.

Table L2.1 Alternative 2 Design Variation Combinations

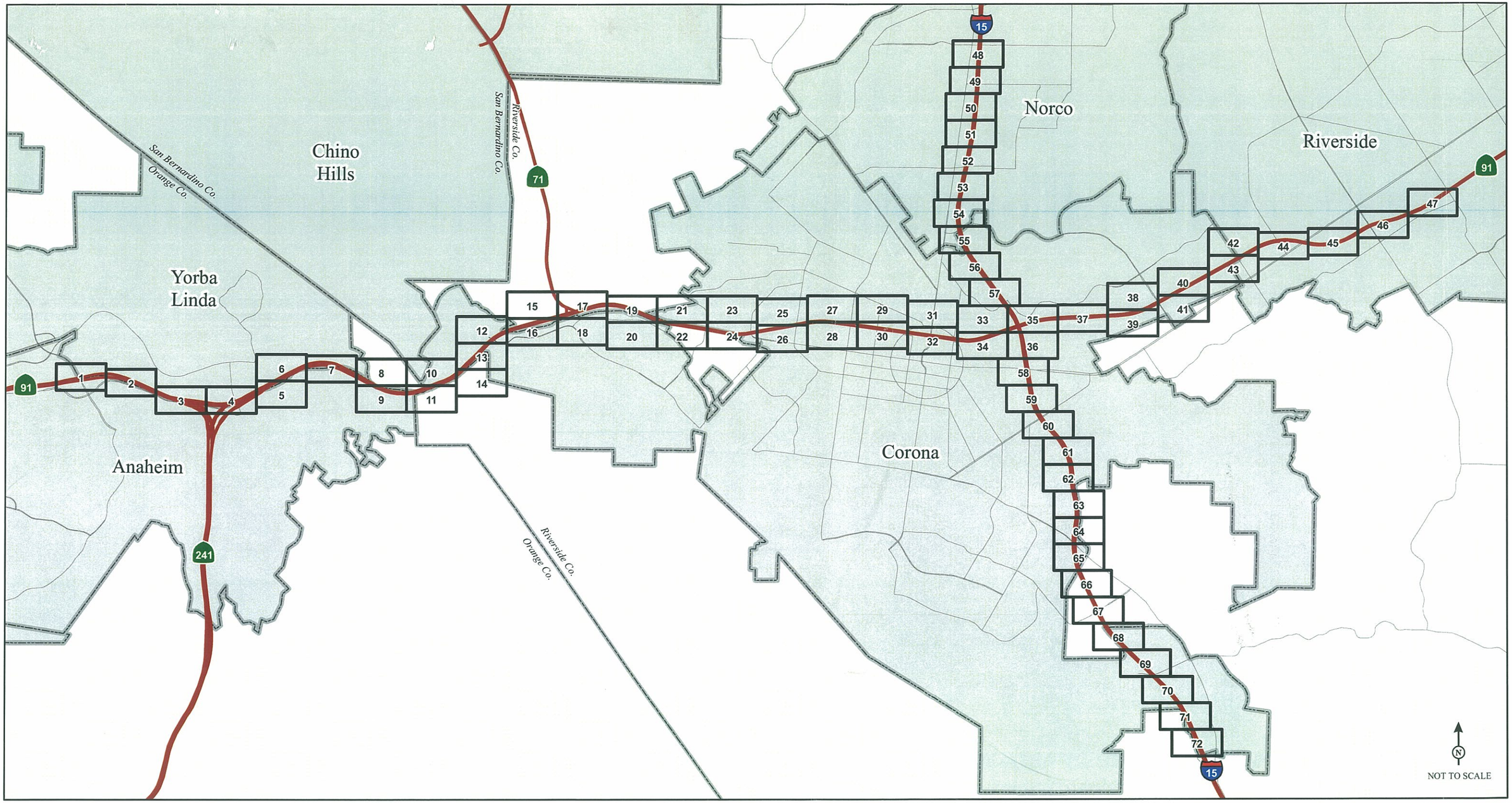
Alt.	Auto Center Drive/Maple Street Interchange	Smith Avenue	Lincoln Avenue Interchange
2a	Split Diamond design variation	No Drop Ramp design variation	Tight Diamond design variation
2b	Split Diamond design variation	No Drop Ramp design variation	Hook Ramp design variation
2c	Split Diamond design variation	Drop Ramp design variation	Tight Diamond design variation
2d	Split Diamond design variation	Drop Ramp design variation	Hook Ramp design variation
2e	Direct Connector design variation	No Drop Ramp design variation	Tight Diamond design variation
2f	Direct Connector design variation	No Drop Ramp design variation	Hook Ramp design variation
2g	Direct Connector design variation	Drop Ramp design variation	Tight Diamond design variation
2h	Direct Connector design variation	Drop Ramp design variation	Hook Ramp design variation

Source: *Project Report* (September 2011).
Alt. = Alternative

- **Plan Sheets for the Design Variations in Alternative 2f (7 sheets):** As described in detail in Chapter 2, Project Alternatives, Alternative 2f has been identified as the Preferred Alternative. As shown in Table A.1, Alternative 2f includes the following design variations, which are shown on the cited sheets in the set of plan sheets for these design variations:

- **Sheet 1 of 7:** Index for the plan sheets showing the three design variations in Alternative 2f
- **Auto Center Drive/Maple Street Interchange:** Direct connector design variation (Sheets 2, 3, and 4 of 7)
- **Smith Avenue:** No drop ramp design variation (Sheet 5 of 7)
- **Lincoln Avenue Interchange:** Hook Ramp design variation (Sheets 6 and 7 of 7)

For a description of the individual improvements included in the Initial Phase and Ultimate Project for Alternative 2f, refer to Chapter 2.



LEGEND

- Map Page
- County/Unincorporated Boundary
- City Boundary

SOURCE: Parsons Brinckerhoff (2008), Thomas Bros. (2007).

I:\PAZ0701\GIS\Basemap\INDEX_ALT2_ProjectFeatures.mxd (10/7/2010)

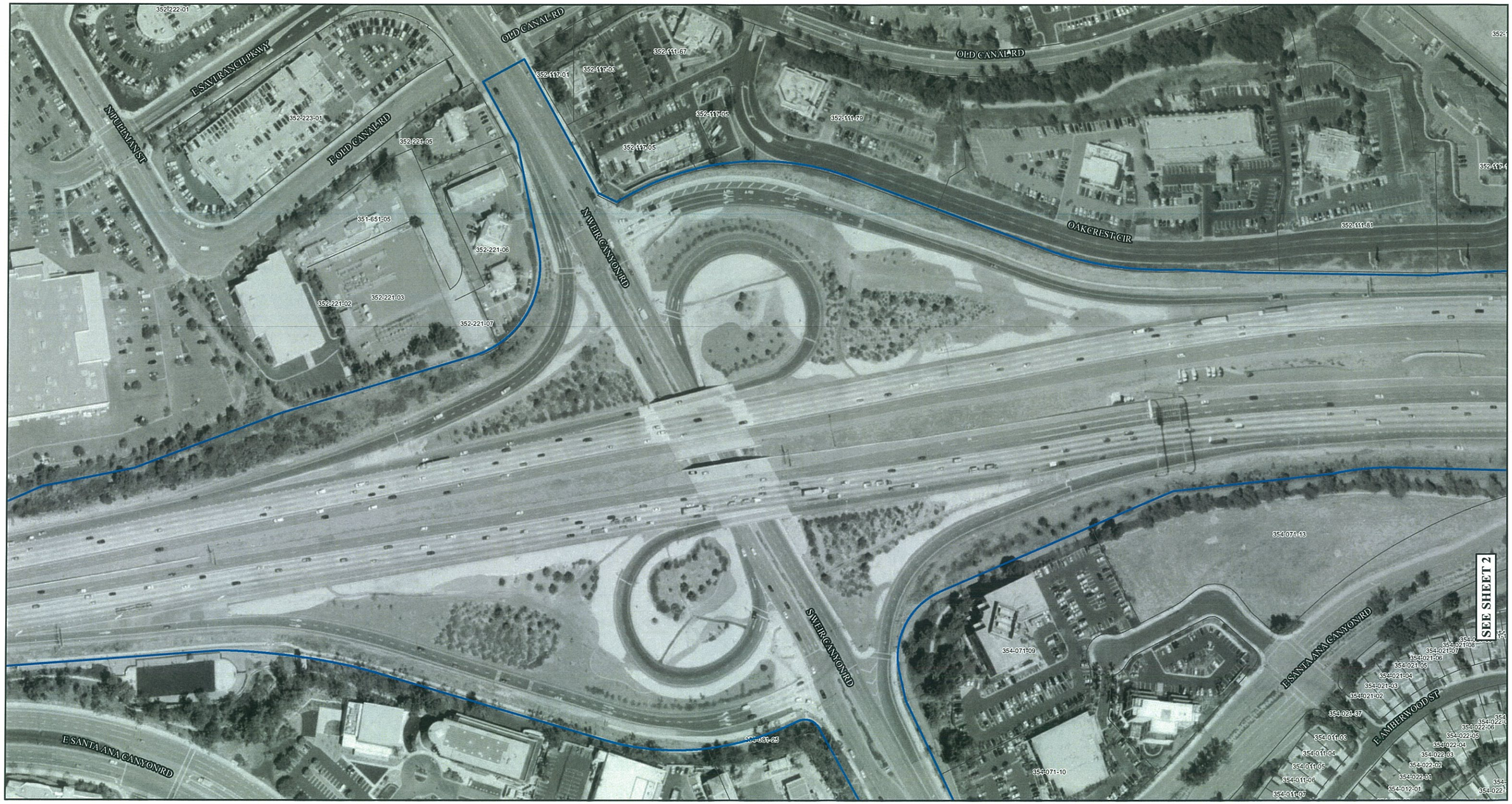
APPENDIX L2

Index

SR-91 Corridor Improvement Project

Alternative 2 (LPA) - Project Features

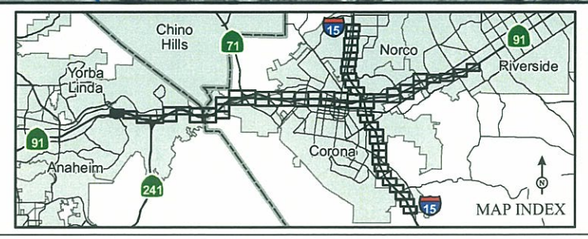
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

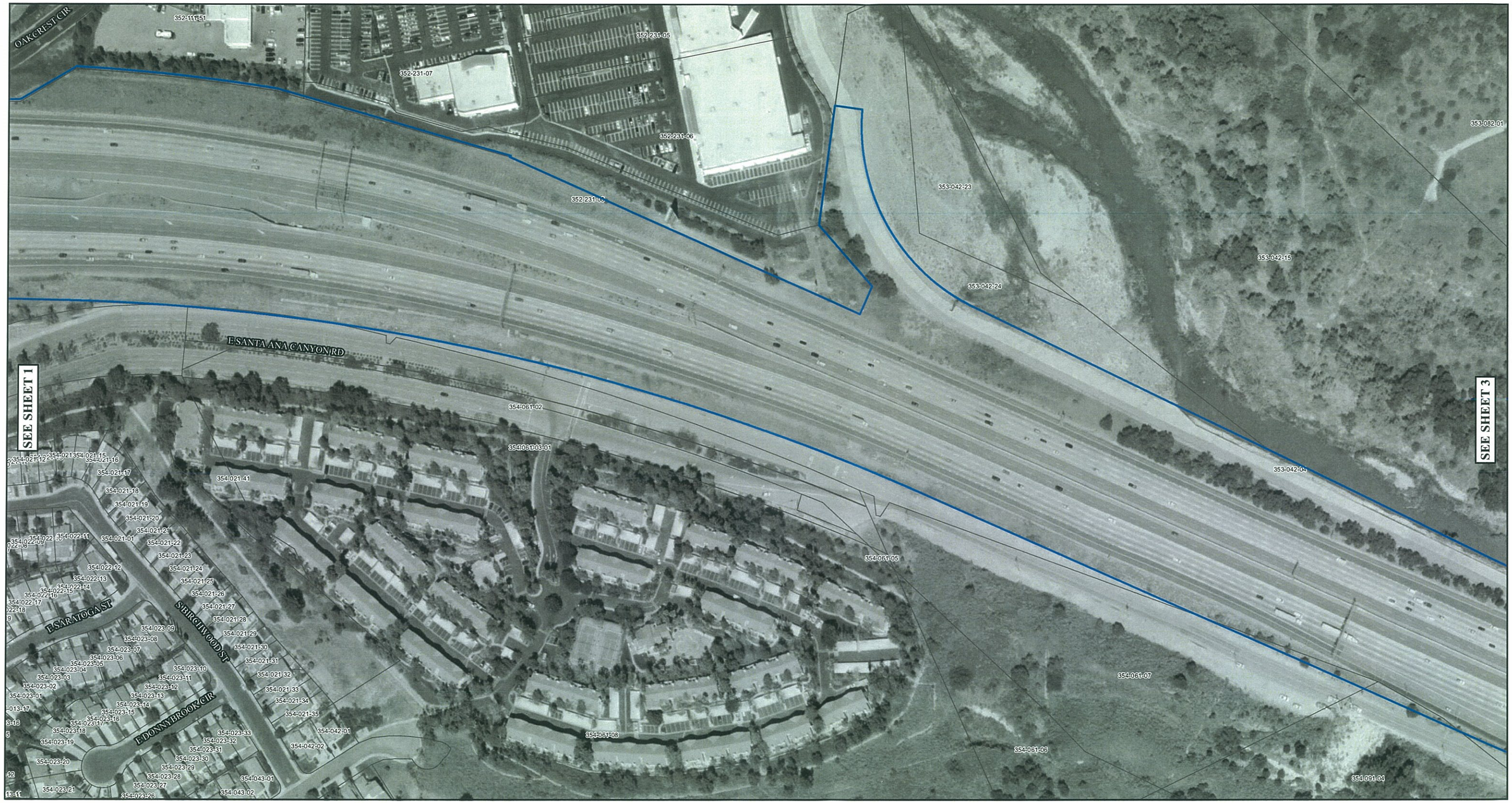


APPENDIX L2
Sheet 1 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 2 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

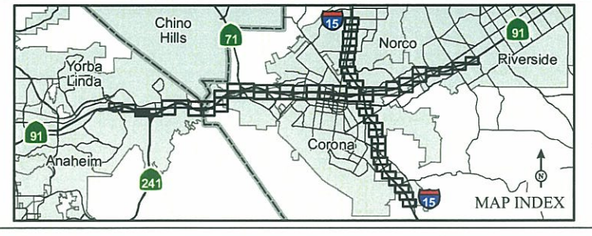


Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

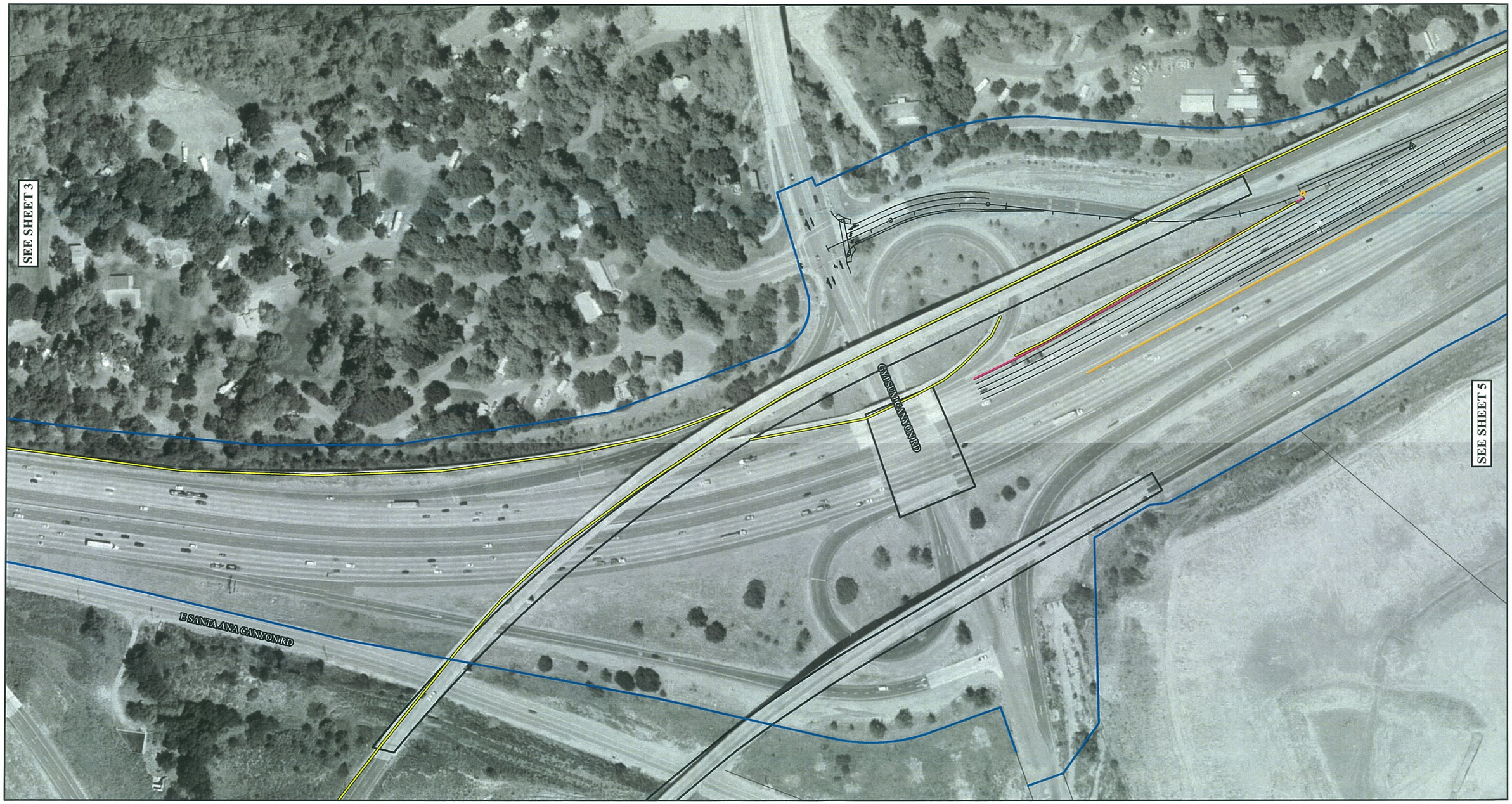
I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 3 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



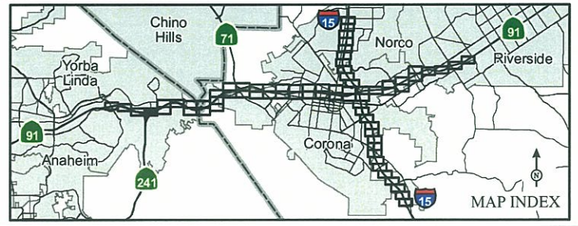
Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

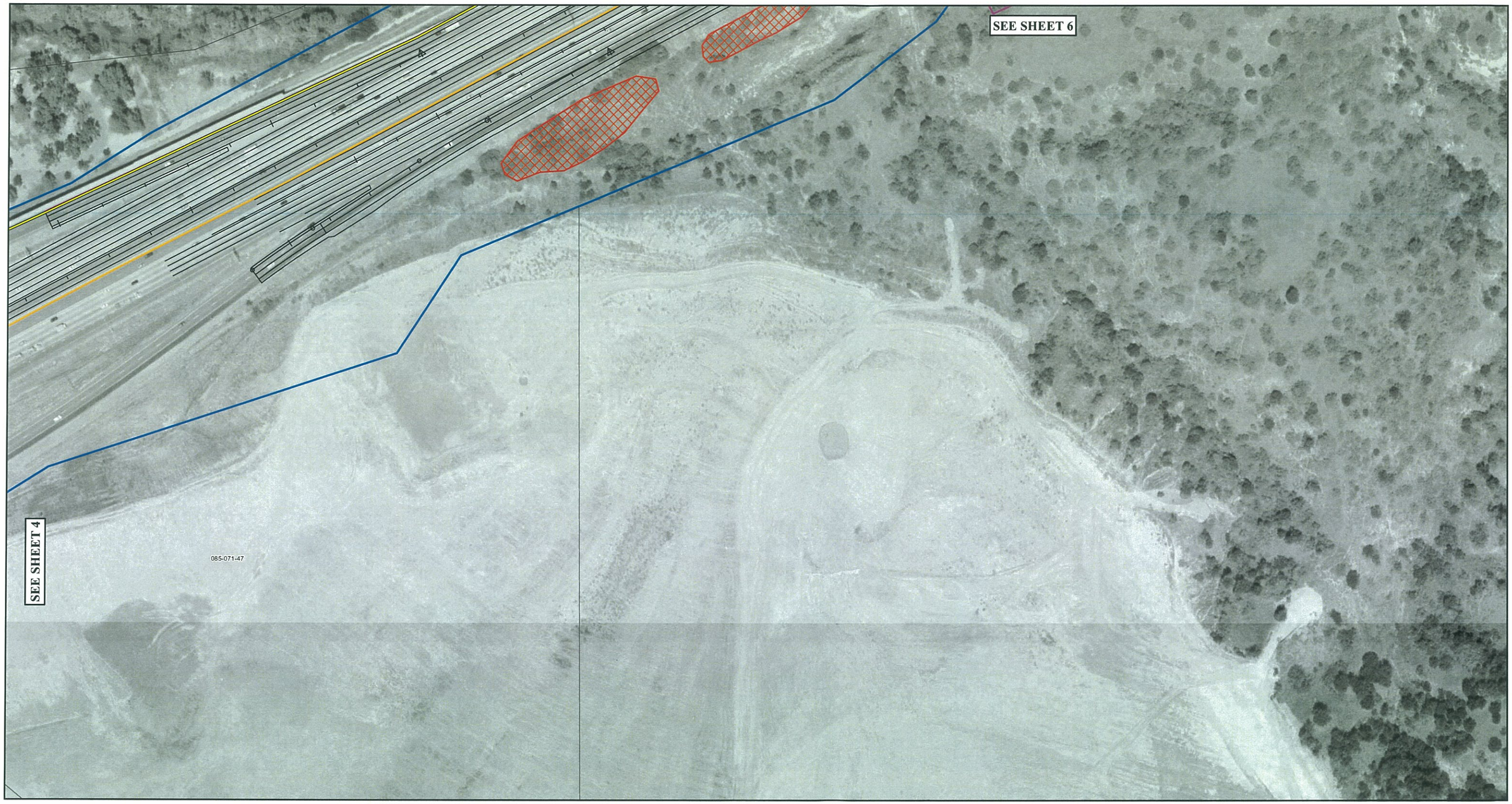
I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 4 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

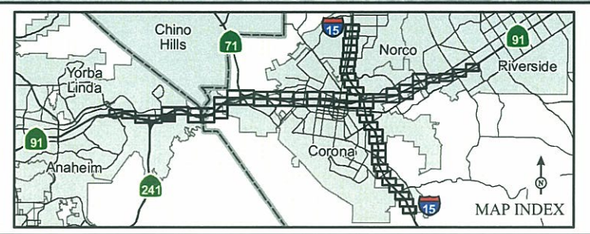
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)

APPENDIX L2
Sheet 5 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



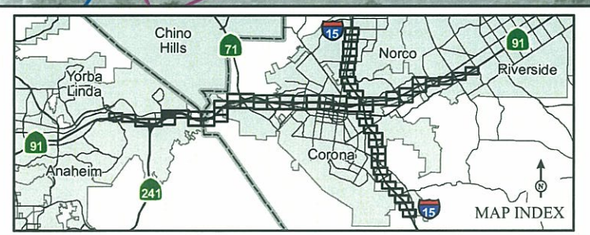
Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 6 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

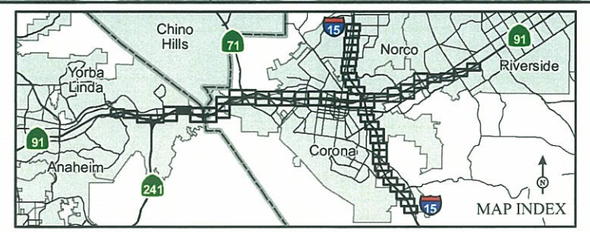


Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 7 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

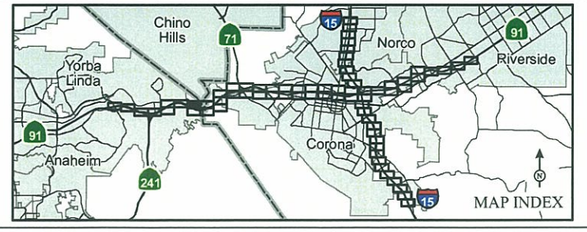
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L2
Sheet 8 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



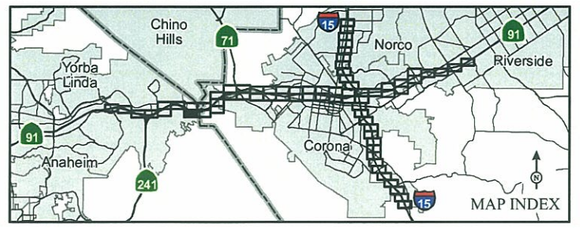
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 9 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



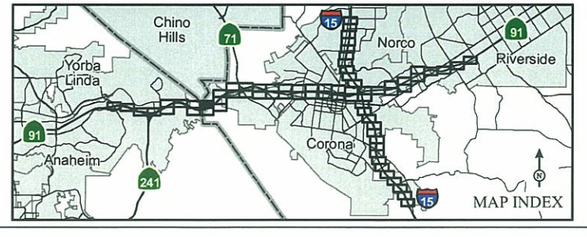
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 10 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

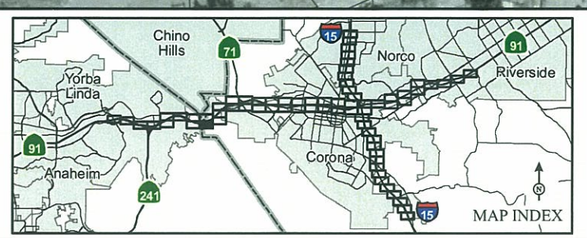
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L2
Sheet 11 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)

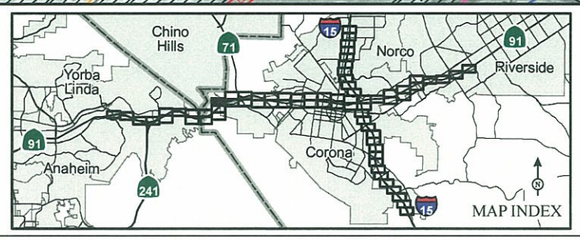


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Proposed Retaining Wall
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

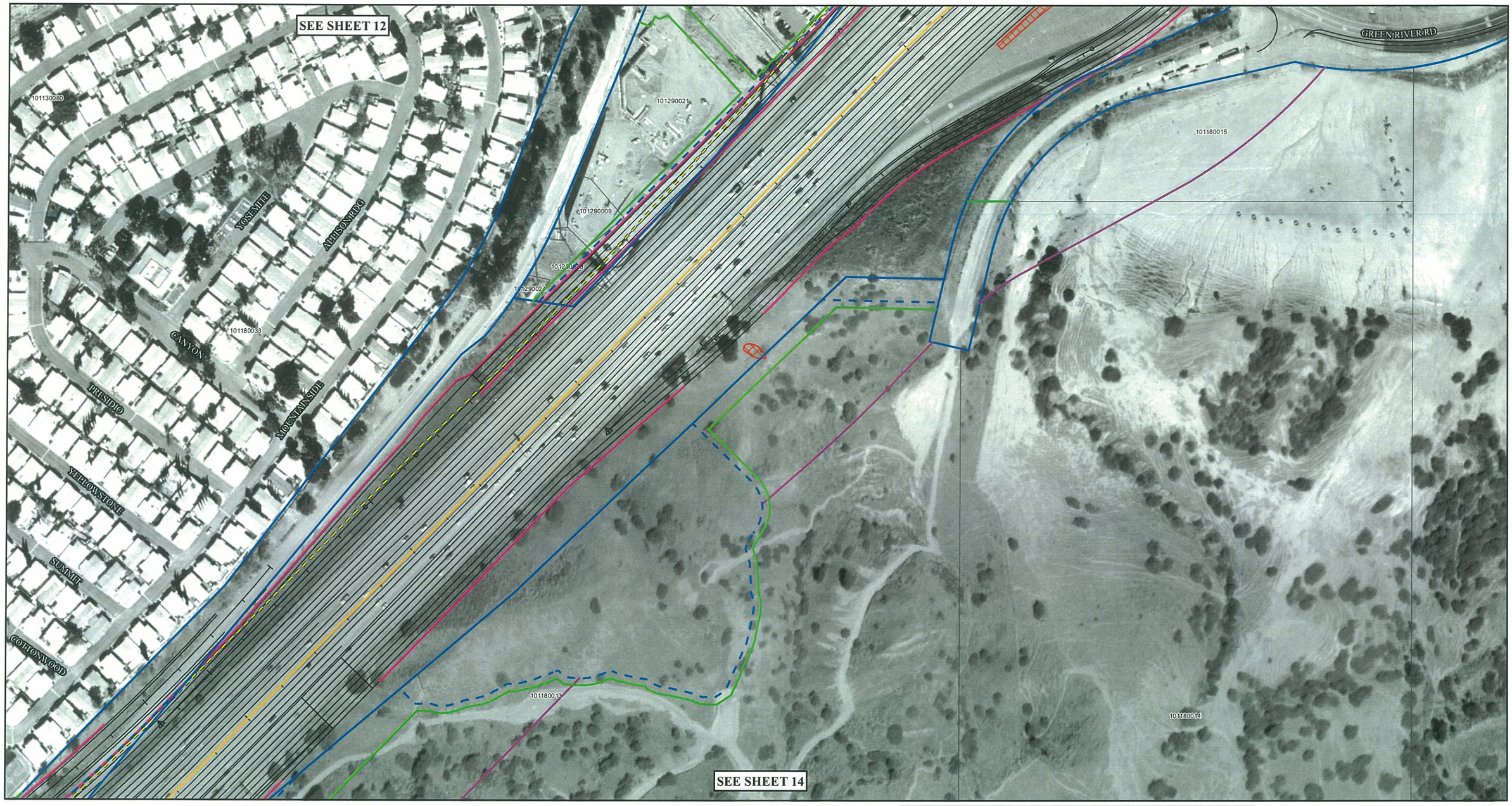
I:\PAZ0701\GIS\FEIR_EIS\Alternative2_Project Features.mxd (11/22/2011)



APPENDIX L2
Sheet 12 of 72

SR-91 Corridor Improvement Project
Alternative 2 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



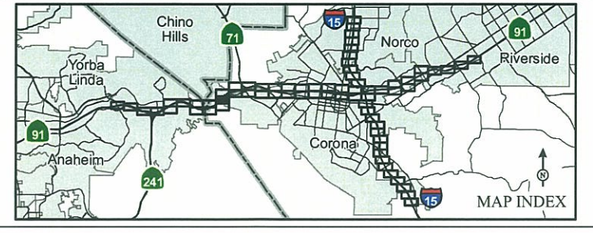
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 13 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



