

# SR-241 / SR-91 Express Lanes Connector Project

ORANGE COUNTY AND RIVERSIDE COUNTY, CALIFORNIA

City of Anaheim, City of Yorba Linda and City of Corona

12-ORA-241 PM 36.1/39.1

12-ORA-91 PM 14.7/18.9

08-RIV-91 PM 0.0/1.5

OK9700 / 1200020097

## Phase I Initial Site Assessment



Prepared for:  
Foothill/Eastern Transportation Corridor Agency, Project Sponsor

and for:  
State of California Department of Transportation, Lead Agency



Prepared By: Kristen Bogue Date: 10-6-15 Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

  
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**October 2015 (Revisal of August 2015)**

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





October 6, 2015

10-107774

**FOOTHILL/EASTERN TRANSPORTATION CORRIDOR AGENCY**

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**CALIFORNIA DEPARTMENT OF TRANSPORTATION-DISTRICT 12**

3337 Michelson Drive, Suite 380  
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**SUBJECT: PHASE I INITIAL SITE ASSESSMENT  
SR-241/SR-91 Express Lanes Connector Project**

To Whom It May Concern:

RBF Consulting (RBF) is pleased to submit this Phase I Initial Site Assessment (ISA) for the above referenced Proposed Project, herein referenced as the "subject site." This Phase I ISA has been prepared to evaluate the potential presence of hazardous materials and the expected nature of the materials that may be on the subject site addressed within this ISA. This ISA has been prepared for the sole use of the **Foothill/Eastern Transportation Corridor Agency** and the **California Department of Transportation-District 12** for the above referenced subject site. Neither this ISA, nor any of the information contained herein shall be used or relied upon for any purpose by any person or entity other than the **Foothill/Eastern Transportation Corridor Agency** and the **California Department of Transportation-District 12**.

The Phase I ISA was performed in general accordance with American Standards for Testing and Materials (ASTM) E 1527-05 Standard Practice, the scope of services, and inherent limitations presented in our proposal. The Phase I ISA is not intended to present specific quantitative information as to the actual presence of hazardous materials on or adjacent to the subject site, but is to identify the potential presence based on available information.

Should you or your staff have any questions after reviewing the enclosed report, please do not hesitate to contact me at 949/855-5747.

Sincerely,

A handwritten signature in black ink that reads 'Kristen Bogue'. The signature is written in a cursive style and is followed by a long horizontal line that extends to the right.

Kristen Bogue  
Environmental Professional  
Planning/Environmental Services



## STATEMENT OF ENVIRONMENTAL PROFESSIONALS

I have performed this Phase I Initial Site Assessment (ISA) in accordance with generally accepted environmental practices and procedures, as of the date of this report. I have employed the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental professionals practicing in this area. The conclusions contained with this Phase I ISA are based upon site conditions I readily observed or were reasonably ascertainable and present at the time of the site inspection.

The conclusions and recommendations stated in this report are based upon personal observations made by employees of RBF and upon information provided by others. I have no reason to suspect or believe that the information provided is inaccurate.

### Statement of Quality Control

The objective of this Phase I ISA was to ascertain the potential presence or absence of environmental releases or threatened releases that could impact the subject site, as delineated by the Scope of Work. The procedure was to perform reasonable steps in accordance with the existing regulations, currently available technology, and generally accepted engineering practices in order to accomplish the stated objective.

The Scope of this Phase I ISA does not purport to encompass every report, record, or other form of documentation relevant to the subject site being evaluated. Additionally, this Phase I ISA does not include or address reasonable ascertainable Environmental Liens currently recorded against the subject site. To the best of my knowledge, this Phase I ISA has been performed in compliance with RBF standard operating procedures protocol for Phase I ISAs.

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of Title 40, Code of Federal Regulations (CFR). I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with standards and practices set forth in 40 CFR Part 312.



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Signature of RBF Environmental Professional  
*Kristen Bogue*



# Executive Summary

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The SR-241/SR-91 Express Lanes Connector Project (the subject site) is located at the junction of SR-241 and SR-91 within the cities of Anaheim, Yorba Linda, and Corona and the counties of Orange and Riverside. The subject site boundaries encompass 12-ORA-241 (PM 36.1/39.1), 12-ORA-91 (PM 14.7/18.9), and 08 RIV-91 (PM 0.0/1.5) for a length of approximately 8.7 miles. Specifically, the subject site consists of transportation uses along SR-241 and SR-91, associated freeway right-of-way, and vacant land.

The purpose of conducting this Phase I Initial Site Assessment (ISA) is to permit the use of this report to satisfy one of the requirements to qualify for the Innocent Landowner, contiguous property owner, or bona fide prospective purchaser limitations on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liability that constitutes all appropriate inquiry into the previous uses of the property in order to identify Recognized Environmental Conditions (RECs). As defined in American Standards for Testing and Materials (ASTM) E 1527-05 Standard Practice for Environmental Site Assessments (Standard Practice), an REC is “*the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.*” The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include “*de minimis*” conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be “*de minimis*” are not RECs.

## Findings and Opinions

RBF Consulting’s (RBF’s) findings and opinions are based upon review of reasonable ascertainable referenced material available during the preparation of this Phase I ISA, which included historical aerial photographs, historical topographic maps, regulatory databases, interviews, site reconnaissance, and other documentation. Table E-1, *Phase I ISA Findings and Opinions*, summarizes RBF’s findings, opinions, and conclusions made during the preparation of this Phase I ISA.

**Table E-1  
Phase I ISA Findings and Opinions**

Finding	Opinion	Conclusion
<p>On-Site Bridge Structures (Asbestos-Containing Materials)</p>	<p>Asbestos is a strong, incombustible, and corrosion resistant material, which was used in many commercial products since prior to the 1940s and up until the early 1970s. If inhaled, asbestos fibers can result in serious health problems. Asbestos containing materials are building materials containing more than one percent (1%) asbestos (some state and regional regulators impose a one-tenth of one percent (0.1%) threshold).</p> <p>Due to the age of the on-site bridge structure 55-0724L (constructed in 1998), the potential for ACMs to be found on-site is considered unlikely. However, the Gypsum Canyon Road Undercrossing was constructed in 1971 and could contain ACMs. The on-site bridge structure appeared to be in fair condition and no visible evidence to suggest the release of ACMs into the environment was observed. Therefore, it is RBF's opinion that the on-site bridge structure has not resulted in a REC on the subject site as a result of ACMs. Although RBF has determined that the on-site bridge structure has not resulted in a REC on the subject site as a result of ACMs, this issue is of environmental concern, as the Proposed Project may involve disturbance of these materials.</p> <p>Although typically performed during the PA/ED phase, confirmation of the presence or absence of asbestos in the Gypsum Canyon Road Undercrossing should be confirmed during the Final Design process (as nominal amounts of ACMs are anticipated to be disturbed at this bridge structure, if any) by a certified specialist. If asbestos is present, the certified asbestos abatement specialist should monitor the disposal of the ACMs as they are uncovered. The contractor will be required to comply with Caltrans Standard Specifications Section 14-9.02 pertaining to air pollution control compliance with rules, regulations, ordinances, and statues during renovation and demolition activities.</p>	<p>NO REC (Area of Environmental Concern)</p>
<p>On-Site Bridge Structures (Lead-Based Paints)</p>	<p>Until 1978, when the U.S Consumer Product Safety Commission (CPSC) phased out the sale and distribution of residential paint containing lead, many homes were treated with paint containing some amount of lead. It is estimated that over 80 percent of all housing built prior to 1978 contains some LBP. The mere presence of lead in paint may not constitute a material to be considered hazardous. In fact, if in good condition (no flaking or peeling), most intact LBP is not considered to be a hazardous material. In poor condition LBPs can create a potential health hazard for building occupants, especially children. The on-site bridge structures do not appear to include features that have been painted; thus, LBPs in association with the on-site bridge structure itself is considered unlikely. Therefore, it is RBF's opinion that the on-site bridge structures have not resulted in a REC on the subject site as a result of LBPs and no further recommendation is necessary at this time.</p>	<p>NO REC</p>
<p>Treated Wood Waste</p>	<p>Treated wood waste comes from old wood that has been treated with chemical preservatives. These chemicals help protect the wood from insect attack and fungal decay while it's being used. Fence posts, sill plates, landscape timbers, pilings, guardrails, and decking, to name a few, are all examples of chemically treated wood. Treated wood waste contains hazardous chemicals that pose a risk to human health and the environment. Arsenic, chromium, copper, creosote, and pentachlorophenol are among the chemicals used to preserve wood and are known to be toxic or carcinogenic. Harmful exposure to these chemicals may result from</p>	<p>NO REC (Area of Environmental Concern)</p>

Finding	Opinion	Conclusion
	<p>touching, inhaling or ingesting treated wood waste particulate (e.g., sawdust and smoke).</p> <p>No visible evidence to suggest the release of treated wood waste was noted during the course of this Phase I ISA. No REC has resulted on-site in this regard. However, this issue is of environmental concern, as the Proposed Project would require the removal/disposal of treated wood associated with on-site guardrails. The removal and disposal of treated wood waste will be required to comply with Caltrans Standard Specifications Section 14-10 pertaining to the disposal of treated wood waste during construction.</p>	
<p>Traffic Striping Materials</p>	<p>LBP's were commonly used in traffic striping materials before the discontinued use of lead chromate pigment in traffic striping/markings materials and hot-melt thermoplastic stripe materials (discontinued in 1996 and 2004, respectively). RBF observed traffic striping along SR-241 and SR-91 within the boundaries of the subject site during the October 22, 2013 site visit. Thus, the potential for LBP's to be present on-site as a result of traffic striping is likely.</p> <p>No visible evidence to suggest the release of LBP's into the environment was observed; therefore, it is RBF's opinion that the likely presence of LBP's in traffic striping materials is not an REC at the time of this Phase I ISA. Although RBF has determined that the on-site freeways (SR-241 and SR-91) containing traffic striping have not resulted in an REC at the subject site as a result of LBP's, this issue is of environmental concern, as the Proposed Project involves the disturbance of these materials.</p> <p>The contractor will be required to comply with Caltrans Standard Specifications Section 14-11 pertaining to the testing, removal, and disposal of any traffic striping and pavement marking materials during construction.</p>	<p>NO REC (Area of Environmental Concern)</p>
<p>Aerially Deposited Lead</p>	<p>Until the mid-1980s, gasoline and other fuels contained lead, a toxic metal. As each car or truck traveled highways and roads, tiny particles of lead were released in the exhaust and settled on the soils next to the road. Most of the time, lead tends not to move very far or fast in the environment.</p> <p>Caltrans has sampled sediment adjacent to traffic lanes in major metropolitan areas and determined that lead from leaded gasoline emissions is present. Elevated lead levels have been found to be highest at the surface (zero to six inches) and decreases with depth. Levels are highest immediately adjacent to the traveled way and decreases with distance from the road. Total lead levels on average are not greater than the Total Threshold Limit Concentration (TTL) but would often exceed the Soluble Threshold Limit Concentration (STLC) found in Title 22, California Code of Regulations (CCR). The construction process of excavation, stockpiling, transporting, and disposing of material (i.e., soils), which exceeds the STLC for lead, makes the material a hazardous waste. If the material exceeds the Threshold Concentration Leaching Potential (TCLP) test limits for lead, it is considered a Federal hazardous waste. However, tests conducted by Caltrans have concluded that materials excavated adjacent to freeways rarely exceed the TCLP threshold.</p>	<p>NO REC (Area of Environmental Concern)</p>

Finding	Opinion	Conclusion
	<p>SR-241 was constructed on-site in the 1990's. Thus, aerially deposited lead in association with SR-241 is unlikely. However, SR-91 has been associated with a high number of vehicles since prior to 1935. According to the <i>Final Aerially Deposited Lead Survey Report</i> and the <i>Final Aerially Deposited Lead Survey Report Addendum</i> (prepared as part of the <i>State Route 91 Corridor Improvement Project Final Environmental Impact Report/Environmental Impact Statement</i> [SR-91 CIP 2012 Final EIR/EIS], dated August 2012), test results indicated that soluble lead was detected in 94 out of 148 samples analyzed. Concentrations of soluble lead in soils ranged from 0.1 mg/L to 2.1 mg/L. The criteria against which the lead analytical results for the <i>Final Aerially Deposited Lead Survey Report</i> were evaluated are as follows: If the 95 percent upper confidence limit (UCL) mean for soluble lead is less than 0.5 mg/L, the soil is considered non-hazardous for reuse on site. Although the maximum soluble lead concentration of 21 mg/L was detected in soils, a statistical analysis of soluble lead indicated that the 95 percent UCL for soluble lead analysis is less than 0.5 mg/L.</p> <p>Therefore, according to DTSC Variance No. V09HQSCD006, soils located within the Project limits to a depth of 3 feet (ft) bgs between Gypsum Canyon Road and Magnolia Avenue and 5 ft bgs along eastbound SR-91 starting east of the Weir Canyon Road Undercrossing and extending east of the Gypsum Canyon Road Undercrossing may be released to the contractor as nonhazardous soils and reused on site without restrictions under the DTSC Variance No. V09HQSCD006 (effective June 30, 2015, and extended through October 31, 2015) for aerially deposited lead (ADL) impacted soil. Refer to Section 5.1.4, <i>Aerially Deposited Lead</i>, for anticipated Variance requirements that may be imposed on the proposed project prior to site disturbance activities. Implementation of the proposed project would not require soil export from the project site to another area. No further recommendation is necessary in this regard. It is the opinion of RBF that the presence of ADL within the boundaries of the subject site does not present a REC at the time of this Phase I ISA. However, the presence of ADL within exposed soils along SR-91 presents an environmental concern if these materials are transported off-site.</p> <p>In accordance with the Minimization Measure HW-3 of the SR-91 CIP Project, the Project Engineer will ensure that a qualified consultant conducts a new soil Aerially Deposited Lead (ADL) evaluation and/or investigation for this project at the Design Phase. The previous ADL test results may be used if applicable along with any new ADL test results. The new soil ADL evaluation and/or investigation will be consistent with the approved DTSC Variance at that time. If no Variance is in place at this time, the qualified consultant should develop a plan for handling of ADL on-site such that risk to worker safety and the environment are minimized to the extent feasible.</p>	

Finding	Opinion	Conclusion
On-Site Regulatory Properties	Available public records provided by Environmental Data Resources, Inc. (EDR) were reviewed by RBF on September 27, 2013. The lists that were reviewed did not report any regulatory properties within the boundaries of the subject site. Therefore, no known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on the subject site. The subject site has not been under investigation for violation on any environmental laws, regulations, or standards, as identified in the databases reported by EDR. As no contamination or associated cleanup activities associated with a release of hazardous materials on-site has been reported, it is RBF's opinion that no REC is present as a result of on-site regulatory properties and no further recommendation is necessary at this time.	NO REC
Off-Site Regulatory Properties (Former Gypsum Canyon Quarry Operations)	<p>The former Gypsum Canyon Quarry property adjoins the northern portion of the subject site to the south-southeast (cross-gradient) of the subject site. Property owners/operations associated with this quarry include, but are not limited to, Industrial Asphalt, R.F. White, Owl Rock Products Company, The Irvine Company, Robertson's Ready Mix, Asphalt Ready Mix, and Southern California Edison. In September 2004, a comprehensive environmental site assessment/investigation was performed on the Quarry with plans for future residential site development. The Orange County Health Care Agency (OCHCA) oversaw cleanup of the Gypsum Canyon Quarry area related to environmental concerns found in surface soils. Cleanup activities in 2005 included excavation and off-site treatment and recycling of 84 tons of hydrocarbon-affected soil associated with a former underground storage tank (UST).</p> <p>Contamination was reported to be associated with soils at this off-site property. Based on this reviewed documentation as well as case-closure status obtained for this property by the State Water Resources Control Board (SWRCB), Department of Toxic Substances Control (DTSC), and City of Anaheim Public Utilities Department, it is the opinion of RBF that this off-site property has not resulted in a REC at the subject site at the time of this Phase I ISA and no further recommendation is necessary at this time.</p>	NO REC
Unmapped Properties	An REC on the subject site caused by one or more of the reported Unmapped Properties located within the vicinity of the subject site is considered to be low due to the distance from the subject site and/or the status of the identified sites. Thus, it is the opinion of RBF that reported Unmapped Properties have not resulted in an REC at the subject site and no further recommendation is necessary at this time.	NO REC
Historical Recognized Environmental Condition(s)	No Historical RECs (HRECs) have been noted within the boundaries of the subject site. Thus, it is the opinion of RBF that no REC has resulted at the subject site as a result of HRECs and no further recommendation is necessary at this time.	NO REC
Historical Uses	<p>Based upon evaluation of the documented land use as demonstrated in the review of historical aerial photographs and maps as well as the site visit, the subject site appears to have been historically utilized as vacant land, agricultural, and transportation uses (SR-241 and SR-91). The eastern portion of the subject site appears to have consisted of agricultural uses from the early 1940's until SR-91 was widened in the early 1970's.</p> <p>Therefore, a combination of several commonly used pesticides (i.e., DDD, DDT, DDE), which are now banned, may have been used throughout the subject site. The historical use of agricultural pesticides may have resulted in pesticide residues</p>	NO REC