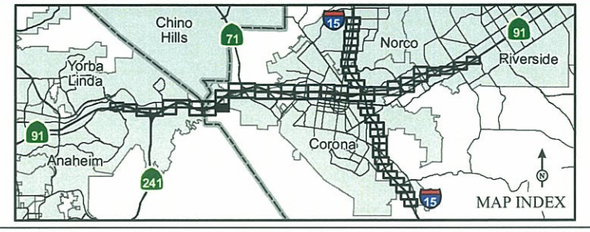
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 14 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



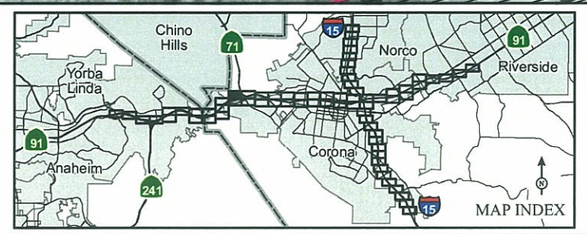
Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 15 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Proposed Retaining Wall
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

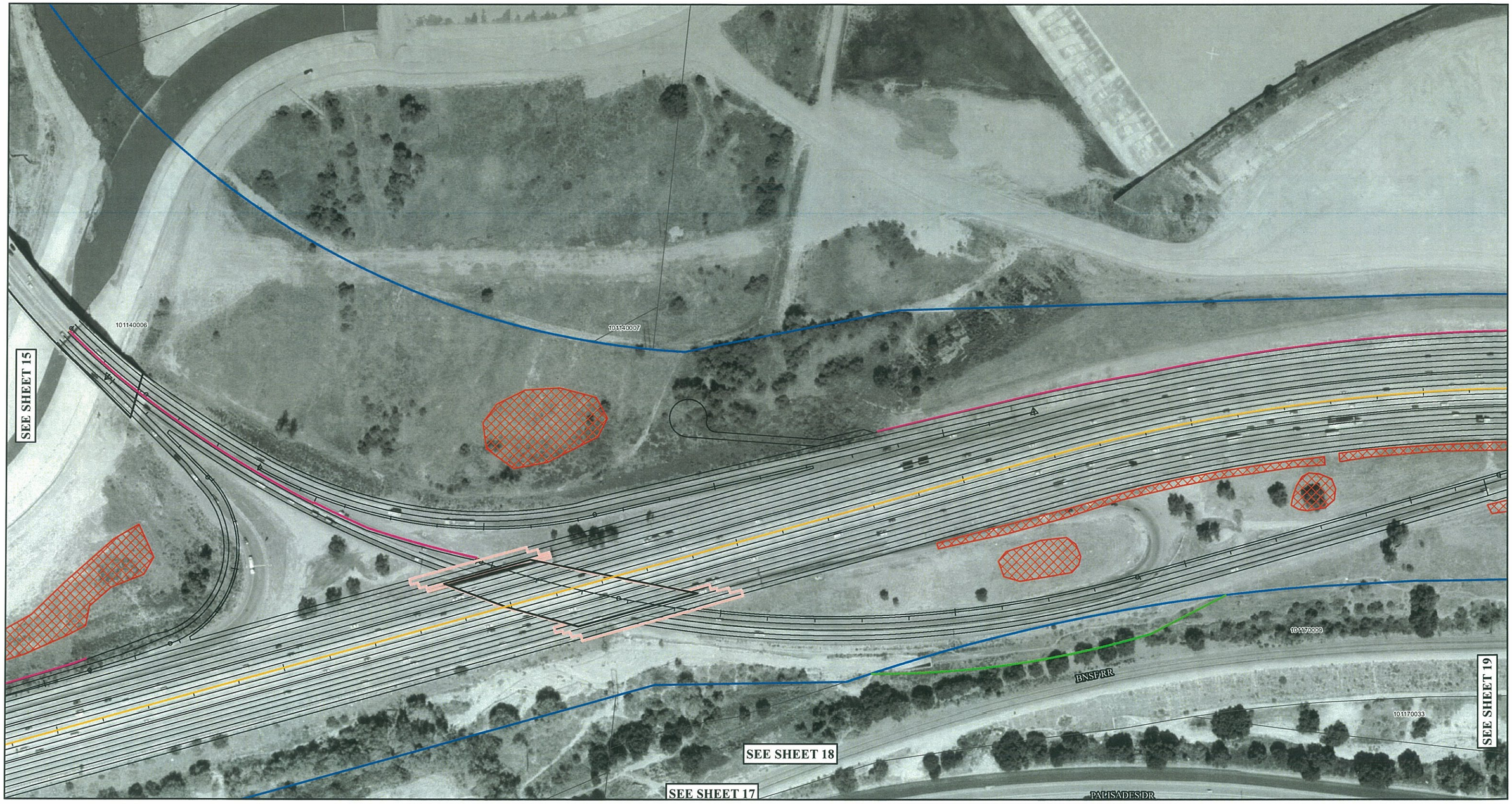
I:\PAZ0701\GIS\FEIR_EIS\Alternative2_Project Features.mxd (11/22/2011)



APPENDIX L2
Sheet 16 of 72

SR-91 Corridor Improvement Project
Alternative 2 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

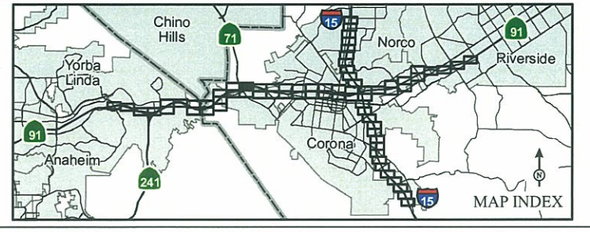


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L2
Sheet 17 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

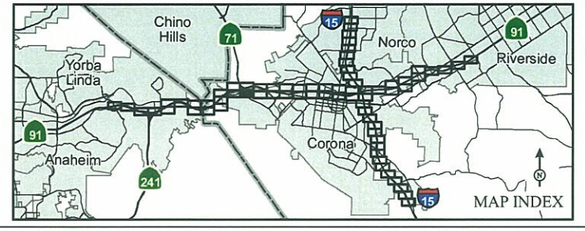
I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

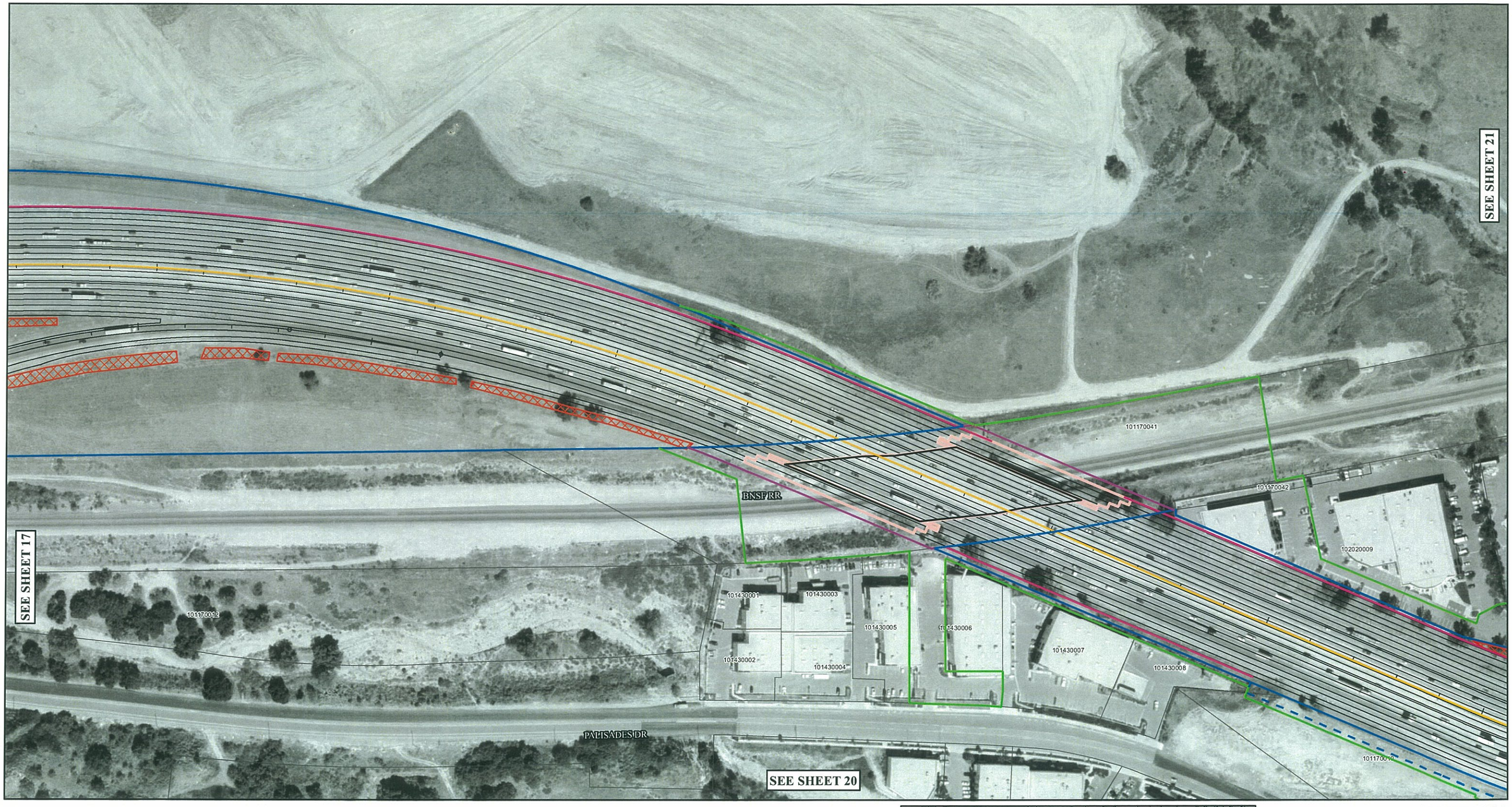


APPENDIX L2
Sheet 18 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



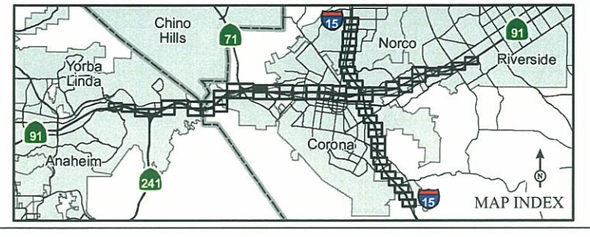
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 19 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

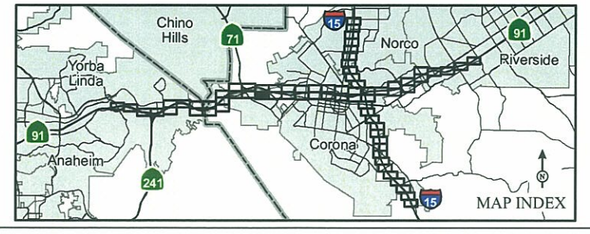


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 20 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

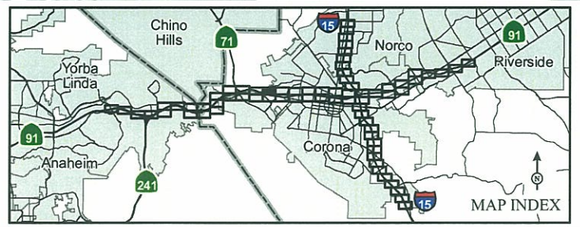


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 21 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

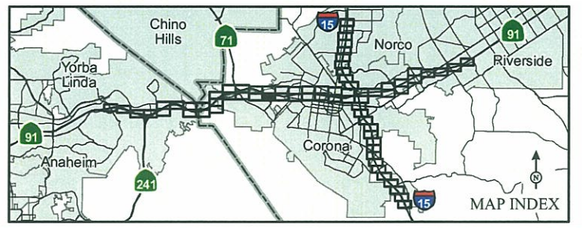


Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 22 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

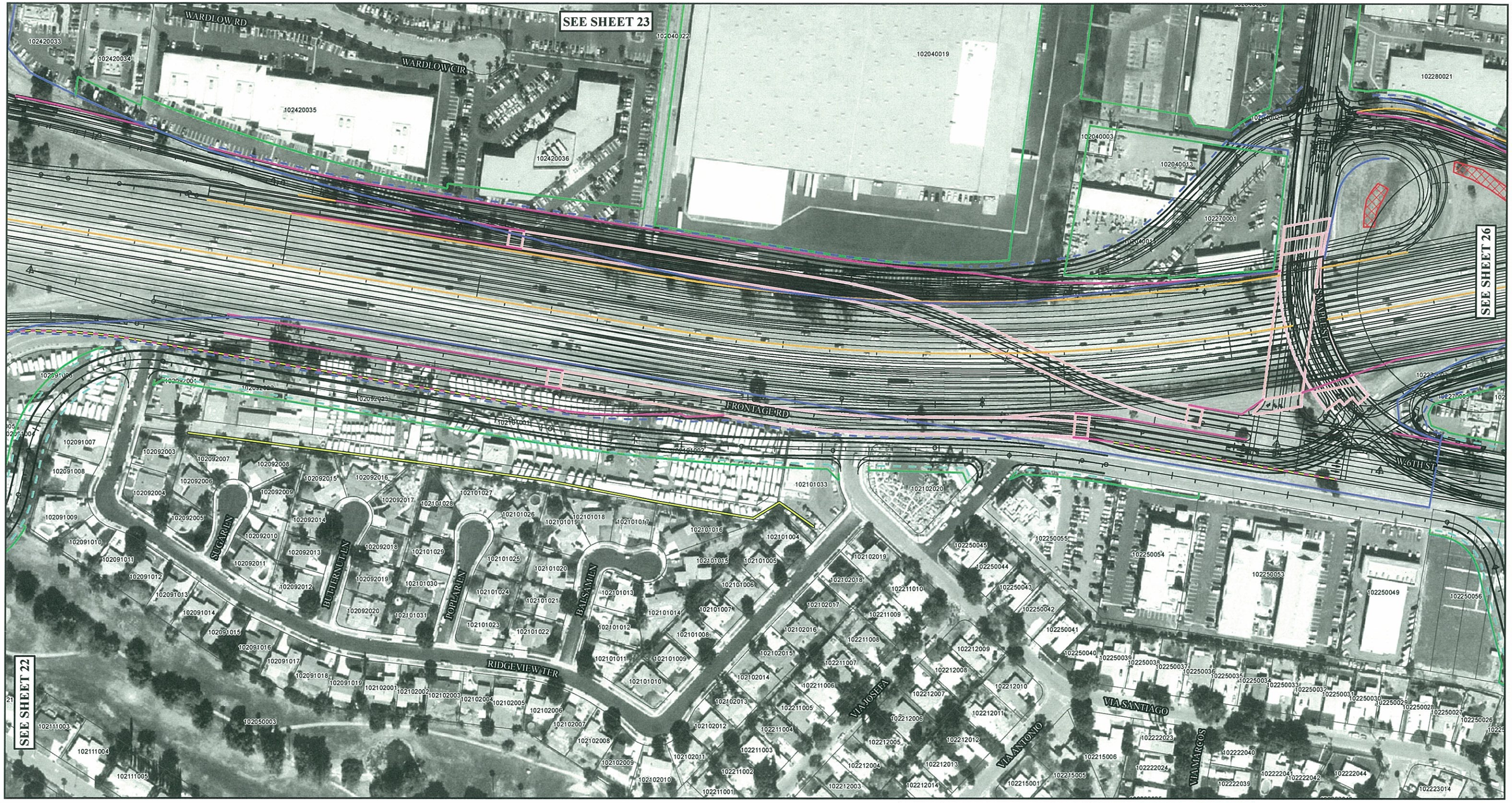
I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 23 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Proposed Retaining Wall
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\FEIR_EIS\Alternative2_Project Features.mxd (7/21/2011)



APPENDIX L2
Sheet 24 of 72

SR-91 Corridor Improvement Project
Alternative 2 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

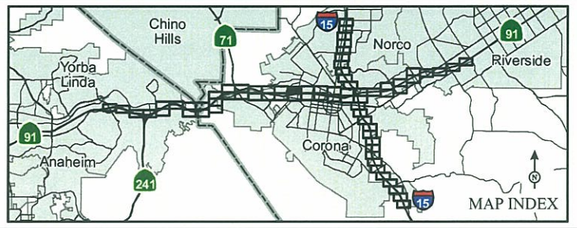


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 25 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

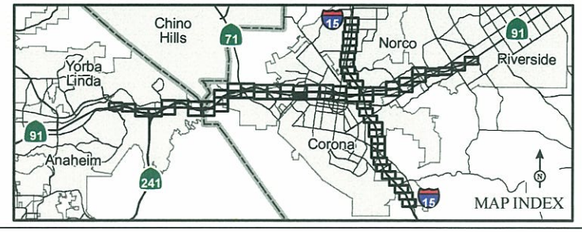


0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\FEIR_EIS\Alternative2_Project Features.mxd (7/21/2011)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Proposed Retaining Wall
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



APPENDIX L2
Sheet 26 of 72

SR-91 Corridor Improvement Project
Alternative 2 - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

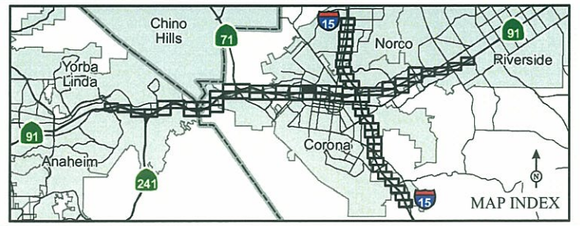


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 27 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

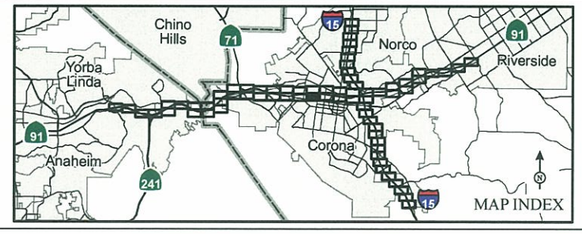


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Proposed Retaining Wall
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\FEIR_EIS\Alternative2_Project Features.mxd (7/21/2011)



APPENDIX L2
Sheet 28 of 72

SR-91 Corridor Improvement Project
Alternative 2 - Project Features

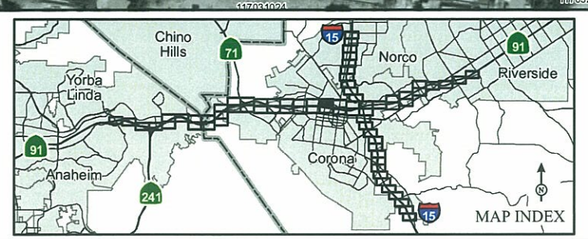
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L2
Sheet 29 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



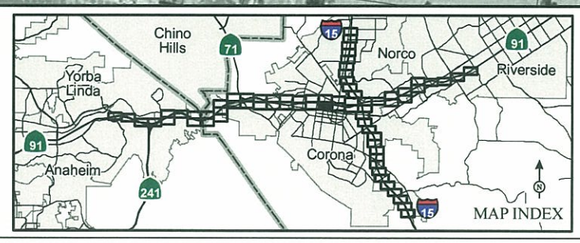
Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Proposed Retaining Wall
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\FEIR_EIS\Alternative2_Project Features.mxd (7/21/2011)



APPENDIX L2
Sheet 30 of 72

SR-91 Corridor Improvement Project
Alternative 2 - Project Features

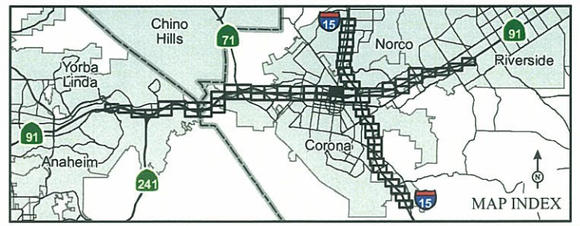
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



APPENDIX L2
Sheet 31 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)

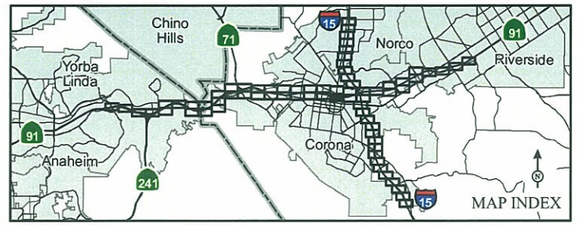


Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 32 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

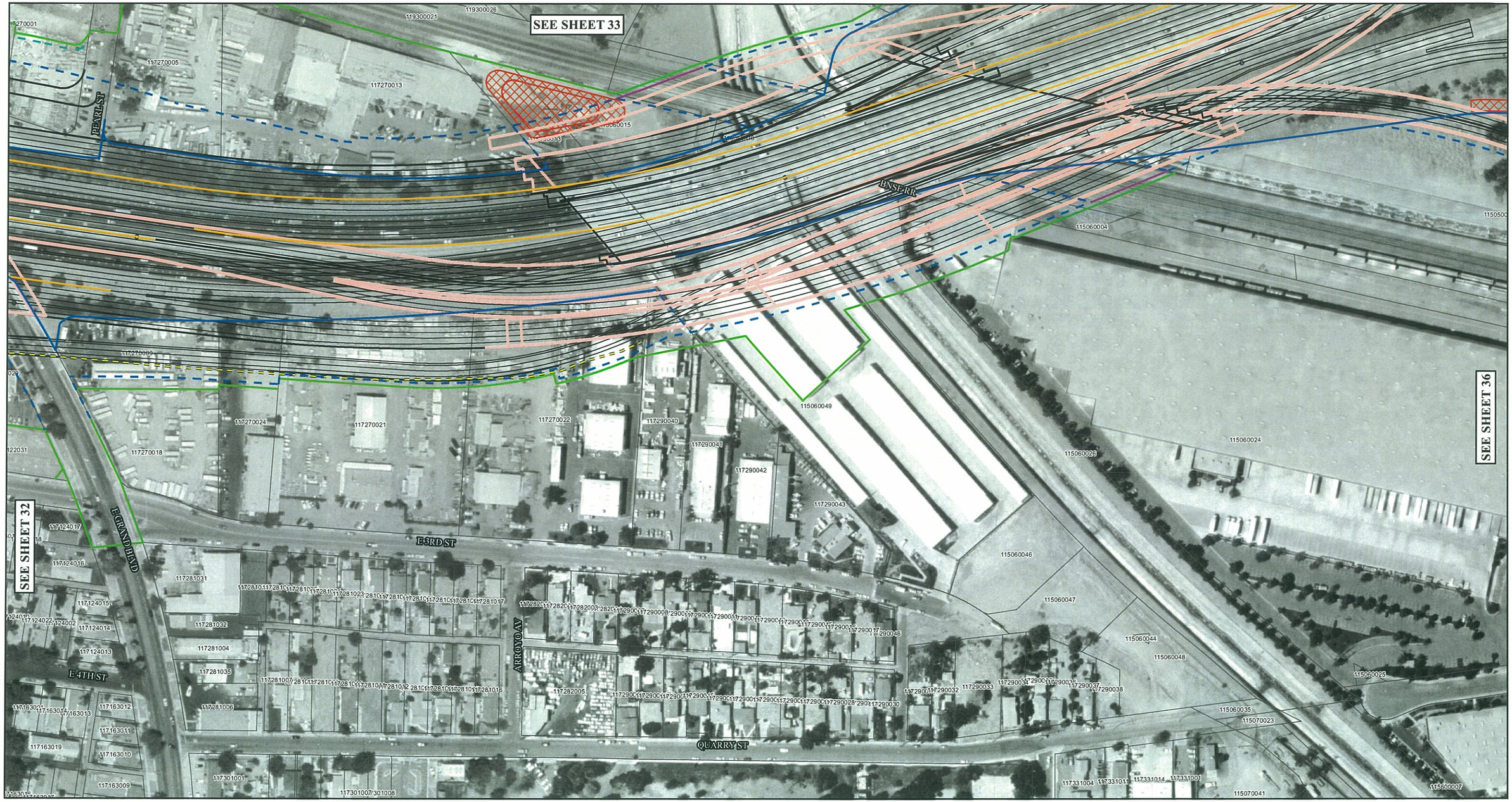
I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 33 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

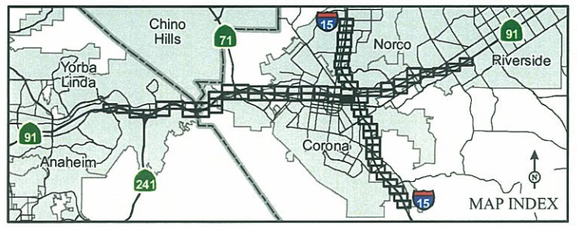


Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 34 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

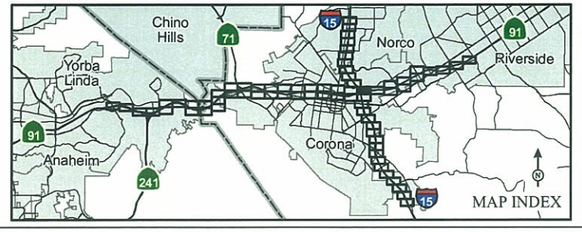


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 35 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

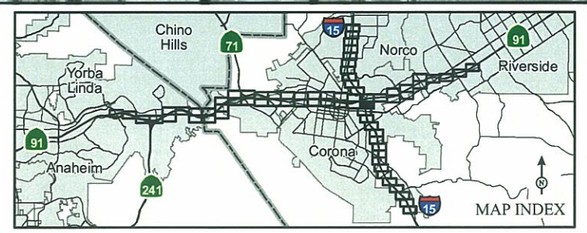


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

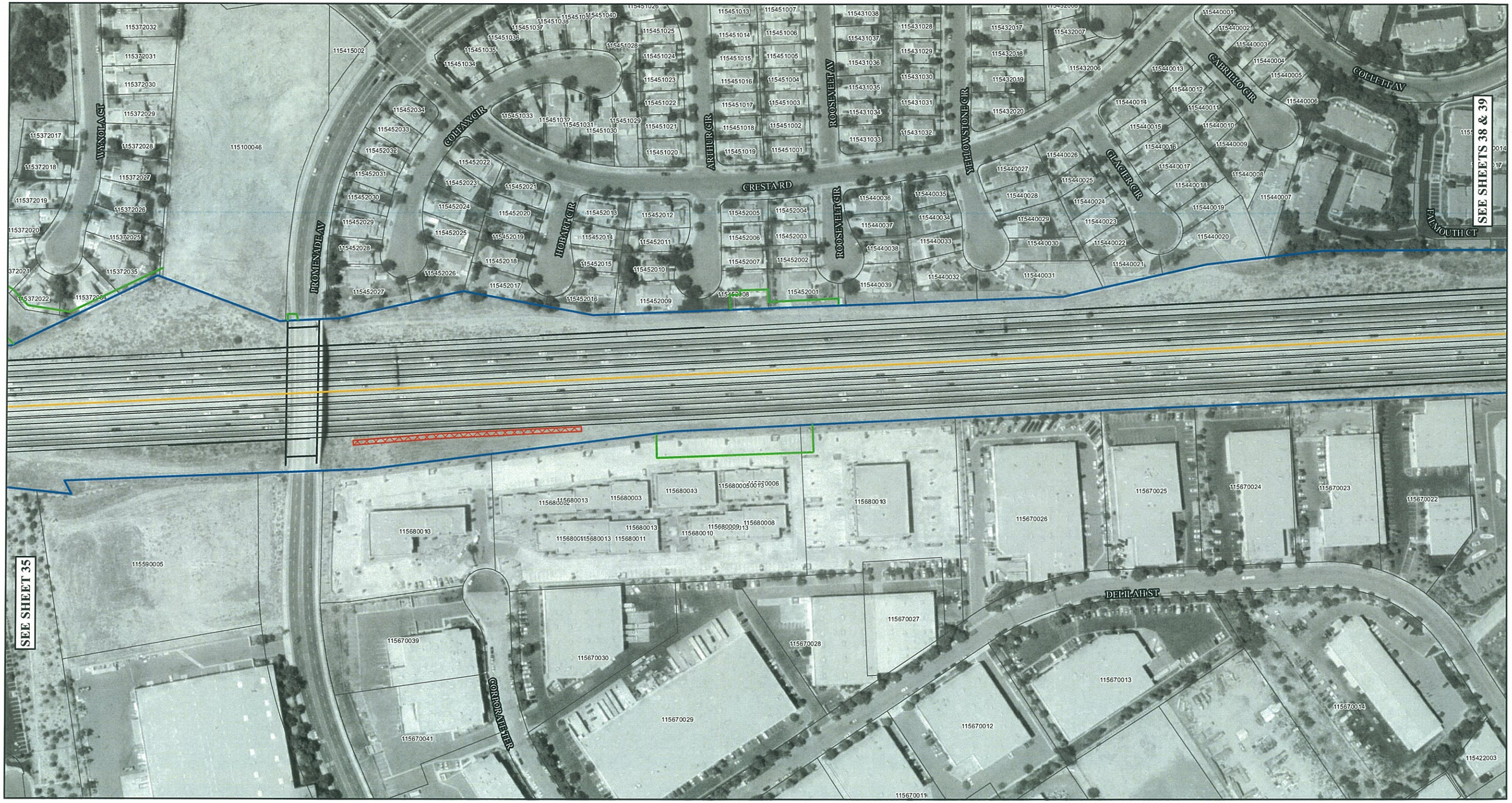
I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 36 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 37 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

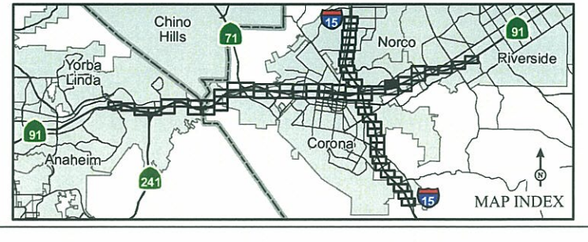
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



APPENDIX L2
Sheet 38 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

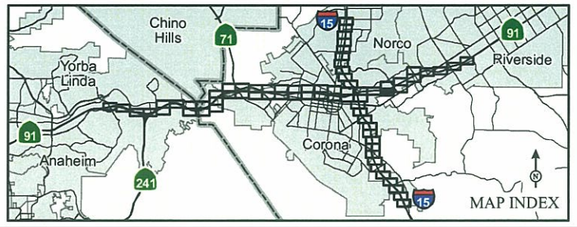
I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L2
Sheet 39 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

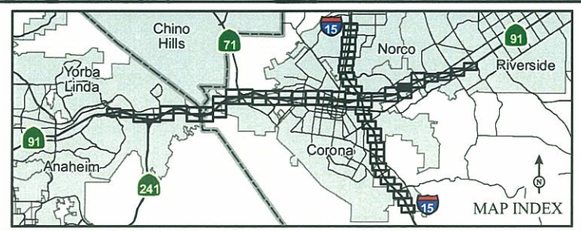
I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L2
Sheet 40 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)

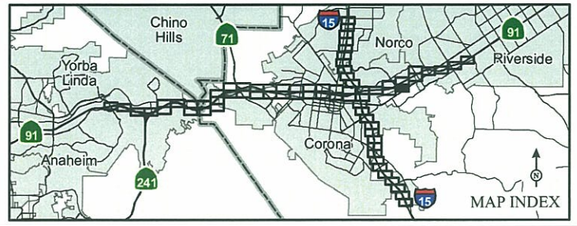


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 41 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

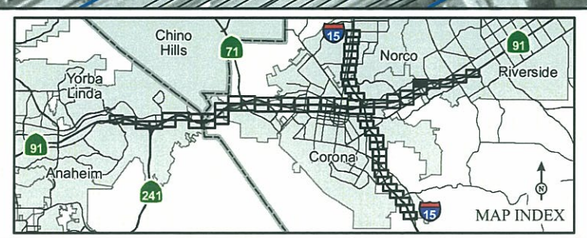


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 42 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

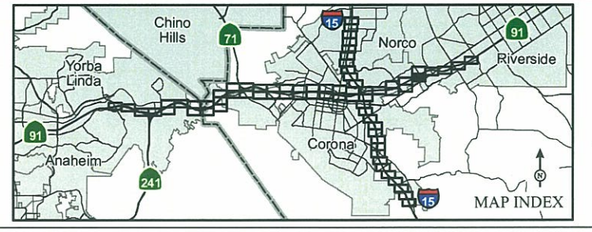


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

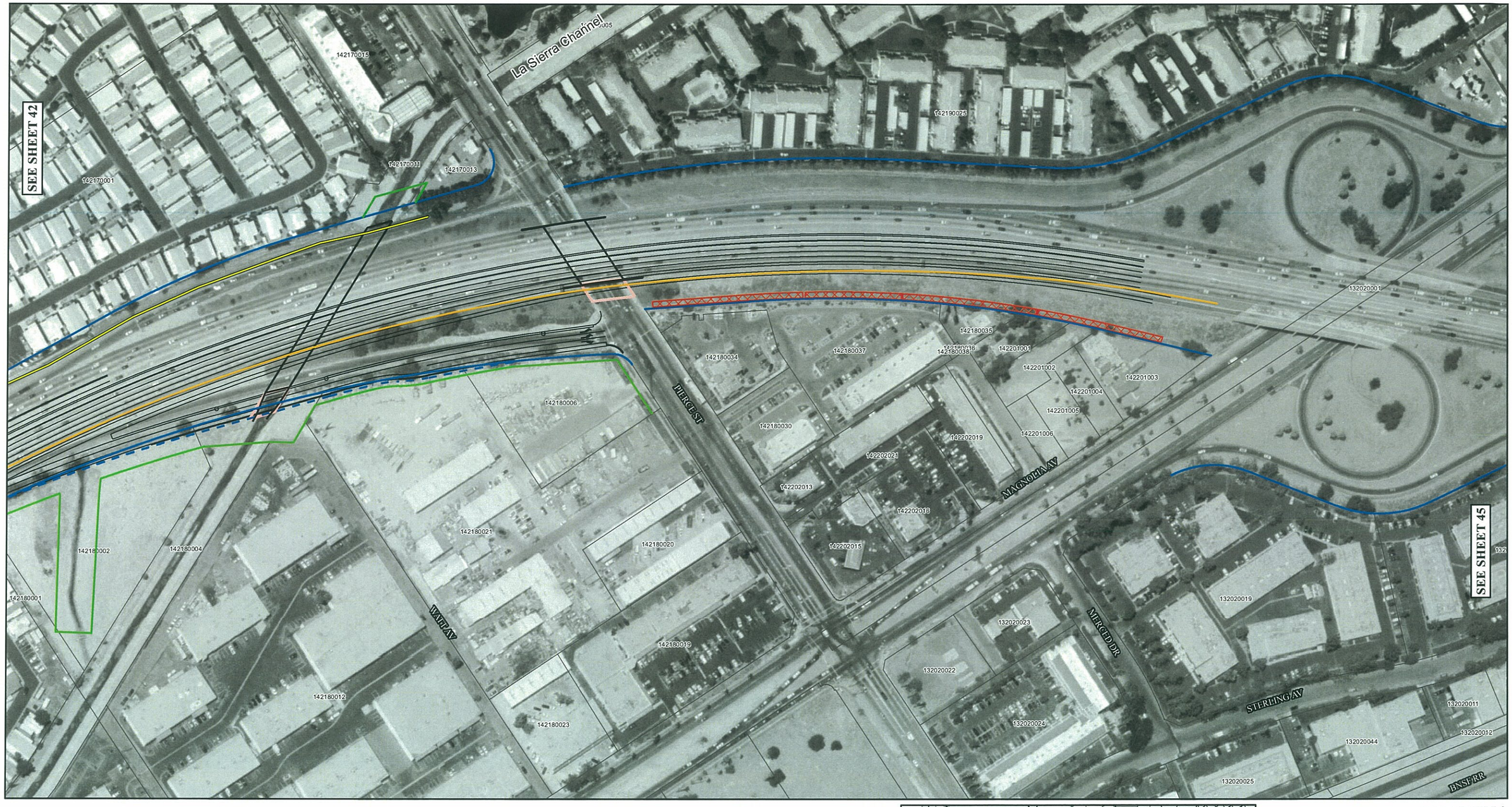
I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 43 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

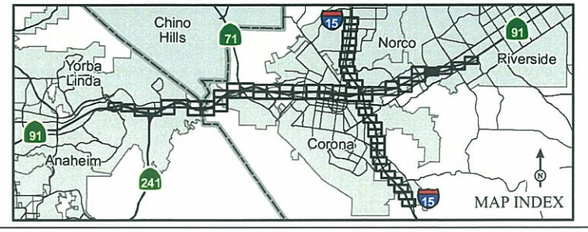


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 44 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

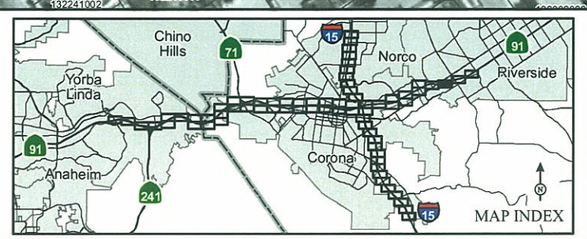
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

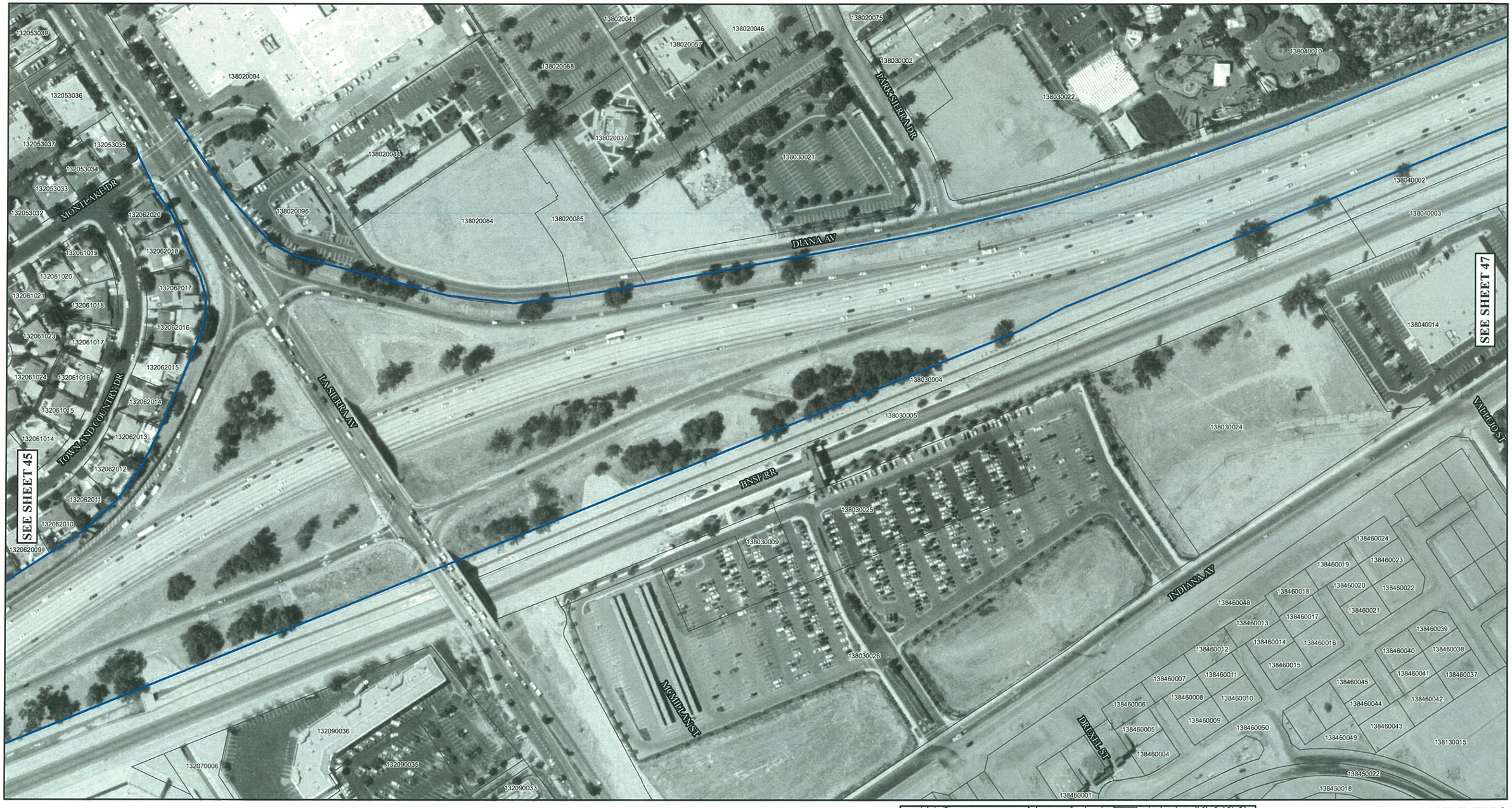


APPENDIX L2
Sheet 45 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

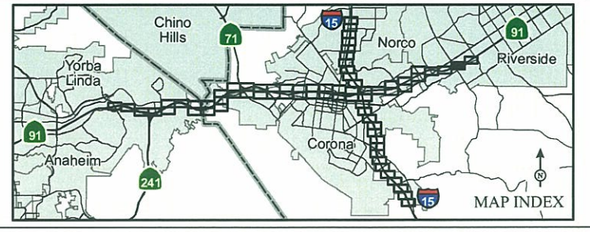
I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)

APPENDIX L2
Sheet 46 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

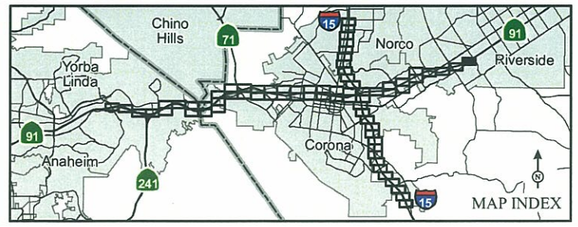


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 47 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

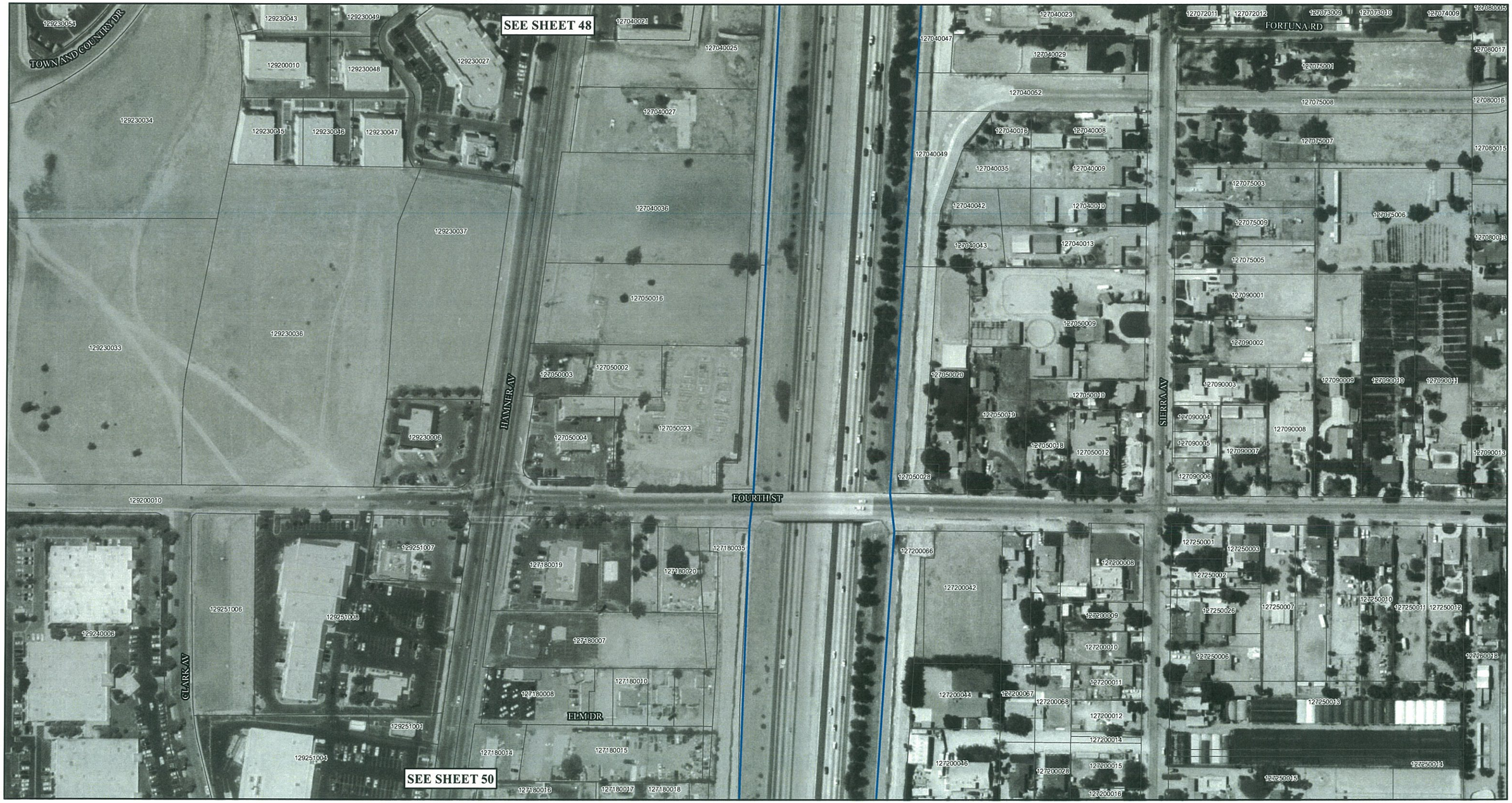


APPENDIX L2
Sheet 48 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)

APPENDIX L2
Sheet 49 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

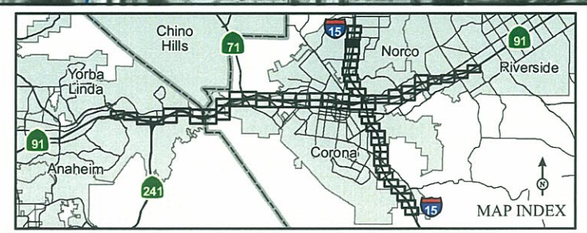


Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 50 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

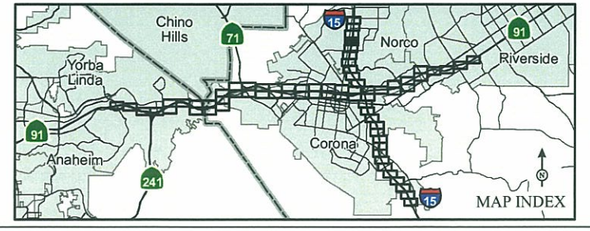
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L2
Sheet 51 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)

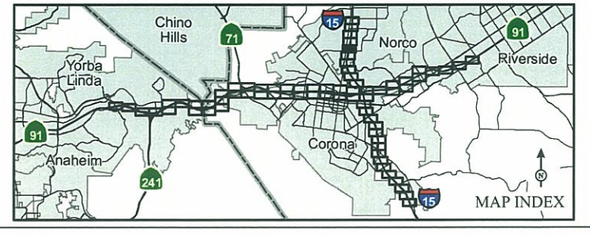


Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 52 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

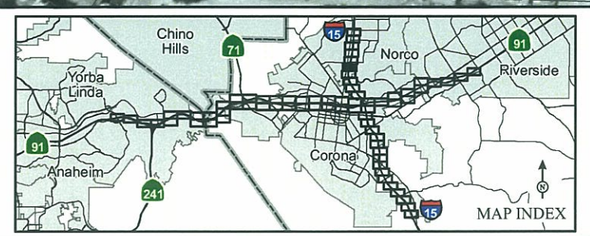


Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

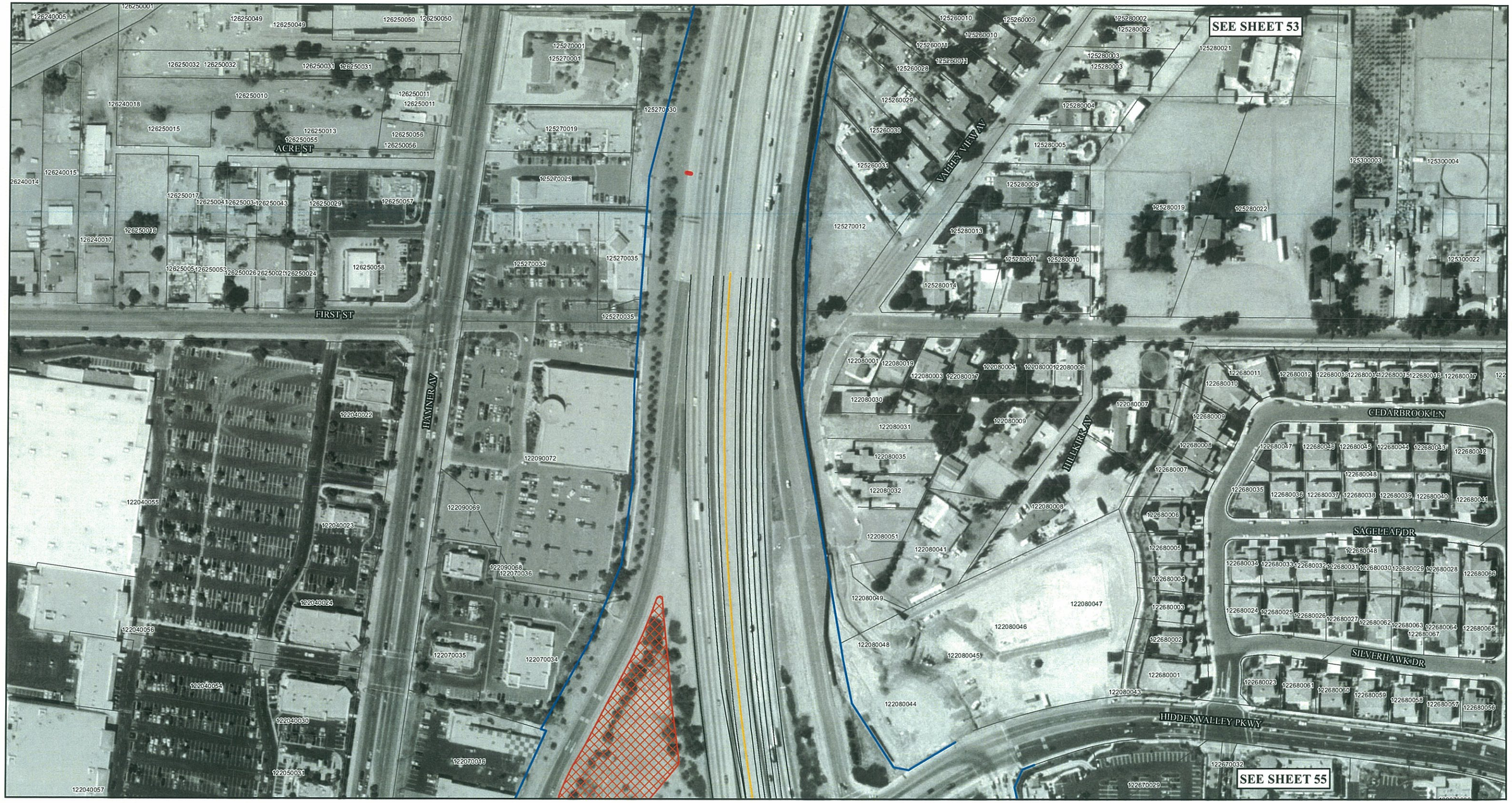
I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 53 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

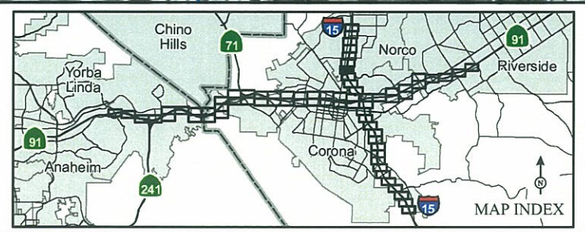


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 54 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 55 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)

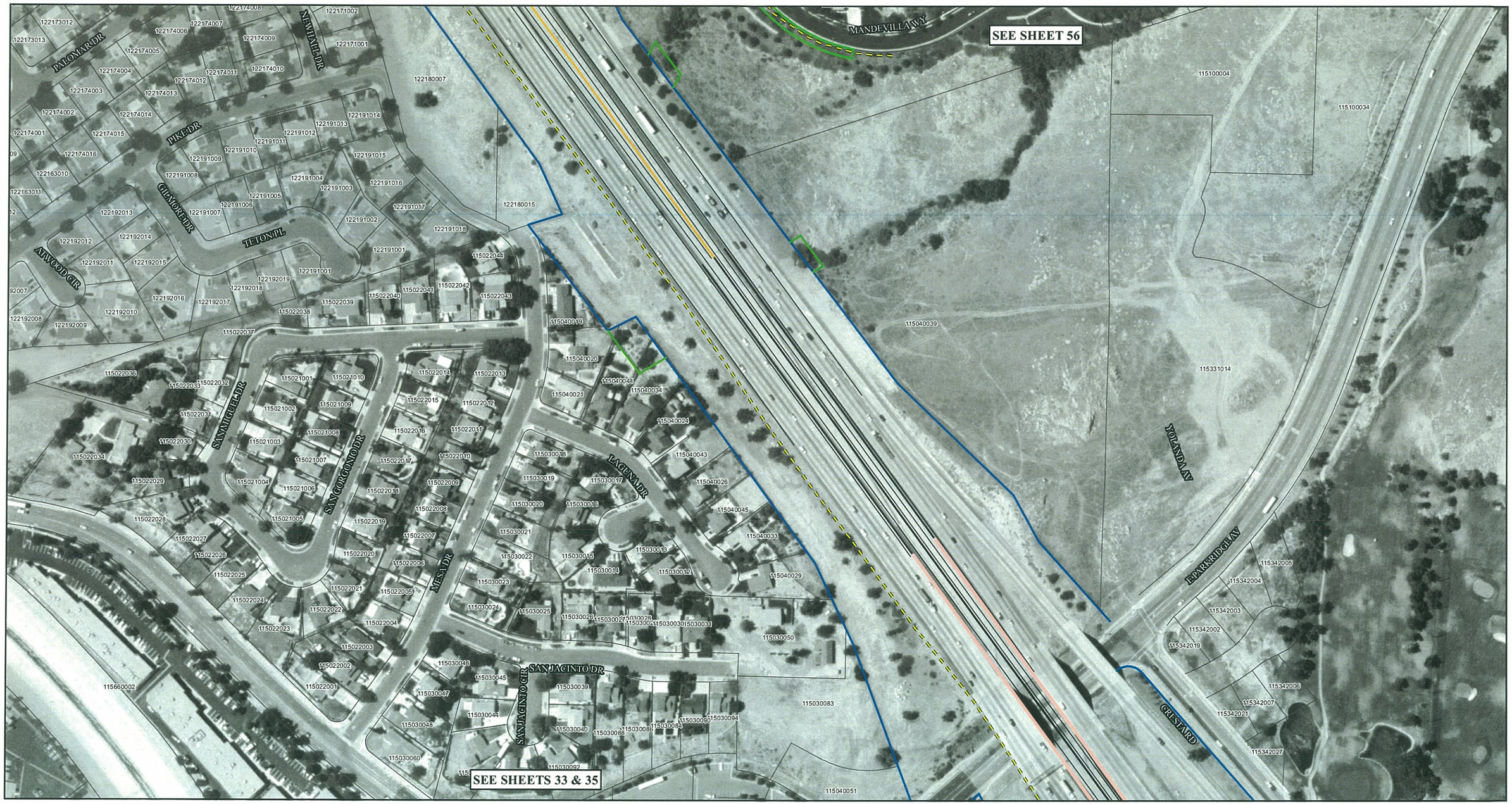
APPENDIX L2

Sheet 56 of 72

SR-91 Corridor Improvement Project

Alternative 2 (LPA) - Project Features

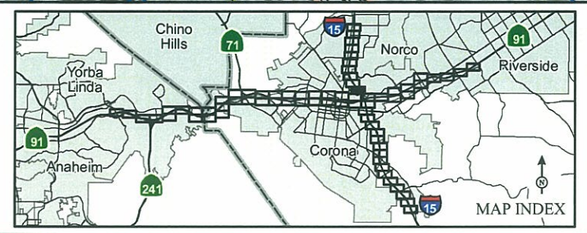
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L2
Sheet 57 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L2
Sheet 58 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)

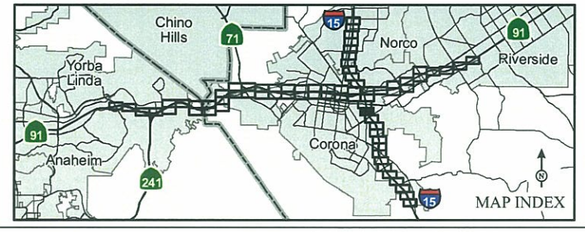


Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 59 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

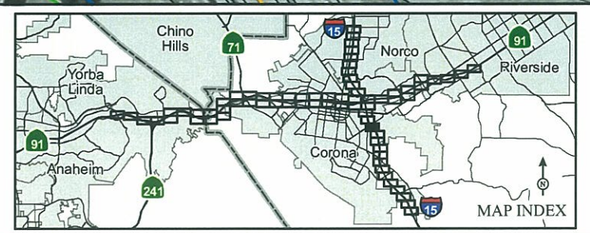
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



APPENDIX L2
Sheet 60 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

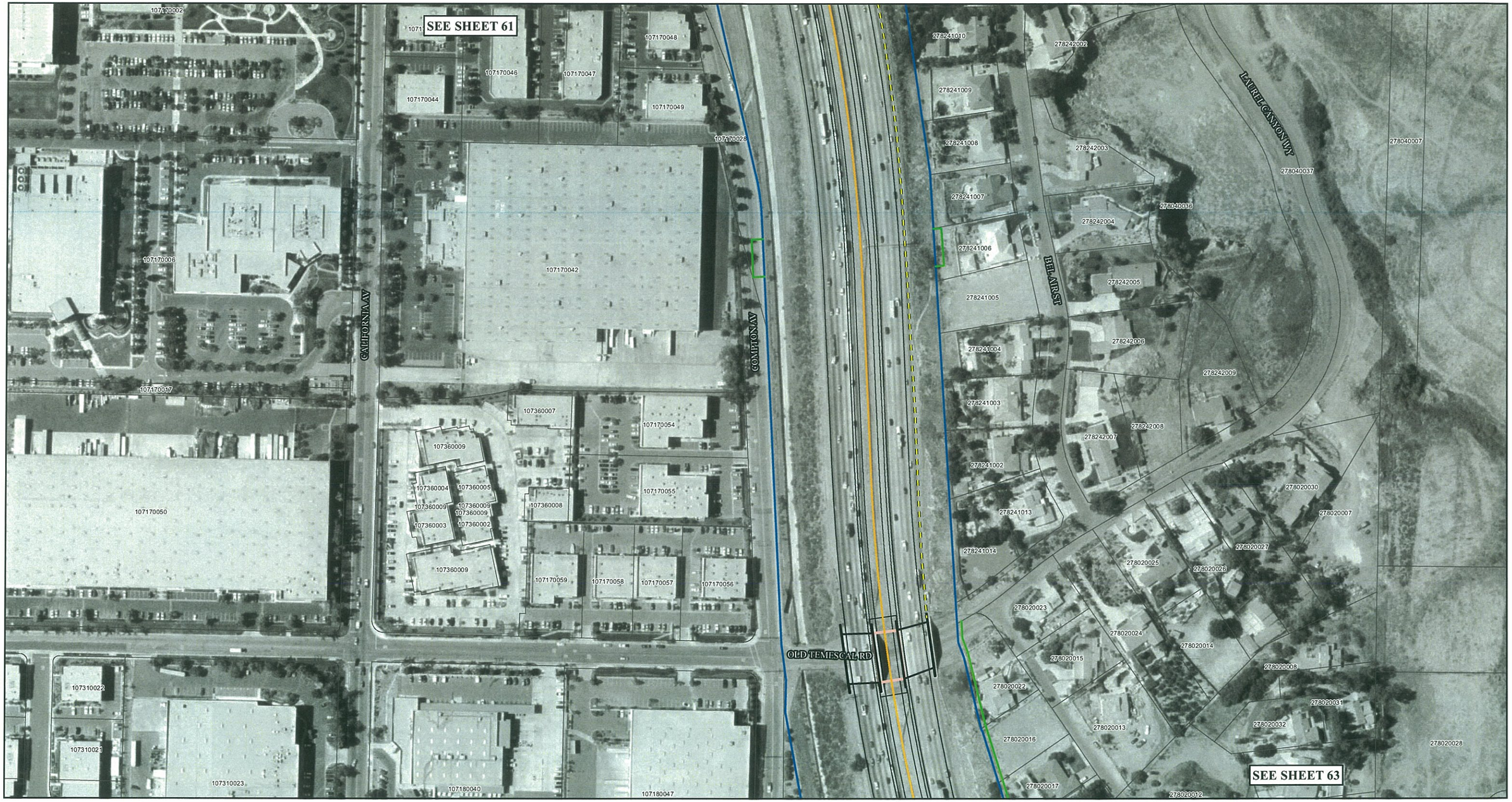


APPENDIX L2
Sheet 61 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)