Finding	Opinion	Conclusion
	<p>of certain persistence in soil at concentrations that are considered to be hazardous based on established federal regulatory levels. The primary concern with historical pesticide residues is human health risk from inadvertent ingestion of contaminated soil, particularly by children. The presence of moderately elevated pesticide residuals in soil presents potential health and marketplace concerns.</p> <p>Based on the SR-91 CIP 2012 Final EIR/EIS, a <i>Detailed Site Investigation Report</i> was prepared by SCS Engineers in December 2011, which included further testing to confirm whether or not presence of moderately elevated pesticide residuals in soil are present. Based on the results, low concentrations of DDT, DDE, DDD, chlordanes, and dieldrin were identified in near-surface soils in these portions of the subject site. However, the detected concentrations were all below the current CHHSLs for both residential and commercial/industrial land uses. Thus, based on this information, it is the opinion of RBF that the historical on-site agricultural activities conducted at the north-eastern portion of the subject site has not resulted in a REC and no further recommendation is necessary at this time.</p> <p>Surrounding uses appear to have consisted of vacant land, infrastructure, industrial, recreational, agricultural, and residential land uses. Adjoining historical uses included a gravel pit, reservoir, rocket fuel test site, and associated water tanks noted to the east of the subject site as well as minor areas of agricultural land uses to the north of the eastern portion of the subject site. Based on the sources reviewed as part of this Phase I ESA as well as the site visit and location of off-site historical uses, no historical use information pertaining to off-site uses (which would point to the potential for presence of a REC) has been noted within the boundaries of the subject site and no further recommendation is necessary at this time.</p>	
Acquisition Summary	<p>Permanent right-of-way acquisition would be required for approximately 5.09 acres (ac) of land owned and operated by the County of Orange (Assessor's Parcel Number [APN] 085-071-56) located to the south of eastbound SR-91 (approximately 3,600 ft west of the Coal Canyon Undercrossing). This property is currently comprised of vacant land, with varying topography associated with the Santa Ana Mountains. No known hazardous materials are associated with this property, currently or historically. Therefore, it is the opinion of RBF that the permanent right-of-way acquisition of this area is not a REC at the time of this ISA and no further recommendation is necessary at this time.</p>	NO REC
Other Potential Sources of Hazardous Materials (Petroleum Pipe Line)	<p>Based on the current and historical topographic maps reviewed as part of this Phase I ISA, a petroleum pipe line appears to be traversing the northern portion of the subject site in an east/west direction. According to the Mountain Park Specific Plan Amendment Draft EIR No. 331, this pipe line is the Southern Trails (Questar) Pipe Line. This pipe line is currently not in use and the owner/operator has plans to convert the pipe line to a natural gas facility in the future. This pipe line has been well documented through the Mountain Park Specific Plan Amendment Draft EIR No. 331. This pipe line has not reported any releases to date, is not in use, and the conditions do not appear to have changed since adoption of the Mountain Park Specific Plan Amendment EIR. Based on an interview conducted with Mr. Steve Chapman (a Questar representative) conducted on August 25, 2014, the 2005 Mountain Park Specific Plan EIR description of the pipe line remains current. No potential environmental concerns associated with this pipe line were noted as part of</p>	NO REC (Area of Environmental Concern)

Finding	Opinion	Conclusion
	<p>the Mountain Park Specific plan Amendment Draft EIR No. 331 as well. Based on the information reviewed as part of the Phase I ISA, it is the opinion of RBF that no additional sampling is required at this time. No evidence to suggest that this pipe line has ruptured was noted during the course of this Phase I ISA. Thus, it is the opinion of RBF that no REC has resulted on-site as a result of the petroleum pipe line.</p> <p>Although RBF has determined that the on-site petroleum pipe line has not resulted in an REC at the subject site, prior to site disturbance, the contractor will be required to comply with Caltrans Standard Specifications pertaining to excavation. With implementation of Caltrans Standard Specifications with regard to notification to the regional notification center will ensure that all utility owners within the Project disturbance limits identify the locations of underground transmission lines and facilities (including underground petroleum pipe lines), which will reduce the environmental concern in this regard.</p>	
<p>Other Potential Sources of Hazardous Materials (Former Rocket Fuel Test Site)</p>	<p>The former Douglas Aircraft Company (McDonnell-Douglas Corporation and Astropower) leased an approximate 480-ac area to the east of the northern portion of the subject site (to the south of the Former Gypsum Canyon Quarry Operations) for use as a rocket fuel test research facility commencing on August 1, 1961. The operational area was located approximately one mile south of the mouth of Gypsum Canyon and the development spanned the east and west sides of Gypsum Creek. The majority of activity at the McDonnell-Douglas property occurred between 1961 and 1971 and the lease expired on December 31, 1991. McDonnell-Douglas demolished the majority of buildings upon its exit from the site and the few remaining structures were demolished in 2003. The prior structures consisted of office trailers, central maintenance and support buildings, smaller maintenance and support buildings, storage bunkers, test pads, blockhouses, storage magazines, and ballistic test range. Water for the operation was piped in from the mouth of Gypsum Canyon in an aboveground metal delivery pipe line.</p> <p>Based on the EDR database search, this historical off-site property does not appear to have impacted groundwater underlying the subject site. This property has been investigated as part of other reported contamination at this site, as discussed in Off-Site Regulatory Properties (Former Gypsum Canyon Quarry Operations) above. During these investigations, no potential contamination to groundwater as a result of the off-site Rocket Fuel Test Site was noted. As no files reviewed indicate that contamination to groundwater has resulted from this off-site property and investigations at this site and in the area have been sampled and undergone site sampling with regulatory agencies in order to prepare the site for future development, it is the opinion of RBF that this off-site property has not resulted in a REC at the subject site and no further recommendation is necessary at this time.</p>	<p>NO REC</p>

### Data Gaps

A data gap is a lack of or inability to obtain information required by the ASTM E 1527-05 Standard Practice despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice, including, but not limited to, site reconnaissance and interviews. RBF did not interview local government officials at the time of this Phase I ISA. Based on the database search, historical records, and site visit conducted, it is the opinion of RBF that any interviews with local government officials would not aid RBF in making a conclusion that indicates a recognized environmental condition in connection with the subject site. Thus, it is the opinion of RBF that based on the documentation and records search reviewed as part of this Phase I ISA as well as the site reconnaissance, this data gap is not significant and no REC has resulted in this regard.

### Conclusions

RBF has performed a Phase I ISA in conformance with the scope and limitations of ASTM E 1527-05 Standard Practice for the SR-241/SR-91 Express Lanes Connector Project. Any exceptions to, or deletions from, this practice are described in Section 1.0, *Introduction*, of this report. This assessment has revealed no evidence of RECs in connection with the property. However, it should be noted that the following environmental concerns have been identified, and implementation of the recommendations outlined below as well as federal, state, and local laws and regulations, including Caltrans Standard Specifications and Special Provisions during construction, these issues would no longer be of concern.

- ◆ Aerially Deposited Lead (for exposed soils along SR-91 only);
- ◆ Asbestos-Containing Materials (associated with Gypsum Canyon Road Undercrossing only);
- ◆ Treated Wood Waste (for guardrails);
- ◆ Traffic Striping Materials; and
- ◆ An On-Site Petroleum Pipe Line.

Based on the documentation review and site visit conducted as part of this Phase I ISA, it is the opinion of RBF that with implementation of the recommendations outlined below as well as federal, state, and local laws and regulations, including Caltrans Standard Specifications and Special Provisions during construction, no further Preliminary Site Investigation is necessary at this time.

### Recommendations

The following recommendations are the opinion of RBF Consulting and are based on the findings, opinions, and conclusions noted during the course of this Phase I ISA.

### *Aerially Deposited Lead*

- ◆ In accordance with the Minimization Measure HW-3 of the SR-91 CIP Project, the Project Engineer will ensure that a qualified consultant conducts a new soil Aerially Deposited Lead (ADL) evaluation and/or investigation for this project at the Design Phase. The previous ADL test results may be used if applicable along with any new ADL test results. The new soil ADL evaluation and/or investigation will be consistent with the approved DTSC Variance at that time. If no Variance is in place at this time, the qualified consultant should develop a plan for handling of ADL on-site such that risk to worker safety and the environment are minimized to the extent feasible.

### *ACMs*

- ◆ Although RBF has determined that the Gypsum Canyon Road Undercrossing has not resulted in a REC on the subject site as a result of potential ACMs, it is the opinion of RBF that confirmation of the presence or absence of asbestos in the Gypsum Canyon Road Undercrossing should be confirmed during the Final Design process by a certified specialist. If asbestos is present, the certified asbestos abatement specialist should monitor the disposal of the ACMs as they are uncovered. The contractor will be required to comply with Caltrans Standard Specifications Section 14-9.02 pertaining to air pollution control compliance with rules, regulations, ordinances, and statues during renovation and demolition activities.

### *Treated Wood Waste*

- ◆ Although RBF has determined that potential on-site treated wood waste (associated with on-site guardrails) has not resulted in a REC on the subject site, the removal and disposal of treated wood waste will be required to comply with Caltrans Standard Specifications Section 14-10 pertaining to the disposal of treated wood waste during construction.

### *Disturbance of Traffic Striping*

- ◆ Although RBF has determined that the on-site freeways (SR-241 and SR-91) containing traffic striping has not resulted in an REC at the subject site as a result of LBPs, it is the opinion of RBF that the contractor comply with Caltrans Standard Specifications Section 14-11 pertaining to the testing, removal, and disposal of any traffic striping and pavement marking materials during construction.

### *Petroleum Pipe Line*

- ◆ Although RBF has determined that the on-site petroleum pipe line has not resulted in an REC at the subject site, prior to site disturbance, the contractor will be required to comply with Caltrans Standard Specifications pertaining to excavation during construction. The contractor will be required to notify the regional notification center prior to ground disturbance activities, ensuring that all utility owners within the Project disturbance limits identify the locations of underground transmission lines and facilities (including underground petroleum pipe lines).

### *General Site Disturbance Activities*

- ◆ Prior to the start of construction, the Project Engineer should require the contractor to prepare a Construction Contingency Plan (CCP) in accordance with Caltrans Unknown Hazards Procedures for Construction, of Caltrans Construction Manual. The CCP will include provisions for emergency response in the event that unidentified hazardous materials, petroleum hydrocarbons, or hazardous or solid wastes are discovered during construction activities. The CCP will address field screening, contaminant materials testing methods, mitigation and contaminate management requirements, and health and safety requirements for construction workers.

The contractor will be required to implement the CCP during all construction activities. During construction, the contractor will be required 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, the contractor will be required to notify the National Response Center by calling 1-800-424-8802. The contractor will be required to perform cleanup of unexpected releases under the appropriate federal, state, and local agency oversight.

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**LIST OF ACRONYMS**

AB	Assembly Bill
ACM	Asbestos Containing Materials
ADL	Aerially Deposited Lead
AHERA	Asbestos Hazard Emergency Response Act
APCD	Air Pollution Control District
APN	Assessor's Parcel Number
AQMD	Air Quality Management District
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
ATCM	Airborne Toxic Control Measures
AULs	Activity and Use Limitations
CAA	California Air Act
CAL/OSHA	California Occupational Health and Safety Administration
CARB	California Air Resources Board
Caltrans	California Department of Transportation
CCO	Contract Change Order
CCR	California Code of Regulations
CEC	Certificate of Environmental Compliance
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (as amended, 42 U.S.C. §§9601 <i>et seq.</i> )
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System (maintained by the Environmental Protection Agency)
Cal Recycle	California Department of Resources Recycling and Recovery
CFR	Code of Federal Regulations
CORRACTS	facilities subject to Corrective Action under RCRA
CRZ	Clear Recovery Zone
CTC	California Transportation Commission
CUPA	Certified Unified Program Agency
CWA	Clean Water Act

DHWTS	District Hazardous Waste Technical Specialist
DLAE	District Local Assistance Engineer
DSI	Detailed Site Investigation
DTSC	Department of Toxic Substances Control
ECR	Environmental Commitments Record
EDR	Environmental Data Resources
ELAP	Environmental Laboratory Accreditation Program
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right to Know Act (also known as SARA Title III), 42 U.S.C. §§11001-11050 <i>et seq.</i> )
ERNS	emergency response notification system
FOIA	U.S. Freedom of Information Act (5 U.S.C. §552 as amended by Public Law No. 104-231, 110 Stat.)
FR	Federal Register
FS	Feasibility Study
GIS	Geographical Information System
HMDD-A	Hazardous Materials Disclosure Document-Acquisition
HMDD-D	Hazardous Materials Disclosure Document-Disposal
HREC	Historical Recognized Environmental Condition
ICs	Institutional Controls
ISA	Initial Site Assessment
LBP	Lead Based Paints
LLP	Landowner Liability Protections under the <i>Brownfields Amendments</i>
LUFT	Leaking Underground Fuel Tank
LUST	Leaking Underground Storage Tank
MSDS	Material Safety Data Sheet
msl	mean sea level
MTBE	Methyl Tertiary Butyl Ether
NCP	National Contingency Plan
NCSE	National Council for Science and Environment

NESHAP	National Emissions Standards for Hazardous Air Pollutants
NFRAP	former CERCLIS sites where no further remedial action is planned under CERCLA
NPDES	National Pollutant Discharge Elimination System
NOA	Naturally Occurring Asbestos
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
NSSP	Non-Standard Special Provisions
PA	Participating Agency
PCBs	Polychlorinated Biphenyls
PDPM	Project Development Procedures Manual
PDS	Project Development Support
PDT	Project Delivery Team
PE	Professional Engineer
PEA	Preliminary Endangerment Assessment
PEAR	Preliminary Environmental Assessment Report
PES	Preliminary Environmental Scoping
PG	Professional Geologist
PID	Project Initiation Document
PRP	Potentially Responsible Party (pursuant to CERCLA 42 U.S.C. §§9607(a))
PSI	Preliminary Site Investigation
PSR	Project Study Report
RACP	Request for Approval of Acquisition of Contaminated Property
RAP	Remedial Action Plan
RAW	Remedial Action Workplan
RBCA	Risk Based Correction Action
RCRA	Resource Conservation and Recovery Act (as amended, 42 U.S.C. §§6901 <i>et seq.</i> )
REC	Recognized Environmental Condition
RFI	RCRA Facility Inspection

RFP	RCRA Facility Plan
RI	Remedial Investigation
RP	Responsible Party
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act of 1986 (amendment to CERCLA)
SBBM	San Bernardino Base and Meridian
SSP	Standard Special Provisions
SWRCB	State Water Resources Control Board
TSDf	<i>hazardous waste</i> treatment, storage, or disposal facility
USC	United States Code
USGS	United States Geological Survey
UST	Underground Storage Tank

# Section 1 INTRODUCTION

---

*The purpose of conducting this Phase I Initial Site Assessment (ISA) is to permit the use of this report to satisfy one of the requirements to qualify for the Innocent Landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability that constitutes all appropriate inquiry into the previous uses of the property in order to identify **Recognized Environmental Conditions (RECs)**. As defined in American Standards for Testing and Materials (ASTM) E 1527-05 Standard Practice for Environmental Site Assessments (Standard Practice), an **REC** is “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.” The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include “*de minimis*” conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be “*de minimis*” are not RECs.*

## 1.1 SUBJECT SITE

The subject site is located at the State Route 241 (SR-241) connection to State Route 91 (SR-91), within the City of Anaheim, County of Orange, California (Sections 4, 9, and 16, Township 4 South [T.4S], Range 8 West [R.8W]; Sections 30 and 31, T.3S, R.7W; and Sections 25, 26, 27, 33, 34, 35, and 36, T.3S, R.8W; San Bernardino Base and Meridian [SBBM]); refer to Exhibits 1a and 1b. The subject site is generally located within an urban fringe area in the eastern portion of the City of Anaheim and to the west of unincorporated County of Orange (the Cleveland National Forest). The subject site is also located in proximity to the municipal boundaries for the County of San Bernardino (to the northeast) and County of Riverside (to the east). Specifically, the subject site consists of transportation uses along SR-241 and SR-91 as well as associated freeway right-of-way.

### 1.1.1 Project Description

California Department of Transportation (Caltrans) District 12, in cooperation with the Foothill/Eastern Transportation Corridor Agency (F/ETCA) proposes to construct a median-to-median connector between State Route 241 (SR-241) and the State Route 91 (SR-91) Express Lanes. SR-241 is a tolled facility, starting at the Oso Parkway interchange, in south County of Orange, to its terminus at SR-91. The SR-91 Express Lanes is a two-lane tolled facility, in each direction, located within the median of SR-91, from State Route 55 (SR-55), to the Orange/County of Riverside line (east of the SR-241 interchange). Currently, there is no direct connection between the SR-241 and the SR-91 Express Lanes.

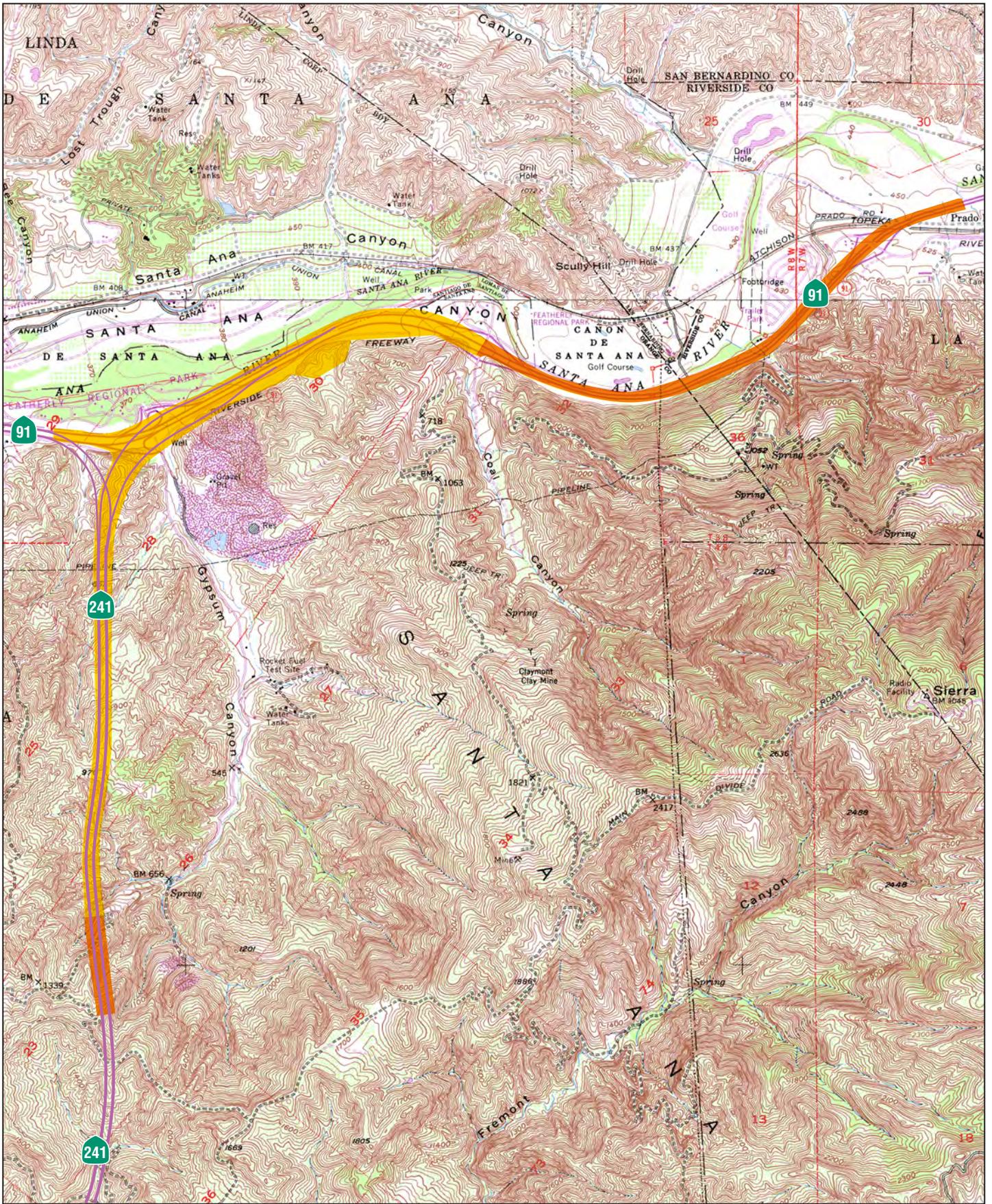
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SR-241/SR-91 EXPRESS LANES CONNECTOR PROJECT • ISA

**Regional Vicinity**

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Source: USGS Black Star Canyon, CA Quadrangle, 1988.

Project Site     New Advanced Signage Area

SR-241/SR-91 EXPRESS LANES CONNECTOR PROJECT • ISA

## Site Vicinity

Exhibit 1b



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The Proposed Project, located at the junction of SR-241 and SR-91 within the cities of Anaheim, Yorba Linda, and Corona and counties of Orange and Riverside, would provide improved access between SR-241 and SR-91 and is proposed to be a tolled facility. Caltrans would be the lead agency for the Proposed Project. The Proposed Project encompasses 12-ORA-241 (PM 36.1/39.1), 12-ORA-91 (PM 14.7/18.9), and 08 RIV-91 (PM 0.0/1.5) for a length of approximately 8.7 miles, as shown in Exhibits 1a and 1b.

Improvements for the connector are limited to 5.9 miles (mi) in the cities of Anaheim and Yorba Linda from south of the Windy Ridge Wildlife Undercrossing on SR-241 to Coal Canyon Undercrossing on SR-91. The remaining 2.8 mi of the Proposed Project is limited to FasTrak signage improvements (advance signage) in the cities of Anaheim (1.2 mi total), Yorba Linda (0.1 mi) and Corona (1.5 mi), with exact placement pending the Final Design process. The Proposed Project is mostly within existing Caltrans right-of-way, with one partial acquisition adjacent to eastbound SR-91. Construction access and staging areas would occur within existing Caltrans right-of-way.

The proposed median-to-median connector is a later phase of the Eastern Transportation Corridor (ETC) project, previously approved in 1994. It was originally evaluated as a SR-241/SR-91 high-occupancy vehicle (HOV) direct connector in the 1991 ETC Draft Environmental Impact Report/ Environmental Impact Statement (Draft EIR/EIS), 1992 ETC Final EIR, and the 1994 ETC Final EIS (all of which studied a broader Project Area with improvements on SR-133, SR-241, and SR-261).

The Systems Management Concept (SMC) for the ETC proposed that each Build Alternative would be staged, incorporating general purpose traffic and eventually HOV lanes, to meet the forecasted demand. Under the SMC, ETC construction would be completed in one stage with three or more phases.

To implement the later phase of the ETC, a Supplemental Draft EIR/EIS is being prepared to focus on the eastern portion of the original project and to address changes to environmental conditions and regulatory requirements. Various alternatives were studied in the 1991 ETC Draft EIR/EIS, 1992 ETC Final EIR, and the 1994 ETC Final EIS; however, the Supplemental Draft EIR/EIS would include a No Build and only one Build Alternative for the median-to-median connector for the following reasons:

- ◆ There are limited locations for a median-to-median connector between SR-241 and SR-91;
- ◆ The median-to-median connector is a component of a previously approved project and alternative selected during a 1992 EIR Certification and 1994 Record of Decision (ROD);
- ◆ Various alternatives were studied for the previously approved project which required consideration of a reasonable range of alternatives; and

- ◆ The Supplemental Draft EIR/EIS is being prepared to address changes to environmental conditions and regulatory requirements and not to change the previously approved project as a whole.

The Proposed Project is being coordinated with the Orange County Transportation Authority (OCTA) and the Riverside County Transportation Commission (RCTC). The SR-91 Express Lanes are tolled and are operated by OCTA, from SR-55 to the Orange County/Riverside County line. Easterly from the county line, the lanes are HOV non-tolled lanes; however, as part of the RCTC SR-91 Corridor Improvement Project (SR-91 CIP), RCTC would operate median tolled lanes starting from the County line and ending at Interstate 15 (I-15). As part of the SR-91 CIP, the median tolled lanes include a connector to southbound I-15 general purpose lanes. Implementation of the SR-91 CIP along with the Proposed Project would provide a direct connection between SR-241 and southbound I-15.

Caltrans and the F/ETCA intend to begin construction of the Proposed Project in 2017.

### **1.1.1.1 Need and Purpose**

#### **1.1.1.1.1 Need**

The project is needed to improve access between the SR-241 and SR-91 Express Lanes. The lack of connectivity between SR-241 and the SR-91 Express Lanes negatively affects traffic flow, worsens an already congested SR-91 during peak hours, and results in a long queue of vehicles on northbound SR-241 trying to access eastbound SR-91. As a result, motorists inappropriately “queue jump” (i.e., change lanes at the last minute) during congested traffic periods, contributing to delays.

#### **1.1.1.1.2 Purpose**

As stated in the Final EIR and Final EIS, the overall objective of the ETC was to accommodate traffic growth associated with planned and approved development in the County of Orange. Specifically, the ETC was proposed to meet the following objectives, which are applicable to the Proposed Project (which is a later phase of the ETC):

- ◆ To provide relief for existing freeways;
- ◆ To improve traffic flow on the regional transportation system;
- ◆ To service existing and planned development consistent with the General Plans of the counties and the cities in areas that would benefit from the Proposed Project;
- ◆ To employ advanced transportation technology for the maximum operational and design efficiency and automatic vehicle monitoring for toll collections; and

- ◆ To implement the County of Orange Master Plan of Arterial Highways.

In addition to the originally intended objectives, changed circumstances at the junction of SR-241 and SR-91 have led to the following updated objectives for the Proposed Project:

- ◆ Implement the buildout of the ETC, as approved in 1994;
- ◆ Attain compatibility with the SR-91 mainline and Express Lanes;
- ◆ To improve traffic flow by minimizing queue-jumping on northbound SR-241 at the westbound SR-91 general purpose lane connector and at the eastbound SR-91 general purpose lane connector;
- ◆ To help achieve the Regional Mobility Plan goals of reducing emissions from transportation sources by improving movement in congested areas along the SR-241 and SR-91; and
- ◆ To enhance the efficiency of the tolled system, thereby reducing congestion on the non-tolled system on the SR-91.

### **1.1.1.2 Alternatives**

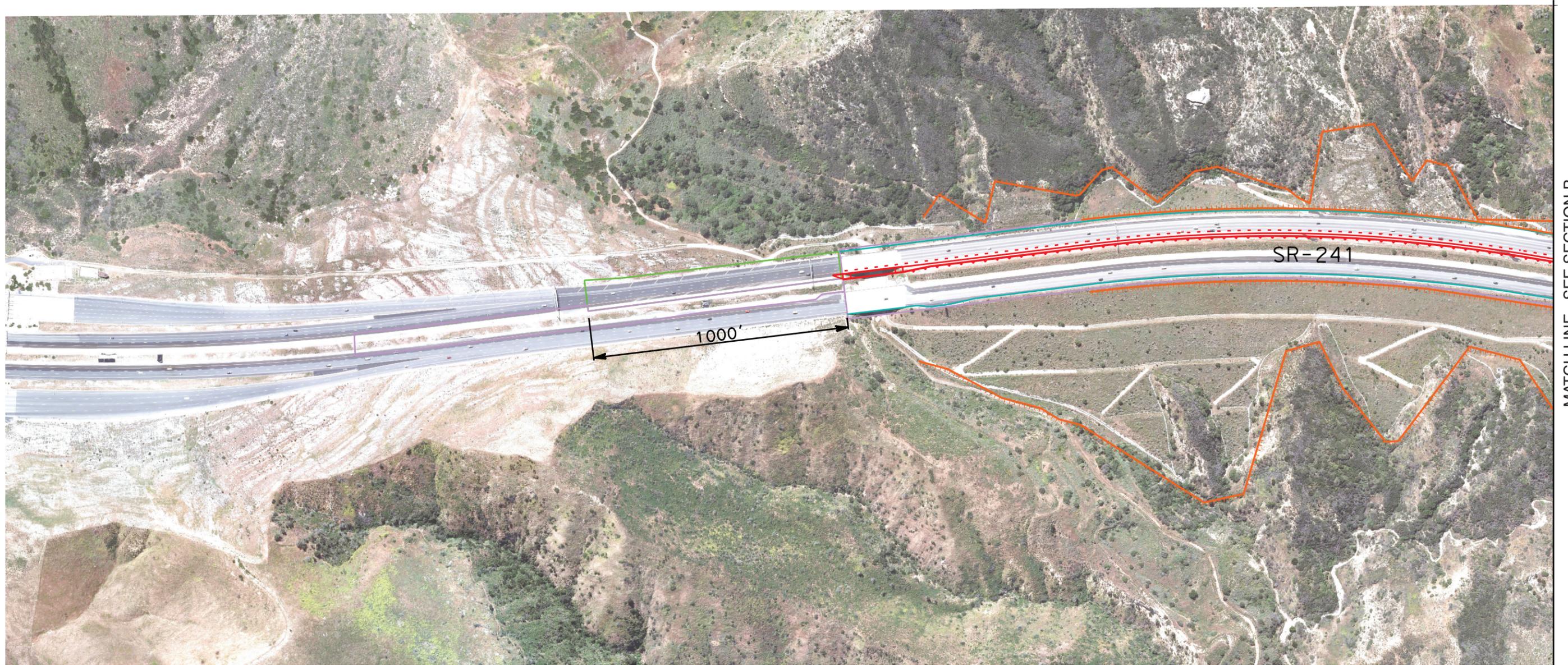
Two alternatives are being analyzed in this document: the Build Alternative and the No Build Alternative.

#### **1.1.1.2.1 Build Alternative (Two-Lane Express Lanes Connector)**

The Build Alternative would construct a two-lane express lane median-to-median connector between SR-241 and SR-91 which would connect lanes from the median of northbound SR-241 to the existing eastbound SR-91 Express Lanes. The reverse movement would also be accommodated, from the westbound SR-91 Express Lanes to the median of southbound SR-241. The connector would be tolled. The Build Alternative is shown in Exhibits 1c through 1i.

On SR-241, at the southern end of the Proposed Project (near PM 36), FasTrak signage would be improved approximately 0.2 mi south of the Windy Ridge Wildlife Undercrossing. For southbound SR-241, an additional lane and shoulder would be provided by widening the Windy Ridge Wildlife Undercrossing into the existing median and improving the highway median approximately 10,000 ft to the north. For northbound SR-241, starting approximately 5,000 ft north of the Windy Ridge Wildlife Undercrossing,

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MATCH LINE - SEE SECTION B

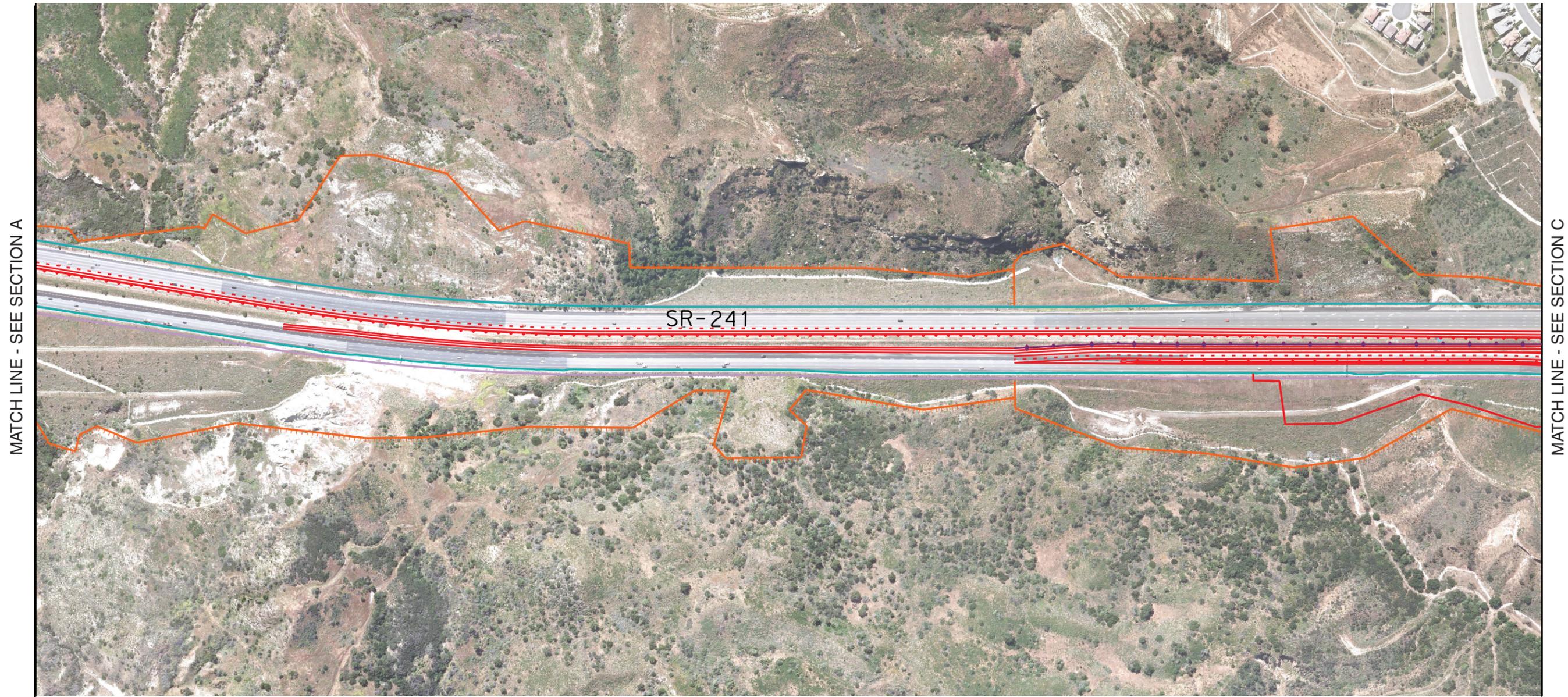
**PROJECT LEGEND**

- |  |   |  |                                |
|--|---|--|--------------------------------|
|  | SR-241/SR-91 EXPRESS LANES CONNECTOR PROJECT      |  | PROPOSED RETAINING WALL        |
|  | EXISTING ACCESS CONTROL (INCLUDES SLOPE EASEMENT) |  | PROPOSED STORM DRAIN PIPE      |
|  | PROPOSED PROJECT LIMIT                            |  | PROPOSED STORM DRAIN SWALE     |
|  | INITIAL RCTC SR-91 CIP PROJECT                    |  | PROPOSED STORM DRAIN STRUCTURE |
|  | MAXIMUM DISTURBANCE LIMIT                         |  | PROPOSED ACCESS                |
|  |   |  | PROPOSED STAGING AREA          |
|  |   |  | TEMPORARY DISTURBANCE          |

**SECTION A**



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MATCH LINE - SEE SECTION A

MATCH LINE - SEE SECTION C

SR-241

**PROJECT LEGEND**

- |  |   |  |                                |
|--|---|--|--------------------------------|
|  | SR-241/SR-91 EXPRESS LANES CONNECTOR PROJECT      |  | PROPOSED RETAINING WALL        |
|  | EXISTING ACCESS CONTROL (INCLUDES SLOPE EASEMENT) |  | PROPOSED STORM DRAIN PIPE      |
|  | PROPOSED PROJECT LIMIT                            |  | PROPOSED STORM DRAIN SWALE     |
|  | INITIAL RCTC SR-91 CIP PROJECT                    |  | PROPOSED STORM DRAIN STRUCTURE |
|  | MAXIMUM DISTURBANCE LIMIT                         |  | PROPOSED ACCESS                |
|  |   |  | PROPOSED STAGING AREA          |
|  |   |  | TEMPORARY DISTURBANCE          |