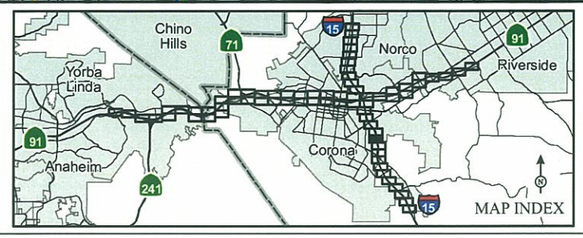


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

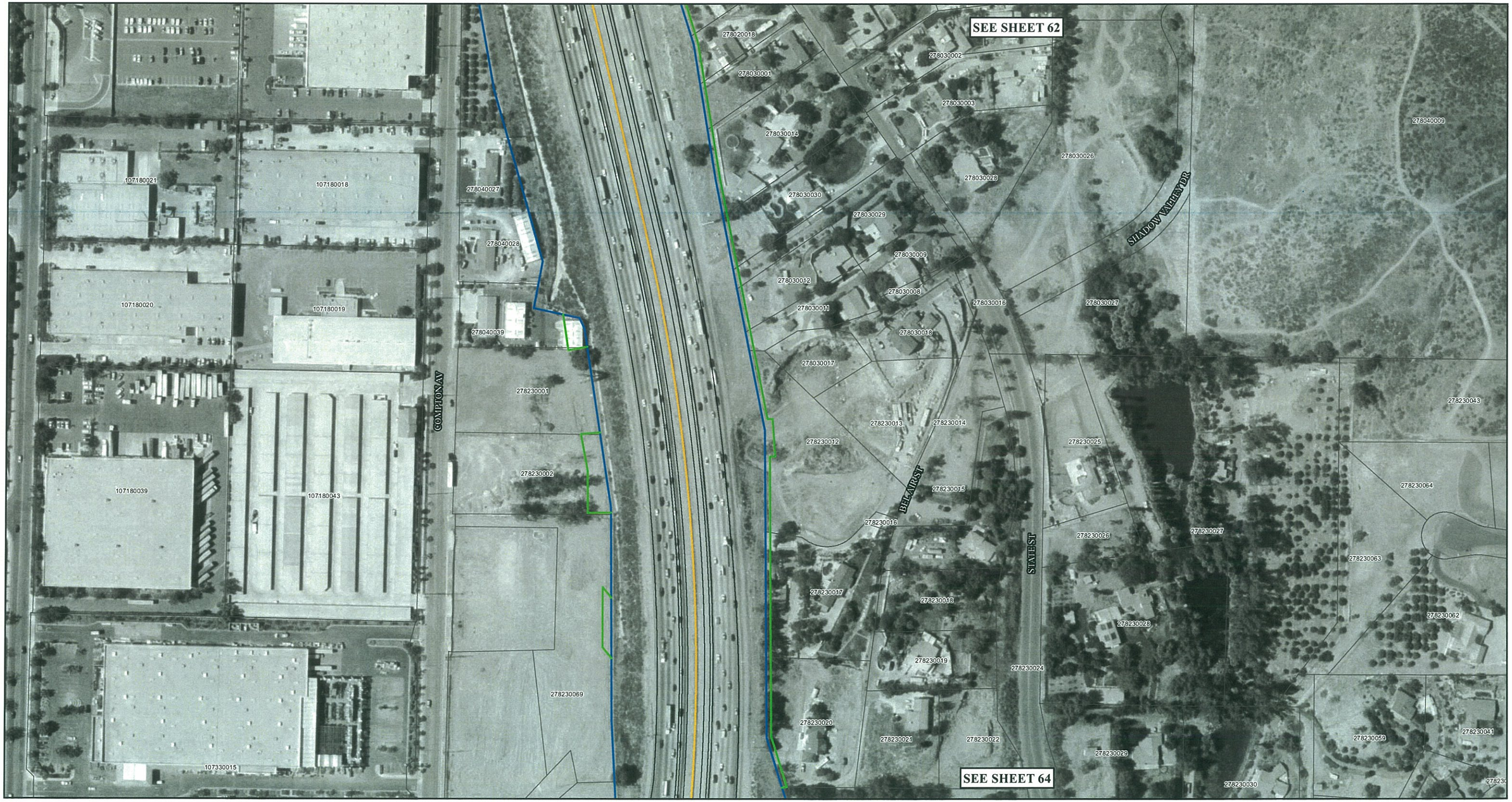
I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 62 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

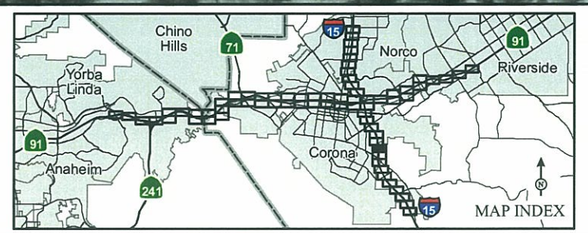


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 63 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

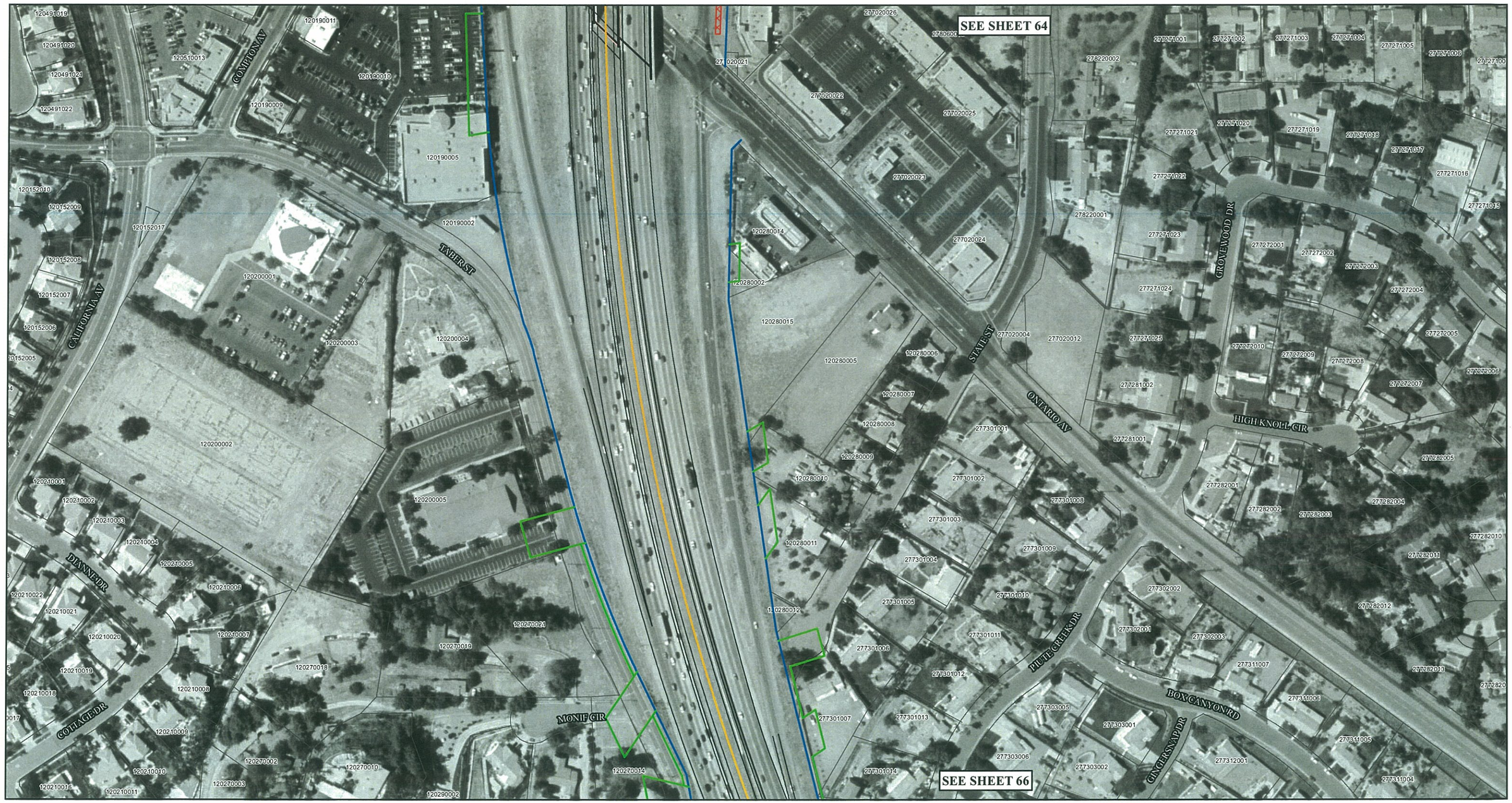
I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 64 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 65 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L2
Sheet 66 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

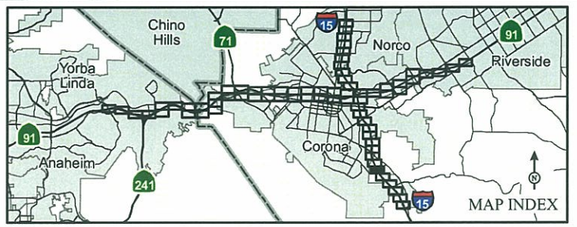
I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)



APPENDIX L2
Sheet 67 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)

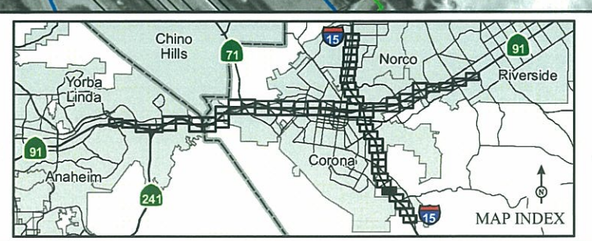


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 68 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary



I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)

APPENDIX L2
Sheet 69 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

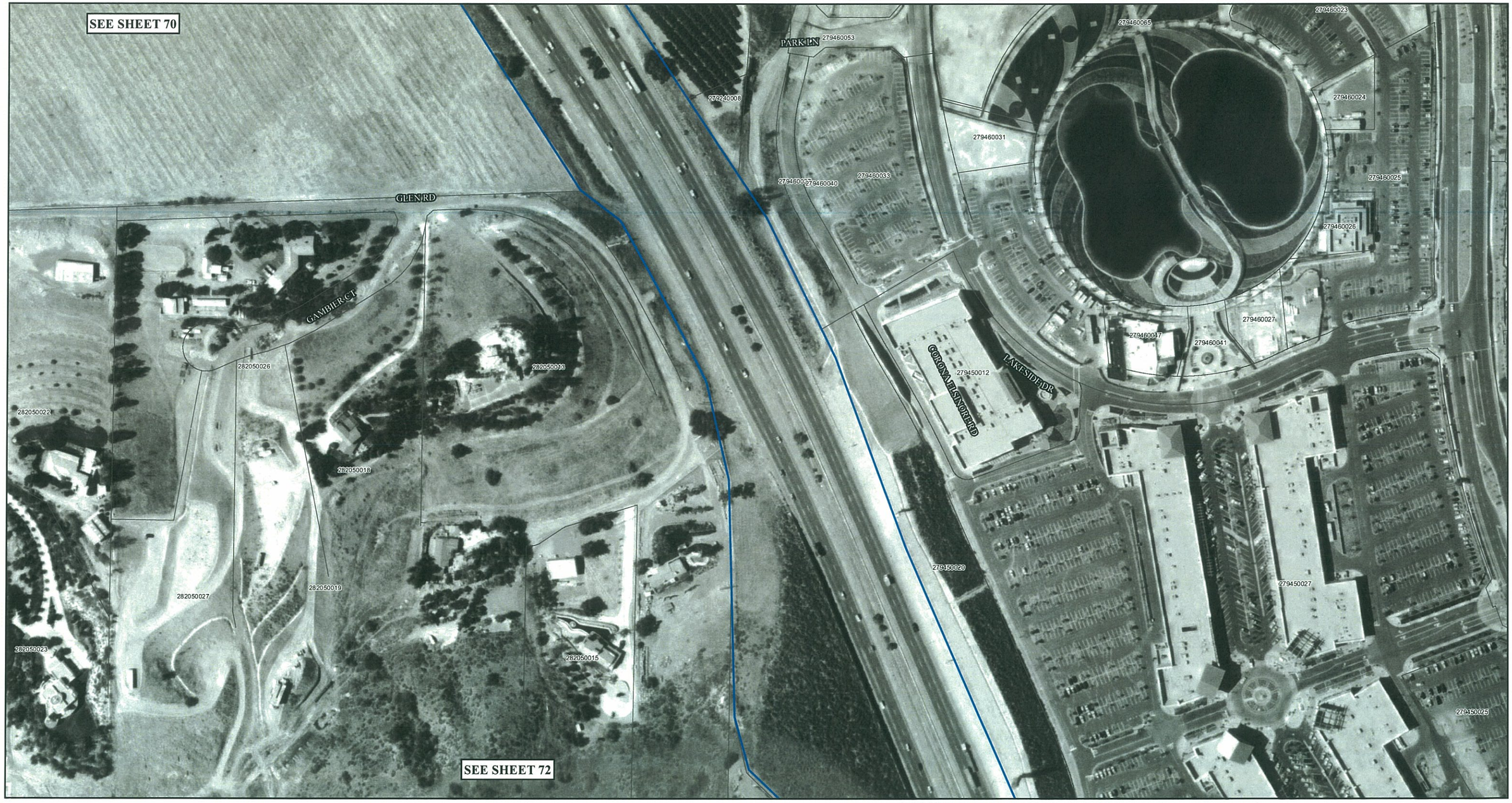


APPENDIX L2
Sheet 70 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)

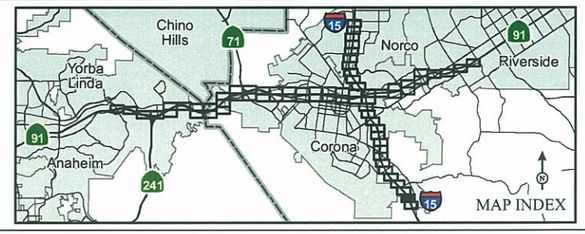


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Retaining Wall
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



APPENDIX L2
Sheet 71 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

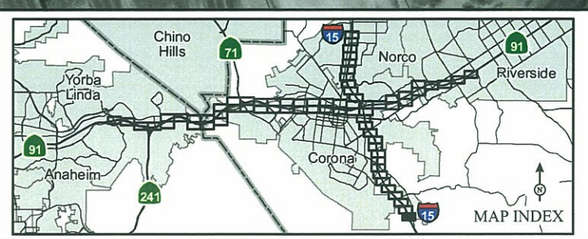
12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Retaining Wall
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

0 100 200
feet
1 inch = 200 feet

SOURCE: PB (2009)

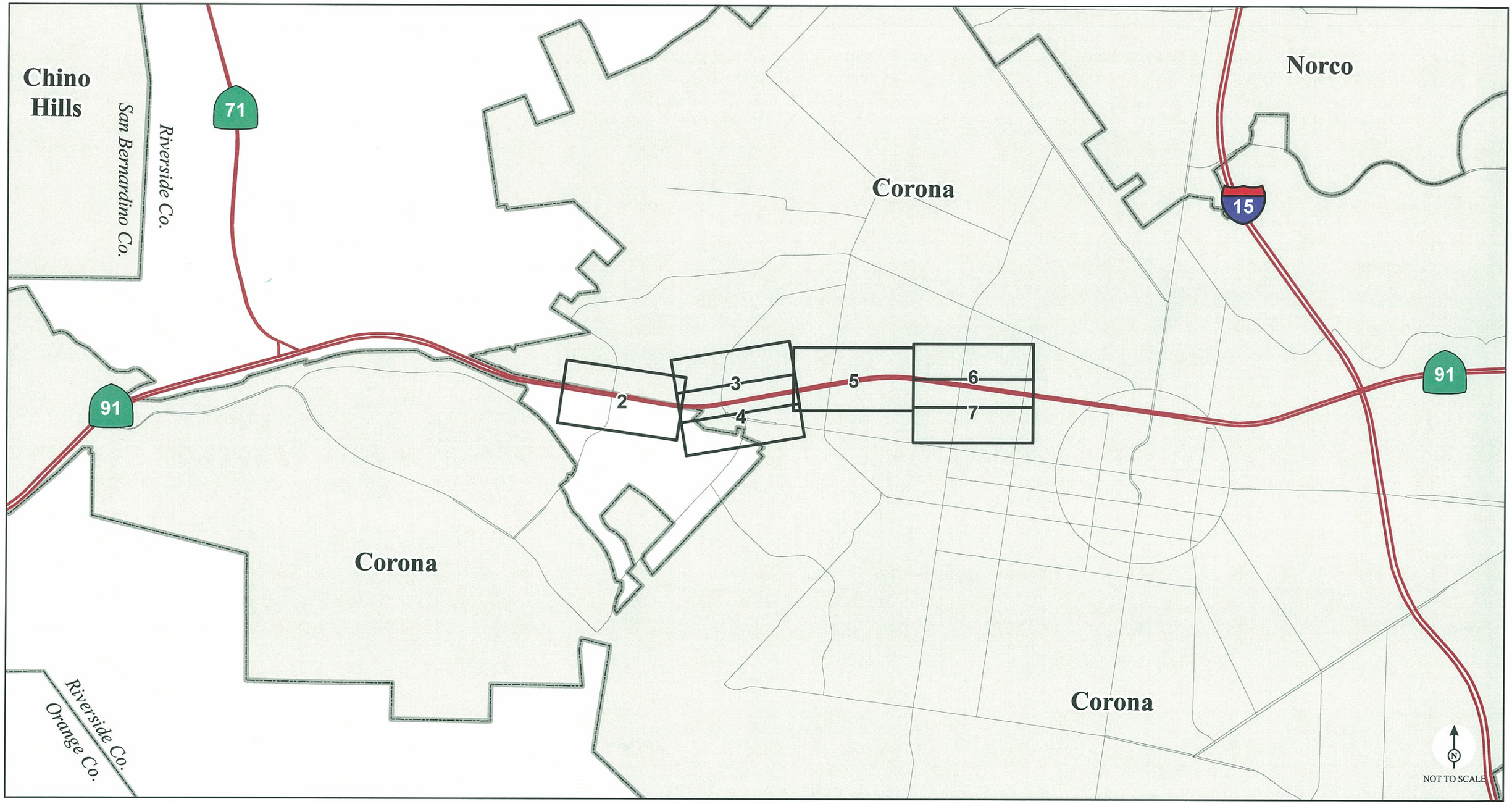


APPENDIX L2
Sheet 72 of 72

SR-91 Corridor Improvement Project
Alternative 2 (LPA) - Project Features

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

I:\PAZ0701\GIS\Basemap\Alternative2_Project Features.mxd (10/27/2010)



Sheet 1 of 7

LEGEND

- Map Sheet
- County/Unincorporated Boundary
- City Boundary

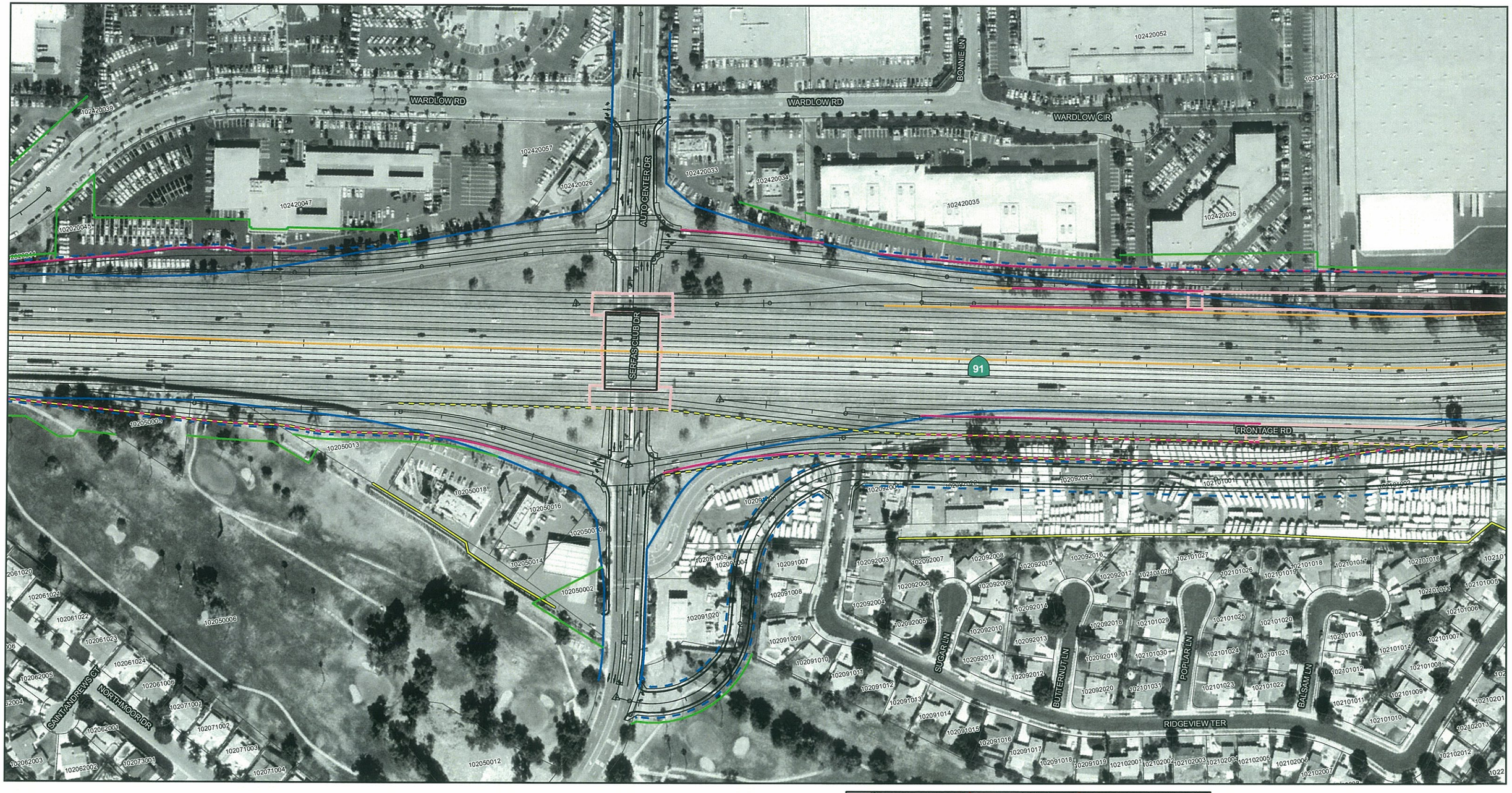
SR-91 Corridor Improvement Project

Alternative 2F Sheet Index

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

SOURCE: Parsons Brinckerhoff (2008), Thomas Bros. (2007).

I:\PAZ0701\GIS\Basemap\INDEX_ALT2F_Features.mxd (2/14/2012)



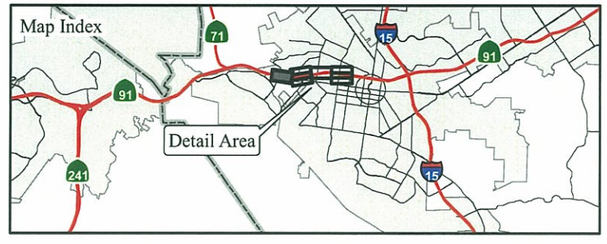
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Proposed Retaining Wall
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
FEET

SOURCE: PB (2010)

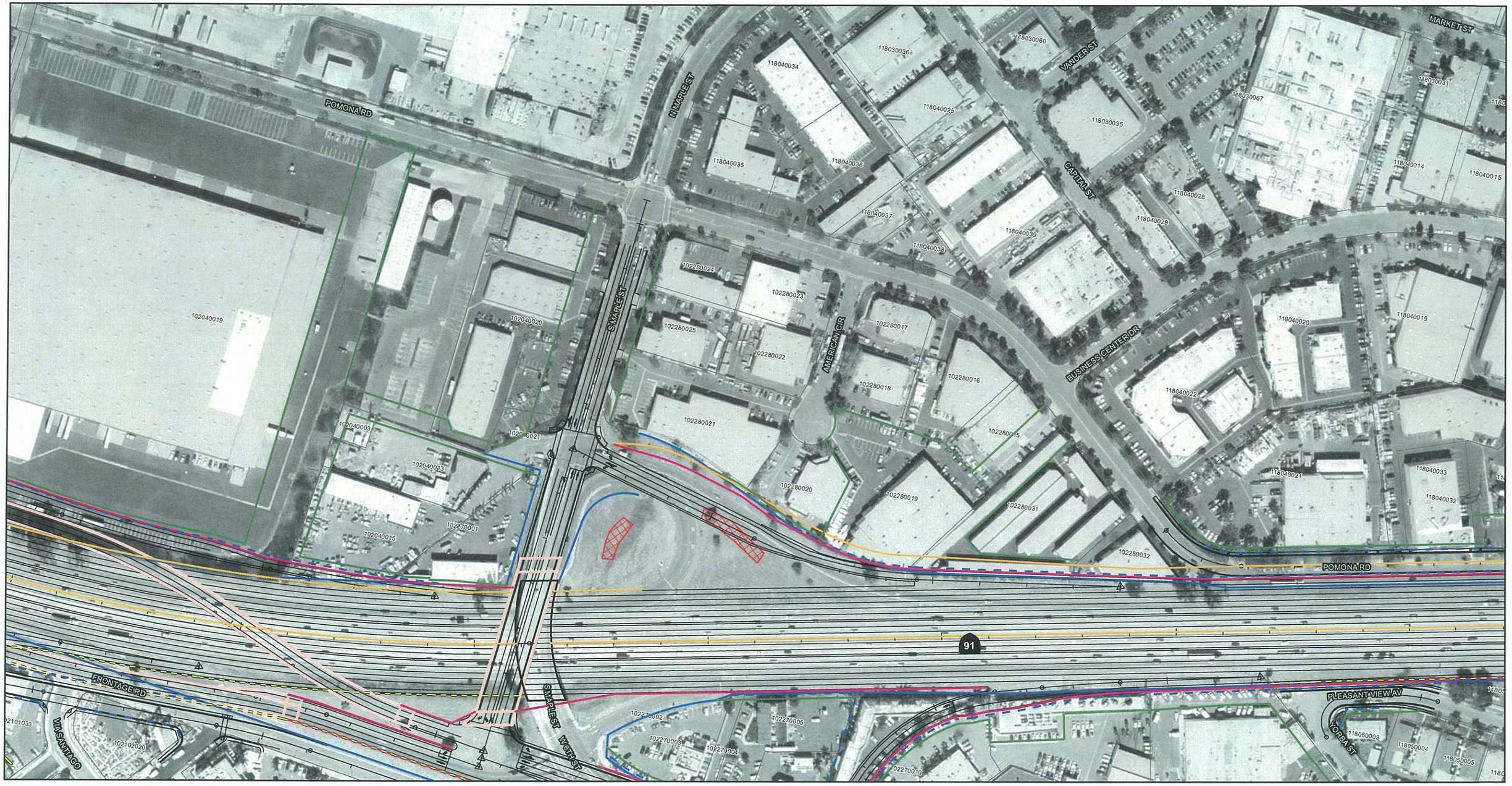
I:\PAZ0701\GIS\Basemap\ProjectFeatures_Alt_2f.mxd (2/14/2012)



SR-91 Corridor Improvement Project

Alternative 2F Improvements at
Auto Center Drive/Maple Street

12-Ora-91-R14.43/R18.91
08-Riv-91-R.0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Proposed Retaining Wall
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

N

0 100 200
FEET

SOURCE: PB (2010)

I:\PAZ0701\GIS\Basemap\ProjectFeatures_Alt_2f.mxd (2/15/2012)



SR-91 Corridor Improvement Project

Alternative 2F Improvements at
Auto Center Drive/Maple Street

12-Ora-91-R14.43/R18.91
08-Riv-91-R.0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

POMONA RD
91
PLEASANT VIEW AV
YORBA ST
SIMPLE ST
FRONTAGE RD
RIDGEVIEW TER
VIA IOSEFA
VIA ANTONIO
VIA SANTIAGO
VIA MARCOS
VIA FELIPE
VIA TRINIDAD
VIA DL RIO
PAS GRANDE
VIA BERNARDO
W 6TH ST
MEADOWOOD ST
BERRYWOOD CT
AVD DEL VISTA

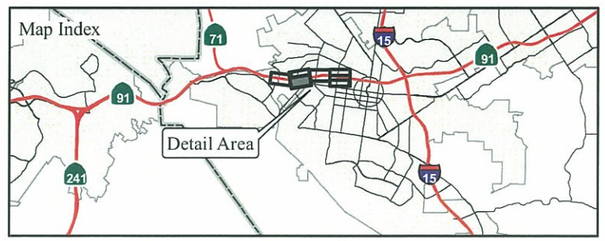
- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Proposed Retaining Wall
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

N

0 100 200
FEET

SOURCE: PB (2010)

I:\PAZ0701\GIS\Basemap\ProjectFeatures_Alt_2f.mxd (2/15/2012)



Sheet 4 of 7

SR-91 Corridor Improvement Project

Alternative 2F Improvements at
Auto Center Drive/Maple Street

12-Ora-91-R14.43/R18.91
08-Riv-91-R.0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



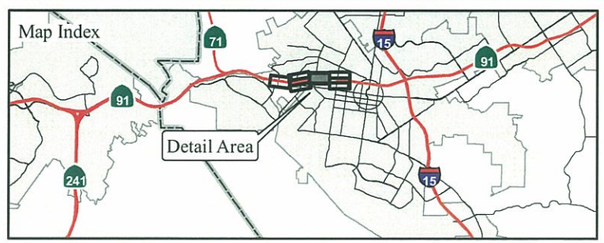
Lanes, Centerlines, and Ramps
Existing State Right of Way
Proposed State Right of Way
Proposed City Right of Way
Proposed Permanent Easement
Proposed Daylight Line (Grading Limits)
Temporary Construction Easement (TCE)
Proposed Concrete Barrier
Existing Bridge
Proposed Bridge
Proposed Retaining Wall
Existing Sound Barrier
Potential Sound Barrier (or Existing Sound Barrier Improvements)
Storm Water Best Management Practice (BMP)
Parcel Boundary

N

0 100 200
FEET

SOURCE: PB (2010)

I:\PAZ0701\GIS\Basemap\ProjectFeatures_Alt_2f.mxd (2/15/2012)



SR-91 Corridor Improvement Project

Alternative 2F Improvements at Smith Avenue

12-Ora-91-R14.43/R18.91
08-Riv-91-R.0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

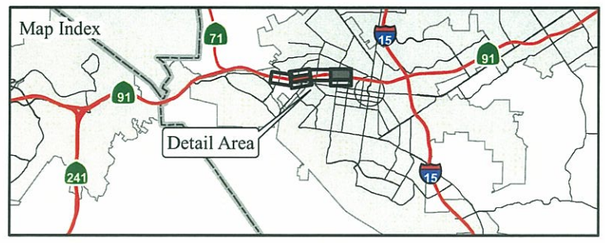


- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Proposed Retaining Wall
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
FEET

SOURCE: PB (2010)

I:\PAZ0701\GIS\Basemap\ProjectFeatures_Alt_2f.mxd (2/14/2012)



SR-91 Corridor Improvement Project

Alternative 2F Improvements at Lincoln Avenue

12-Ora-91-R14.43/R18.91
08-Riv-91-R.0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



- Lanes, Centerlines, and Ramps
- Existing State Right of Way
- Proposed State Right of Way
- Proposed City Right of Way
- Proposed Permanent Easement
- Proposed Daylight Line (Grading Limits)
- Temporary Construction Easement (TCE)
- Proposed Concrete Barrier
- Existing Bridge
- Proposed Bridge
- Proposed Retaining Wall
- Existing Sound Barrier
- Potential Sound Barrier (or Existing Sound Barrier Improvements)
- Storm Water Best Management Practice (BMP)
- Parcel Boundary

0 100 200
FEET

SOURCE: PB (2010)

I:\PAZ0701\GIS\Basemap\ProjectFeatures_Alt_2f.mxd (2/14/2012)



Sheet 7 of 7

SR-91 Corridor Improvement Project

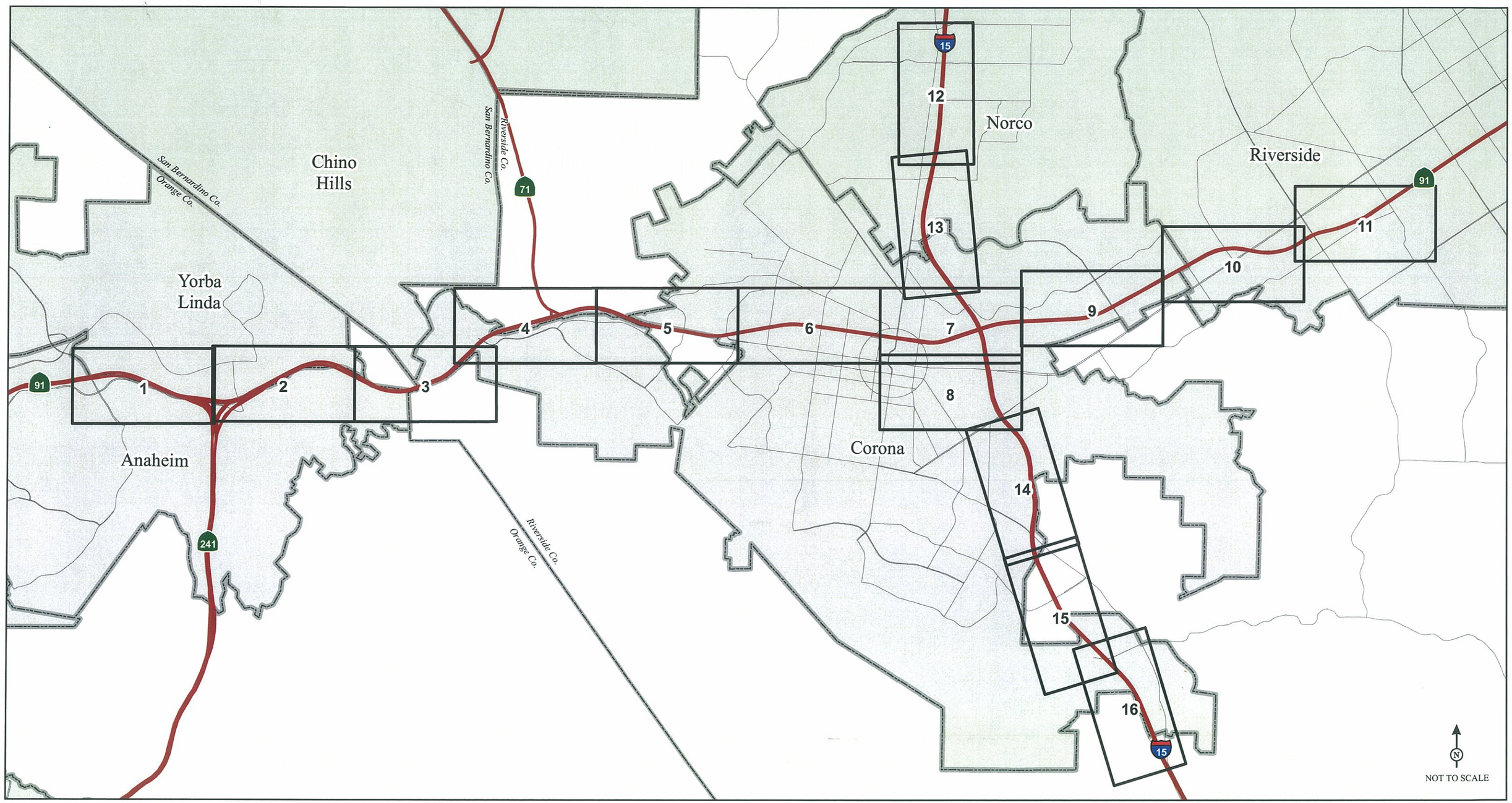
Alternative 2F Improvements at Lincoln Avenue

12-Ora-91-R14.43/R18.91
08-Riv-91-R.0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

Appendix L3

No Build Alternative

This page intentionally left blank



LEGEND

- Map Page
- County/Unincorporated Boundary
- City Boundary

SOURCE: Parsons Brinckerhoff (2008), Thomas Bros. (2007).

I:\PAZ0701\GIS\Basemap\INDEX_ALT_NoBuild.mxd (10/3/2011)

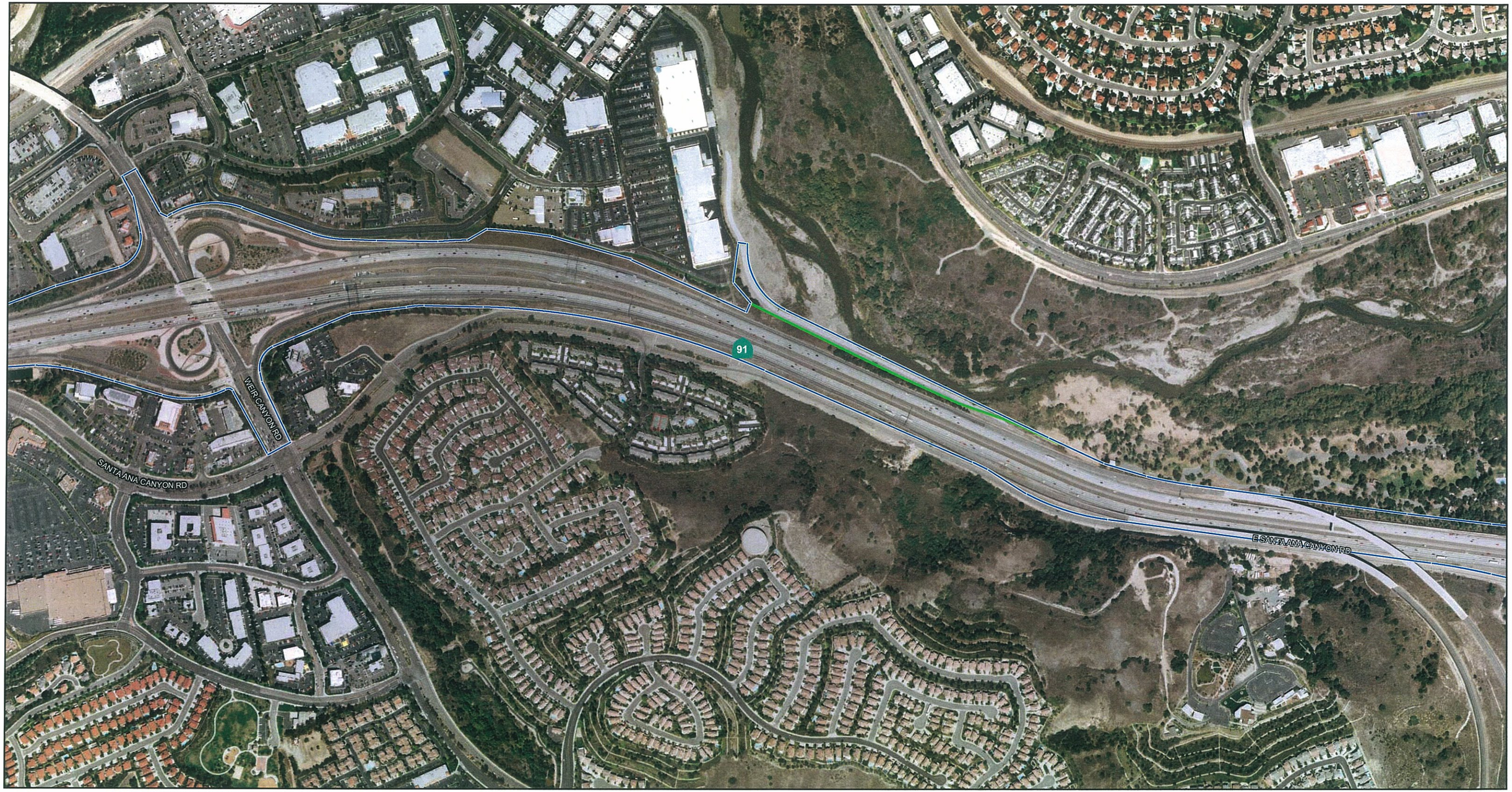
APPENDIX L3

Index

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

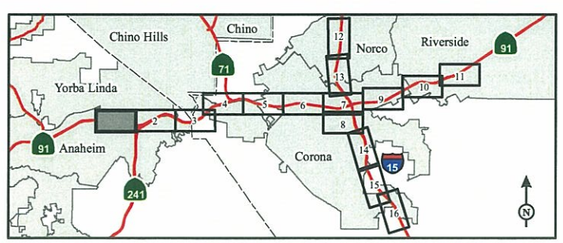
Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

0 300 600
FEET

SOURCE: Digital Globe (04/2008); PB (2008)

I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)



APPENDIX L3
Sheet 1 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

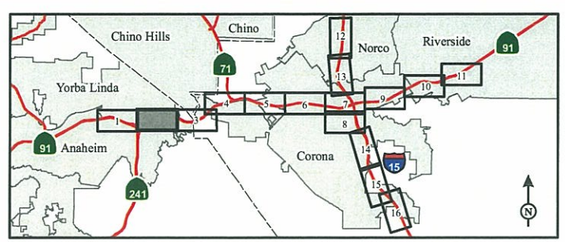
Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

0 300 600
FEET

SOURCE: Digital Globe (04/2008); PB (2008)

I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)

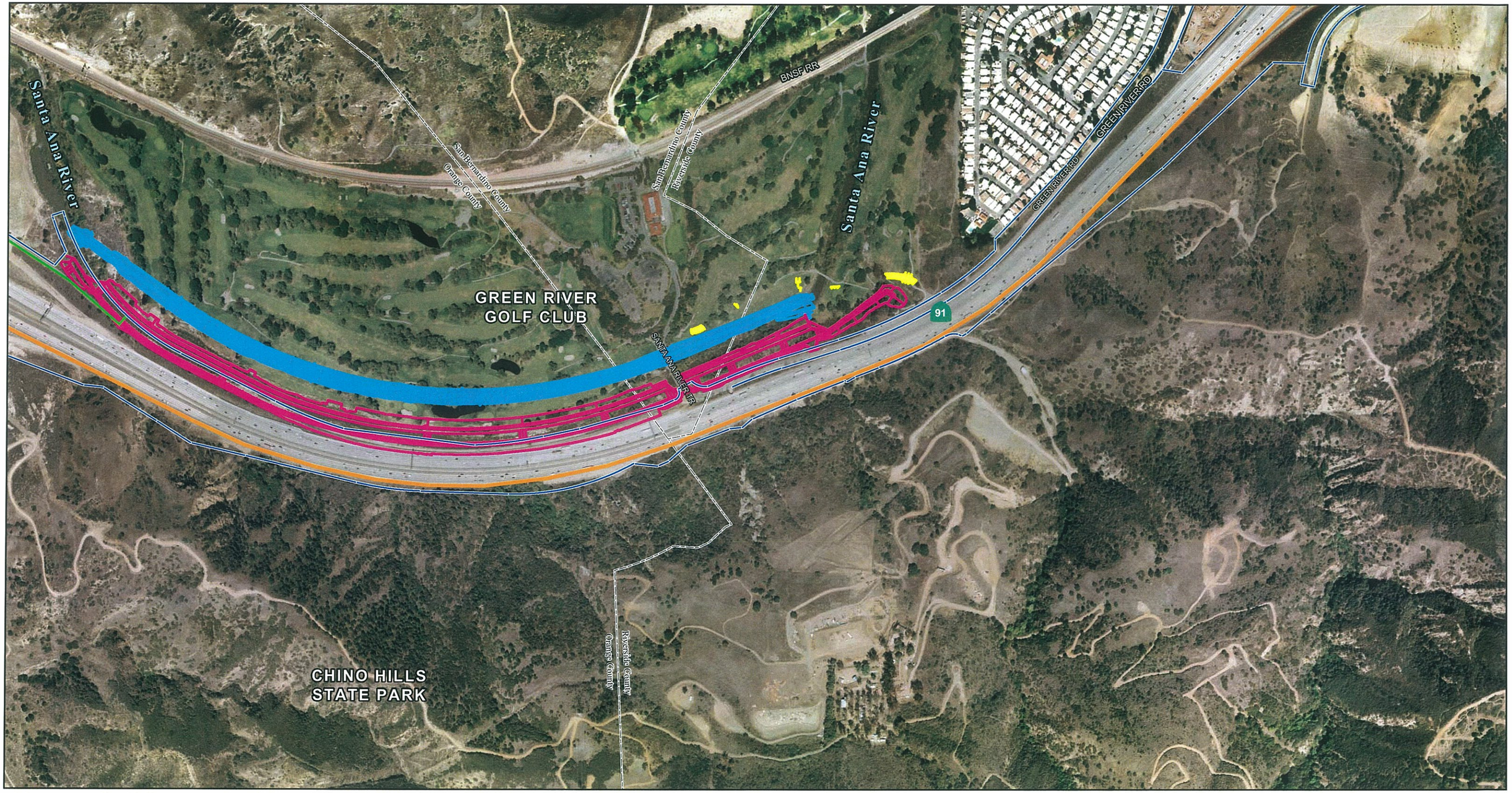


APPENDIX L3
Sheet 2 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

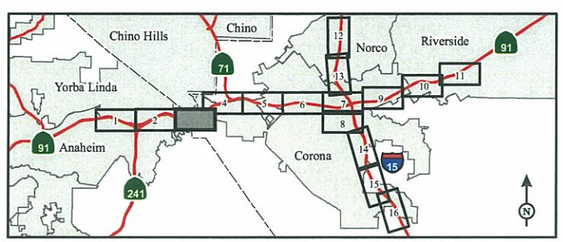
Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

0 300 600
FEET

SOURCE: Digital Globe (04/2008); PB (2008)

I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)



APPENDIX L3
Sheet 3 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

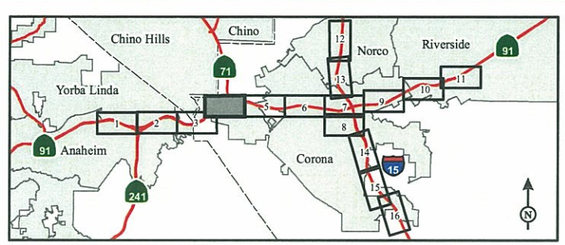
- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

N

0 300 600
FEET



SOURCE: Digital Globe (04/2008); PB (2008)

I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)

APPENDIX L3
Sheet 4 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



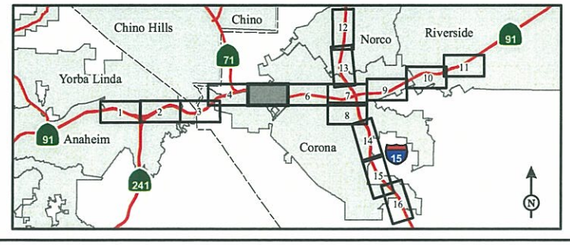
LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

0 300 600
FEET



SOURCE: Digital Globe (04/2008); PB (2008)

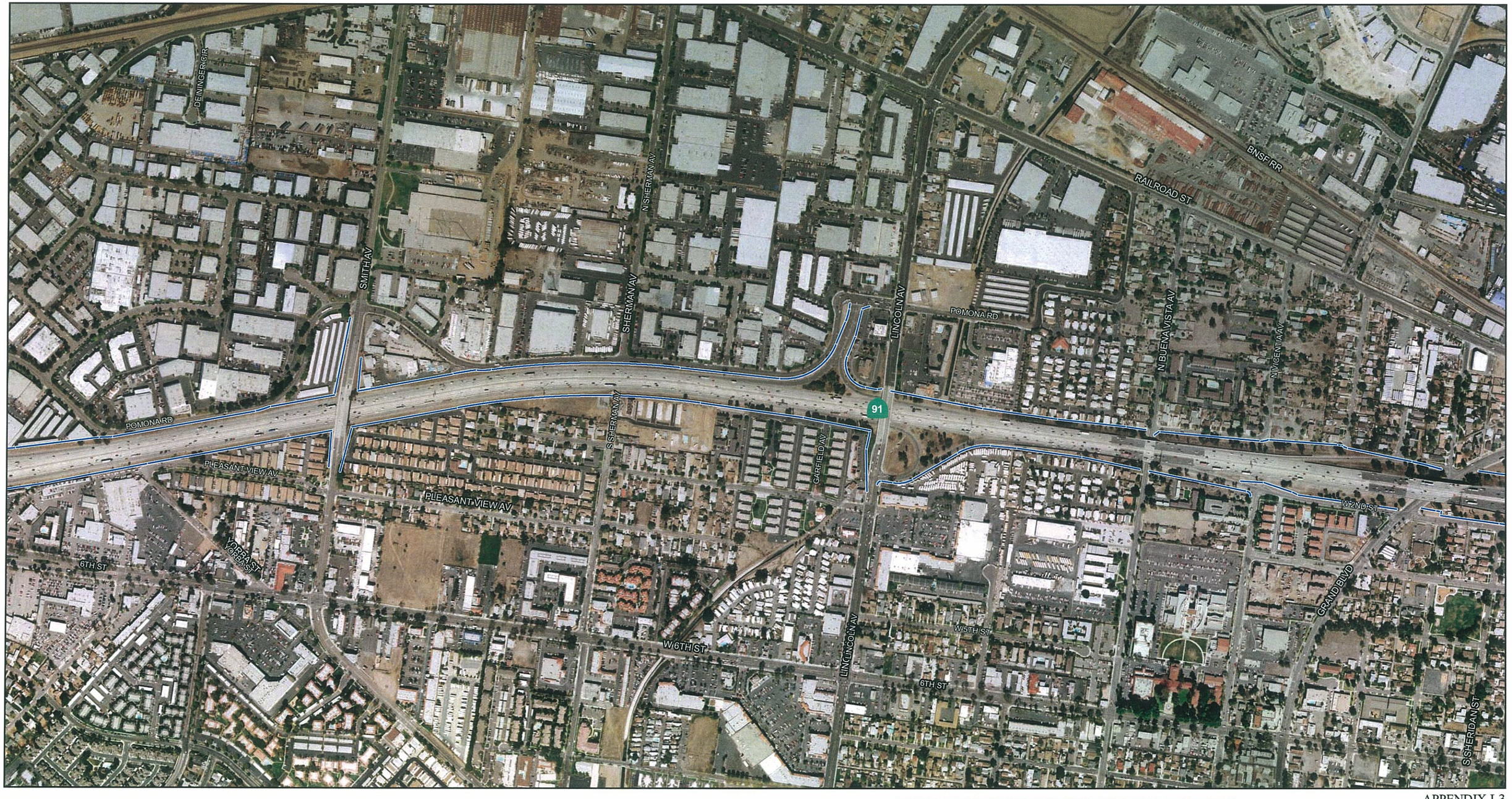
I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)

APPENDIX L3
Sheet 5 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



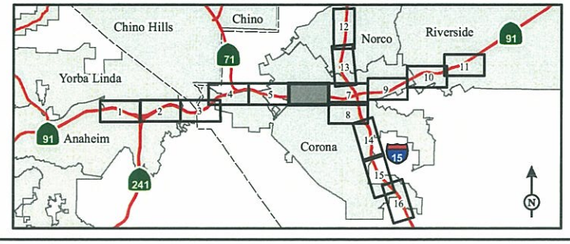
LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

0 300 600
FEET



SOURCE: Digital Globe (04/2008); PB (2008)

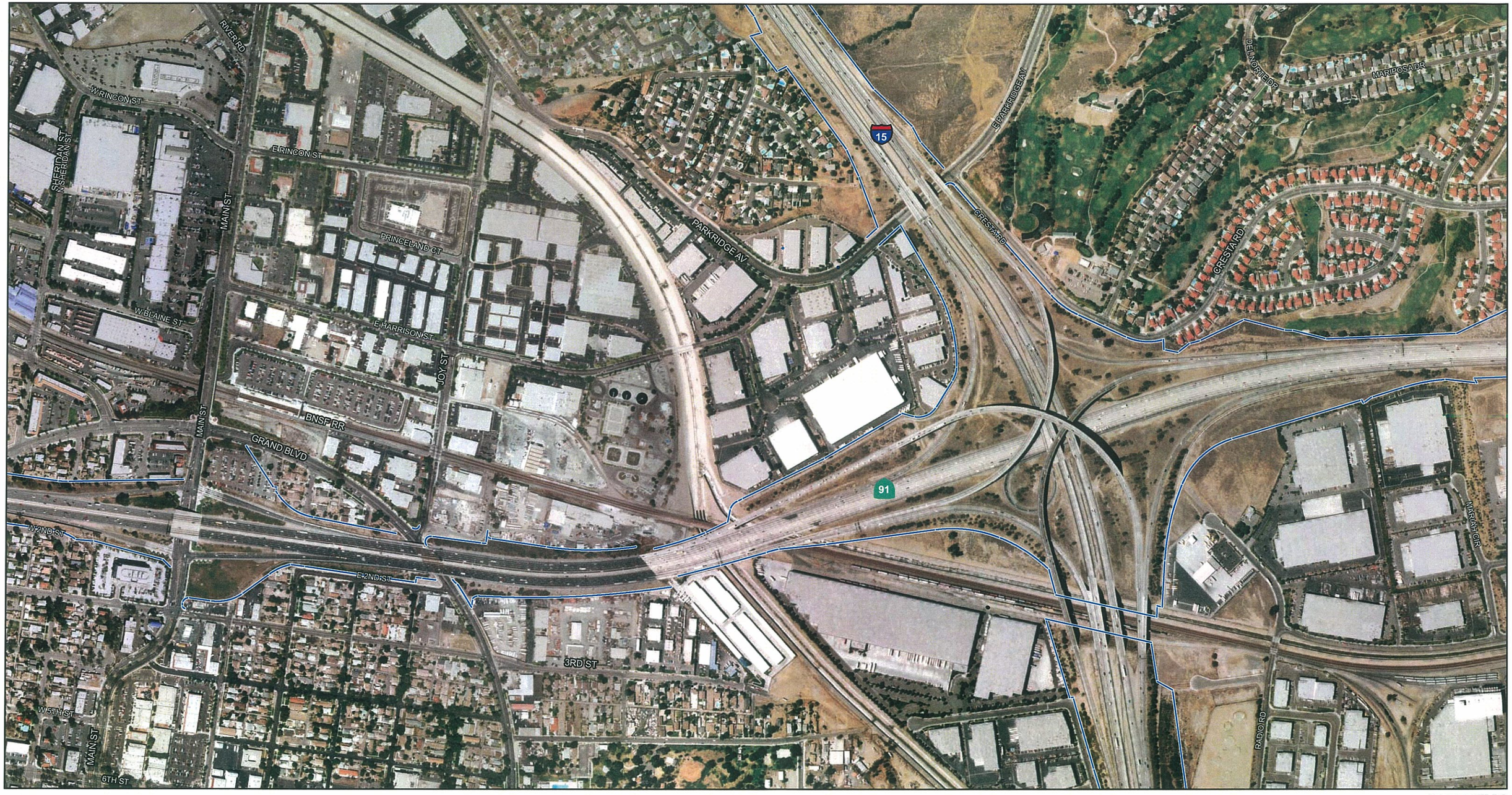
I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)

APPENDIX L3
Sheet 6 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



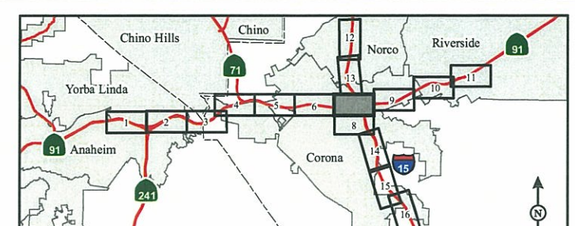
LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

0 300 600
FEET



APPENDIX L3
Sheet 7 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

SOURCE: Digital Globe (04/2008); PB (2008)

I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)



LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

Corps Santa Ana River Realignment Project

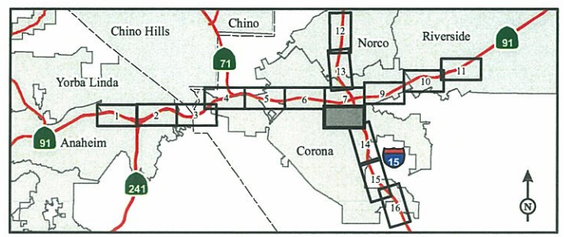
- Diversion Channel
- Access Road
- Embankment

N

0 300 600
FEET

SOURCE: Digital Globe (04/2008); PB (2008)

I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)



APPENDIX L3
Sheet 8 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



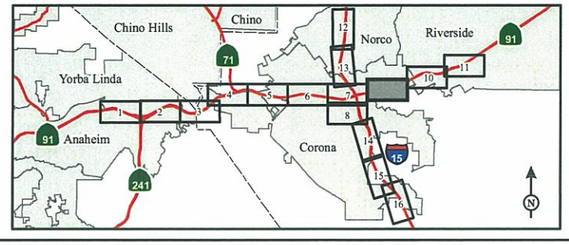
LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

0 300 600
FEET



SOURCE: Digital Globe (04/2008); PB (2008)

I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)

APPENDIX L3
Sheet 9 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

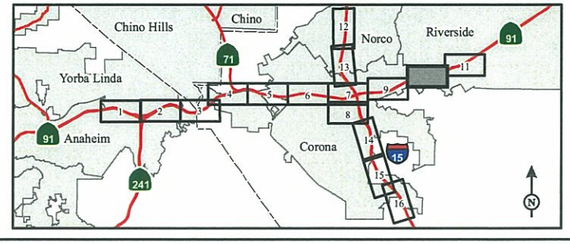
Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

0 300 600
FEET

SOURCE: Digital Globe (04/2008); PB (2008)

I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)



APPENDIX L3
Sheet 10 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



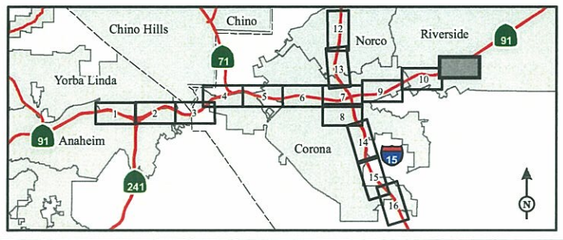
LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

0 300 600
FEET



SOURCE: Digital Globe (04/2008); PB (2008)

I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)

APPENDIX L3
Sheet 11 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

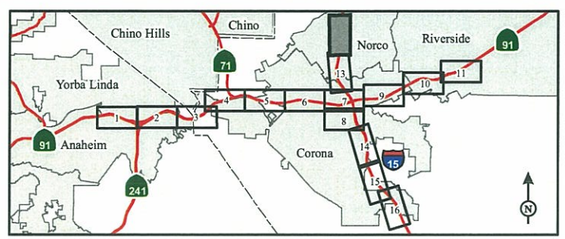
Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

0 300 600
FEET

SOURCE: Digital Globe (04/2008); PB (2008)

I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)



APPENDIX L3
Sheet 12 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

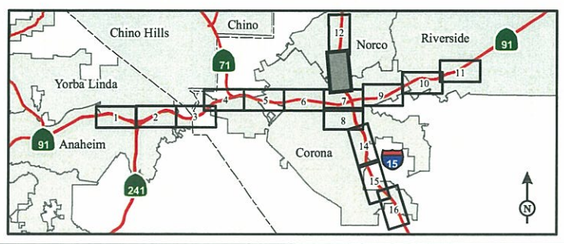
Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

0 300 600
FEET

SOURCE: Digital Globe (04/2008); PB (2008)

I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)



APPENDIX L3
Sheet 13 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



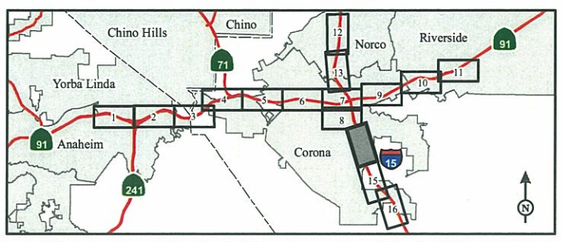
LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

0 300 600
FEET



SOURCE: Digital Globe (04/2008); PB (2008)

I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)

APPENDIX L3
Sheet 14 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

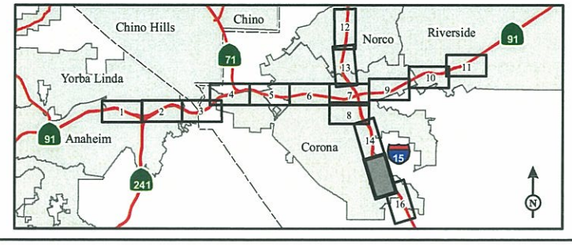
Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

0 300 600
FEET

SOURCE: Digital Globe (04/2008); PB (2008)

I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)



APPENDIX L3
Sheet 15 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540



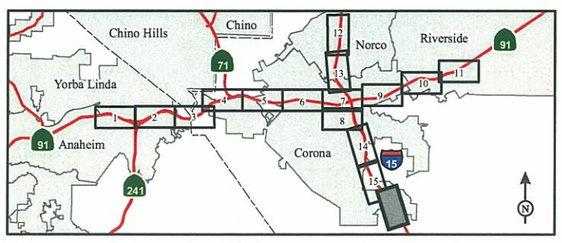
LEGEND

- Existing State Right of Way
- County Boundary
- SR-91 Eastbound Lane Addition Project Limits
- SARI Line Project

Corps Santa Ana River Realignment Project

- Diversion Channel
- Access Road
- Embankment

0 300 600
FEET



APPENDIX L3
Sheet 16 of 16

SR-91 Corridor Improvement Project

No Build Alternative

12-Ora-91-R14.43/R18.91
08-Riv-91-R0.00/R13.04
08-Riv-15-35.64/45.14
EA 0F540

SOURCE: Digital Globe (04/2008); PB (2008)

I:\PAZ0701\GIS\Basemap\Alternative_NoBuild.mxd (10/3/2011)

Appendix M Section 106 Correspondence

This appendix contains the following Section 106 correspondence:

- Letter from Department District 8 to the State Historic Preservation Office (SHPO) dated August 4, 2010 (3 pages)
- Letter from the SHPO dated September 20, 2010 (2 pages)
- Letter from the Corona Historic Preservation Society dated August 26, 2011 (1 page)
- Letter from Department District 8 to the SHPO dated September 8, 2011 (3 pages)
- October 19, 2011, email from the Department documenting SHPO no comment for Grand Boulevard Historic District per the Section 106 Programmatic Agreement (2 pages)
- January 30, 2012, email from the Department further documenting SHPO no comment for Grand Boulevard Historic District per the Section 106 Programmatic Agreement (3 pages)

This page intentionally left blank

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
ENVIRONMENTAL PLANNING (MS 825)
464 W. FOURTH STREET, 6TH FLOOR
SAN BERNARDINO, CA 92401-1400
PHONE (909) 383-4042
FAX (909) 383-6494
TTY (909) 383-6300

Flex your power!
Be energy efficient!