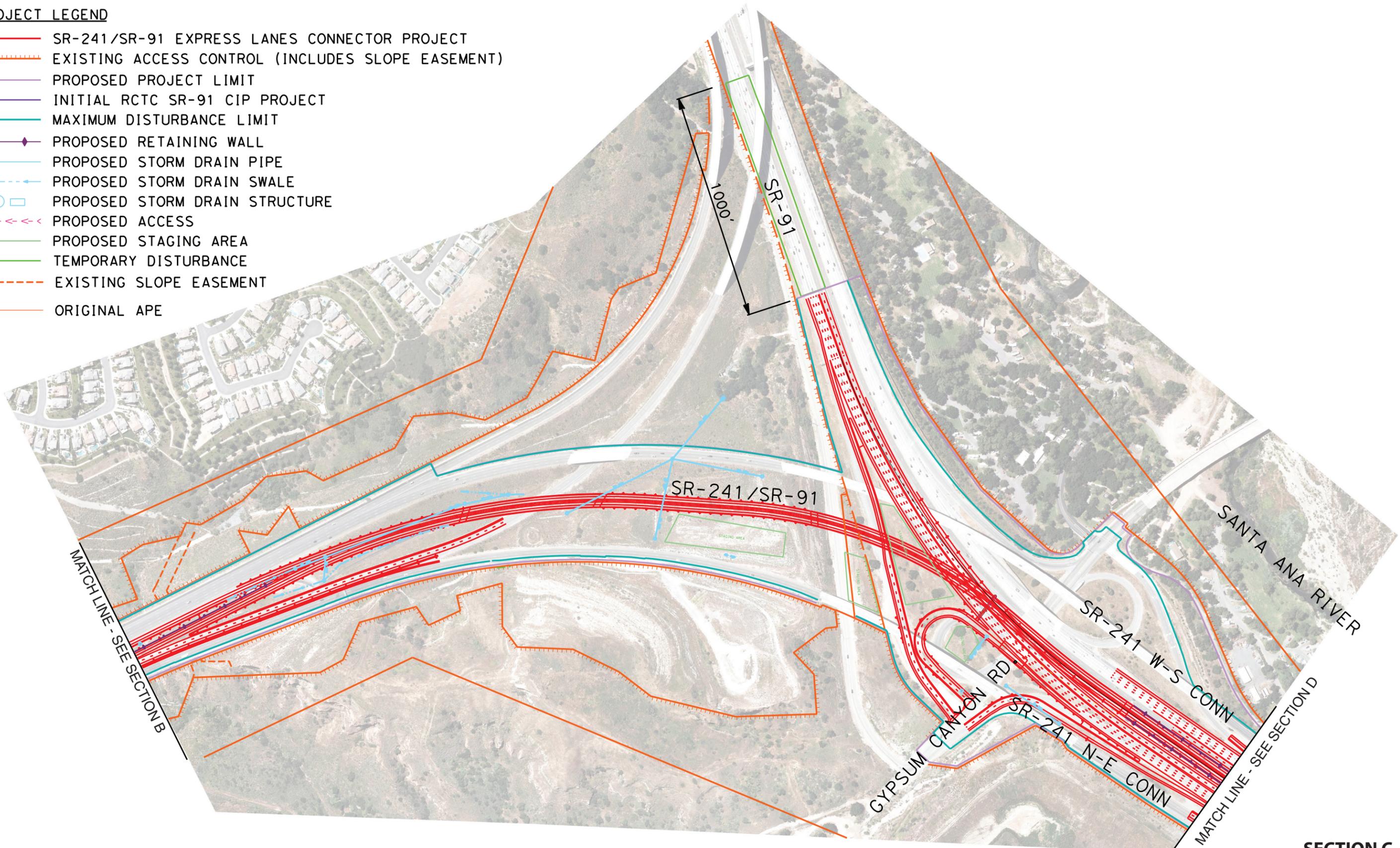
**SECTION B**



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**PROJECT LEGEND**

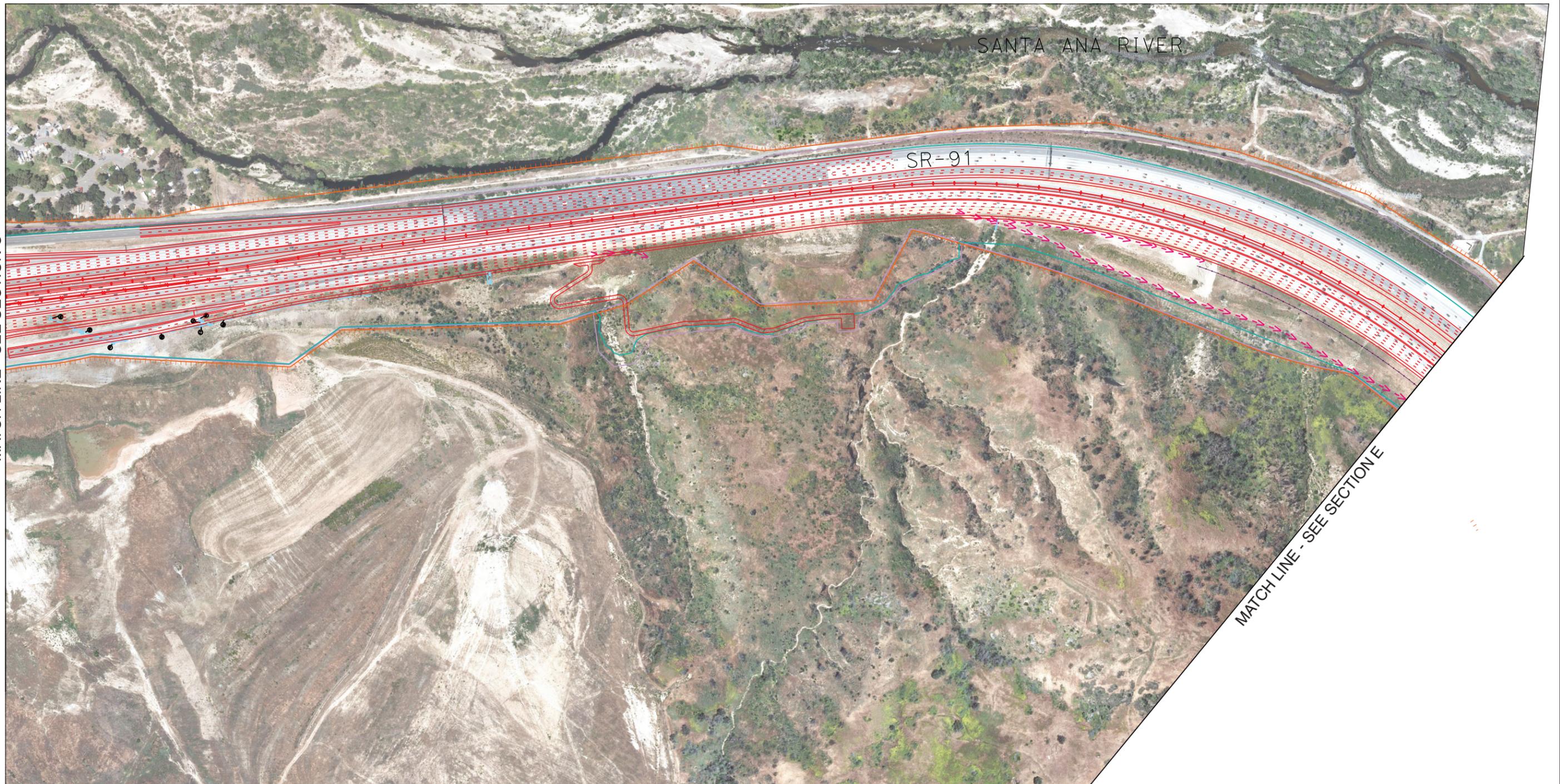
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- PROPOSED PROJECT LIMIT
- INITIAL RCTC SR-91 CIP PROJECT
- MAXIMUM DISTURBANCE LIMIT
- ◆— PROPOSED RETAINING WALL
- PROPOSED STORM DRAIN PIPE
- - - PROPOSED STORM DRAIN SWALE
- □ PROPOSED STORM DRAIN STRUCTURE
- - - PROPOSED ACCESS
- PROPOSED STAGING AREA
- - - TEMPORARY DISTURBANCE
- - - EXISTING SLOPE EASEMENT
- ORIGINAL APE



**SECTION C**



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MATCH LINE - SEE SECTION E

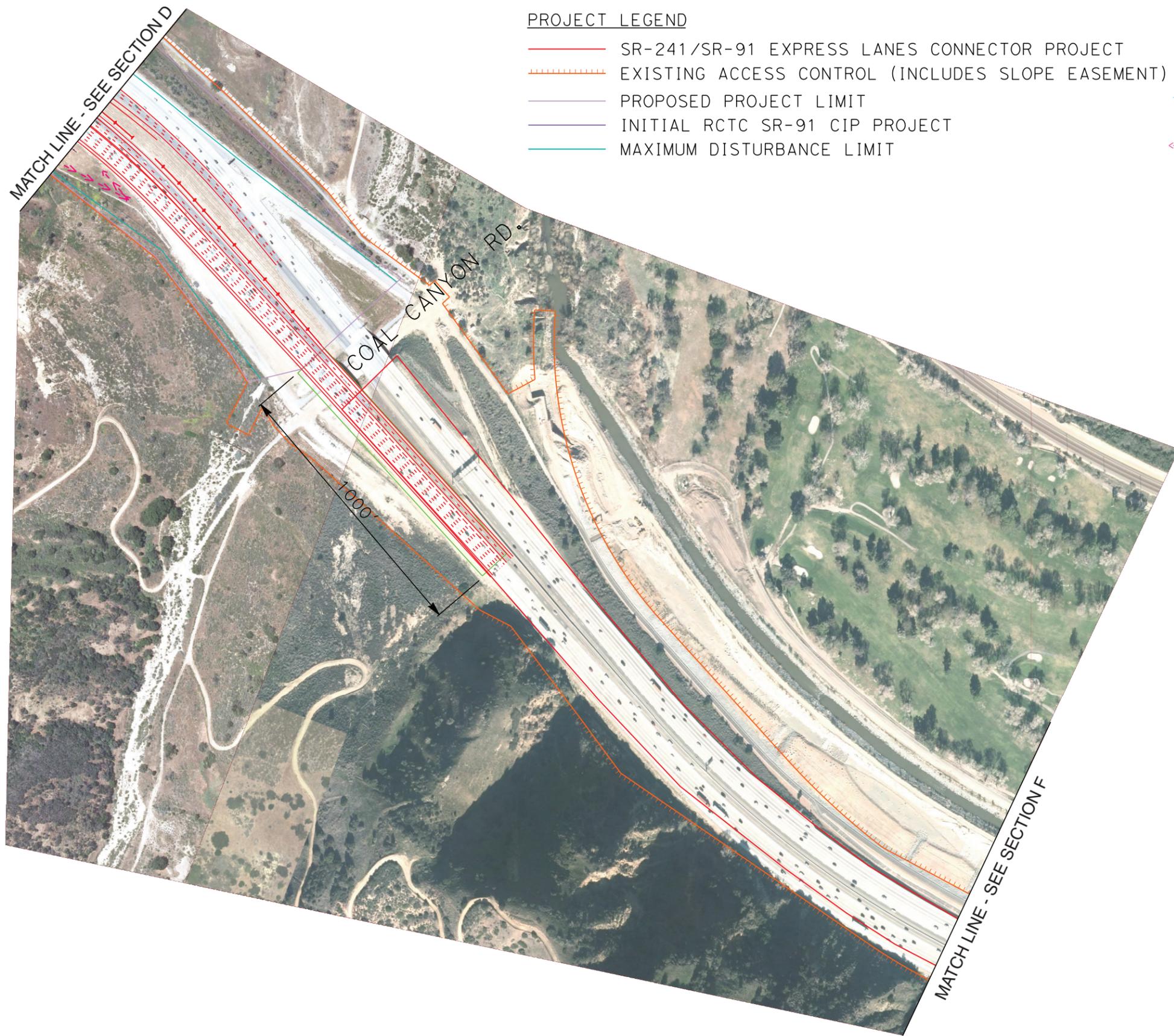
**PROJECT LEGEND**

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|  | SR-241/SR-91 EXPRESS LANES CONNECTOR PROJECT      |  | PROPOSED RETAINING WALL        |
|  | EXISTING ACCESS CONTROL (INCLUDES SLOPE EASEMENT) |  | PROPOSED STORM DRAIN PIPE      |
|  | PROPOSED PROJECT LIMIT                            |  | PROPOSED STORM DRAIN SWALE     |
|  | INITIAL RCTC SR-91 CIP PROJECT                    |  | PROPOSED STORM DRAIN STRUCTURE |
|  | MAXIMUM DISTURBANCE LIMIT                         |  | PROPOSED ACCESS                |
|   |   |  | PROPOSED STAGING AREA          |
|   |   |  | TEMPORARY DISTURBANCE          |

**SECTION D**



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**PROJECT LEGEND**

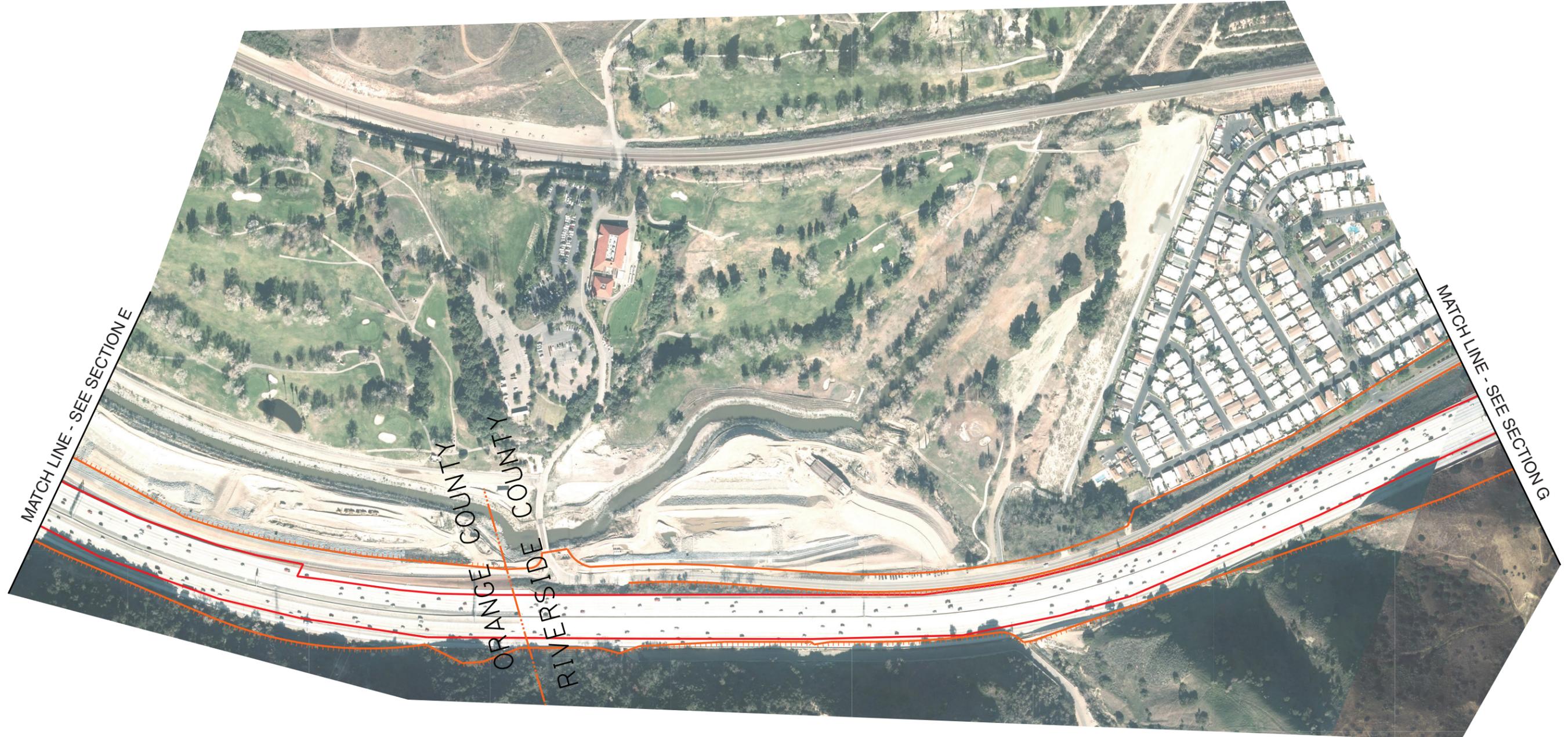
- SR-241/SR-91 EXPRESS LANES CONNECTOR PROJECT
- ▨ EXISTING ACCESS CONTROL (INCLUDES SLOPE EASEMENT)
- PROPOSED PROJECT LIMIT
- INITIAL RCTC SR-91 CIP PROJECT
- MAXIMUM DISTURBANCE LIMIT

- PROPOSED RETAINING WALL
- PROPOSED STORM DRAIN PIPE
- PROPOSED STORM DRAIN SWALE
- □ PROPOSED STORM DRAIN STRUCTURE
- ←←← PROPOSED ACCESS
- PROPOSED STAGING AREA
- TEMPORARY DISTURBANCE

**SECTION E**



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**PROJECT LEGEND**

- |  |   |  |                                |
|--|---|--|--------------------------------|
|  | SR-241/SR-91 EXPRESS LANES CONNECTOR PROJECT      |  | PROPOSED RETAINING WALL        |
|  | EXISTING ACCESS CONTROL (INCLUDES SLOPE EASEMENT) |  | PROPOSED STORM DRAIN PIPE      |
|  | PROPOSED PROJECT LIMIT                            |  | PROPOSED STORM DRAIN SWALE     |
|  | INITIAL RCTC SR-91 CIP PROJECT                    |  | PROPOSED STORM DRAIN STRUCTURE |
|  | MAXIMUM DISTURBANCE LIMIT                         |  | PROPOSED ACCESS                |
|  |   |  | PROPOSED STAGING AREA          |
|  |   |  | TEMPORARY DISTURBANCE          |

**SECTION F**



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**PROJECT LEGEND**

- SR-241/SR-91 EXPRESS LANES CONNECTOR PROJECT
- - - - - EXISTING ACCESS CONTROL (INCLUDES SLOPE EASEMENT)
- PROPOSED PROJECT LIMIT
- INITIAL RCTC SR-91 CIP PROJECT
- MAXIMUM DISTURBANCE LIMIT

- ◆ — PROPOSED RETAINING WALL
- PROPOSED STORM DRAIN PIPE
- - - - - PROPOSED STORM DRAIN SWALE
- □ PROPOSED STORM DRAIN STRUCTURE
- <<<<< PROPOSED ACCESS
- PROPOSED STAGING AREA
- TEMPORARY DISTURBANCE

**SECTION G**



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an additional lane and shoulder would be provided by improving the highway median approximately 5,000 ft to the north. At this point on SR-241 (approximately PM 38), the two connector lanes would converge within the existing median on fill and two new bridge structures approximately 700 ft (over the northbound SR-241 to westbound SR-91 general purpose lane connector) and 2,000 ft in length (to merge with SR-91). All approximate lengths would be further refined during the Final Design process.

Additional pavement would be added between the existing northbound SR-241/eastbound SR-91 and the northbound SR-241/westbound SR-91 general purpose connectors in order to accommodate a concrete barrier separation to prevent vehicles traveling on the westbound SR-91 general purpose connector to “queue jump” into the eastbound SR-91 general purpose connector. This would improve traffic flow on the SR-241.

The Build Alternative would merge into the existing OCTA SR-91 Express Lanes at the western limits of the RCTC SR-91 CIP which extends the SR-91 Express Lanes further east to I-15. The Build Alternative is also compatible with the approved SR-91 CIP for both the initial and ultimate configurations, including the number and widths of the SR-91 Express Lanes, express auxiliary lanes, and general purpose lanes.

#### Improvements on Eastbound SR-91

At the western end of SR-91 Project terminus, FasTrak signage improvements would occur approximately within the first 0.1 mi of the Proposed Project. The Gypsum Canyon Road on- and off-ramps and the northbound SR-241 to eastbound SR-91 general purpose connector would be realigned to accommodate the Proposed Project.

To accommodate the addition of the median-to-median connector, the existing eastbound SR-91 lanes would be shifted to the south by adding pavement to the south and restriping. The number of existing eastbound SR-91 general purpose lanes would be maintained within the Project limits. At the eastern terminus of the connector bridge structure, the eastbound connector lane would continue for approximately one mi within the SR-91 median prior to tapering to tie in to the SR-91 CIP Express Lanes at Coal Canyon Undercrossing. Also near the eastern terminus of the connector lane bridge structure (approximately 2,000 ft west of Gypsum Canyon Road), one additional eastbound auxiliary express lane would be provided, connecting to the auxiliary lane for the SR-91 CIP also at Coal Canyon Undercrossing. These improvements would provide a four-lane express lane facility and tapering down to three lanes, between the connector and Coal Canyon Undercrossing.

The eastbound SR-91 Express Lanes would also have striped buffers (tapering from 0 ft to 4 ft). The Proposed Project would provide a striped buffer to separate the general purpose

lanes from the SR-91 Express Lanes and a new striped buffer to temporarily separate the connector lane from the SR-91 Express Lanes. Additional separators within the striped buffers would be further considered during the Final Design process.

Approximately 3,600 ft west of Coal Canyon Undercrossing, grading would occur to accommodate the shift of the lanes to the south. The grading and construction of an access road would encroach into County-owned land on Assessor's Parcel Number (APN) 085-071-56. Approximately five ac of land on this parcel would be acquired from the County of Orange for Caltrans right-of-way. To the north of this parcel, a 1,000 ft retaining wall would be required, but would not be viewable from the highway. Further details for the retaining wall and the exact length would be determined during the Final Design process.

#### Improvements on Westbound SR-91

At the eastern terminus of the connector bridge structure, the westbound connector lane would extend for approximately one mi within the SR-91 median, with the lane tapering approximately 1,000 ft west of Coal Canyon Undercrossing. For the eastern 1,000 ft of the westbound connector express lane, one additional westbound auxiliary express lane would be provided to accommodate merging and diverging to and from the SR-91 Express Lanes. These improvements would provide a four-lane express lane facility for approximately 1,000 ft. To provide the additional SR-91 Express Lanes, restriping would occur between points east of the Gypsum Canyon Road Undercrossing and west of Coal Canyon Undercrossing.

There would be a striped buffer (tapering from 0 ft to 2 ft) to separate the westbound SR-91 Express Lanes from the general purpose lanes. Additional separators within the striped buffer would be further considered during the Final Design process. At the eastern end of SR-91 project terminus, FasTrak signage improvements would occur between Coal Canyon Undercrossing and Green River Road within the existing median and highway footprint of westbound SR-91 (no roadway improvements would occur in this area).

#### **1.1.1.2.2 No Build Alternative**

Under this alternative, no direct toll connector would be constructed between SR-241 and SR-91. The No Build Alternative:

- ◆ Would not close the toll connector gap between SR-241 and the SR-91 Express Lanes;
- ◆ Would not prevent motorists from inappropriately “queue jumping” during congested traffic periods, thereby disrupting traffic flow on the northbound SR-241

connector to the eastbound SR-91 general purpose lanes during PM Peak hours;  
and

- ◆ Would provide a benchmark by which the public and decision-makers can compare the magnitude of the effects of the Build Alternative.

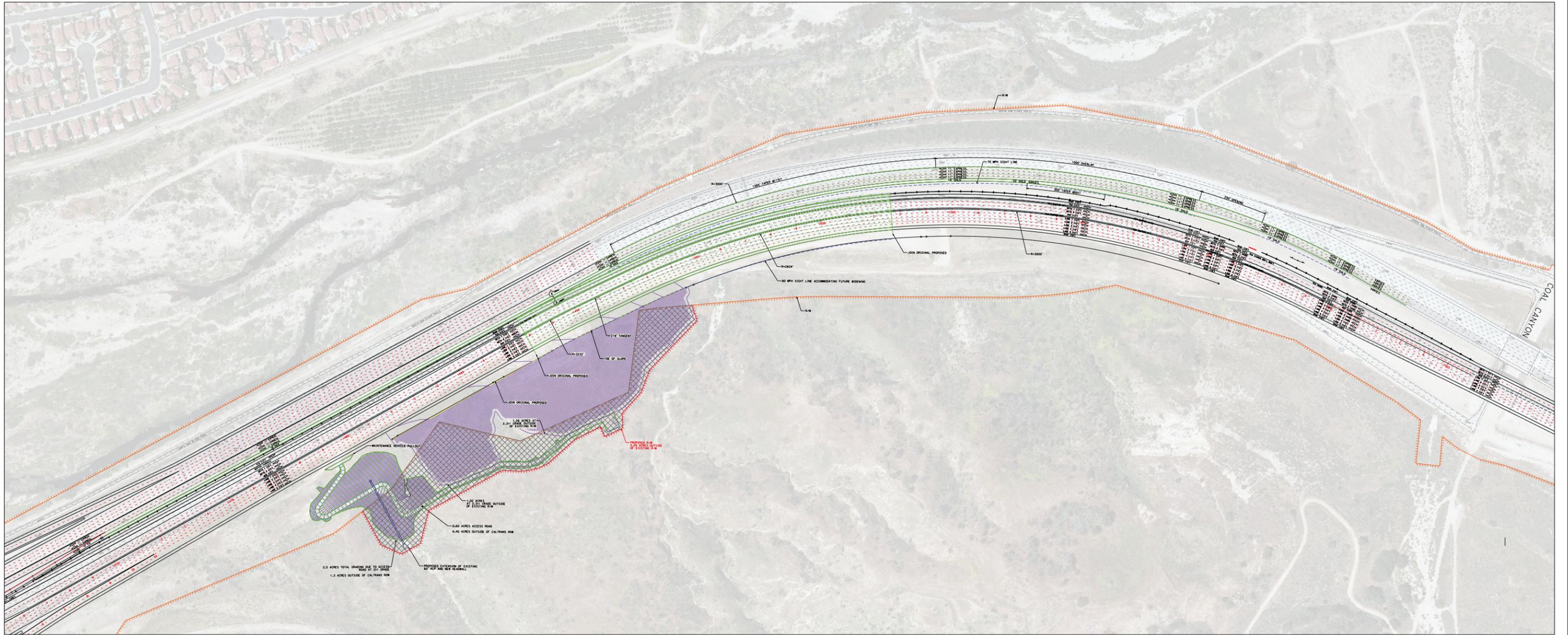
### **1.1.2 Proposed Right-of-Way Acquisition**

As noted above, the Proposed Project includes grading activities that would encroach onto land that is owned and operated by the County of Orange [Assessor's Parcel Number (APN) 085-071-56]. As such, the Proposed Project requires approximately 5.09 ac of right-of-way acquisition to the south of eastbound SR-91 (approximately 3,600 feet west of the Coal Canyon Undercrossing); refer to Exhibit 1j. This APN is currently comprised of vacant undeveloped land, with varying topography associated with the Santa Ana Mountains.

### **1.1.3 Anticipated Future Uses**

The subject site is anticipated to be utilized for transportation uses, improved consistent with the proposed design elements noted in Section 1.1.1.

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LEGEND:

-  EXISTING CT R/W
-  PROPOSED ROADWAY WIDENING
-  PROPOSED GRADING
-  PROPOSED ACCESS ROAD GRADING
-  PROPOSED R/W ACQUISITION

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## 1.2 SCOPE OF SERVICES AND METHODOLOGY USED

The scope of this Phase I ISA follows the general guidance provided in ASTM E 1527-05 Standard Practice. The ASTM E 1527-05 Standard Practice outlines the standard procedure for completing Phase I ESAs (referred to as a Phase I ISA in this document per the California Department of Transportation's Standard Environmental Reference). This standard practice includes a review of federal, tribal, state, and local government records; visual inspection of the property (with the property's Key Site Manager, if available) and of adjoining properties; and interviews with current owners, operators, and occupants. The ASTM document recommends the following regulatory database search distances from a property:

- ◆ National Priorities List (NPL) – 1.0 mile
- ◆ Federal Delisted NPL – 0.5 mile
- ◆ Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list – 0.5 mile
- ◆ CERCLIS/NFRAP site list – 0.5 mile
- ◆ Federal RCRA Corrective Action Report (CORRACTS) facilities list – 1.0 mile
- ◆ Federal RCRA non-CORRACTS Permitted Treatment, Storage, Disposal Facilities (TSD) facilities list – 0.5 mile
- ◆ Federal RCRA Registered Small or Large Generators of Hazardous Waste (GNRTR) – property and adjoining properties
- ◆ Federal institutional control/engineering control registries – property only
- ◆ Federal ERNS list – property only
- ◆ State and tribal lists of hazardous waste sites identified for investigation or remediation:
  - State- and tribal-equivalent NPL – 1.0 mile
  - State- and tribal-equivalent CERCLIS – 0.5 mile
- ◆ State and tribal landfill and/or solid waste disposal site lists – 0.5 mile
- ◆ State and tribal leaking storage tank (LUST) lists – 0.5 mile
- ◆ State and tribal registered storage tank lists – property and adjoining properties
- ◆ State and tribal institutional control/engineering control registries – property only
- ◆ State and tribal voluntary cleanup sites – 0.5 mile
- ◆ State and tribal Brownfield sites – 0.5

The objectives of the Phase I ISA contained herein are as follows:

- ◆ Evaluate the potential for hazardous materials on the subject site based upon readily discernible and/or documented present and historical uses of the property and uses immediately adjacent to the site; and
- ◆ Generally characterize the expected nature of hazardous materials that may be present as a result of such uses, within the limits imposed by the scope of this Phase I ISA.

This Phase I ISA is not intended to provide specific qualitative or quantitative information as to the actual presence of hazardous materials at the site, merely to identify the potential presence based on available information. To achieve the objectives of this Phase I ISA, RBF conducted a Phase I ISA of the subject site to provide preliminary conclusions relative to site conditions.

The Phase I ISA included the following components, which are designed to aid in the discovery and evaluation of recognized environmental conditions:

- ◆ RBF performed a site visit on October 22, 2013, consisting of a visual examination of the subject site for visual evidence of potential environmental concerns including existing or potential soil and groundwater contamination, as evidenced by soil or pavement staining or discoloration, stressed vegetation, indications of waste dumping or burial, pit, ponds, or lagoons; containers of hazardous substances or petroleum products; electrical and hydraulic equipment that may contain PCBs, such as electrical transformers and hydraulic hoists; and underground and aboveground storage tanks. RBF observed the physical characteristics of the property (i.e., apparent runoff directions, location of paved areas, etc.). It should be noted that the site visit specifically excluded any subsurface investigation including, but not limited to, sampling and/or laboratory analysis.
- ◆ An investigation of historical use of the subject site by examining locally available aerial photographs (one source) and other readily available historical information, for evidence of potential environmental concerns associated with prior land use.
- ◆ A review of information available on general geology and topography of the subject property and local groundwater conditions.
- ◆ A review of environmental records available from the property owner or site contact including regulatory agency reports, permits, registrations, and consultant's reports for evidence of potential environmental concerns.
- ◆ A site property line visual assessment of adjacent properties for evidence of potential off-site environmental concerns that may affect the subject property.
- ◆ A review of a commercial database summary (provided by EDR), of federal, state, tribal, and local regulatory agency records pertinent to the subject property and off-site facilities located within ASTM-specified search distances for the subject property.

- ◆ Interviews with key site personnel, as available, regarding current and previous uses of the subject site, particularly activities involving hazardous substances and petroleum products.
- ◆ RBF compiled the data reviewed, discussed findings, formulated opinions and conclusions, and prepared this written report presenting the conclusions of the Phase I ISA.
- ◆ The performance of the Phase I ISA was not limited by any extraordinary conditions (other than identified Data Gaps) or circumstances.

### 1.3 LIMITING CONDITIONS OF ASSESSMENT

The findings and professional opinions of RBF are based on the information made available to RBF (listed in Section 6.0, *References*) from public records, and should be understood to be preliminary only.

RBF makes no warranties, either expressed or implied, concerning the completeness of the data made available to us for this study and withholds certification of any type concerning the presence or absence of contamination of the subject site. RBF is not responsible for the quality or content of information from these sources. The report states our conclusion based on the limitations of our scope of services, in accordance with generally accepted standards for a Phase I ISA.

Subsurface exploration, geologic mapping, laboratory testing of soil or water samples, lead and asbestos sampling, and operations/inventory review of adjacent uses were not performed in connection with this Phase I ISA. This Phase I ISA represents our professional judgment, based on the level of effort described above, as to the present potential for hazardous materials at the site. This Phase I ISA specifically excludes air quality issues such as “indoor air quality” (vapor intrusion).

Subsurface exploration, sampling, and laboratory testing should be performed if it is deemed necessary or required to quantify the actual absence or presence of hazardous materials and recommend possible remediation measures for such hazardous materials (a “Phase II” investigation).

This Phase I ISA does not satisfy continuing obligations under CERCLA liability protections provided for innocent landowners, bona fide prospective purchasers, and contiguous property owners, which includes, but is not limited to, duties required after property acquisition (i.e., compliance with land use restrictions and institutional controls, undertake “reasonable steps” with respect to hazardous substances releases, compliance with other obligations such as reporting obligations and information requests, etc.).

This Phase I ISA addressed the likelihood of the presence of hazardous substances and/or petroleum products resulting from past and current known uses of the property and nearby properties. Certain conditions, such as those listed below, may not be revealed:

- ◆ Naturally occurring toxins in the subsurface soils (i.e., radon), rocks, or water, or toxicity of the on-site flora;
- ◆ Toxicity of substances common in current habitable environments, such as stored household products, building materials, and consumables;
- ◆ Biological pathogens;
- ◆ Subsurface contaminant plume from a remote source;
- ◆ Contaminants or contaminant concentrations that do not violate present regulatory standards but may violate such future standards; and
- ◆ Unknown site contamination, such as “midnight dumping” and/or accidental spillage, which could have occurred after RBF’s site visit.

### 1.3.1 User Responsibilities

The purpose of this section is to describe tasks to be performed by the user that would help identify the possibility of RECs in connection with the subject site. These tasks do not require the technical expertise of an environmental professional and are generally not performed by environmental professionals performing a Phase I ISA. The interview questionnaire utilized within this Phase I ISA is optional to the user and aids the environmental professional in gathering information from the user that may be material to identifying RECs. The following tasks are required by the user of this Phase I ISA to satisfy the requirements of conducting all appropriate inquiries:

- ◆ *Review Title and Judicial Records for Environmental Liens or Activity and Use Limitations (AULs)* – Reasonably ascertainable recorded land title records and lien records that are filed under federal, tribal, state, or local law should be reviewed to identify environmental liens or activity and use limitations, if any, that are currently recorded against the property. Environmental liens and activity and use limitations that are imposed by judicial authorities may be recorded or filed in judicial records, and, where applicable, such records should be reviewed. Any environmental liens or activity and use limitations so identified shall be reported to the environmental professional conducting a Phase I ISA. Unless added by a change in the scope of work to be performed by the environmental professional, this practice does not impose on the environmental professional the responsibility to undertake a review of recorded land title records and judicial records for environmental liens or activity and use limitations. The user should either (1) engage a title company or title professional to undertake a review of reasonably ascertainable recorded land title records and lien records for environmental liens or activity and use limitations currently recorded against or relating to the property, or (2) negotiate such an engagement of a title company or title professional as an addition to the scope of work to be performed by the environmental professional.

- ◆ *Reasonably Ascertainable* – Except to the extent that applicable federal, state, local, or tribal statutes or regulations specify any place other than recorded land title records for recording or filing environmental liens or activity and use limitations or specify records to be reviewed to identify the existence of such environmental liens or activity and use limitations, environmental liens or activity and use limitations that are recorded or filed any place other than recorded land title records are not considered to be reasonably ascertainable.
- ◆ *Specialized Knowledge or Experience of the User* – If the user is aware of any specialized knowledge or experience that is material to recognized environmental conditions in connection with the property, it is the user’s responsibility to communicate any information based on such specialized knowledge or experience to the environmental professional. The user should do so before the environmental professional conducts the site reconnaissance.
- ◆ *Actual Knowledge of the User* – If the user has actual knowledge of any environmental lien or AULs encumbering the property or in connection with the property, it is the user’s responsibility to communicate such information to the environmental professional. The user should do so before the environmental professional conducts the site reconnaissance.
- ◆ *Reason for Significantly Lower Purchase Price* – In a transaction involving the purchase of a parcel of commercial real estate, the user shall consider the relationship of the purchase price of the property to the fair market value of the property if the property was not affected by hazardous substances or petroleum products. The user should try to identify an explanation for a lower price which does not reasonably reflect fair market value if the property were not contaminated, and make a written record of such explanation. Among the factors to consider would be the information that becomes known to the user pursuant to the Phase I ISA. The ASTM E 1527-05 Standard Practice does not require that a real estate appraisal be obtained in order to ascertain fair market value of the property.
- ◆ *Commonly Known or Reasonably Ascertainable Information* – If the user is aware of any commonly known or reasonably ascertainable information within the local community about the property that is material to recognized environmental conditions in connection with the property, it is the user’s responsibility to communicate such information to the environmental professional. The user should do so before the environmental professional conducts the site reconnaissance.
- ◆ *Other* – Either the user shall make known to the environmental professional the reason why the user wants to have the Phase I ISA performed or, if the user does not identify the purpose of the Phase I ISA, the environmental professional shall assume the purpose is to qualify for an LLP to CERCLA liability and state this in the report. In addition to satisfying one of the requirements to qualify for an LLP to CERCLA liability, another reason for performing a Phase I ISA might include the need to understand potential environmental conditions that could materially impact the operation of the business associated with the parcel of commercial real estate. The user and the environmental professional may also need to

modify the scope of services performed under this practice for special circumstances, including, but not limited to, operating industrial facilities or large tracts of land (large areas or corridors).

The information and opinions rendered in this Phase I ISA are exclusively for use by the **F/ETCA** and **Caltrans**. RBF will not distribute or publish this report without the consent of the **F/ETCA** and **Caltrans** except as required by law or court order. The information and opinions expressed in this Phase I ISA are given in response to RBF's Scope-of-Services and Limitations indicated above, and should be considered and implemented only in light of the Scope-of-Services and Limitations. The services provided by RBF in completing this Phase I ISA were consistent with normal standards of the profession. No warranty, expressed or implied, is made.