August 4, 2010

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer
California Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816

12-ORA-91-PM R14.43/R18.91;
08-RIV-91-PM R0.0/R13.04;
8-RIV-15-PM 35.64/45.14
SR91 Corridor Improvement Project
EA 0F5400

Dear Mr. Donaldson:

Subject: Determinations of Eligibility and notification of No Historic Properties Affected for the California Department of Transportation (Caltrans) SR91 Corridor Improvement Project, located in Riverside County, California.

The California Department of Transportation (Department), on behalf of FHWA, in cooperation with the Riverside County Transportation Commission (RCTC) and the Orange County Transportation Commission (OCTC), proposes an undertaking to implement the Corridor Improvement Plan for SR-91. The undertaking entails the addition of general purpose lanes, auxiliary lanes, interchange modifications, modifications to existing bridges, drainage, culverts, and water control facilities, construction of soundwalls and other facilities on SR-91 between the SR-241 / SR-91 interchange and Pierce Street in the City of Riverside, and along a portion of I-15 between Hidden Valley Parkway and Cajalco Road.

This consultation is undertaken in accordance with the Programmatic Agreement (PA) among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation, executed January 1, 2004.

Section 106 activities to date for this undertaking include a Historic Property Survey Report (HPSR, August 2010), which documents the identification and evaluation of cultural resources within the project's Area of Potential Effects (APE). Consultation and identification efforts for the proposed undertaking (summarized on page 1-6 in the HPSR) resulted in the identification of (23) historic period cultural resources in the APE that required evaluation:

Name	Address	Community	OHP Code	APE Map Ref. No.
Mountain View Country Club	2121 Mountain View Drive (APNs 102-050-008; 102-050-006; 102-050-003; 102-160-003; 102-112-008; 102-203-007; 102-192-017; 103-020-007; 103-020-010)	Coronita	6Z	1
	711 Butternut Lane (APN 102-092-015)	Corona	6Z	2
	711 Balsam Lane (APN 102-101-017)	Corona	6Z	3
	1811 Via Santiago (APN 102-250-025)	Corona	6Z	4
	1805 Via Santiago (APN 102-250-024)	Corona	6Z	5
	323 Smith Street (APN 118-112-003)	Corona	6Z	6
	128 South Vicentia Avenue (APN 118-302-001)	Corona	6Z	7
Grand Boulevard Streetscape Historic District	Grand Boulevard	Corona	5S1	8
	112 School Street (APN 117-041-017)	Corona	6Z	9
	107 North Sheridan Street (APN 117-070-002)	Corona	6Z	10
	107 North Belle Avenue (APN 117-070-032)	Corona	6Z	11
33-6470	44 East Grand Boulevard (APN 117-080-003)	Corona	6Z	12
	104 North Victoria Avenue (APN 117-080-020)	Corona	6L	13
33-6699	115 North Victoria Avenue (APN 117-080-009)	Corona	6L	14
	203 South Victoria Avenue (APN 117-112-001)	Corona	6Z	15
	207 South Victoria Avenue (APN 117-112-002)	Corona	6L	16
	416½ East Second Street (APN 117-113-002)	Corona	6Z	17
	204 South Joy Street (APN 117-121-002)	Corona	6Z	18
33-6643	211 North Pearl Street (APN 117-270-005)	Corona	6L	19
33-6644	215 North Pearl Street (APN 117-270-005)	Corona	6L	20
33-6642	105 North Pearl Street (APN 117-270-013)	Corona	6Z	21
	2308 State Street (APN 120-280-011)	Corona	6Z	22*
	2520 State Street (APN 120-270-014)	Corona	6Z	23*

One additional property, the Green River Camp/Alta Vista (CA-RIV-6532H/33-10819) was previously determined not eligible for the NRHP with SHPO concurrence in 2001. The site was not re-evaluated for the current undertaking.

Pursuant to Stipulation VIII.C.5 of the Section 106 PA, we request your concurrence that the above listed properties are not eligible for listing in the NRHP. Pursuant to Stipulation IX.A of the Section 106 PA, Caltrans is proposing that a finding of **No Historic Properties Affected** is appropriate for this undertaking.

We look forward to receiving your response within thirty (30) days of your receipt of this submittal, in accordance with Stipulation VIII.C.5.a of the Section 106 PA. If you have any questions or comments regarding the proposed project, please feel free to contact Andrew Walters, Associate Environmental Planner (Architectural History) at (909) 383-7566 or by email at andrew_walters@dot.ca.gov. In return correspondence, please refer to this project by the EA number provided. We look forward to your response.

Sincerely,

for

OLUFEMI ODUFALU
Office Chief
Environmental Support/Cultural Studies

c. Jill Hupp, Section 106 Coordinator, Division of Environmental Analysis, HQ

Enclosures

Historic Property Survey Report (HPSR) for the State Route 91 Corridor Improvement Project, Riverside and Orange Countiesy, California, *(August 2010).*

This page intentionally left blank

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov

September 20, 2010 Reply To: FHWA100805B

Olufemi Odufalu, Office Chief
Environmental Support/Cultural Studies (MS 825)
Caltrans District 8
464 W Fourth Street, 6th Floor
San Bernardino, CA 92401-1400

Re: Determinations of Eligibility for the Proposed SR 91 Corridor Improvement Project, Riverside County, CA

Dear Mr./Ms. Odufalu:

Thank you for consulting with me about the subject undertaking in accordance with the *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, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA).

The California Department of Transportation (Caltrans) is requesting my concurrence, pursuant to Stipulation VIII.C.5 of the PA, that the following properties are not eligible for the National Register of Historic Places:

- 2121 Mountain View Drive
- 711 Butternut Lane
- 711 Balsam Lane
- 1811 Via Santiago
- 1805 Via Santiago
- 323 Smith Street
- 128 South Vicentia Avenue
- Grand Boulevard Streetscape Historic District
- 112 School Street
- 107 North Sheridan Street
- 107 North Belle Avenue
- 44 East Grand Boulevard
- 104 North Victoria Avenue
- 115 North Victoria Avenue
- 203 South Victoria Avenue
- 207 South Victoria Avenue
- 416 ½ East Second Street
- 204 South Joy Street
- 211 North Pearl Street
- 215 North Pearl Street
- 105 North Pearl Street
- 2308 State Street
- 2520 State Street

Based on my review of the submitted documentation, I concur.

Thank you for considering historic properties during project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 445-7014 or e-mail at nlindquist@parks.ca.gov.

Sincerely,

Susan K Stratton for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

Corona Historic Preservation Society

August 25, 2011

Casey Tibbet, M.A.
Senior Cultural Resources Manager
LSA Associates, Inc.
1500 Iowa Avenue, Suite 200
Riverside, California 92507

RE: CHPS comments on Cal Trans Finding of Effect docuiment related to the City of Corona's Grand Boulevard Historic District.

Dear Ms. Tibbet:

Thank you for your follow-up letter from our comments at the Public Outreach meeting held at the Corona gymnasium. We were happy to update the record to indicate the NRHP status of our Grand Boulevard Historic District. Thank you also for allowing a member of our Board of Directors to review the CalTrans Finding of Effect document with you.

It is fortunate that this project impacts the least historic portion of the Grand Boulevard Historic District. While we are not unduly concerned with intersection, curb, sidewalk and roadway realignment, we are concerned about the protection of our historic street-scape including "acorn" street lamps and parkway trees. The palm trees around the northern perimeter of the Grand Boulevard circle are protected under city resolution.

Our Society strongly supports the project as long as removal, secure storage and relocation or reinstallation, at the conclusion of the project, of the 7 or 8 historic street posts and lamps affected are given the high priority they deserve. Mature parkway trees should likewise be protected. The Historic Preservation Society may be able to offer the contractor a secure site for storage of the posts and lamps, if desired.

Sincerely,

For the Board of Directors,

Christine Gary

Christine Gary
President

This page intentionally left blank

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS, MS 27
1120 N STREET
P.O.BOX 942874
SACRAMENTO, CA 94274-0001
PHONE (916) 653-7507
FAX (916) 653-7757
TTY (916) 653-4086

Flex your power!
Be energy efficient!

September 8, 2011

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer
California Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816

08- 08-Riv-91-PM R0.0/R13.04
08- 08-Riv-15-PM 35.64/45.14
12-Ora-91-PM R14.43/R18.91
SR-91 Corridor Improvement Project
EA: 0F540 / PN 0800000136

Attention: Ms. Natalie Lindquist

Subject: Finding of No Adverse Effect (FNAE) for the proposed State Route 91 Corridor Improvement Project, Riverside County, California.

Dear Mr. Donaldson:

The California Department of Transportation (Caltrans) is initiating consultation with the State Historic Preservation Officer (SHPO) regarding our finding of effect for the above-referenced project. This consultation is undertaken in accordance with 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* (Section 106 PA). We are consulting with you under Section 106 PA Stipulation X.B.1, which requires consultation with the SHPO regarding findings of no adverse effect without standard conditions.

Caltrans is transmitting this documentation as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program,* which became effective on July 1, 2007, and was renewed on June 7, 2010. The MOU was signed pursuant to Section 6005 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which allows the Secretary of Transportation to assign, and the State of California to assume, the responsibilities of the Federal Highway Administration (FHWA) under the National Environmental Policy Act (NEPA), as well as consultation and coordination responsibilities under other federal environmental laws. As the Pilot Program MOU covers this project, FHWA has assigned and Caltrans has assumed FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans.

Caltrans, on behalf of FHWA, in cooperation with the Riverside County Transportation Commission (RCTC) proposes an undertaking to implement the Corridor Improvement Plan for SR-91. The undertaking entails the addition of general purpose lanes, auxiliary lanes, interchange modifications, modifications to existing bridges, drainage, culverts, and water control facilities, construction of

soundwalls and other facilities on SR-91 between the SR-241 / SR-91 interchange and Pierce Street in the City of Riverside, and along a portion of I-15 between Hidden Valley Parkway and Cajalco Road.

Enclosed for your review is the FNAE (dated August 2011) for the proposed undertaking. The FNAE applies the Criteria of Adverse Effect set forth at 36 CFR 800.5(a)(1) to one Historic Property listed on the National Register of Historic Places:

- Grand Boulevard Historic District was listed on the NRHP July 14, 2011 (Criteria A and C) with a period of significance is 1886–1928, which extends from the year the boulevard was laid out to the completion of the installation of its streetlights. Grand Boulevard is a circular roadway measuring approximately one mile in diameter with a 100-foot-wide ROW, making the distance around the circle approximately three miles. The boulevard rings a grid of equidistant interior streets and is intersected at its outer edges at various angles by exterior streets. The primary character-defining features of the district are the circular design and 100-foot width of the ROW. Contributing elements include features within the ROW associated with the original design concept, early development, or function of Grand Boulevard during the period of significance (1886–1928). Contributing features include the roadway and its intersections with historic streets and alleys, driveways, gutters, curbs, parkways, street trees, streetlights, sidewalks, a hitching post, and two pocket parks.

On August 3, 2010 Caltrans approved the HPSR for the SR-91 Corridor Improvement Project. Pursuant to Stipulation VIII.C.5 of the Section 106 PA, Caltrans requested your concurrence that none of the properties that required evaluation, including Grand Boulevard Historic District, were eligible for listing in the NRHP. We received concurrence from your office by letter dated September 20, 2010 (FHWA100805B). Pursuant to Stipulation IX.A of the Section 106 PA, Caltrans moved forward with a proposed finding of No Historic Properties Affected.

In early 2011, The Corona Historic Preservation Society prepared a National Register Nomination for the Grand Boulevard Historic District. The property became a California Historic Landmark in May 2011 and was listed on the NRHP July 14, 2011. This change in the NRHP status of the property precipitated preparation of a supplemental HPSR and Finding of Effect document (August 2011) to re-assess the Undertaking's finding of effect pursuant to 36 CFR 800.13(b) and Section 106 PA, Stipulation IX.B.

Pursuant to Stipulation X.A of the PA, Caltrans has applied the Criteria of Adverse Effect set forth at 36 CFR 800.5(a)(1) and finds that the undertaking would not have an adverse effect on historic properties. The project will maintain the existing configuration of Grand Boulevard, but proposes the removal and replacement of small segments of sidewalks, curbs, and gutters; relocation of up to seven acorn-style streetlights elsewhere along Grand Boulevard; removal of nine street trees; and the reconfiguration of two intersections. All of these proposed modifications will occur in the northernmost part of the Grand Boulevard circle which has already been compromised by previous roadway improvements. The project proposes relatively minor modifications to features that for the most part are outside of the period of significance (1886-1928) or that have already sustained alterations and are located immediately adjacent an existing transportation corridor. The vast majority of the historic property will be untouched by the project, and integrity of location, design, and association will remain intact. The undertaking will have a minor impact on the setting of the property, but in an area where the setting has already been affected.

As noted on the NRHP nomination form for the property, overall integrity of materials, workmanship and feeling have already been compromised. Thus, completion of the undertaking will not further alter characteristics that qualify the property for the NRHP in a manner that would diminish its integrity, nor impair its ability to convey its historic significance.

We look forward to receiving your written response within 30 days of your receipt of this transmittal in accordance with Stipulation X.B.1.b of the Section 106 PA.

If you have any questions, please contact Anmarie Medin (phone: 916-653-6187; email: anmarie_medin@dot.ca.gov), or Caltrans District 8 PQS Historian Andrew Walters (phone: 909-388-2647; email: Andrew_walters@dot.ca.gov). Thank you for your assistance with this undertaking.

Sincerely,

ANMARIE MEDIN, Chief
Cultural Studies Office
Division of Environmental Analysis

Enclosures: *Finding of No Adverse Effect for the State Route 91 Corridor Improvement Project* (August 2011); *Supplemental Historic Property Survey Report for the State Route 91 Corridor Improvement Project* (August 2011).

This page intentionally left blank

From: Andrew Walters [mailto:andrew_walters@dot.ca.gov]
Sent: Wednesday, October 19, 2011 1:30 PM
To: Casey Tibbet
Subject: Fw: FHWA110909A, State Route 91, Riverside County

----- Forwarded by Andrew Walters/D08/Caltrans/CAGov on 10/19/2011 01:29 PM -----

Andrew Walters/D08/Caltrans/CAGov

10/19/2011 01:29 PM

To Shawn Oriaz/D08/Caltrans/CAGov

cc Aaron Burton/D08/Caltrans/CAGov@DOT, Gabrielle Duff/D08/Caltrans/CAGov@DOT, David Bricker/D08/Caltrans/CAGov@DOT

Subject Fw: FHWA110909A, State Route 91, Riverside County

Shawn,

Caltrans Cultural Studies Office, Division of Environmental Analysis, sent the following document to the State Historic Preservation Officer (SHPO) on behalf of FWHA in accordance with the NEPA Delegation Pilot Program Section 6005 MOU:

Finding of No Adverse Effect for the State Route 91 Corridor Improvement Project (August 2011).

The SHPO received this document on September 9, 2011 per log entered in the Office of Historic Preservation (OHP) database (OHP Reference No. FHWA110909A). The 30-day review period ended on October 9, 2011. Following the close of the 30 day review period, Caltrans made several attempts to communicate with SHPO to determine if additional time was needed for the review.

In accordance with the Section 106 PA, unless FHWA and the SHPO have agreed to extend the 30-day time frame for SHPO review specified in 36 CFR 800.5(c), failure of the SHPO to comment within this time frame may be deemed by FHWA / Caltrans to constitute SHPO concurrence in the No Adverse Effect finding (Stipulation X.B(1)b).

Since 30 days for comment have now passed, Caltrans is hereby informing all concerned parties that we are proceeding forward with the undertaking per stipulation X.B(1)b of the Section 106 Programmatic Agreement (PA) executed January 1, 2004.

See email below. If you have any further questions, feel free to contact me.

Andy Walters
Associate Environmental Planner/Architectural History
Environmental Support/ Cultural Studies
Department of Transportation
464 W. Fourth Street, 6th Floor MS 825
San Bernardino, CA 92401-1400
(909) 383-2647

----- Forwarded by Andrew Walters/D08/Caltrans/CAGov on 10/19/2011 01:05 PM -----

Anmarie Medin/HQ/Caltrans/CAGov

10/19/2011 11:03 AM

To nlindquist@parks.ca.gov, sstratton@parks.ca.gov
cc Andrew Walters/D08/Caltrans/CAGov@DOT
Subject FHWA110909A, State Route 91, Riverside County

Natalie,
According to our records, the SR 91 submittal has been at SHPO for over 30 days. As you know, the PA Stip. X.B(1)b provides that we may take SHPO's failure to comment within 30 days as constituting concurrence in the NAE finding. Please accept this email as notification that we will be proceeding with this undertaking. If you have any questions, feel free to contact me.
Thanks,
Anmarie

EIRLOG... FHWA110909A
TITLE.... STATE ROUTE 91 CORRIDOR IMPROVEMENT PROJECT, RIVERSIDE COUNT
EIR-CO... RIV
EIR-CITY.
IN-DATE. DUE-DATE OUT-DATE BY ACT.....
09/09/11 10/09/11

Andrew
Walters/D08/C
altrans/CAGov

To

01/30/2012
10:43 AM

Shawn Oriaz/D08/Caltrans/CAGov@DOT

cc

Chris
Benz-Blumberg/D08/Caltrans/CAGov@DOT,
Aaron Burton/D08/Caltrans/CAGov@DOT,
Gabrielle Duff/D08/Caltrans/CAGov@DOT

Subject

Fw: FHWA110909A, State Route 91,
Riverside County

Shawn,

Chapter 2, Section 2-4.8 of the SER states that if FHWA (Caltrans under Under the SEFETEA-LU Pilot Program MOA) concludes the work will not adversely affect the historical qualities of the facility (No Adverse Effect, No Effect) and SHPO and Council do not object to this finding (concurrence on NAE or the 30 day review expires under the PA), FHWA
(Caltrans) can determine Section 4(f) does not apply.

In this case, under our Section 106 Programmatic Agreement (PA) executed January 1, 2004 Caltrans may assume concurrence on Finding of Effect if SHPO has not responded to our request for comment within 30 days. Caltrans has decided to proceed with the Undertaking per stipulation X.B(1)b of the PA with assumed SHPO concurrence of No Adverse Effect. Because there is a finding of No Adverse Effect for the Undertaking as a whole, and there is no full or partial take on an Histoirc Property, there is no Section 4(f) Use of Historic Properties / Historic Sites. SHPO concurrence regarding finding of effect constitutes documented agreement pursuant to 23 CFR 774.13(d).

Andy Walters
Associate Environmental Planner/Architectural History Environmental Support/ Cultural Studies
Department of Transportation
464 W. Fourth Street, 6th Floor MS 825
San Bernardino, CA 92401-1400
(909) 383-2647

----- Forwarded by Andrew Walters/D08/Caltrans/CAGov on 01/30/2012 10:03 AM -----

Andrew
Walters/D08/C
altrans/CAGov

To

10/19/2011
01:29 PM

Shawn Oriaz/D08/Caltrans/CAGov

cc

Aaron Burton/D08/Caltrans/CAGov@DOT,
Gabrielle Duff/D08/Caltrans/CAGov@DOT,
David Bricker/D08/Caltrans/CAGov@DOT

Subject

Fw: FHWA110909A, State Route 91,
Riverside County

Shawn,

Caltrans Cultural Studies Office, Division of Environmental Analysis, sent the following document to the State Historic Preservation Officer (SHPO) on behalf of FWHA in accordance with the NEPA Delegation Pilot Program Section 6005 MOU:

Finding of No Adverse Effect for the State Route 91 Corridor Improvement Project (August 2011).

The SHPO received this document on September 9, 2011 per log entered in the Office of Historic Preservation (OHP) database (OHP Reference No.
FHWA110909A). The 30-day review period ended on October 9, 2011.
Following the close of the 30 day review period, Caltrans made several attempts to communicate with SHPO to determine if additional time was needed for the review.

In accordance with the Section 106 PA, unless FHWA and the SHPO have agreed to extend the 30-day time frame for SHPO review specified in 36 CFR 800.5(c), failure of the SHPO to comment within this time frame may be deemed by FHWA / Caltrans to constitute SHPO concurrence in the No Adverse Effect finding (Stipulation X.B(1)b).

Since 30 days for comment have now passed, Caltrans is hereby informing all concerned parties that we are proceeding forward with the undertaking per stipulation X.B(1)b of the Section 106 Programmatic Agreement (PA) executed January 1, 2004.

See email below. If you have any further questions, feel free to contact me.

Andy Walters
Associate Environmental Planner/Architectural History Environmental Support/ Cultural Studies
Department of Transportation
464 W. Fourth Street, 6th Floor MS 825
San Bernardino, CA 92401-1400
(909) 383-2647

----- Forwarded by Andrew Walters/D08/Caltrans/CAGov on 10/19/2011 01:05 PM -----

Anmarie
Medin/HQ/Caltrans/CAGo
v

10/19/2011 11:03 AM

To

nlindquist@parks.ca.gov,
sstratton@parks.ca.gov

cc

Andrew
Walters/D08/Caltrans/CAGov@
DOT

Subject

FHWA110909A, State Route
91, Riverside County

Natalie,
According to our records, the SR 91 submittal has been at SHPO for over 30 days. As you know, the PA Stip. X.B(1)b provides that we may take SHPO's failure to comment within 30 days as constituting concurrence in the NAE
finding. Please accept this email as notification that we will be
proceeding with this undertaking. If you have any questions, feel free
to contact me.
Thanks,
Anmarie

EIRLOG... FHWA110909A
TITLE.... STATE ROUTE 91 CORRIDOR IMPROVEMENT PROJECT, RIVERSIDE COUNT EIR-CO... RIV EIR-CITY.
IN-DATE. DUE-DATE OUT-DATE BY ACT.....
09/09/11 10/09/11

This page intentionally left blank

Appendix N Biological Opinion

The Biological Opinion for the SR-91 CIP provided in this appendix was issued by the USFWS in the November 30, 2011, letter ("Formal and Streamlined Section 7 Consultation for State Route 91 Corridor Improvement Project, Orange and Riverside Counties, California") (31 pages).

This page intentionally left blank

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road, Suite 101
Carlsbad, California 92011

In Reply Refer To:
FWS-OR/WRIV-08B0733-11F0547

NOV 30 2011

Mr. Aaron Burton
Department of Transportation
District 8
Environmental Planning (MS 823)
464 West 4th Street, 6th Floor
San Bernardino, California 92401-1400

Subject: Formal and Streamlined Section 7 Consultation for State Route 91 Corridor Improvement Project, Orange and Riverside Counties, California

Dear Mr. Burton:

The U.S. Fish and Wildlife Service (Service) received the California Department of Transportation's (Caltrans) request dated June 21, 2011, on June 23, 2011, to initiate formal consultation for the State Route (SR) 91 Corridor Improvement Project (Project). The consultation addresses the effects of the Project on the federally endangered Braunton's milk-vetch (*Astragalus brauntonii*) and its designated critical habitat, least Bell's vireo (*Vireo bellii pusillus*, vireo), southwestern willow flycatcher (*Empidonax traillii extimus*), and Stephens' kangaroo rat (*Dipodomys stephensi*, SKR); and the federally threatened Santa Ana sucker (*Catostomus santaanae*) and coastal California gnatcatcher (*Polioptila californica californica*, gnatcatcher) and its designated critical habitat, in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*).

The Project is receiving Federal funding through the Federal Highway Administration (FHWA), and Caltrans has assumed FHWA's responsibilities under the Act for this consultation in accordance with Section 6005 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) 2005, as described in the National Environmental Policy Act Delegation Pilot Program Memorandum of Understanding between FHWA and Caltrans (effective July 1, 2007) and codified in 23 U.S.C. 327(a)(2)(A).

Application for section 404 permits under the Clean Water Act will be necessary for the Project. Caltrans, in concurrence with the U.S. Army Corps of Engineers (Corps), is the responsible lead Federal Agency acting on the Corps' behalf to ensure the impacts associated with the Corps' Federal action are addressed under the Act.

On June 22, 2004, we issued a section 10(a)(1)(B) permit for the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP establishes a multiple

species conservation program in western Riverside County to minimize and mitigate habitat loss and the incidental take of covered species in association with activities covered under the permit. A large portion of the Project is located within the plan area boundary of the MSHCP. As a permittee under the MSHCP, Caltrans received incidental take authorization for Santa Ana sucker, vireo, southwestern willow flycatcher, gnatcatcher, and SKR through their section 10(a)(1)(B) permit for that plan. To extend the take coverage provided to Caltrans via the MSHCP, the proposed action must be consistent with the MSHCP and its associated implementation agreement and permit. A discussion of the Project's consistency with the MSHCP is discussed in the "Description of the Proposed Action" section below.

The Riverside County portion of the Project is also located within the plan area boundary of the Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California (March 1996) (SKR HCP). Within this plan area boundary, take of SKR is addressed under the SKR HCP. While neither Caltrans nor FHWA are permittees under the SKR HCP, incidental take coverage provided to the Riverside County Habitat Conservation Agency (RCHCA) by the SKR HCP can be extended to Caltrans acting as the FHWA designee where the proposed action is consistent with the SKR HCP and its associated implementation agreement and permit. A discussion of the Project's consistency with the SKR HCP is discussed in the "Description of the Proposed Action" section below.

This biological opinion is based on information provided in the following documents: *Biological Assessment for the SR-91 Corridor Improvement Project* (June 2011) (BA); response to Service comments on the BA for the SR-91 Project; *MSHCP Consistency Determination for the SR-91 Corridor Improvement Project* (April 2011); *Supplemental Environmental Assessment and Addendum to Environmental Impact Report 583 for the Santa Ana River Mainstem Project Reach 9, Phase 2A* (March 2011); *Intra-Service Formal Section 7 Consultation/Conference for Issuance of Endangered Species Act Section 10(a)(1)(B) Permit TE-088609-0 for the Western Riverside County Multiple Species Habitat Conservation Plan dated June 22, 2004* (FWS-WRIV-870.19) (Service 2004); and various other communications between Caltrans, their consulting biologists, and Service.

You have determined the Project may affect, but is not likely to adversely affect Braunton's milk-vetch and its designated critical habitat, southwestern willow flycatcher, and Santa Ana Sucker based on avoidance of occupied habitat and general construction avoidance and minimization measures to avoid indirect effects from construction. Based on the conservation measures to be implemented by Caltrans and Riverside County Transportation Commission (RCTC), we concur with your determination that the Project is not likely to adversely affect the milk-vetch and its designated critical habitat, southwestern willow flycatcher, and Santa Ana Sucker. Therefore, those species are not addressed further in this formal consultation, other than as discussed in the Conservation Measures section. Additionally, you have determined there would be no effect to vireo and SKR in Orange County based on avoidance of occupied habitat and general construction avoidance and minimization measures to avoid indirect effects from construction. Adverse impacts to the gnatcatcher in Orange County will be addressed in the

following biological opinion. Adverse impacts to the gnatcatcher, vireo, and SKR in Riverside County are addressed through compliance with the MSHCP and SKR HCP as discussed below.

CONSULTATION HISTORY

On February 18, 2011, we provided comments on the draft BA for the Project. On June 23, 2011, we received a letter from Caltrans requesting formal consultation, and on July 19, 2011, we responded to the request and committed to completing the biological opinion by November 5, 2011. Between June 2011 and October 2011, we attended several project status meetings and worked directly with Caltrans and the biological consultant to clarify the project description and impacts to the gnatcatcher and its designated critical habitat. We provided a draft project description to your agency and the RCTC on September 13, 2011. On October 20, 2011, we attended a site visit to clarify impacts and conservation measures. We received information regarding quantification of impacts and additional conservation measures from Caltrans and Chino Hills State Park on October 24 and 28, 2011.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

The proposed action by FHWA is the funding of capacity, operational, and safety improvements along SR-91 and Interstate 15 (I-15). The Project occurs along SR-91 from SR-241 in Anaheim and Yorba Linda to Pierce Street in the city of Riverside, a distance of approximately 14 miles, and on I-15, from the Hidden Valley Parkway interchange to the Cajalco Road interchange, a distance of approximately 6 miles. The Project encompasses a large area and passes through mostly urban settings consisting of residential, industrialized warehouses, and commercial businesses that front the existing freeways. Large undeveloped parcels of land occur at the western end of the Project Biological Study Area[1] (BSA), and agricultural fields remain in use along I-15. The BSA supports suitable habitat for a variety of special status animal and plant species largely within or adjacent to an urban environment (see BA figures in Appendix H).

The Project will add a general-purpose lane in each direction on SR-91 from the SR-91/SR-241 interchange in Anaheim and Yorba Linda to Pierce Street in Riverside. The existing high-occupancy vehicle lanes on SR-91 between the Orange/Riverside County line and Pierce Street will be converted to tolled express lanes, and an additional tolled express lane in each direction will be constructed to I-15. The existing express lanes in Orange County will also be extended east from the Orange/Riverside County line to I-15 in Corona. A single eastbound SR-91 express lane also will extend past I-15 to McKinley Street and then transition back to a high-occupancy vehicle lane at Pierce Street.

[1] The BSA for the Project was determined by incorporating electronic data provided by the design engineer into a geographic information system (GIS) layout, which included areas of potential direct effect. The limits of the BSA were extended 500 feet beyond the expected Project direct effect limits to identify sensitive biological resources within and immediately adjacent to the Project limits to account for indirect effects to those resources.

One tolled express lane also will be added to I-15 in each direction from Cajalco Road to Hidden Valley Parkway, and tolled express lane direct connectors will be constructed from northbound I-15 to westbound SR-91, from eastbound SR-91 to southbound I-15, from eastbound SR-91 to northbound I-15, and from southbound I-15 to westbound SR-91. Table 1.7 in the BA summarizes existing conditions and potential build-out conditions along SR-91 and I-15.

The Project includes ground-disturbing activities (e.g., grading, cutting, filling) and a number of modifications, replacements, or installations of bridges, retaining walls, sound walls, and major drainage structures and culverts. The Project will permanently impact approximately 348 acres (ac) and temporarily impact approximately 155 ac of land supporting the vegetation communities and developed/disturbed areas summarized in Table 1.

Construction vehicle access and staging of construction materials will occur within disturbed or developed areas inside the existing Caltrans right-of-way (ROW) or proposed additional ROW. Vehicle access and materials staging during construction of walls outside and adjacent to the ROW will occur in approved designated areas. Equipment maintenance and staging will be in designated areas away from wildlife corridor entrances. All construction vehicle access, materials staging and storage, and other construction activities will occur within the defined disturbance limits for the Project. To the extent feasible, construction activities in biologically sensitive areas, MSHCP Conservation Areas, vegetated drainages, and coastal sage scrub in gnatcatcher critical habitat will be limited to the hours of 7:00 a.m. and 7:00 p.m.; if nighttime work is necessary, the contractor will be required to coordinate with the Service and California Department of Fish and Game (hereafter referred to as the Wildlife Agencies). Additionally, if construction occurs at night, lighting will be directed away from wildlife corridors and other biologically sensitive areas. To the extent feasible, nighttime construction activities will be limited to 1,000 feet (ft) from the Coal Canyon, Fresno Canyon, and Wardlow Wash underpass entrances to avoid adverse lighting and noise impacts to existing wildlife corridors.

The Project will undertake a design-build approach to design and construction. The design-build approach integrates final design and construction activities so they occur simultaneously, thereby reducing the time between completion of the environmental process and the start of construction because one contractor is responsible for designing and building the entire project. The design-build process generally provides for flexibility not offered by the traditional process. Ideally, this process should minimize changes to the highway design and result in a shorter construction timeframe. Because the final design is fluid, Project impacts were based on the worst-case scenario to account for all possible impacts to listed species.