## **Section 2    PHYSICAL SETTING**

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*Physical setting sources typically provide information regarding geologic, hydrogeologic, hydrologic, or topographic characteristics of a property. The following information is primarily based on review of the United States Geological Survey (USGS) Black Star Canyon, California, Quadrangle, dated 1967, photorevised 1988, and a site visit conducted by RBF on October 22, 2013. Other miscellaneous resources utilized within this section and throughout the Phase I ISA are referenced in Section 6.0, References.*

### **2.1    SUBJECT SITE DESCRIPTION**

The following discussion provides a detailed description of the subject site (which encompasses all areas of permanent disturbance by the Proposed Project as shown on Exhibits 1c through 1i):

#### **2.1.1    Location**

The subject site is located at the junction of SR-241 and SR-91 within the cities of Anaheim, Yorba Linda, and Corona and counties of Orange and Riverside. The subject site boundaries encompasses 12-ORA-241 (PM 36.1/39.1), 12-ORA-91 (PM 14.7/18.9), and 08 RIV-91 (PM 0.0/1.5) for a length of approximately 8.7 miles, as shown in Exhibits 1a and 1b.

#### **2.1.2    Current Use(s) of the Subject Site**

The subject site consists of transportation uses and freeway right-of-way along SR-241 and SR-91, as well as vacant undeveloped land (associated with the Santa Ana Mountains to the south of the eastbound SR-91) proposed for right-of-way acquisition.

#### **2.1.3    Description of On-Site Structures and Roads**

SR-241 is generally an eight-lane toll-way (four lanes in each direction of travel and additional climbing lanes in some portions) and is oriented in a north-south direction. This toll-way includes an existing 75-foot (ft) median. SR-91 is a 12-lane freeway (four standard lanes and two Express Lanes in each direction of travel) and is oriented in an east-west direction. This freeway includes a standard centerline barrier.

Within the boundaries of the subject site, there are currently two existing bridge structures located within the boundaries of the subject site. The eastbound SR-91 Gypsum Canyon Road Undercrossing is located within the central portion of the subject site and was constructed in 1971. The SR-241 Wildlife Undercrossing Bridge Structure (55-0724L) is located within the southern portion of the subject site and was constructed in 1998.

Vacant hillsides, associated with right-of-way acquisition, have been previously disturbed as a result of past grading activities for SR-91.

### **2.1.4 Zoning/Land Use Records**

Zoning/land use records generally consist of records of the local government in which the subject site is located and indicates the use permitted by the local government in particular zones within its jurisdiction. The records may consist of maps and/or written records. According to the Circulation Element of the City of Anaheim General Plan (Anaheim General Plan) (Figure C-1, Planned Roadway Network), the subject site is designated Freeway/Tollroad. Gypsum Canyon Road in the subject site is designated Hillside Primary Arterial. The area proposed for right-of-way acquisition (APN 085-071-56) is designated Open Space.

## **2.2 TOPOGRAPHY**

The USGS maps show geological formations and their characteristics, describing the physical setting of an area through contour lines and major surface features including lakes, rivers, streams, buildings, landmarks, and other factors that impact the spread of contamination. Additionally, the maps depict topography through color and contour lines and are helpful in determining elevations and site latitude and longitude.

Based on the USGS *Black Star Canyon, California, Quadrangle*, dated 1967 (photorevised 1988), the subject site appears to consist of vacant land and SR-91. On-site topography appears to range from approximately 375 ft above mean sea level (msl) in the northwestern portion of the site to 1,500 ft above msl in the southern portion of the subject site. Sloping topography and blue line streams are visible throughout the central and southern portions of the subject site. Surrounding uses appear to consist of vacant land and open space. One petroleum pipeline is visible traversing the central portion of the subject site in an east/west direction. A gravel pit and rocket fuel testing site are noted to the south of the northeastern portion of the subject site. Within this area, a reservoir and water well are also visible off-site.

## **2.3 CURRENT USES OF ADJOINING PROPERTIES**

For the scope of this Phase I ISA, properties are defined and categorized based upon their physical proximity to the subject site. An adjoining property is considered any real property or properties the border of which is contiguous or partially contiguous with that of the subject site, or that would be contiguous or partially contiguous with that of the subject site but for a street, road, or other public thoroughfare separating them. An adjacent property is any real property located within 0.25 mile of the subject site's border. The following is a detailed description of each adjoining land use observed on October 22, 2013:

- ◆ South: Vacant land is located to the south of the subject site.

- ◆ West: Residential, institutional, and vacant land uses are located to the west of the subject site (in the City of Anaheim).
- ◆ North: Canyon RV Park/Featherly Regional Park and the Santa Ana River (within the City of Yorba Linda) are located to the north of SR-91.
- ◆ East: Vacant land and vacant-disturbed land (the former Quarry and Rocket Fuel Test Site) are located to the east of the subject site (in the City of Anaheim).

## 2.4 GEOLOGIC CONDITIONS

### 2.4.1 Geology

The USGS Geological Map Index was searched by EDR for available geological maps that cover the subject site and surrounding areas. These geological maps indicate geological formations that are overlaid on a topographic map. Some maps focus on specific issues (i.e., bedrock, sedimentary rocks, etc.) while others may identify artificial fills (including landfills). Geological maps can be effective in estimating permeability and other factors that influence the spread of contamination.

According to the EDR GeoCheck Report, the land consists of a stratified sequence from the Cenozoic era. Based on the Anaheim General Plan, the City of Anaheim is situated in the Peninsular Ranges Geomorphic Province. This geomorphic province encompasses an area that extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin, south to the southern tip of Baja California. The province varies in width from approximately 30 to 100 miles. In general, the province consists of a northwest-southeast oriented complex of blocks separated by similarly trending faults. The basement bedrock complex includes Jurassic age metavolcanic and metasedimentary rocks, and Cretaceous age igneous rocks of the Southern California batholith.

Based on the Anaheim General Plan Environmental Impact Report (EIR), the City of Anaheim is situated between two major, active fault zones: the Newport-Inglewood zone located to the southwest and the Whittier-Elsinore fault zone located to the northeast. Other potentially active faults in close proximity to the City are the El Modeno, Peralta Hills, and Norwalk faults. Based on Figure 5.5-1, Generalized Geologic Map, of the Anaheim General Plan EIR, there are no active or potentially active faults located within the boundaries of the subject site.

Pleistocene age (11,000 to 2,000,000 years old) terrace deposits are present on elevated terraces along the upper edges of the alluvial plains and the lower benches of hillside areas. The Santa Ana River channel area and its tributaries are also underlain by Holocene alluvial deposits. The Peralta Hills and Santa Ana Mountains expose a sequence of older sedimentary rock units, which include Tertiary to Cretaceous age (2 million to 135 million years old) marine and non-marine deposits. Landslide

deposits are also relatively common in the steeper hillside areas. Cretaceous age deposits include materials of the Williams Formation and Ladd Formation.

**Williams Formation:** The upper Cretaceous age Williams Formation is comprised predominantly of light brown to gray, poorly bedded, fine grained sandstone. The upper portion of this unit grades downward into white and yellowish-brown, massive to cross bedded coarse-grained sandstone and conglomerate. The Williams Formation is present along the lower south sides of Coal Canyon and east of Gypsum Canyon.

**Ladd Formation:** The upper Cretaceous age Ladd Formation includes an upper sequence of gray to black, thinly to thickly bedded siltstone and shale. The siltstone and shale units grade into yellowish-brown to greenish-gray, sandstone and conglomerate materials. The Ladd Formation crops out extensively north and east of Coal Canyon to the eastern City limits (for Anaheim). Jurassic age materials include the Santiago Peak Volcanics.

## 2.4.2 Soils

The U.S. Department of Agriculture (USDA) Soil Conservation Service (SCS) Soil Survey Maps were searched for available soils within the subject site. According to the *Orange County and the Western Part of Riverside County, California, Soil Survey*, 11 soil series (with multiple phases) underlie the subject site. The following is a brief description of these series (refer to Appendix C, *Documentation*):

**Anaheim loam, 30 to 50 percent slopes (107):** The Anaheim series consists of well drained soils on foothills. These soils formed in material weathered from soft sandstone or shale. Slopes are 15 to 75 percent. Elevation ranges from 100 to 2,500 ft above msl. This particular soil is steep and commonly occurs on or near the top of broad rounded ridgetops. About 7 percent of this mapping unit is included areas of Anaheim clay loam, 30 to 50 percent slopes; 4 percent Nacimiento clay loam, 30 to 50 percent slopes; 4 percent Cieneba sandy loam, 30 to 75 percent slopes; and 10 percent less sloping or steeper Anaheim soils. If the soil is bare, runoff is rapid and the erosion hazard is high. Permeability is moderate.

**Calleguas clay loam, 50 to 75 percent slopes, eroded (134):** The Metz soil series consists of somewhat excessively drained soils on flood plains and alluvial fans. Slopes are 0 to 2 percent. These soils formed in mixed alluvium. The vegetation is annual grasses and forbs. The Metz soils are near the San Emigdio, Hueneme, and Corralitos soils. This particular soil is nearly level to gently sloping and occurs on large fans and on flood plains. Included with this soil in mapping are small areas of Riverwash, San Emigdio fine sandy loam, Hueneme fine sandy loam, Corralitos loamy sand, and Metz, mod fine substratum. Some small areas are also included that have a loamy sand or stratified sand to fine sandy loam surface layer. Permeability of this soil is moderate and runoff is slow. The hazard of erosion is slight.

**Cieneba-rock outcrop complex, 30 to 75 percent slopes (145):** The Cieneba series consists of somewhat excessively drained soils. These soils formed in material weathered from granitic rocks of the Santa Ana Mountains and from the sandstone of the coastal foothills. Slopes are 9 to 75 percent. Elevation ranges from 200 to 4,000 ft above msl. This particular soil is steep to very steep and occurs on hillsides or mountainsides. In the Santa Ana Mountain area, it is about 30 percent granodiorite outcrop and boulders. In coastal foothill areas, it is 10 to 35 percent sandstone outcrop. About 5 percent of this mapping unit is included areas of Vista coarse sandy loam; 5 percent Tollhouse soil in the Santa Ana Mountain area; 5 percent San Andreas sandy loam; and 5 percent Anaheim loam in the coastal foothills. If the soil is bare, runoff is rapid and the erosion hazard is high.

**Corralitos loamy sand (146):** The Corralitos series consists of somewhat excessively drained soils on fans in long, narrow valleys. These soils formed in mixed coarse textured alluvium. Slopes are 0 to 5 percent. Elevation ranges from 50 to 1,500 ft above msl. This particular soil is nearly level to gently sloping and generally occurs as long narrow areas along stream channels. About 2 percent of this mapping unit is included areas of Capistrano sandy loam; 4 percent Metz loamy sand; 3 percent Soboba gravelly loamy sand, 0 to 5 percent slopes; 5 percent Riverwash; and 20 percent Corralitos soils that have a very fine sandy loam overwash 4 to 10 inches thick. If the soil is bare, runoff is slow and the erosion hazard is slight.

**Metz loamy sand (163):** The Metz series consists of somewhat excessively drained soils on flood plains and alluvial fans. These soils formed in mixed alluvium. Slopes are 0 to 5 percent. Elevation ranges from 25 to 1,500 ft above msl. This particular soil is nearly level to gently sloping and generally occurs on large fans and on flood plains. About 5 percent of this mapping unit is included areas of San Emigdio fine sandy loam; 5 percent Hueneme fine sandy loam; 3 percent Corralitos loamy sand; 2 percent Riverwash; and 10 percent Metz loamy sand, moderately fine substratum. If the soil is bare, runoff is slow and the erosion hazard is slight.

**Riverwash (191):** Riverwash consists of areas of unconsolidated alluvium, generally stratified and varying widely in texture, recently deposited by intermittent streams, and subject to frequent changes through stream overflow. These are sandy, gravelly, cobbly, and boulder deposits that support little or no vegetation. Runoff is generally rapid, and the erosion hazard is high. Deposition and removal of fresh alluvium are common.

**Rock outcrop-Cieneba complex, 30 to 75 percent slopes (192):** Rock outcrop consists of large exposures of sandstone or granite and boulders. This mapping unit is in mountains or on foothills. It is 50 percent or more Rock outcrop and boulders and 50 percent or less Cieneba soils. The soils are somewhat excessively drained. They formed in material weathered from granitic or sandstone rock. Elevation ranges from 200 to 4,500 ft above msl.

About 5 percent of this mapping unit is included areas of Vista-Rock outcrop complex; 3 percent Tollhouse-Rock outcrop complex in the Santa Ana Mountains; 3 percent Anaheim loam; and 3 percent Soper cobbly loam in the coastal foothills. If the soil is bare, runoff is rapid and the erosion hazard is high. Permeability is moderately rapid.

**San Andreas sandy loam, 15 to 30 percent slopes (193):** The San Andreas series consists of well drained soils on foothills. These soils formed in material weathered from soft sandstone. Slopes are 15 to 30 percent and elevation ranges from 200 to 2,500 ft above msl. The soil has a moderately rapid permeability. This particular soil is moderately steep and generally occurs on north- and east-facing hillsides. About 5 percent of this mapping unit is included areas of Cieneba sandy loam, 3 percent Anaheim loam, 3 percent Myford sandy loam, 2 percent Capistrano sandy loam, and 10 percent less sloping or steeper San Andreas sandy loam. If the soil is bare, runoff is rapid and the erosion hazard is high.

**Soboba gravelly loamy sand, 0 to 5 percent slopes (197):** The Soboba series consists of excessively drained soils on flood plains and alluvial fans. These soils formed in mixed alluvium. Slopes are 0 to 15 percent. Elevation ranges from 50 to 2,500 ft above msl. The soil is slightly acid throughout and very rapidly permeable. This particular soil is nearly level to gently sloping and generally occurs as long, narrow areas along stream channels. About 10 percent of this mapping unit is included areas of a soil that is dominantly very gravelly sandy loam throughout, but is otherwise similar to the Soboba soil series; 5 percent Corralitos loamy sand; 7 percent Riverwash; and 5 percent Soboba soils that have a gravelly very fine sandy loam overwash. If the soil is bare, runoff is low and the erosion hazard is slight.

**Soboba cobbly loamy sand, 0 to 15 percent slopes (198):** The Soboba series consists of excessively drained soils on flood plains and alluvial fans. These soils formed in mixed alluvium. Slopes are 0 to 15 percent. Elevation ranges from 50 to 2,500 ft above msl. The soil is slightly acid throughout and very rapidly permeable. This particular soil is nearly level to strongly sloping and generally occurs as long, narrow areas along stream channels. About 10 percent of this mapping unit is included areas of a soil that is dominantly very gravelly sandy loam throughout, but is otherwise similar to the Soboba soil series; 5 percent Corralitos loamy sand; 5 percent Riverwash; 5 percent steeper Soboba soils; and 10 percent Soboba soils that have a stony loamy sand surface layer. If the soil is bare, runoff is medium and the erosion hazard is slight to moderate.

**Soper loam, 30 to 50 percent slopes (200):** The Soper series consists of well drained soils on foothills. These soils formed in weakly consolidated sandstone and conglomerate. Slopes are 15 to 75 percent. Elevation ranges from 200 to 2,500 ft above msl. This particular soil is steep and generally occurs on hillsides. About 5 percent of this mapping unit is included areas of Alo clay, 30 to 50 percent slopes; 5 percent Anaheim loam, 30 to 50 percent slopes; 3 percent Cieneba sandy loam, 30 to 75 percent slopes; 10 percent low sloping or steeper

Soper loams; and 10 percent severely eroded areas. If the soil is bare, runoff is rapid and the erosion hazard is high.

**Soper gravelly loam, 30 to 50 percent slopes (202):** The Soper series consists of well drained soils on foothills. These soils formed in weakly consolidated sandstone and conglomerate. Slopes are 15 to 75 percent. Elevation ranges from 200 to 2,500 ft above msl. This particular soil is steep and generally occurs on hillsides. About 5 percent of this mapping unit is included areas of Yorba gravelly sandy loam, 2 percent Gabino gravelly clay loam, 5 percent Soper cobbly loam, 5 percent less sloping or steeper Soper gravelly loams, 2 percent Cieneba-Rock outcrop complex, and 2 percent Cieneba sandy loam. If the soil is bare, runoff is rapid and the erosion hazard is high.

**Soper-rock outcrop complex, 30 to 75 percent slopes (204):** The Soper series consists of well drained soils on foothills. These soils formed in weakly consolidated sandstone and conglomerate. Slopes are 15 to 75 percent. Elevation ranges from 200 to 2,500 ft above msl. This mapping unit commonly occurs on hillsides and ridges. It is 10 to 15 percent Rock outcrop. The Soper soil is severely eroded and therefore shallower. About 3 percent of this mapping unit is included areas of Anaheim loam, 5 percent Cieneba sandy loam, and 20 percent Soper cobbly loam. If the soil is bare, runoff is rapid and the erosion hazard is high.

**Yorba cobbly sandy loam, 30 to 50 percent slopes (226):** The Yorba series consists of well drained soils on terraces. These soils formed in gravelly sandy sediment. Slopes are 2 to 50 percent and elevation ranges from 100 to 2,500 ft above msl. The soil is slightly acid throughout. It is slowly permeable. This particular soil is steep and generally occurs on terrace escarpments. About 5 percent of this mapping unit is included areas of Myford sandy loam, 5 percent Gabino gravelly clay loam, 3 percent Soper cobbly loam, and 2 percent Modjeska gravelly loam. If the soil is bare, runoff is rapid and the erosion hazard is high.

### 2.4.3 Radon

Radon is a radioactive gas that is found in certain geologic environments and is formed by the natural breakdown of radium, which is found in the earth's crust. Radon is an invisible, odorless, inert gas that emits alpha particles, known to cause lung cancer. Radon levels are highest in basements (areas in close proximity to the soil) that are poorly ventilated. A radon survey was not included within the scope of this investigation. According to the "U.S. EPA Map of Radon Zones," the County of Orange is located within Zone 3, which has a predicted average indoor screening level of less than 2.0 Picocuries per liter (pCi/L). Further, the County of Riverside is located within Zone 2, which has a predicted average indoor screening level of greater than 2.0 Picocuries per liter (pCi/L) and less than 4.0 Picocuries per liter (pCi/L). EPA recommends remedial actions when radon levels are greater than 4.0 pCi/L.