Bridges

The Project will involve modifications or replacement of approximately 24 bridge structures. Most of the bridge work involves widening the bridge structure to accommodate the freeway widening (20 structures). Also eight new bridges will be constructed. Some of the existing bridges that will be widened will also be seismically retrofitted. Bridge construction is summarized in Table 1.1 of the BA (pages 7-8).

Table 1: Impacts to Vegetation Communities and other Landscape Features, by County

Permanent Impacts			
Vegetation Community	**Acres in Orange County**	**Acres in Riverside County**	**Total Acres**
Coastal Sage Scrub	4.25	31.20	35.45
Chaparral	2.96	0.38	3.34
Riparian Forest	0.01	0.46	0.47
Nonnative Grassland	1.20	6.03	7.23
Oak Woodland	0.00	0.02	0.02
Mixed Ruderal and Ornamental	3.64	113.32	116.96
Developed	7.01	176.97	183.98
Subtotal	***19.07***	***328.38***	***347.45***
Temporary Impacts			
Coastal Sage Scrub	1.29	8.02	8.04
Chaparral	0.71	1.30	1.70
Riparian Forest	0.34	0.72	1.29
Nonnative Grassland	0.67	3.63	4.16
Oak Woodland	0.00	0.50	0.50
Mixed Ruderal and Ornamental	1.58	36.65	36.87
Developed	0.81	102.11	102.33
Subtotal	***5.40***	***152.93***	***154.89***
Grand Total	**24.47**	**481.31**	**502.34**

Retaining Walls

Several retaining walls are required to retain fill or cut slopes along the segments SR-91 and I-15. The approximate wall locations and average heights for project-related retaining walls are listed in Table 1.2 of the BA (pages 8-10).

Sound Walls

Existing sound walls on the north side of SR-91 near the SR-91/SR-241/Gypsum Canyon Road interchange will remain unchanged. Several new or replacement sound walls on SR-91 and I-15 are summarized in Table 1.3 of the BA (pages 10-12).

Major Drainage Facilities

Over 100 major drainage structures and numerous inlets and contributory structures, which contribute to the drainage structure (e.g., headwalls, drop structures, pipe inlets outlets) will

either be protected in place, partially abandoned, or extended. The affected drainage/culvert structures and how they will be modified are summarized in Table 1.4 of the BA (pages 12-14).

Utilities

Several known utility facilities occur within the Project limits. Some existing utility facilities will only require encasement or protection in-place during construction. However, the relocation of some existing utility facilities will be necessary to accommodate new construction. Table 1.5 in the BA (pages 15-17) summarizes the anticipated utility relocations.

Soil Balance

The Project will alter existing landforms due to grading and cut-and-fill slopes. Grading will be limited and retaining walls will be used in many locations to minimize cut and fill. No permanent, large cut slopes will be required. Areas where the widening will encroach into existing slopes will be accommodated by constructing new retaining walls.

The soil and rock material excavated or cut during construction of the SR-91 Project will be used as fill elsewhere in the project construction. Because cut activities are expected to be minimal, up to an additional 748,000 cubic yards of soil material may need to be imported to the Project site in areas needing additional fill material.

Landscaping and Irrigation Systems

Caltrans Districts 8 and 12 will provide guidance on plant material selection and hardscape elements that consider water use, ease and safety of maintenance, avoidance of nonnative plants, corridor continuity, local cultural integration, and other context-sensitive factors. Planting plans will be included as part of the design-build process that incorporate these elements. For each phase of construction, the needed replacement planting will be under construction within 2 years of acceptance of the highway contract that damaged or removed the existing planting. The planting plan will consist of replacement planting for existing trees, shrubs, and groundcover and/or hydroseed that will be appropriate to the area and enhance the existing native species and plant communities. Irrigation work will consist of new irrigation systems as required for establishment of the replacement planting. Replacement planting will include no less than 3 years of plant establishment. Improvement along I-15 will be constructed in the median. No landscaping or irrigation now exists in the median on I-15 within the Project limits, and none is proposed for this Project.

Right-of-Way Acquisition

A limited number of areas located outside of the existing ROW may be used as temporary and permanent easements during and after the construction of the Project. A total of 10 temporary construction easements (TCEs) will be needed in the Orange County segment. Of the 10 parcels requiring TCEs, 2 of these parcels will also require permanent easements for continued

maintenance of project improvements. The areas needed for TCEs range from approximately 2,642 square feet (sf) to 27,769 (sf). All temporary and permanent easements are necessary for the construction of Project improvements, including proposed utility relocations and drainage improvements.

Railroad

A railroad agreement will be negotiated between Caltrans and the Burlington Northern Santa Fe railroad for widening of the West Prado Overhead and to accommodate the SR-91 westbound off-ramp realignment to Green River in Riverside County, including aerial easements over the railroad ROW. Falsework posts will need to be located within the railroad ROW line. The structure type has been configured to minimize the effect on the railroad.

Santa Ana River

Because the Corps is in the process of relocating the segments of the Santa Ana River (SAR) as part of the unrelated SAR Reach 9 Phase 2B Realignment, the Project will not directly affect the SAR. The SAR Reach 9 Phase 2B Realignment is relocating segments of the SAR far enough away from the existing SR-91 to accommodate the widening of SR-91. However, perennial stream restoration through the Green River Golf Course to reestablish habitat for the Santa Ana sucker to offset adverse impacts from the SAR Reach 9 Phase 2B Realignment project will have been conducted prior to construction of the Project. Caltrans will coordinate with the Corps during construction of the Project to ensure these restoration areas will not be temporarily or permanently impacted during Project construction.

Project Phasing

The Project will be constructed in several phases over a 20-year period beginning with the Initial Project starting in 2015 and culminating in the Ultimate Project ending in 2035. The proposed phasing plans are based on the anticipated funding. The phasing plans provide for meaningful improvements, with each phase providing additional benefits to travelers on SR-91 and/or I-15. Conservation measures for the entire Project will be implemented with the Initial Project starting in 2015. Table 1.6 in the BA summarizes the conceptual phasing plan and provides detailed descriptions of the Initial Project and Ultimate Project.

Action Area

According to 50 CFR § 402.02 pursuant to section 7 of the Act, the "action area" means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. Subsequent analyses of the environmental baseline, effects of the action, and levels of incidental take are based upon the action area. For this Project, we have defined the action area to include the 348-ac permanent and 155-ac temporary direct impact areas, and surrounding habitat within about 500 ft (approximately 343 ac) that may be exposed to project-related effects such as increased noise, light, dust levels, and human activity during Project

construction and operation of the facilities (Forman and Deblinger 2000). The action area also includes the approximate 16-ac Chino Hills State Park restoration area in Scully Hill Canyon.

General Conservation Measures

Caltrans and RCTC have agreed to implement the following conservation measures as part of the proposed action to avoid, minimize, and offset impacts to listed species.

1. Prior to ground disturbing activities, Caltrans will identify an individual as the Designated Biologist[2]. Caltrans will ensure the Designated Biologist position is always filled for the life of the Project. Over the course of the Project, the Designated Biologist and each successive Designated Biologist (if applicable) will be approved by the Wildlife Agencies. The Designated Biologist will have the authority to ensure compliance with conservation measures and will be the primary agency contact for implementation of these measures. The Designated Biologist will have the authority and responsibility to halt activities that are in violation of the conservation measures.

2. Prior to vegetation clearing or construction, highly visible barriers (e.g., orange construction fencing) will be installed and maintained around areas such as gnatcatcher and Braunton's milk-vetch designated critical habitat, riparian and riverine communities, and wildlife movement corridors adjacent to the Project footprint to designate Environmentally Sensitive Areas (ESAs) to be avoided. No grading or fill activity of any type will be permitted within these ESAs. In addition, no construction activities, materials, or equipment will be allowed within the ESAs. All construction equipment will be operated to prevent accidental damage to ESAs. No structure of any kind, or incidental storage of equipment or supplies, will be allowed within ESAs. Silt fence barriers will be installed at the ESA boundaries to prevent accidental deposition of fill material in areas where ESAs are immediately adjacent to planned grading activities.

3. To minimize adverse effects from light intrusion from vehicle headlights and the potential threat of increased fires from the operation of SR-91 during final design, Caltrans and RCTC will work with the Service to investigate the possibility of adding features along SR-91 in the vicinity of the Coal Canyon wildlife crossing. For example, consideration will be given to the placement of k-rail, concrete walls, and/or hardscaping barriers along the shoulder of SR-91. In investigating these features, consideration must be given to motorist safety, freeway operations, vehicle headlight mitigation, and the potential fire threat.

4. To minimize adverse effects from dust, the construction contractor will ensure that all active parts of the construction site are watered a minimum of twice daily or more often when

[2] A qualified Designated Biologist must have (1) a bachelor's degree with an emphasis in ecology, natural resource management, or related science; (2) 3 years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or The Wildlife Society; (3) previous experience with applying the terms and conditions of a biological opinion; and (4) the appropriate permit and/or training if conducting focused or protocol surveys for listed species.

needed due to dry or windy conditions to prevent excessive amounts of dust. Additionally, the construction contractor will ensure that all material stockpiled is sufficiently watered or covered to prevent excessive amounts of dust.

5. Erosion and sediment control devices used for the Project, including fiber rolls and bonded fiber matrix, will be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.

6. All equipment maintenance, staging, and dispensing of fuel, oil, or any other similar activities will occur in developed or designated non-sensitive upland habitat areas. The designated upland areas will be located to prevent any spill runoff from entering waters of the United States.

7. To avoid effects to nesting birds, any native vegetation removal or tree (native or exotic) trimming activities will occur outside of the bird breeding season (i.e., February 15 to September 15). In the event that vegetation clearing is necessary during the nesting season, the Designated Biologist must conduct a preconstruction survey within 300 ft of construction areas, no more than 7 days prior to construction, to identify the locations of nests. Should nesting birds be found, an exclusionary buffer of 300 ft will be established by the Designated Biologist around each nest site. This buffer will be clearly marked in the field by construction personnel under guidance of the Designated Biologist, and construction or clearing will not be conducted within this zone until the Designated Biologist determines that the young have fledged or the nest is no longer active. In the event that construction must occur within the 300 foot buffer, the Designated Biologist will take steps to ensure that construction activities do not disturb or disrupt nesting activities. If the Designated Biologist determines that construction activities are disturbing or disrupting nesting activities, the Designated Biologist will notify the Resident Engineer, who has the authority to halt construction to reduce the noise and/or disturbance to the nests. Responses may include, but is not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest and the construction activities, or working in other areas until the young have fledged.

8. The construction contractor will be required to control noise from construction activity consistent with Caltrans Standard Specifications, Section 14-8.02, "Noise Control," and the Caltrans Standard Special Provisions S5-310. Noise levels from construction operations within the ROW between the hours of 9:00 p.m. and 6:00 a.m. will not exceed 86 A-weighted decibels (dBA) at a distance of 50 ft. The noise level requirement will apply to the equipment on the job site or related to the job, including, but not limited to trucks, transit mixers, or transient equipment that may or may not be owned by the contractor.

9. In biologically sensitive areas, MSHCP Conservation Areas, vegetated drainages, and coastal sage scrub in designated critical habitat for the gnatcatcher, the construction contractor will be required to control noise from construction activity by using an alternative warning method instead of a sound signal unless required by safety laws. In addition, the contractor

will equip all internal combustion engines with the manufacturer-recommended mufflers and will not operate any internal combustion engine on the job site without the appropriate mufflers. As directed by RCTC, the contractor will implement appropriate additional noise mitigation measures, including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

10. In accordance with the Municipal Codes of the Cities of Anaheim, Corona, Riverside, and Norco, the construction contractor will be required to limit construction activities to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, excluding weekends and holidays. If construction is needed outside those hours or days, the construction contractor will be required to coordinate with the affected local jurisdiction. If the local jurisdiction approves construction hours that are different from those imposed by this measure, then the construction contractor will immediately request that RCTC consider a modification to this measure in accordance with the California Environmental Quality Act to allow construction during the new hours that the local jurisdiction approved.

11. In major wildlife movement corridors (i.e., Coal Canyon, Wardlow Wash, and Fresno Canyon) and areas adjacent to vireo and gnatcatcher occupied areas (approximately Post Mile (PM) ORA-91-R17.16 to PM ORA-91-R18.74), construction activities will be limited to the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday. Should an exception to this measure be necessary, Caltrans will consult with the Wildlife Agencies to determine effective measures to avoid and minimize adverse impacts to these species and movement corridors.

12. A weed abatement program will be developed to minimize the importation of nonnative plant material during and after construction. In areas near Coal Canyon adjacent to Chino Hills State Park, the weed abatement program will be coordinated with California State Parks personnel. Eradication strategies will be employed should an invasion of nonnative weeds occur. Measures addressing invasive species abatement and eradication will be included in the project design and contract specifications will be implemented and enforced by the construction contractor. At a minimum, this program will include:

    - During construction, the construction contractor will inspect and clean construction equipment at the beginning and end of each day and prior to transporting equipment from one project location to another.

    - During construction, soil/gravel/rock will be obtained from weed-free sources.

    - Only certified weed-free straw, mulch, and/or fiber rolls will be used for erosion control.

    - After construction, affected areas adjacent to native vegetation will be revegetated with plant species approved by the Designated Biologist that are native to the vicinity.

- After construction, all revegetated areas will avoid the use of species listed in Cal-IPC's California Invasive Plant Inventory that have a high or moderate rating.

- Eradication procedures (e.g., spraying, hand weeding) will be specified should an infestation occur; though herbicide use will be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the Caltrans District Biologist.

- After construction, revegetation sites will be monitored until achievement of the performance standards included in the weed abatement program or for a period of 2 to 3 years after installation to detect nonnative species prior to the establishment of the native vegetation.

Braunton's Milk-vetch Conservation Measures

13. A pre-construction survey will be conducted prior to ground disturbing activities in the vicinity of the historical occurrence in Coal Canyon. This survey will be conducted during the appropriate time of year to optimize detection by a biologist familiar with the species and having the same qualifications as the Designated Biologist.

Santa Ana Sucker Conservation Measures

14. The construction contractor will be required to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, and any subsequent permit as they relate to construction activities. This compliance includes the submission of the permit registration documents, including a notice of intent, risk assessment, site map, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and signed certification statement to the State Water Resources Control Board (SWRCB) at least 14 days prior to the start of construction. The SWPPP will meet the requirements of the construction general permit and will identify potential pollutant sources associated with construction activities; identify non-storm water discharges; develop a water quality monitoring and sampling plan; and identify, implement, and maintain Best Management Practices (BMPs) to reduce or eliminate pollutants associated with construction. The BMPs identified in the SWPPP will be implemented during construction. A notice of termination will be submitted to the SWRCB at the completion of construction and stabilization of the site. SWRCB Resolution No. 2001-046 requiring sampling and analysis will also be implemented during construction.

15. The construction contractor will be required to comply with SWRCB's *General Waste Discharge Requirements for Discharges to Surface Waters That Pose an Insignificant (De Minimus) Threat to Water Quality* (Order No. R8-2009-0003), which includes general waste discharge requirements for discharges to surface waters that pose an insignificant threat to water quality, as they relate to discharge of non-storm water dewatering wastes. This

compliance includes submitting to the Santa Ana Regional Water Quality Control Board (RWQCB) a notice of intent at least 60 days prior to the start of construction, notification of discharge at least 5 days prior to any planned discharges, and monitoring reports by the 30th day of each month following the monitoring period.

16. The construction contractor will be required to follow the procedures outlined in the Caltrans Storm Water Quality Handbooks, Project Planning and Design Guide (March 2007 or subsequent issuance) for implementing Design Pollution Prevention and Treatment BMPs. This requirement includes coordination with the Santa Ana RWQCB with respect to feasibility, maintenance, and monitoring of BMPs as set forth in Caltrans' Statewide Storm Water Management Plan (May 2003 or subsequent issuance). The RCTC also must comply with other provisions identified in the NPDES Permit, Statewide Storm Water Permit and Waste Discharge Requirements for the State of California, Department of Transportation. Construction equipment and activities will not be allowed to enter or cross the SAR.

17. The Corps is in the process of constructing the SAR Reach 9 Phase 2 Green River Golf Club Embankment Protection Project within the action area. Following completion of the embankment construction, perennial stream habitat for the Santa Ana sucker will be reestablished within the construction footprint. Caltrans will coordinate with the Corps during construction of the Project to ensure these restoration areas will not be temporarily or permanently impacted during Project construction.

18. The 1988 supplemental environmental impact statement for the SAR project required the County of Orange to acquire and manage approximately 1,100 ac of flood plain within Reach 9 to be operated and maintained for open space and wildlife habitat values. The acquisition of these lands, known as the Santa Ana River Canyon Habitat Management Area (HMA), was required to ensure that no changes (e.g., development projects) would take place within the HMA that might affect the releases from Prado Dam during the design flood event and the open-space habitat in the area. Consistent with the requirements of the SAR Project, Caltrans will coordinate with the Corps to ensure that the Project does not affect releases from Prado Dam or result in a permanent reduction of acreage within the HMA.

Gnatcatcher Conservation Measures

19. The Designated Biologist will monitor construction within the vicinity of gnatcatcher designated critical habitat areas for the duration of the Project to flush any wildlife species present prior to construction and to ensure that vegetation removal, BMPs, ESAs, and all avoidance and minimization measures are properly implemented and followed.

20. RCTC will offset the permanent loss of 8.42 ac of occupied gnatcatcher habitat in Orange County, including 6.32 ac of designated critical habitat, by restoring 16.03 ac of habitat suitable for gnatcatcher breeding, dispersal, and foraging in Chino Hills State Park.

21. RCTC will offset the temporary loss of 3.01 ac of occupied gnatcatcher habitat in Orange County, including 2.09 ac of designated critical habitat, with in-kind, or better, habitat restoration onsite after the completion of the Project.

22. Prior to initiating Project impacts, a restoration plan will be developed for the permanent and temporary impacts to occupied gnatcatcher habitat, and all designated critical habitat areas. The plan will be submitted to the Service for review and approval. This plan will include, at a minimum, a detailed description of restoration methods, slope stabilization/erosion control, criteria for restoration to be considered successful, and monitoring and reporting protocol(s). The restoration plan will be implemented for a minimum of 5 years, unless success criteria are met earlier and all artificial water has been off for at least 2 years.

23. RCTC will provide appropriate funds, to be maintained in a non-wasting endowment, to Chino Hills State Park to provide for the long-term maintenance and management of the restored areas within the park to support gnatcatcher habitat in perpetuity.

24. Shielded lighting will be used for any nighttime construction adjacent to coastal sage scrub within gnatcatcher designated critical habitat.

Riparian Bird Conservation Measures

25. During the bird breeding season (i.e., February 15 to September 15), the Designated Biologist will monitor riparian and riverine areas within 500 ft of active construction areas for the duration of the Project to survey for active nests and/or nesting activity to ensure breeding activities are not disrupted and to ensure vegetation removal, BMPs, ESAs, and all avoidance and minimization measures are properly implemented.

26. To ensure consistency with the MSHCP, prior to beginning construction of the Initial Project, a Habitat Mitigation and Monitoring Plan (HMMP) will be developed in coordination with Caltrans, RCTC, Corps, and Wildlife Agencies that ensures no net loss of riparian/riverine habitat value or acreage in Riverside County. Final details of the HMMP will be evaluated through coordination among the aforementioned agencies. Compensation options for the permanent and temporary impacts include possibly using portions of 800 ac of land in the Upper Prado Basin in Riverside County owned by the Regional Conservation Authority (RCA) that is suitable for restoration and/or enhancement opportunities, or other areas approved by the Wildlife Agencies. The offsite properties will be evaluated to demonstrate they have biologically equivalent or superior resources compared to the Project site. RCTC is in the process of obtaining access and conducting surveys on potential properties that the RCA owns. The HMMP will comply with all terms and conditions set forth in the permits and opinions issued by the Corps and Wildlife Agencies for the Project and will include, at a minimum, the following provisions:

    - Permanent impacts to riparian/riverine areas will be replaced on or off site at a minimum ratio of 3:1 with in-kind habitat. Temporary impacts to native vegetation will be replaced

at a minimum ratio of 1:1 with in-kind habitat restored in place within the BSA. If offsite restoration is conducted, it will be done within the same watershed as the Project.

- The HMMP will identify a success criterion of at least 80 percent cover of native riparian vegetation or composition structure similar to existing adjacent high quality riparian vegetation.

- Further criteria specified in the HMMP, at a minimum, will include an establishment period for the replacement habitat, regular trash removal, and regular maintenance and monitoring activities to ensure the success of the restoration. After construction, annual summary reports of biological monitoring will be provided to the Corps and Wildlife Agencies documenting the monitoring effort. The duration of the monitoring and reporting will be established by resource agency permit conditions (i.e., Corps and California Department of Fish and Game).

Analysis of the Project in Riverside County

The BSA for the Project includes an approximately 5,371-ac area located along SR-91 and I-15 in the Anaheim, Yorba Linda, Corona, and Riverside. Included within the 5,371-ac BSA is a 502-ac impact area where Project construction will occur, the majority of which will take place in previously developed or disturbed areas (440 ac; see Table 1). Along SR-91, the BSA falls within Subunit 1 (SAR/Santa Ana Mountains) and Subunit 2 (Prado Basin) of the Temescal Canyon Area Plan of the MSHCP. In Subunit 1, the BSA occurs within independent Criteria Cells 1702, 1704, and 1706. In Subunit 2, the BSA occurs within Criteria Cell 1612 of Cell Group B, and within independent Criteria Cell 1616. Portions of the BSA also fall within Existing Core A, Proposed Constrained Linkage (PCL) 1, and PCL 2. Along I-15, the BSA falls within Subunit 3 (Temescal Wash West) of the Temescal Canyon Area Plan of the MSHCP and occurs within Criteria Cell 2400 of Cell Group C.

In addition to the BSA occurring within the MSHCP Criteria Area and PCLs 1 and 2, the BSA overlaps with the Narrow Endemic Plant Species Survey Area (NEPSSA) 7, Additional Species Survey area for burrowing owl (*Athene cunicularia hypugaea*), and the SKR HCP. The Project is not located within any other MSHCP-designated survey area for criteria-area plants, mammals, or amphibians. Besides vireo, no other MSHCP designated survey area species were determined to be present within the Project impact area. As designed, the Project will be contained within the least environmentally sensitive location feasible and demonstrates consistency with the biological goals and objectives as set forth in Section 7.5 of the MSHCP, which addresses design guidelines for facilities within the Criteria Area and Public/Quasi Public (PQP) Lands. The Project has or will implement the conditions set forth in Section 7.5 through the design and implementation processes.

A small portion of the Project lies within the original PQP designation (8.8 ac), near Prado Basin. However, the RCA is now undergoing a PQP Reconciliation Process to remove the area of the Prado Basin from the PQP layer; therefore, the Project will not affect PQP lands.

Section 7.5.2 articulates guidelines for the siting and design of roadway features to address wildlife movement requirements. As discussed above, the Project crosses areas that are contemplated for MSHCP conservation and wildlife movement (PCL 1 and PCL 2). The Project will maintain culverts and connections under the roadway, thereby continuing the ability of wildlife presently utilizing these corridors to continue to move through the Project area. To accomplish this, the Project will place and/or enhance existing fencing near wildlife corridors to direct wildlife toward culverts and undercrossings and away from SR-91; place vegetative cover and/or natural objects within crossing facilities to create cover for wildlife and to encourage the use of crossings; maintain an openness ratio of at least 0.6 meter and at least 3 to 4 meters in height at Prado Road and Fresno Canyon undercrossings to allow for large mammal use; and revegetate PCL 1 and PCL 2 with native vegetation.

Additionally, the RCTC and Caltrans, in discussions with the RCA and Wildlife Agencies, have acknowledged a need to address cumulative connectivity limitations for PCL 1 by enhancing an alternate location. The RCTC proposes to improve the existing B Canyon culvert beneath SR-91 as a wildlife crossing to replace PCL 1 as a separate, non-related project (the RCA, in conjunction with the Wildlife Agencies, have identified B Canyon as a suitable replacement location for PCL 1). The RCTC has estimated the B Canyon improvements to cost about $7.5 million and intends to use $2.35 million in transportation enhancement funds, supplemented by RCTC-controlled funding to help establish a viable wildlife crossing at B Canyon as a means of offsetting the cumulative impacts to PCL 1. In addition, the Service has applied for a $500,000 grant that will also be applied toward funding the wildlife crossing. Additional funding will be sought by the various stakeholders (i.e., Service, Caltrans, RCTC, and RCA).

Based on the above commitment to B Canyon and the design features listed above related to enhancing wildlife movement, the Project addresses the objectives of Section 7.5.2 of the MSHCP. The Project will also be designed to be consistent and compliant with Section 7.5.3 of the MSHCP, which address the BMPs that will be used to minimize impacts to habitats and species. Since the Project design did consider the impacts to the MSHCP Criteria Area by proposing to improve the existing undercrossing to facilitate better wildlife movement from Existing Core A (Prado Basin and the SAR) to Existing Core B (Cleveland National Forest), the Project will not conflict with the provisions in Section 7.5 of the MSHCP.

In accordance with the Additional Survey Needs and Procedures policy of the MSHCP, focused surveys were conducted on site for burrowing owl in 2008 and 2009. No owls were found within the study area. A pre-construction presence/absence survey for burrowing owls will be performed within 30 days prior to any phase of construction with ground disturbance in potentially suitable habitat. If a burrowing owl is found during the nesting season (February 1 to August 31), an exclusionary buffer will be established by the Designated Biologist. This buffer will be clearly marked in the field by construction personnel under guidance of the biologist. No construction or clearing will be conducted within this zone until the Designated Biologist determines that the young have fledged or the nest is no longer active. If owls are found within the survey area outside of the nesting season, the burrowing owls will be passively relocated through the installation of one-way doors to exclude the owls from their burrows prior to the

collapse of the burrows. This action will ensure burrowing owls are not directly taken by construction activities.

In accordance with the Additional Survey Needs and Procedures policy of the MSHCP, focused surveys for endemic plants were conducted in 2008 and 2009 on the site for NEPSSA 7 species. No NEPSSA species were found within the study area.

To avoid impacts to other migratory birds consistent with MSHCP section 10(a)(1)(B) permit condition 5, vegetation removal will be performed outside of the bird breeding season. If work must occur during the breeding season, a preconstruction nesting survey will be conducted in suitable habitat by the Designated Biologist within 21 days prior to ground disturbing activities. If active raptor or migratory bird nests are detected, Project activities may be temporarily halted until the Wildlife Agencies are contacted and consulted. If surveys indicate that migratory bird or raptor nests occur in the survey area identified above, a no-disturbance buffer will be established around the site to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified Designated Biologist determines that the young have fledged (usually late June to mid-July). The extent of these buffers will be determined by the Designated Biologist, in coordination with Caltrans and the Wildlife Agencies, and will depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species. If construction activities are scheduled to occur within an area that supports an active nest site or within an established no-disturbance buffer, construction will be delayed until after the breeding season or until the young have fledged, as determined by the Designated Biologist.

Focused vireo surveys were conducted in 2008 to determine if vireos were present in the BSA. Vireos were found at 27 locations in the BSA, and another 8 were found just outside the BSA. Vireos were found from the vicinity of the Gypsum Canyon Road Bridge to Prado Dam. All the birds were north of SR-91, except for one male heard intermittently at the mouth of Fresno Canyon near Wardlow Wash. Twenty of the locations in the BSA are judged to have been territories, and successful nesting was confirmed at six of those locations. The other seven locations in the BSA hosted singing males, but territories could not be determined. Focused vireo surveys were also conducted in 2010 in conjunction with the SR-91 Eastbound Lane Addition Project (FWS-OR/WRIV-08B0054/08F0081). Vireos were observed within the BSA, but no nesting activities were observed in the SR-91 Eastbound Lane Addition Project's impact area. Subsequent to focused surveys being conducted, construction of the SAR Reach 9 Phase 2B Realignment has removed the vireo nesting habitat in the BSA located north of SR-91 and west of SR-71. In addition, the Santa Ana River Interceptor (SARI) project is expected to begin well before any construction for the Project and will further impact areas within the BSA.

To address the loss of MSHCP riparian/riverine resources and supported species, a Determination of Biologically Equivalent or Superior Preservation (DBESP) report was prepared. Approximately 86 ac of riparian/riverine resources located throughout the BSA, which generally occur in the western portions of the Project area adjacent to the SAR and associated

tributaries, (e.g., Fresno Canyon Wash and Wardlow Wash). In Riverside County, Project construction and operation will permanently impact up to 0.46 ac and temporarily impact up to 0.72 ac of riparian/riverine resources. Caltrans and RCTC will offset the loss of these resources by mitigating at a minimum ratio of 3:1 for permanent impacts and 1:1 for temporary impacts. Mitigation will be in the form of habitat creation, restoration, and/or enhancement. Mitigation options for the permanent and temporary impacts include possibly using portions of 800 ac of land in the Upper Prado Basin in Riverside County owned by the RCA that is suitable for restoration and/or enhancement opportunities, or other areas approved by the Wildlife Agencies. The offsite properties will be evaluated to demonstrate the areas have biologically equivalent or superior resources commensurate to the riparian/riverine areas to be impacted. RCTC is in the process of obtaining access and conducting surveys on potential properties the RCA owns.

Once lands are identified, RCTC will ensure the restoration/enhancement is provided at the above stated ratios and a restoration/enhancement plan is prepared identifying methods, materials, success criteria and monitoring/management activities on those lands. RCTC will be responsible for preparing these documents and submitting to the RCA and Wildlife Agencies as an addendum to the DBESP. Based on the information provided, the Project will restore its temporary impacts onsite, avoid the nesting season, and mitigate offsite for its permanent impacts; therefore, the Project demonstrates compliance with the requirements of MSHCP Section 6.1.2.

Project impacts in Riverside County include permanent impacts to 31.2 ac of coastal sage scrub, the preferred habitat for the gnatcatcher, and 6.87 ac of vegetation communities (0.38 ac of chaparral, 0.46 ac of riparian forest, and 6.03 ac of nonnative grassland) that gnatcatchers likely use for dispersal and foraging habitat. The Project includes the MSHCP-required measures to avoid and minimize disruption of gnatcatcher nesting activity, impacts to individual birds, and impacts to coastal sage scrub outside the Project footprint. Additionally, the temporary loss of 8.02 ac of coastal sage scrub, 1.30 ac of chaparral, 0.72 ac of riparian forest, and 3.63 ac of nonnative grassland will be replaced with locally appropriate native species at the site of the impact.

Based on our review of the information provided to us, we have determined the Project is consistent with relevant MSHCP policies and procedures. The status of vireo, gnatcatcher and its designated critical habitat, and the effects of implementing the MSHCP were previously addressed in our biological opinion for the MSHCP dated June 22, 2004. In the biological opinion for the MSHCP, we concluded the level of anticipated take in the plan area for the MSHCP was not likely to result in jeopardy to vireo or gnatcatcher or adversely modify designated gnatcatcher critical habitat. Given that the Project is consistent with the MSHCP, we do not anticipate any adverse effects to vireo or gnatcatcher that were not previously evaluated in the biological opinion for the MSHCP. No incidental take of vireo or gnatcatcher beyond that anticipated in the biological opinion for the MSHCP will occur. Therefore, it is our conclusion that implementation of the Project will not result in jeopardy to vireo or gnatcatcher.