## 2.4.4 Naturally Occurring Asbestos

Naturally Occurring Asbestos (NOA) is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by state, federal, and international agencies and was identified as a toxic air contaminant by the California Air Resources Board (CARB) in 1986. Serpentine and/or ultramafic rock are known to be present in 44 of California's 58 counties. These rocks are particularly abundant in the counties of the Sierra Nevada foothills, the Klamath Mountains, and Coast Ranges. According to the *Department of Conservation Division of Mines and Geology, A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report* (dated August 2000), the Proposed Project is not located in an area where NOA is likely to be present.

## 2.5 BIOLOGICAL SETTING

The biotic community that exists within the subject site consists of typical roadway right-of-way in an upland habitat area. As discussed in the *Natural Environment Study*, prepared by LSA Associates, Inc., draft dated May 2015, vegetation within the area is composed of coastal sage scrub, chaparral, nonnative grassland, oak woodland, and ruderal communities.

## 2.6 DRAINAGE/HYDROLOGY

### 2.6.1 Drainage

Drainage is accomplished by overland sheet flow, following existing topography into ravines and washes, ultimately draining to the north toward the Santa Ana River. On-site water quality features are present that capture stormwater runoff from the freeways (SR-241 and SR-91) prior to discharge into the Santa Ana River.

### 2.6.2 Flood Hazards

Flood Prone Area Maps published by the USGS show areas prone to 100-year floods overlaid on a topographical map. These maps are not considered the official Federal Emergency Management Agency (FEMA) flood maps; therefore, in cases where a property is located immediately adjacent to or within the flood prone boundary, a FEMA map should be obtained. According to the FEMA Flood Insurance Rate Map (FIRM), the subject site is not located within the 100-year flood zone (refer to the Appendix C, *Documentation*).

## 2.7 GROUNDWATER AND WATER WELLS

Based on Section 4.3, Geology and Soils, of the Mountain Park Specific Plan Environmental Impact Report (EIR), groundwater investigations were conducted in 2003 for the adjoining Mountain Park Specific Plan (located to the east of the northern portion of the subject site).<sup>1</sup> At that time, groundwater was encountered between 18 and 55 ft below ground surface (bgs). Groundwater flow in the vicinity is anticipated to follow the topography and surface waters, generally in a westerly direction (along the Santa Ana River).

Based on the Anaheim General Plan EIR, Figure 5.13-1, Water Distribution System, there are no active or proposed water wells located within the boundaries of the subject site.

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<sup>1</sup> City of Anaheim, *Mountain Park Specific Plan Amendment Draft EIR No. 331*, 2005.

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## Section 3 HISTORICAL AND REGULATORY SEARCHES

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*The ASTM E 1527-05 Standard Practice allows discretion in choosing from among eight standard sources, plus “other” non-specific sources (other non-specific sources can include newspaper archives and records in the files and/or personal knowledge of the property owner and/or occupants). The standard sources are aerial photographs, fire insurance maps, property tax files, recorded land title records (a chain-of-title), historical topographic maps, local street directories, building department records, and zoning/land use records. The focus is on usage rather than ownership, which is why a chain-of-title is not sufficient by itself.*

### 3.1 METHODOLOGIES AND LIMITING CONDITIONS

Historical subject site use information was obtained from **1901** to the present. Per ASTM, historical uses “shall be identified from the present, back to the **property’s obvious** first development use [including agricultural and fill activities], or back to 1940, whichever is **earlier.**”

Data failure is a failure to achieve the historical research objectives within ASTM E 1527-05 Standard Practice even after reviewing the *standard historical sources* (noted in ASTM E 1527-05 Standard Practice) that are *reasonably ascertainable* and likely to be useful. *Data failure* is one type of *data gap*. At the time of this Phase I ISA, no data failure was encountered.

### 3.2 HISTORICAL SITE USAGE

The following historical information is based upon review of available historical maps and documents, available public information, interviews, and a review of a series of historical aerial photographs.

#### 3.2.1 Interviews

##### 3.2.1.1 User of the Phase I ISA

F/ETCA is the user of this Phase I ISA (as well as the current property operator) and has provided RBF with information regarding the Proposed Project (roadway improvements) for the subject site. F/ETCA has requested this Phase I ISA from RBF to support environmental documentation for the Proposed Project. The Project Engineer, Ms. Jennifer Chan with RBF Consulting, confirmed that the on-site bridge (the Gypsum Canyon Road Undercrossing) was built in 1971, and then widened in both 1994 and 2005. The on-site bridge structure 55-0724L was constructed in 1998. Other information/documentation provided by the F/ETCA is referenced throughout this Phase I ISA.

### **3.2.1.2 Property Owners, Operators, and Occupants**

Refer to Section 3.2.1.1 above for a discussion of the interviews conducted with the currently property operator (F/ETCA). Caltrans is the current property owner. Caltrans has been consulted throughout this process and where information was provided, this information has been referenced accordingly throughout this Phase I ISA. Due to the nature of the Proposed Project (freeway improvements), no current and past property occupants are available for interview.

### **3.2.1.3 Local Government Officials**

RBF did not interview local government officials at the time of this Phase I ISA. Based on the database search, historical records, and site visit conducted, it is the opinion of RBF that any interviews with local government officials would not aid RBF in making a conclusion that indicates a recognized environmental condition in connection with the subject site.

### **3.2.1.4 Other**

RBF contacted a Questar representative (Mr. Steve Chapman) on August 25, 2014 regarding the on-site petroleum pipe line. He confirmed that Questar purchased the pipeline in 1998. The pipe was not in use at this time and Questar has not used this pipe line since. He noted that they did recondition the pipe for natural gas, but have not used it. At this time, they are looking at a project that would bring the pipe line back online as a crude oil pipe line. But this has not taken effect. Thus, Mr. Chapman confirmed that the 2005 Mountain Park Specific Plan EIR description of the pipe line in the vicinity of the subject site remains current.

## **3.2.2 Documentation**

### **3.2.2.1 Property Data**

RBF searched the subject site for property data for the subject site via *First American Real Estate Solutions* and the legal description for the subject site. This data typically provides current property ownership information and includes information regarding on-site improvements, zoning, land use, transfer of last sale, and other miscellaneous structural improvements. The subject site consists of freeway right-of-way and a portion of one vacant property associated with proposed right-of-way acquisition (APN 085-071-56). This property is comprised of open space associated with the Santa Ana Mountains that is owned and operated by the County of Orange.

RBF searched property data for the property associated with permanent right-of-way acquisition via Real Quest Property Data and the Legal Description for this property. Implementation of the Proposed Project consists of the acquisition of approximately 5.09 ac of right-of-way along eastbound SR-91. This property is included in parcel map 071-56, and does not have a specified land use designation.

**3.2.2.2 Historical Uses Summary**

Based upon the sources reviewed in Table 3-1, *Historical Uses Summary*, the subject site appears to have been historically utilized as vacant land, agricultural, and transportation uses (SR-241 and SR-91). Surrounding uses appear to have consisted of vacant land, infrastructure, and agricultural land uses. A gravel pit, reservoir, rocket fuel test site, and associated water tanks are also noted to the east of the subject site in 1960 to 2002. The following historical information is based upon review of available historical maps and documents, available public information, historical aerial photographs, historical topographic maps, and city directories; refer to Table 3-1.

**Table 3-1  
Historical Uses Summary**

Year	On-Site Uses	Surrounding Uses	Source
1901	The northern portion of the subject site vicinity consists of the Santa Ana River, railroad uses, and Santa Ana Canyon. The remainder of the subject site vicinity appears to consist of vacant land.	The surrounding area appears to consist of vacant land and infrastructure. The Cleveland National Forest is located to the east of the subject site.	USGS Topo
1902	No changes noted.	No changes noted.	USGS Topo
1938	Highway uses are noted traversing the northern portion of the subject site in an east/west direction. The proposed right-of-way acquisition area appears to consist of open space.	Some agricultural land uses are visible to the north of the Santa Ana River.	Aerial Photographs
1941	No changes noted.	No changes noted.	USGS Topo
1946	The eastern portion of the subject site appears to consist of agricultural uses.	Agricultural land uses have increased to the north of the Santa Ana River.	Aerial Photographs
1947	Highway 18 is visible traversing the northern portion of the subject site in an east/west direction. Unimproved roads are also visible in the subject site vicinity. The subject site appears to consist of vacant land uses.	Gypsum creek and unimproved roadways are visible to the east of the subject site. The majority of surrounding land uses appear to consist of vacant land with some sparse structures and infrastructure. Agricultural uses are visible to the north of Santa Ana Canyon within the northern subject site vicinity.	USGS Topo
1949	Highway 18 is now referenced as Santa Ana Canyon Road. No other changes are noted.	No changes noted.	USGS Topo
1950	No changes noted.	No changes noted.	USGS Topo
1953	The Riverside Freeway is visible traversing the northern portion of the subject site in an east/west direction. No other changes are noted.	No changes noted.	Aerial Photographs

**Table 3-1 (continued)  
Historical Uses Summary**

Year	On-Site Uses	Surrounding Uses	Source
1960	No changes noted.	Surrounding uses to the south, west, and north appear to consist of vacant land and agricultural land uses. A minor portion adjoining the eastern portion of the subject site to the north consists of agricultural uses. A gravel pit, reservoir, rocket fuel test site, and associated water tanks are visible to the east.	Aerial Photographs
1968	No changes noted.	No changes noted.	Aerial Photographs
1973	The Riverside Freeway appears to have been improved. A new interchange is visible at Gypsum Canyon Road.	Sycamore Park is noted to the north of the subject site. No other changes are noted.	USGS Topo
1977	The agricultural uses noted in the eastern portion of the subject site have been replaced with the widened freeway.	No changes noted.	Aerial Photographs
1981	No changes are noted.	Sycamore Park is now referenced as Featherly Regional Park to the north of the subject site. The gravel pit to the east of the subject site appears to have been expanded. No other changes are noted.	USGS Topo
1982	No changes noted.	No changes noted.	USGS Topo
1988	No changes noted.	Development has slightly increased to the west of the subject site. Structures have increased in Featherly Regional Park to the north. Agricultural land uses to the north appear to have been replaced with development. No other changes are noted.	USGS Topo
1989	No changes noted.	Development has increased to the west of the subject site.	Aerial Photographs
1994	The disturbed slope associated with proposed right-of-way acquisition is noted in the eastern portion of the subject site.	Development has significantly increased to the west of the subject site.	Aerial Photographs
1997	No changes noted.	Roadways to the east of the subject site (associated with the gravel pit and Rocket Fuel Test Site) have been improved. No other changes are noted.	USGS Topo
2002	SR-241 and associated connectors to SR-91 have been constructed.	No changes noted.	Aerial Photographs
Note: Other sources reviewed, but that which did not include information pertaining to the subject site include the following: Sanborn Maps and City Directory Search. Recorded Land Title Records were not reviewed for the subject site. Building permits were also not available, as the property consists of freeway right-of-way and vacant land and no addresses are associated with the subject site.			
Source: Refer to Section 6, <i>References</i> , and Appendix C, <i>Documentation</i> , for full citation and documentation of sources utilized in this table.			

**3.2.2.3 California Department of Oil, Gas, and Geothermal Resources**

RBF searched the California Department of Oil, Gas, and Geothermal Resources (DOGGR) for Wildcat Maps on the subject site on October 21, 2013. These maps indicate existing and historical oil and gas wells within the immediate vicinity of the subject site. Current well status for any well indicated on the Wildcat Maps should be confirmed at the appropriate Division of Oil and Gas District Office. According to the DOGGR online

mapping system, no existing or historical oil or gas wells are identified on the subject site. There are reported idle and plugged oil/gas wells located greater than 0.6-mile from the subject site (refer to Appendix C, *Documentation*).

### **3.2.3 Other Historical Sources**

Other historical sources include miscellaneous maps, newspaper archives, and records in the files and/or personal knowledge of the property owner and/or occupants. An Environmental Impact Report/Environmental Impact Statement was prepared for the ETC project (which included the subject site) by F/ETCA, on May 14, 1992. Based on the past Phase I ISA prepared at the time of this Proposed Project, no hazardous materials conditions were identified at the subject site. No other historical sources were reviewed at this time.

Other environmental documentation was available to RBF at the time of this Phase I ISA for the adjoining property to the south of SR-91. Based on the Mountain Park Specific Plan Amendment Draft EIR No. 331, a rocket fuel test research facility was located to the south of the Quarry operations (to the east of the northern portion of the subject site). The former Douglas Aircraft Company (McDonnell-Douglas Corporation and Astropower) leased an approximate 480-ac area for use as a rocket fuel test research facility commencing on August 1, 1961. The operational area was located approximately one mile south of the mouth of Gypsum Canyon and the development spanned the east and west sides of Gypsum Creek. The majority of activity at the McDonnell-Douglas property occurred between 1961 and 1971 and the lease expired on December 31, 1991. McDonnell-Douglas demolished the majority of buildings upon its exit from the site and the few remaining structures were demolished in 2003. The prior structures consisted of office trailers, central maintenance and support buildings, smaller maintenance and support buildings, storage bunkers, test pads, blockhouses, storage magazines, and ballistic test range. Water for the operation was piped in from the mouth of Gypsum Canyon in an aboveground metal delivery pipe line.

## **3.3 STANDARD ENVIRONMENTAL RECORD SOURCES**

The governmental sources have been searched by Environmental Data Resources, Inc. (EDR) (at the request of RBF) for sites within the subject site and within an approximate one mile radius of the subject site boundaries. Upon completion of their search, EDR provided RBF with their findings dated September 27, 2013. RBF makes no claims as to the completeness or accuracy of the referenced sources. Our review of EDR's findings can only be as current as their listings and may not represent all known or potential hazardous waste or contaminated sites. To reduce the potential for omitting possible hazardous material sites on the subject site and within the surrounding area, sites may be listed in this report if there is any doubt as to the location because of discrepancies in map location, zip code, address, or other information. Refer to Appendix B, *EDR Database Search*, for a listing and description of the federal and state records searched.

**3.3.1 Subject Site**

Available public records (provided by EDR) were reviewed by RBF on September 27, 2013; refer to Exhibit 3a for a mapping of reported regulatory properties. The lists that were reviewed did not report any regulatory properties within the boundaries of the subject site; refer to Appendix B, *EDR Database Search*. Therefore, no known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on the subject site. The subject site has not been under investigation for violation on any environmental laws, regulations, or standards, as identified in the databases reported by EDR.

**3.3.2 All Regulatory Listed Sites Within a One-Mile Radius of the Subject Site**

Multiple listed regulatory sites are located within a one mile radius of the subject site and are listed in one or more of the regulatory databases listed in Appendix B, *EDR Database Search*. For a complete list of sites identified and their status, refer to Appendix B, *EDR Search*. Table 3-2, *Database Summaries*, provides a description of regulatory databases identified in association with these off-site properties.

**Table 3-2  
Database Summaries**

Database	Description
CA FID UST	The CA FID UST database maintains information on properties where an underground storage tank is located.
Cortese	The Cortese database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic materials identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from where there is known migration.
EMI	The Emissions Inventory Data (EMI) database includes toxics and criteria pollutant emissions data that is collected by the Air Resources Board (ARB) and local air pollution agencies.
ENVIROSTOR	The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List [NPL]); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.
FINDS	The Facility Index System/Facility Registry System (FINDS) database contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following

**Table 3-2 (continued)  
Database Summaries**

Database	Description
	FINDS databases in their report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).
HAZNET	The HAZNET database extracts data from copies of hazardous waste manifests received each year by the DTSC.
HIST CORTESE	The historic "Cortese" Hazardous Waste and Substances Sites List is a list of sites that are designated by the State Water Resources Control Board (SWRCB), the Integrated Waste Board, and the Department of Toxic Substances Control.
HIST UST	The HIST UST database contains information on sites where historical underground storage tanks are located.
LUST	The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data comes from the State Water Resources Control Board Leaking Underground Storage Tank Information System.
NPDES	National Pollutant Discharge Elimination System (NPDES) Permits Listing is a listing of NPDES permits, including stormwater.
Orange Co. Industrial Site	List of industrial site cleanups maintained by the Orange County Health Care Agency (HCA), including petroleum and non-petroleum spills.
RCRA-SQG	The Resource Conservation and Recovery Act (RCRA) – Small Quantity Generator (SQG) database contains selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by RCRA. Small quantity generators generate less than 1,000 kilograms (kg) of hazardous waste, or over less than 1 kg of acutely hazardous waste per month. SQGs generate between 100 kg and 1,000 kg of hazardous waste per month.
SWEEPS UST	The SWEEPS-UST database also maintains information on properties where an underground storage tank is located, however, this database is no longer updated.
UST	The Underground Storage Tank (UST) database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data comes from the State Water Resources Control Board's Hazardous Substance Storage Container Database.
VCP	The Voluntary Cleanup Program (VCP) database contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC costs.
WDS	The Waste Discharge System (WDS) database is a listing of sites which have been issued waste discharge requirements.

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- |  |               |            |                         |                           |
|--|---------------|------------|-------------------------|---------------------------|
| Listed Sites                                 | Roads         | Railroads  | Superfund Sites         | Project Site              |
| Earthquake Epicenters (Richter 5 or greater) | Major Roads   | Pipelines  | Federal DOD Sites       | New Advanced Signage Area |
| Search Boundary                              | Waterways     | Powerlines | Indian Reservations BIA |                           |
|  | Contour Lines | Water      | 100-Yr Flood Zones      |                           |



Anaheim, CA

Source: EDR, Inc., 2013



06/02/15 JN 130095-20357 MAS

SR-241/SR-91 EXPRESS LANES CONNECTOR PROJECT • ISA

# Overview Map

Exhibit 3a

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The following is a description of these off-site properties listed:

- ◆ **Featherly Regional Park (24001 Santa Ana Canyon Road, Anaheim)**: This property adjoins the northern portion of the subject site to the north (down-gradient of the subject site). The site is listed in the HIST UST, CA FID UST, UST, and SWEEPS UST databases. This site has reported the presence of one former and one active underground storage tank (UST). No contamination has been reported.
  