The SKR HCP is implemented by the RCHCA on behalf of the County of Riverside and eight member cities. To establish a regional mechanism to fund implementation of the SKR HCP, Riverside County Ordinance No. 663.10 was adopted, which requires the payment of a fee for projects that are inside the SKR HCP fee area but outside of the core reserve system. This funding has been used, in part, to establish and manage a core reserve system designed to maintain the long-term survival of SKR in western Riverside County. The Project is within the SKR HCP fee area, but outside of the core reserves, and therefore will qualify to obtain take coverage through payment of fees without having to secure an individual permit. However, public works projects, such as roads, are exempt from fee payment. Additionally, construction of transportation improvement projects is identified as a covered activity in the SKR HCP biological opinion (1-6-96-FW-27). Therefore, we have determined that the Project is consistent with the SKR HCP and its associated implementing agreement and permit.

The status of the SKR and the effects of implementing the SKR HCP were previously addressed in our biological opinion dated May 2, 1996. In the biological opinion for the SKR HCP, we concluded the level of anticipated take in the plan area for this HCP was not likely to result in jeopardy to SKR. Given the Project is consistent with the SKR HCP, we do not anticipate any adverse effects to SKR that were not previously evaluated in the biological opinion for the SKR HCP. No incidental take of SKR beyond that anticipated in the biological opinion for the SKR HCP will occur. Therefore, it is our conclusion that implementation of the Project will not result in jeopardy to SKR.

Analysis of Project in Orange County

Because effects of the Project activities in Riverside County on the gnatcatcher, vireo, and SKR are addressed in the MSHCP and SKR HCP, impacts to those species in Riverside County will not be analyzed below. Moreover, adverse impacts to vireo from the Project in Orange County are not expected because of the aforementioned conservation measures. Therefore, the analysis below only addresses the effects of the Project activities in Orange County on the gnatcatcher.

STATUS OF THE SPECIES

The status of the gnatcatcher was described in detail in a biological opinion for the Caltrans-sponsored Eastbound SR-91 Lane Addition from SR-241 to SR-71 Project, Orange and Riverside Counties, California (FWS-OR/WRIV-08B0054/08F0081, dated November 29, 2007); new information since that time is provided in the 5-year review for gnatcatcher (Service 2010). Additional information on gnatcatcher designated critical habitat can be found in our 2007 final rule for the revised designation of critical habitat for the gnatcatcher (72 FR 72010). Please refer to these documents for detailed information on the life history requirements, threats, and conservation needs of the gnatcatcher.

Status of Critical Habitat in the Action Area

Primary Constituent Elements (PCEs) for the gnatcatcher are those habitat components that are essential for the primary biological needs of foraging, nesting, rearing of young, intra-specific communication, roosting, dispersal, genetic exchange, or sheltering (72 FR 72010). These include: (1) dynamic and successional sage scrub habitats (i.e., Venturan coastal sage scrub, Diegan coastal sage scrub, Riversidean sage scrub, maritime succulent scrub, Riversidean alluvial fan scrub, southern coastal bluff scrub, and coastal sage-chaparral scrub) that provide space for individual and population growth, normal behavior, breeding, reproduction, nesting, dispersal, and foraging; and (2) non-sage scrub habitats such as chaparral, grassland (a component of ruderal vegetation), and riparian areas, in proximity to sage scrub habitats that provide space for dispersal, foraging, and nesting.

The Project occurs within Units 7 and 9 of the 2007 final critical habitat designation. Unit 7 includes 4,309 ac of lands under private ownership that contain core gnatcatcher populations and sage scrub within the Orange County Central-Coastal Natural Community Conservation Plan/ Habitat Conservation Plan (NCCP/HCP) Subregion. However, these areas are not included in the permit area covered by the NCCP/HCP. Habitat within this unit was occupied at the time of listing, remains occupied, and contains all of the features essential to the conservation of the gnatcatcher (PCEs 1 and 2). Habitat within this unit contains high-quality habitat and dense populations of gnatcatchers. This unit also serves to link populations located in Unit 6 with those in northern Orange and Riverside counties (e.g., Unit 9). Unit 9 includes 17,552 ac of lands, the majority of which are under private ownership, that contain core gnatcatcher populations and sage scrub within the Montebello Hills, Puente-Chino Hills, and West Coyote Hills areas. Habitat within this unit contains large blocks of high-quality habitat and was occupied at the time of listing, remains occupied, and contains all of the features essential to the conservation of the species. The unit also provides connectivity and genetic interchange among core populations of gnatcatchers between Units 6, 10, and 12. Specific information for each of the remaining critical habitat units can be found within the final rule designating critical habitat for the gnatcatcher (72 FR 72010).

ENVIRONMENTAL BASELINE

Regulations implementing the Act (50 CFR § 402.02) define the environmental baseline as the past and present impacts of all Federal, State, or private actions and other human activities in the action area. Also included in the environmental baseline are the anticipated impacts of all proposed Federal projects in the action area that have undergone section 7 consultation, and the impacts of State and private actions that are contemporaneous with the consultation in progress.

Site Characteristics and Surrounding Land Use

The Project action area is located within the SAR watershed in the eastern-most portion of Orange County, immediately downstream of Prado Dam. Within Orange County, the Project area is a heavily traveled transportation corridor with the landscape varying from natural

undeveloped to pockets of commercial and residential development on either side. Two large blocks of open space bisect SR-91; Chino Hills State Park (CHSP) to the north, and the Cleveland National Forest to the south. Within Orange County, the action area includes approximately 846 ac, which includes the 500-ft buffer surrounding the area directly impacted by the Project. The action area contains 123.56 ac of coastal sage scrub; 64.74 ac of chaparral; 72.24 ac of riparian forest/scrub; 24.44 acres of oak woodland; 90.83 ac of nonnative grassland; 13.82 ac of deepwater aquatic; 113.79 ac of mixed ruderal and ornamental; and 342.53 ac of developed lands.

Subsequent to vegetation mapping conducted in 2008, the Freeway Complex fire in November 2008 burned large areas of CHSP, including a small part of the coastal sage scrub in the action area. Because these small burned areas are located west of Coal Canyon, coastal sage scrub occupied by gnatcatchers in Coal Canyon was not impacted by the fire. The coastal sage scrub and other vegetation communities in the action area burned by the fire have been recovering. These burned areas appear to be returning to pre-fire conditions, although there appears to be a higher percentage of nonnative grasses, e.g., black mustard (*Brassica nigra*) and foxtail chess (*Bromus madritensis*) (E. Hohertz , LSA Associates, pers. comm. 2011).

Chino Hills State Park

This 12,500-ac State park is located near the northern end of the Peninsular Ranges and is within Orange, Riverside, and San Bernardino counties. The Chino Hills are part of the group of hills that include the Puente Hills to the northwest. These hills form a roughly triangular area of approximately 35 square miles of valleys, canyons, hills, and steep slopes. The park serves a valuable function as a large open space preserve in a wildlife linkage that extends over 30 miles from the Santa Ana Mountains to the southeast to the Whittier Hills to the northwest. Moreover, the Coal Canyon undercrossing, which provides a wildlife crossing under SR-91 between the Santa Ana Mountains south of SR-91 and the Puente-Chino Hills north of SR-91, is in park. The CHSP supports a number of native plant communities including coastal sage scrub, riparian, chaparral, grasslands, and oak woodland communities. Approximately 95 percent of the area in the park was burned in the 2008 Freeway Complex Fire.

Habitat restoration activities in the Coal Canyon area, just north of SR-91, have been ongoing in the park since 2004 to restore coastal sage scrub and other habitats suitable to support gnatcatcher breeding, feeding, and sheltering requirements. These restoration areas have met stated success criteria and gnatcatchers were recently observed within these areas (F. Sirchia, Service biologist, personal observation during the October 20, 2011, site visit).

Coal Canyon Undercrossing Landscaping

Coal Canyon and the associated SR-91 undercrossing are considered one of the most important remaining wildlife connections between the Santa Ana Mountains and the Puente-Chino Hills and Prado Basin (LSA 2010). As such, State officials and other stakeholders have been working nearly two decades to preserve and enhance Coal Canyon as a viable wildlife corridor. Towards

that end, a landscaping project to enhance the Coal Canyon crossing under SR-91 is proposed to begin mid-2012.

Caltrans District 12 is proposing to conduct planting in the Caltrans right-of-way at Coal Canyon. The purpose of this planting is to beautify the site and attract more wildlife to this vital crossing. The proposed planting area is composed of compacted gravel and nonnative grasses and ornamental vegetation. Caltrans District 12 has anticipated the Project may impact the Coal Canyon Wildlife Corridor Planting area. Because of this potential impact, a plant palette is being selected (in coordination with Caltrans biologists, landscape architects, and the Service) that would facilitate gnatcatcher dispersal but is unlikely to be used as nesting habitat.

Status of and Factors Affecting Gnatcatcher and its Critical Habitat in the Action Area

A number of projects have reduced and degraded gnatcatcher habitat in the vicinity of the Project. Roads and urban development have degraded upland habitat and have led to the loss and isolation of remaining coastal sage scrub. Specific past actions that have adversely affected gnatcatchers and/or designated critical habitat in the vicinity of the Project include (1) the SR-91 Eastbound Lane Addition Project, (2) widening of SR-91 between SR-241 and SR-71, (3) SAR Reach 9 Flood Control Projects, (4) Eastern Transportation Corridor (SR-241), and (5) SARI project. In general, all of these projects have decreased and fragmented the amount of suitable gnatcatcher habitat containing PCEs within the Project vicinity. In addition, since 1980, the Coal Canyon area has experienced 25 separate wildland fires, burning a total of 82,734 acres (OCFA 2008). A number of these wildland fires were large, burning thousands of acres, including the 2008 Freeway Complex Fire (30,305 ac), 2006 Sierra Peak Fire (10,506 ac), 1982 Gypsum Fire (19,986 ac), and 1980 Owl Fire (18,332 ac). As stated above, though areas burned in the most Freeway Complex Fire are recovering to pre-fire conditions, an increase in percent cover of nonnative grasses is apparent. This observation may indicate some burned areas may be experiencing type conversion to nonnative grasslands, which may decrease the amount of suitable habitat for the gnatcatcher in the action area (Service 2010).

Based on the Carlsbad Fish and Wildlife Office (CFWO) species occurrence database, the action area within Orange County has supported at least two breeding pairs of gnatcatchers dating back to 1998 (survey reports 3015, 5259, 7717, and 0517). Protocol surveys conducted in 2006 for the SR-91 Eastbound Lane Addition Project detected two breeding pairs and one juvenile in the vicinity of Coal Canyon within or near the Caltrans ROW. Protocol surveys in 2008 for the Project detected one breeding pair of gnatcatchers and at least two juveniles on several occasions just south of the Coal Canyon underpass within or near the ROW, which is in the Project impact area. Gnatcatchers were observed primarily in vegetation community types dominated by California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*). During the October 20, 2011, site visit, within CHSP, one gnatcatcher was observed in the Scully Hill area, and at least two were observed in the restoration area north of the Coal Canyon underpass. These 2011 observations in areas north of the Coal Canyon underpass were not expected to be directly impacted by Project construction activities.

The segment of the Project in Orange County includes small portions of Units 7 and 9 of gnatcatcher designated critical habitat and suitable gnatcatcher habitat outside of designated critical habitat (Figure 1). The action area includes 182.09 ac of gnatcatcher designated critical habitat. Outside critical habitat, the action area includes 85.67 ac of coastal sage scrub, the preferred habitat for gnatcatchers, and another 100.75 ac of vegetation communities that gnatcatchers likely use for dispersal and foraging habitat (Table 3). As stated above, the ecological functions and values of these critical habitat units include sage scrub used for individual and population growth, breeding, reproduction, nesting, dispersal, and foraging (PCE 1); and non-sage scrub communities (e.g., chaparral, grassland, riparian areas) in proximity to sage scrub that provide space for dispersal, foraging, and nesting (PCE 2) and serve as linkages between populations of gnatcatchers in the Santa Ana Mountains and Puente-Chino Hills and Prado Basin. Moreover, the land contained within Units 7 and 9 in the action area may require special management considerations or protection to minimize impacts associated with habitat type conversion and degradation occurring in conjunction with freeway widening and other development projects (72 FR 72040).

Table 2: Gnatcatcher Habitat in Orange County Action Area Inside and Outside of Designated Critical Habitat

Habitat Type	Amount Outside of Critical Habitat	Amount in Critical Habitat			Total Habitat
		Unit 7	Unit 9	Total	
Coastal Sage Scrub	85.67	16.28	21.61	37.89	123.56
Chaparral	14.53	46.70	3.51	50.21	64.74
Riparian Forest	31.38	0.41	37.49	37.90	69.28
Riparian Scrub	2.16	0.80	0.00	0.80	2.96
Nonnative Grassland	52.68	6.44	31.71	38.15	90.83
Mixed Ruderal and Ornamental		4.78	12.36	17.14	17.14
Total	**186.42**	**75.41**	**106.68**	**182.09**	**368.51**

EFFECTS OF THE ACTION

Effects of the action refer to the direct and indirect effects of an action on the species, together with the effects of other activities that are interrelated and interdependent with that action, which will be added to the environmental baseline. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. Indirect effects are those that are caused by the proposed action, are later in time, and still reasonably certain to occur.

Direct Effects

Habitat Loss

The Project in Orange County will result in the permanent loss of 4.25 ac of coastal sage scrub, and 4.17 ac of vegetation communities (2.96 ac of chaparral, 0.01 ac of riparian forest, and 1.20 ac of nonnative grassland) used by gnatcatchers for dispersal and foraging (Campbell *et al.*

1998). The loss of habitat associated with Project construction will be distributed over a linear distance of approximately 4.2 miles and a width of approximately 50 to 100 ft from the edge of existing structures. To offset this loss, RCTC will restore 16.03 ac of habitats suitable for gnatcatcher breeding, dispersal, and foraging in CHSP, which will increase the amount of conserved habitat available for gnatcatchers in the action area.

The Project will result in the temporary loss of 1.29 ac of coastal sage scrub and 1.72 ac of other vegetation communities (0.71 ac of chaparral, 0.34 ac of riparian forest, and 0.67 ac of nonnative grassland) used by gnatcatchers for dispersal and foraging. This habitat will be unavailable for gnatcatcher foraging and breeding activities until it is successfully restored. RCTC will restore temporarily impacted habitat with in-kind or better vegetation after the completion of the Project. Also, the proposed restoration of the temporarily impacted areas will help ensure there is no long-term loss or degradation of the habitat as a result of invasion by nonnative plant species.

Based on recent surveys, the Project impact area supports part of at least one gnatcatcher pair or territory. We do not have specific information on the size or shape of this territory, but breeding season territories vary greatly in size from less than 2.5 ac to 25 ac (Atwood *et al.* 1998; Preston *et al.* 1998) and fluctuate given the time of year. The permanent and temporary loss of 5.54 ac of coastal sage scrub and the permanent and temporary loss of 5.89 ac of other habitat could significantly reduce the amount of habitat available to this gnatcatcher pair for breeding, foraging, and dispersal activities within their existing territory. Gnatcatchers are expected to be displaced by grading activities during and after construction disturbance and forced to shift or move their territory location. The displacement of this pair and reestablishment of all or part of their territory in another location could involve increased competition with other gnatcatchers for nesting, roosting, and foraging sites, and displaced gnatcatchers will likely be more vulnerable to predation while seeking new habitat. Therefore, we expect that one pair of gnatcatchers will be killed or injured because of impacts to a potentially significant portion of an existing territory and the subsequent displacement of the pair.

Construction activities are not anticipated to result in the death or injury of any gnatcatchers or destruction of nests. The Designated Biologist will be present to ensure that gnatcatchers are not killed or injured during vegetation removal and other construction activities, and the clearing and grubbing of suitable gnatcatcher habitat will be conducted outside of the breeding season (i.e., February 15 to September 15).

Indirect Effects

Noise, vibrations, increased activity, and night lighting associated with the use of heavy equipment during construction of the proposed facilities have the potential to disrupt gnatcatcher behaviors in adjacent habitat by masking intraspecific communication and startling birds (e.g., see Dooling and Popper (2007) for a discussion of observed effects of highway noise on birds). However, gnatcatchers that occupy habitats adjacent to the existing SR-91 freeway are subjected to existing noise and vibration and continue to occupy the habitat, and the addition of lanes is not expected to increase noise and vibration above existing levels (Caltrans 2011). Additionally,

measures to avoid and minimize construction impacts include seasonal restrictions on vegetation removal, noise control, biological monitoring, and shielded night lighting.

Operation of existing roadways can affect species and habitats through factors such as increased noise and lighting, increased fire risk, invasion of exotic plants, road mortality, and barriers to wildlife movement (e.g., Conard and Weise 1998; Forman and Deblinger 2000; Forman *et al.* 2003). Given the potentially broad-reaching, long-term nature of the aforementioned impacts, they are difficult to quantitatively assess. However, the gnatcatchers that occupy habitats adjacent to the existing SR-91 freeway are subjected to existing adverse road effects from freeway operations and continue to occupy suitable habitat adjacent to the freeway; moreover, some of these impacts (noise and lighting) will not increase with implementation of the Project. Therefore, SR-91 widening is not expected to have significant adverse impacts on the gnatcatchers due to noise and lighting, invasion of exotic plants, road mortality, and barriers to wildlife movement. In addition, measures to avoid and minimize these impacts, like restoration of native habitats, native landscaping in the Coal Canyon underpass, and weed abatement, will help to offset some of these impacts.

As stated previously, wildland fire is a significant threat to gnatcatchers due to habitat type conversion and the temporary destruction of habitat the gnatcatcher depends on for foraging, sheltering, dispersal, and nesting. The Project is not anticipated to significantly increase the threat of wildlife fire in the action area but Caltrans has agreed to coordinate with the Service to identify locations along SR-91 where placement of k-rail or other barriers would help to minimize the threat of fire ignitions.

Restoration

Some restoration activities may disturb resident gnatcatchers and biological monitors are anticipated to disturb gnatcatchers as part of their monitoring efforts. The frequency and level of disturbance by the biological monitors is not anticipated to substantially affect the gnatcatchers' ability to acquire sufficient resources to survive and reproduce. Furthermore, the restoration plan will include measures to avoid and minimize impacts to resident gnatcatchers such as pre-restoration surveys and avoidance of the breeding season.

Critical Habitat

This biological opinion does not rely on the regulatory definition of "destruction or adverse modification" of critical habitat at 50 CFR § 402.02. Instead, we have relied upon the statutory provisions of the Act to complete the following analysis with respect to critical habitat.

Implementation of the Project will result in the permanent loss of 6.32 ac of designated critical habitat, including 1.24 ac of coastal sage scrub, located in Units 7 and 9 (2.48 ac in Unit 7 and 3.84 ac in Unit 9). This loss represents 0.02 percent of the gnatcatcher designated critical habitat within Unit 7 and 0.02 percent in Unit 9. Additionally, the Project will result in the temporary loss of 2.09 ac of designated critical habitat, including 0.72 ac of coastal sage scrub, located in

Units 7 and 9 (1.02 ac in Unit 7 and 1.07 ac in Unit 9). This temporary loss represents a small fraction of the habitat available within Units 7 and 9, and the impacted area will be restored after construction. As stated above, the primary function of these units is to provide sage scrub for individual and population growth, breeding, reproduction, nesting, dispersal, and foraging (PCE 1); and non-sage scrub communities (e.g., chaparral, grassland, riparian areas) in proximity to coastal sage scrub that provide space for dispersal, foraging, and nesting (PCE 2).

Because the Project will temporarily impact only a small portion of gnatcatcher critical habitat, which will be revegetated immediately following Project completion, the temporary impacts associated with the Project will have negligible impacts on the ability of Units 7 and 9 to support core gnatcatcher populations and on connectivity between critical habitat units. Also the permanent impacts to critical habitat are small and will primarily affect non-breeding habitat (i.e., vegetation communities other than coastal sage scrub). Therefore, the Project will not have a substantial impact on the ability of Units 7 and 9 to support core populations of gnatcatchers, and affected critical habitat would remain functional to serve its intended conservation role for the species.

Habitat loss will occur within the Coal Canyon wildlife corridor. Loss of PCEs within this corridor could result in an incremental decrease in connectivity and increase the isolation of gnatcatcher populations in Unit 9. To offset this potential adverse impact, RCTC will minimize permanent impacts in the Coal Canyon underpass area to the extent possible and restore landscaped areas in and around the Coal Canyon underpass to facilitate gnatcatcher dispersal. Additionally, 16.03 ac of gnatcatcher habitat that would support PCEs 1 and 2 would be restored in Unit 9 within CHSP, and 2.50 ac of mixed ruderal and ornamental vegetation in the Coal Canyon underpass will be replanted with native species per the Coal Canyon Planting Plan to facilitate gnatcatcher dispersal between critical habitat units 7 and 9. In addition to maintaining connectivity, the proposed restoration will result in a net increase in the amount of coastal sage scrub (PCE 1) in gnatcatcher critical habitat, likely leading to a slight increase in the ability of Unit 9 to support core gnatcatcher populations. Thus, the affected critical habitat would remain functional to serve its intended conservation role for the species.

Recovery

The Project is not anticipated to impede recovery of the gnatcatcher. Conservation and recovery of the gnatcatcher has largely been accomplished through the development and implementation of regional conservation plans (i.e., HCP/NCCPs). Much of the range of the gnatcatcher today within southern California is covered by these plans. Furthermore, although no recovery plan exists for the gnatcatcher, the Project is consistent with the general recovery goals of maintaining core gnatcatcher populations and maintaining connectivity between them, because restoration of 16.03 ac is expected to increase the available habitat in the action area to support core gnatcatcher populations and restoration in the Coal Canyon underpass area will facilitate dispersal and maintain connectivity.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

We have no information on any non-Federal actions affecting listed species that are reasonably certain to occur in the action area considered by this opinion.

CONCLUSION

After reviewing the current status of the gnatcatcher, environmental baseline for the action area, effects of the proposed action, and the cumulative effects, it is our biological opinion the proposed action is not likely to jeopardize the continued existence of the gnatcatcher and is not likely to result in the destruction or adverse modification of gnatcatcher designated critical habitat. Our conclusion is based on the following reasons:

1. Although 8.42 ac of gnatcatcher habitat (4.25 ac of coastal sage scrub, and 4.17 ac of vegetation communities used by gnatcatchers for dispersal and foraging), including designated critical habitat, will be permanently impacted in Orange County, this will affect only a small fraction of available habitat in the action area and an even smaller fraction rangewide.

2. Although 3.01 ac of gnatcatcher habitat (1.29 ac of coastal sage scrub, and 1.72 ac of vegetation communities used by gnatcatchers for dispersal and foraging), including designated critical habitat, will be temporarily impacted in Orange County, this habitat will be restored, and within 4 to 5 years will again be suitable for gnatcatcher breeding and foraging.

3. Permanent impacts to suitable gnatcatcher habitat and designated critical habitat will be offset by restoring 16.03 ac of gnatcatcher habitat in Unit 9 within CHSP to be managed and preserved in perpetuity as part of the CHSP. This restoration will result in a net gain of potential breeding, foraging, dispersal, and sheltering habitat for the gnatcatcher locally and within Unit 9 of designated critical habitat.

4. With implementation of the proposed conservation measures, the Project is not expected to a have a long-term effect on the gnatcatcher or its habitat in the action area or rangewide, and is not anticipated to impede recovery of the species or the function and value of its critical habitat.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act prohibits the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill,

trap, capture, collect, or attempt to engage in any such conduct. Harm is further defined by us to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. We defined harass as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and 7(o)(2) of the Act, taking that is incidental to and not intended as part of the agency action is not considered a prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary, and must be undertaken by Caltrans so that they become binding conditions of any grant or permit issued to the permittee, as appropriate, for the exemption in section 7(o)(2) to apply. Caltrans has a continuing duty to regulate the activity covered by this incidental take statement. If Caltrans (1) fails to assume and implement the terms and conditions or (2) fails to require RCTC or any contractor discussed above to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of the incidental take, Caltrans must report the progress of the action and its impact on the species to the Palm Springs Fish and Wildlife Office (PSFWO) at 777 East Tahquitz Canyon Road, Palm Springs, California 92262 (760-322-2070) as specified in the incidental take statement [50 CFR § 402.14(i)(3)].

AMOUNT OR EXTENT OF TAKE

Incidental take of the gnatcatcher in Orange County for the Project is authorized as follows:

- Incidental take in the form of harm, as defined in 50 CFR § 17.3, of one gnatcatcher pair is authorized due to the permanent removal of 4.25 ac of coastal sage scrub and 4.17 ac of vegetation communities used by gnatcatchers for essential behaviors, including nesting, roosting, foraging, and dispersal, and the temporary removal of 1.29 ac of coastal sage scrub and 1.72 ac of vegetation communities used by gnatcatchers for foraging and dispersal. The take threshold will be exceeded if more than the amount of habitat identified above is graded or grubbed or if more than one pair of gnatcatchers is killed or injured.

No direct death or injury of nestlings or eggs from habitat clearing and construction activities is anticipated; therefore, none is exempted from the section 9 take prohibitions under the Act.

EFFECT OF THE TAKE

In the accompanying biological opinion, the PSFWO determined that this level of anticipated take is not likely to result in jeopardy to the species.

REASONABLE AND PRUDENT MEASURES

Caltrans will implement conservation measures as part of the proposed action to minimize the incidental take of gnatcatchers. In addition to these conservation measures, the following reasonable and prudent measures are necessary to monitor and report the effects of the incidental take on gnatcatchers:

1. Caltrans shall monitor and report on compliance with the established take thresholds for gnatcatchers associated with the proposed action.

TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the Act, Caltrans must comply with terms and conditions which implement the reasonable and prudent measures described above.

1. Prior to initiating the Project, three preconstruction surveys will be conducted within all suitable gnatcatcher habitat within the footprint for the Project, within 30 days prior to initiation of vegetation removal activities to verify that no more than one gnatcatcher pair will be taken as a result of the Project. Prior to initiating the Project, Caltrans will provide to the PSFWO a map showing the distribution of gnatcatchers relative to the Project footprint, an estimate of the number of gnatcatchers territories that will be impacted by the Project, and the cumulative total of gnatcatcher territories impacted by the Project, or confirm in writing that maps, distribution information, and the number of territories that will be impacted by the Project as shown in the BA remain correct.

2. Caltrans will notify the PSFWO within 30 days of completing removal of gnatcatcher-occupied habitat. The purpose of this notification is to ensure that impacts to gnatcatcher-occupied habitat from the Project do not exceed the take thresholds.

DISPOSITION OF SICK, INJURED, OR DEAD SPECIMENS

Upon locating dead, injured, or sick individuals of threatened or endangered species, initial notification must be made to our Division of Law Enforcement in either San Diego, California, at 619-557-5063 or in Torrance, California, at 310-328-6307 within 3 working days. Notification should also be sent by telephone and writing to the PSFWO at 760-322-2070 at the address detailed above. Written notification must be made within 5 calendar days and include the collection date and time, the location of the animal, and any other pertinent information. Care must be taken in handling sick or injured animals to ensure effective treatment and care and in handling dead specimens to preserve biological material in the best possible state. Remains shall be placed with the San Diego Natural History Museum, San Diego. Arrangements regarding proper disposition of potential museum specimens shall be made with the institution by the designated biologist prior to implementation of the action.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. Because data are lacking regarding the rate of exchange between gnatcatcher populations on either side of SR-91, we recommend Caltrans fund a study to examine the rate of exchange between those gnatcatcher populations to determine the permeability of SR-91 for the bird.

2. To further minimize the risk of fire from operation of SR-91, we recommend Caltrans monitor and map fire ignitions along SR-91 and coordinate with the Service to develop potential measures to reduce this risk. Measures would include monitoring of the roadway by Caltrans personnel during extreme fire danger conditions, placement of additional barriers, or maintenance of a defined fire management zone adjacent to the roadway.

REINITIATION NOTICE

This concludes formal consultation for the SR-91 Corridor Improvement Project as outlined in materials submitted to us. As provided in 50 CFR § 402.16 reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions or comments about this opinion, please contact Felicia Sirchia of the Palm Springs Fish and Wildlife Office, 777 E. Tahquitz Way, Suite 208, Palm Springs, California 92262 at 760-322-2070.

Sincerely,

Jim A. Bartel
Field Supervisor

cc: Cathy Bechtel, Riverside County Transportation Commission

LITERATURE CITED

Atwood, J., D. Bontrager, and A. Gorospe. 1998. Use of refugia by California gnatcatchers displaced by habitat loss. Western Birds 29:406-412.

Caltrans. 2007. SR-91 Eastbound lane addition between SR-241 and SR-71 biological assessment. Unpublished document submitted to the CFWO. June 2007.

Caltrans. 2011. SR-91 Corridor Improvement Project biological assessment. Unpublished document submitted to the CFWO. June 2011.

Campbell, K., R. Erickson, W. Haas, and M. Patten. 1998. California gnatcatcher use of habitats other than coastal sage scrub: Conservation and management implications. Western Birds 29: 421-433.

Conard, S. G. and D. R. Weise. 1998. Management of fire regime, fuels, and fire effects in southern California chaparral: Lessons from the past and thoughts for the future. Tall Timbers Fire Ecology Conference Proceedings 20:342–350.

Dooling, R. J. and A. N. Popper. 2007. The effects of highway noise on birds. Prepared by Environmental BioAcoustics LLC for the California Department of Transportation, Sacramento, California. 74 pp.

Forman, R. T. T. and R. D. Deblinger. 2000. The ecological road-effect zone for transportation planning and Massachusetts (USA) suburban highway. Conservation Biology 14:36-46.

Forman, R.T.T., D. Sperling, J.A. Bissonette, A.P. Clevenger, C.D. Cutshall, V.H. Dale, L. Fahrig, R. France, C.R. Goldman, K. Heanue, J.A. Jones, F.J. Swanson, T. Turrentine, T.C. Winter. 2003. Road ecology: Science and solutions. Island Press, Washington, DC.

Orange County Fire Authority (OCFA). 2008. After action report Freeway Complex Fire: A report to the Orange County Fire Authority Board of Directors. Orange County, CA.

Preston, K., P. Mock, M. Grishaver, E. Bailey, and D. King. 1998. California gnatcatcher territorial behavior. Western Birds 29:242-257.

U.S. Fish and Wildlife Service (Service). 2004. Intra-Service Formal Section 7 Consultation/Conference for Issuance of Endangered Species Act Section 10(a)(1)(B) Permit TE-088609-0 for the Western Riverside County Multiple Species Habitat Conservation Plan dated June 22, 2004 (FWS-WRIV-870.19).

U.S. Fish and Wildlife Service (Service). 2010. Coastal California gnatcatcher (*Polioptila californica californica*) 5-year Review: Summary and Evaluation. U.S. Fish and Wildlife Service Carlsbad Fish and Wildlife Office, Carlsbad, California.

Personal Communications

Hohertz, E. September 1, 2011. Electronic mail correspondence regarding status of vegetation recovery in Chino Hills State Park, Orange County, CA.

This page intentionally left blank