- ◆ **Owl Rock Products-Former Industrial Asphalt (24000 E. Santa Ana Canyon Road, Anaheim and 9010 E. Santa Ana Canyon Road, Anaheim)**: This property adjoins the northern portion of the subject site to the east-southeast (cross-gradient of the subject site). The site is listed in the LUST, WDS, NPDES, SWEEPS UST, and EMI databases. This site is a reported active industrial facility; reported as a former Industrial Asphalt, closed on December 20, 1991. This property reported the presence of five USTs. This site reported a leaking underground storage tank (LUST) that released diesel to other groundwater. This LUST received closure from the enforcement agency on December 19, 1991. A second reported LUST released diesel to the soil. This LUST received closure (no further action) from the enforcement agency on January 21, 1997. Reported air emissions in the years 2002 through 2004.

The former Industrial Asphalt (24000 E. Santa Ana Canyon Road) adjoins the northern portion of the subject site to the east-southeast (cross-gradient of the subject site). The site is listed in the UST databases. This site reported the presence of an UST. No contamination has been reported.

The former Industrial Asphalt (located at 9010 E. Santa Ana Canyon Road) is listed in the FINDS, LUST, Orange Co. Industrial Site, VCP, ENVIROSTOR, and HIST CORTESE databases. This property adjoins the northern portion of the subject site to the east-southeast (cross-gradient of the subject site). The reported LUST released diesel to the soil. The case is reported to be completed/closed by the lead enforcement agency as of March 27, 2009. The site also reported the release of fuel waste. This case received closure by the County on November 22, 2005. The property also reported participation in the Voluntary Cleanup Program (VCP) with the Department of Toxic Substances Control (DTSC). No further action was received on January 22, 2007 with no restricted use. Refer to Section 3.4.1, *GeoTracker Database*, and Section 3.4.2, *EnviroStor Database*, below for further information obtained from the SWRCB and DTSC pertaining to this regulatory property.

- ◆ **Southern California Edison (9010 E. Santa Ana Canyon Road)**: This property adjoins the northern portion of the subject site to the east-southeast (cross-gradient of the subject site). The site is listed in the HAZNET database. The property has reported the

use/storage/handling of waste oil and mixed oil. The reported disposal method is transfer station. No contamination has been reported.

- ◆ **Robertson's Ready Mix/Asphalt Ready Mix (9010 E. Santa Ana Canyon Road)**: This property adjoins the northern portion of the subject site to the east-southeast (cross-gradient of the subject site). The site is listed in the UST, HAZNET, and LUST databases. This site reported the present of an UST. The site reported the use/storage/handling of unspecified oil-containing waste, waste oil and mixed oil, and aqueous solution with total organic residues less than 10 percent. The reported disposal method is recycler. This site reported a LUST that released diesel (gasoline) to other groundwater (uses other than drinking water). This case is reported case closed with the regulatory enforcement agency as of February 19, 2013. Refer to Section 3.4.1, *GeoTracker Database*, below for further information obtained from the SWRCB pertaining to this regulatory property.

### 3.3.3 Unmapped Properties Summary

According to EDR's ISA Report Desktop Reference, dated 1996, some reported sites (Unmapped Properties) are unmappable as exact locations remain undefined. Listings in publicly available records, which do not have adequate address information, are not generally considered practically reviewable. For the purposes of this ISA, practically reviewable is defined as information provided in a manner and in a form that yields information without the need for extraordinary analysis of irrelevant data. Although the location of these sites may be unknown, the site and detail information are often available through EDR.

RBF's review of Unmapped Properties consisted of a verification that the subject site is not listed (i.e., referenced by name or street address) and a review to identify if any of the Unmapped Properties cause a moderate to high potential to create an environmental condition within the boundaries of the subject site. The subject site is not listed within the list of Unmapped Properties provided by EDR. Also, potentially contaminated groundwater underlying the subject site as a result of the reported Unmapped Properties is considered to be low due to the distance from the subject site, gradient, and/or the status of the identified sites. It should be noted that Owl Rock Products (located at 24000 E. Santa Ana Canyon Road) is reported in the Cortese database. Refer to the discussion above regarding this off-site regulatory property.

## 3.4 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

### 3.4.1 GeoTracker Database

The following information is based on the GeoTracker database website, maintained by the State Water Resources Control Board, accessed on October 21, 2013:

- ◆ **Owl Rock Products (24000 E. Santa Ana Canyon Road):** This property adjoins the northeastern portion of the subject site. Five single-walled steel tanks (two 10,000 gallon diesel, one 10,000 gallon gas, one 5,000 gallon diesel, and one 500 gallon waste oil) were removed on October 4, 1991, at which time the Orange County Health Care Agency (OCHCA) initiated sampling. Soil and groundwater contamination were identified. A workplan was submitted to the City of Anaheim in 1994. A total of 2,675 tons of contaminated soil were disposed/recycled by Cunningham Davis Environmental Corp. in Glen Helen. Per a letter issued by the City of Anaheim Public Utilities Department, dated August 20, 1996, site investigation and remedial action for gasoline and diesel contaminated soil and groundwater associated with the removal of five underground storage tanks at this property are confirmed to be completed and no further action is required at this time.
  
- ◆ **Robertson's Ready Mix (9010 E. Santa Ana Canyon Road):** This property adjoins the northeastern portion of the subject site. This case was opened upon notification of a release of diesel fuel discovered during a program upgrade and UST removal, initiated in late 2003. The investigation programs for this case included work in two distinct areas at the Robertson's Ready Mix facility, the Batch Plant at the western portion of the site and the Rock Plant at the eastern portion of the site. The two areas are separated by approximately 0.25-mile.

The Batch Plant reported soil contamination at three feet (ft) beneath a diesel fuel dispenser, while the Rock Plant was undergoing a program to remove the gas, diesel, and waste oil USTs. At this time, contaminated groundwater was also noted.

The Robertson's Ready Mix site is a portion of a larger area known as the Gypsum Canyon Quarry. In September 2004, a comprehensive environmental site assessment/investigation was performed on the Quarry with plans for future residential site development. This investigation included a total of 42 soil borings, with hydropunch groundwater sampling in ten locations. Four of the soil borings were in proximity to Robertson's former UST facilities. Only one soil sample from one of these four borings detected MTBE. This was B16 at 15 ft below ground surface (bgs), which had 0.0038 milligrams per kilogram (mg/kg). Five of the ten groundwater samples collected during this investigation contained VOCs at concentrations above the detection limits. Only eight VOCs were detected in the groundwater samples, with these maximum concentrations: Benzene (0.37 micrograms per liter[ $\mu\text{g/l}$ ]), Bromoform (2.4  $\mu\text{g/l}$ ), Dibromochloromethane (0.70  $\mu\text{g/l}$ ), Isopropylbenzene (0.55  $\mu\text{g/l}$ ), Methylene chloride (0.85  $\mu\text{g/l}$ ), Naphthalene (0.98  $\mu\text{g/l}$ ), n-Propylbenzene Isopropylbenzene (0.55  $\mu\text{g/l}$ ), Methylene chloride (0.85  $\mu\text{g/l}$ ), Naphthalene (0.98  $\mu\text{g/l}$ ), n-Propylbenzene (1.0  $\mu\text{g/l}$ ), sec-Butylbenzene (2.8  $\mu\text{g/l}$ ), and Tetrachloroethylene (0.49  $\mu\text{g/l}$ ).

The diesel UST located at the Batch Plant was removed in March 2005. Confirmation soil samples collected at the time the tank was removed showed no evidence of petroleum contamination. The Robertson's Ready Mix plant has since been closed. The facilities have been cleared from the site with plans for residential development. The OCHCA oversaw cleanup of the Gypsum Canyon Quarry area related to environmental concerns found in surface soils. Although not directly related to Robertson's UST areas, cleanup activities in 2005 included excavation and off-site treatment and recycling of 84 tons of hydrocarbon-affected soil.

Per a letter issued by the City of Anaheim Public Utilities Department, dated February 19, 2013, site investigation and remedial action for gasoline and diesel contaminated soil and groundwater associated with the modifications to the UST system at this property are confirmed to be completed and no further action is required at this time.

### 3.4.2 EnviroStor Database

The following information is based on the EnviroStor database website, maintained by the State Water Resources Control Board, accessed on October 21, 2013:

- ◆ **Industrial Asphalt Plant (Former) (9010 E. Santa Ana Canyon Road)**: This property adjoins the northeastern portion of the subject site. The site is owned by the Irvine Company. The Former Industrial Asphalt Plant Site is approximately 2.5 ac and is a part of a larger parcel which is an active quarry operation owned by the Irvine Company (TIC), which was subleased to Owl Rock Products Company. Owl Rock subsequently subleased this property to Industrial Asphalt Company and R.F. White Trucking Facility.

The northern half of this property was used as a fueling center and truck storage location until 1990 by R.F. White Trucking. The Former Asphalt Industrial Plant operated the southern half of this site as a batch asphalt manufacturing operation for approximately forty-five years from the late 1950s to 1995.

Reports containing the results of environmental media sampling conducted at the site indicate that asphalt material at the site contains Total Petroleum Hydrocarbons (TPH) 14,300 mg/kg and Benzo(a)Pyrene equivalents up to 190 mg/kg, Naphthalene up to 1.2 mg/kg, and Ethylbenzene up to 0.08 mg/kg. The existing data indicates that groundwater is not adversely impacted. A Work Plan was submitted to the DTSC on July 26, 2006. Based on previous remedial actions performed at the site and the information provided by the Leu Group, the DTSC determined that no further remedial action is required at this property.

### **3.4.3 Other File Reviews**

Based on the above information and that the subject site consists of freeway right-of-way and vacant land associated with right-of-way acquisition. There are no addresses associated with the subject site, no further files were reviewed as part of this Phase I ISA.

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## **Section 4 POTENTIAL AREAS OF ENVIRONMENTAL CONCERN**

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*The following section documents the result of the visual site inspection conducted by RBF on October 22, 2013, and identifies potential areas in which an environmental condition could arise. Refer to Exhibits 4a and 4b taken on October 22, 2013, as a general visual reference. For information regarding results of the historical and governmental records searches, refer to Section 3.0, Historical and Regulatory Information Searches.*

### **4.1 ON-SITE OBSERVATIONS**

#### **4.1.1 Methodology and Limiting Conditions**

The objective of the site reconnaissance is to obtain information indicating the likelihood of identifying RECs, including hazardous substances and petroleum products in connection with the subject site (including soils, surface water, and groundwater). RBF environmental analyst Ms. Kristen Bogue visited the subject site at approximately 11:00 a.m. on October 22, 2013, to conduct the site visit. Due to the nature of the subject site (i.e., freeway uses) Ms. Bogue drove the subject site. The temperature was approximately 77 degrees Fahrenheit and the sky was clear. No rain events had occurred within seven days of the site visit. RBF observed immediately adjoining properties from public thoroughfares. RBF encountered no conditions during the October 22, 2013 site visit, other than those discussed above, that limited the performance of this ISA.

#### **4.1.2 Description of On-Site Structures and/or Uses**

SR-241 is generally an eight-lane toll-way (four lanes in each direction of travel and additional climbing lanes in some portions) and is oriented in a north-south direction. This toll-way includes an existing 75-foot (ft) median. SR-91 is a 12-lane freeway (four standard lanes and two Express Lanes in each direction of travel) and is oriented in an east-west direction. This freeway includes a standard centerline barrier.

Within the boundaries of the subject site, there are currently two existing bridge structures located within the boundaries of the subject site. The Windy Ridge Wildlife Undercrossing (Bridge Structure 55-0724L) is located within the southern portion of the subject site and was constructed in 1998. The Gypsum Canyon Road Undercrossing is located within the central portion of the subject site and was constructed in 1971.

The area of proposed right-of-way acquisition (APN 085-071-56) consists of vacant undeveloped land associated with the Santa Ana Mountains to the south. This area has been previously disturbed as a result of past grading activities for SR-91.

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View of the southern portion of the subject site looking to the north.



View of the central portion of the subject site looking to the north.



View of the central portion of the subject site looking to the south.



View of the northern portion of the subject site looking to the northeast.

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View of vacant (disturbed) land uses located to the southeast of the northern portion of the subject site.



View of vacant land uses to the east of the subject site.



View of transportation (SR-241) and vacant land uses located to the south of the subject site.



View of vacant land uses to the west of the subject site.

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### **4.1.3 Asbestos Containing Material**

Asbestos is a strong, incombustible, and corrosion resistant material, which was used in many commercial products since prior to the 1940s and up until the early 1970s. If inhaled, asbestos fibers can result in serious health problems. Asbestos containing-materials (ACMs) are building materials containing more than one percent (1%) asbestos (some state and regional regulators impose a one-tenth of one percent (0.1%) threshold). Due to the age of the on-site bridge structure 55-0724L (constructed in 1998), the potential for ACMs to be found on-site is considered unlikely. However, the Gypsum Canyon Road Undercrossing was constructed in 1971 and could contain ACMS. ACMs anticipated to be associated with materials located within the on-site Gypsum Canyon Road Undercrossing did not appear to be exposed.

### **4.1.4 Lead-Based Paints**

Until 1978, when the U.S. Consumer Product Safety Commission (CPSC) phased out the sale and distribution of residential paint containing lead, many homes were treated with paint containing some amount of lead. It is estimated that over 80 percent of all housing built prior to 1978 contains some lead-based paint (LBP). The mere presence of lead in paint may not constitute a material to be considered hazardous. In fact, if in good condition (no flaking or peeling), most intact LBP is not considered to be a hazardous material. In poor condition LBPs can create a potential health hazard for building occupants, especially children. Also, until 1996 and 2004, when Caltrans discontinued the use of lead chromate pigment in traffic stripping/marketing materials and hot-melt thermoplastic stripe materials, respectively, LBPs were commonly used in traffic striping/marketing materials and hot-melt thermoplastic stripe materials.

The on-site bridge structures do not appear to include features that have been painted; thus, LBPs in association with the on-site bridge structure itself is considered unlikely. However, RBF observed traffic striping along SR-241 and SR-91 during the October 22, 2013 site visit. Therefore, the potential exists for LBPs to be present in association with on-site traffic striping.

### **4.1.5 Aerially Deposited Lead**

Until the mid-1980s, gasoline and other fuels contained lead, a toxic metal. As each car or truck traveled highways and roads, tiny particles of lead were released in the exhaust and settled on the soils next to the road. Most of the time, lead tends not to move very far or fast in the environment.

Caltrans has sampled sediment adjacent to traffic lanes in major metropolitan areas and determined that lead from leaded gasoline emissions is present. Elevated lead levels have been found to be highest at the surface (zero [0] to six [6] inches) and decreases with depth. Levels are highest immediately adjacent to the traveled way and decreases with distance from the road. Total lead levels on average are not greater than the Total Threshold Limit Concentration (TTLC) but would often

exceed the Soluble Threshold Limit Concentration (STLC) found in Title 22, California Code of Regulations (CCR). The construction process of excavation, stockpiling, transporting, and disposing of material (i.e., soils), which exceeds the STLC for lead makes the material a hazardous waste. If the material exceeds the Threshold Concentration Leaching Potential (TCLP) test limits for lead, it is considered a Federal hazardous waste. However, tests conducted by Caltrans have concluded that materials excavated adjacent to freeways rarely exceed the TCLP threshold.

SR-241 was constructed on-site in the 1990's. Thus, aerially deposited lead in association with SR-241 is unlikely. However, SR-91 has been associated with a high number of vehicles since prior to 1935. According to the *Final Aerially Deposited Lead Survey Report* and the *Final Aerially Deposited Lead Survey Report Addendum* (prepared as part of the *State Route 91 Corridor Improvement Project Final Environmental Impact Report/Environmental Impact Statement* [SR-91 CIP 2012 Final EIR/EIS], dated August 2012), test results indicated that soluble lead was detected in 94 out of 148 samples analyzed. Concentrations of soluble lead in soils ranged from 0.1 mg/L to 2.1 mg/L. The criteria against which the lead analytical results for the *Final Aerially Deposited Lead Survey Report* were evaluated are as follows: If the 95 percent upper confidence limit (UCL) mean for soluble lead is less than 0.5 mg/L, the soil is considered non-hazardous for reuse on site. Although the maximum soluble lead concentration of 21 mg/L was detected in soils, a statistical analysis of soluble lead indicated that the 95 percent UCL for soluble lead analysis is less than 0.5 mg/L.

#### **4.1.6 Solid Waste Disposal**

RBF did not observe evidence of solid waste disposal within the boundaries of the subject site.

#### **4.1.7 Utilities**

Typical roadside utilities (i.e., electrical boxes, light poles, etc.) were noted during the October 22, 2013 site inspection. No staining or leaking was observed in association with on-site utilities.

#### **4.1.8 Polychlorinated Biphenyls (PCBs)**

On-site utilities did not appear to include those containing PCBs during the October 22, 2013 site visit.

#### **4.1.9 Chemical Storage Tanks (ASTs and USTs)**

During the October 22, 2013 site visit, the subject site was inspected for fill pipes, vent pipes, areas of abnormal or heavy staining, manways, manholes, access covers, concrete pads not homogenous with surrounding surfaces, concrete build-up areas potentially indicating pump islands, abandoned pumping equipment, or fuel pumps. RBF did not observe evidence of any chemical storage tanks during the site visit.

#### **4.1.10 Spills**

No surficial spills or staining were noted during the October 22, 2013 site inspection.

#### **4.1.11 Wells**

No water wells were noted within the boundaries of the subject site during the October 22, 2013 site visit.

#### **4.1.12 Pits, Ponds, Lagoons**

No evidence of pits, ponds, or lagoons was noted within the subject site.

#### **4.1.13 Septic Systems**

Residential septic systems are possible receivers of household waste and can be the source for soil and groundwater contamination. Active and abandoned residential structures not connected to the city sewer are likely to have septic systems. No residential uses are associated with the subject site. Further, no evidence to suggest the presence of on-site septic systems was noted during the October 22, 2013 site visit.

### **4.2 OFF-SITE OBSERVATIONS**

As previously stated in Section 2.0, *Physical Setting*, an adjoining property is considered any real property or properties that the border of which is contiguous or partially contiguous with that of the subject site, or that would be contiguous or partially contiguous with that of the subject site but for a street, road, or other public thoroughfare separating them. An adjacent property is any real property located within 0.25 mile of the subject site's border. Visual observations of the publicly accessible portions of adjoining properties were conducted on October 22, 2013 as part of this Phase I ISA and are described below.

#### **4.2.1 Utilities**

Typical utilities (i.e., electrical boxes, light poles, water utilities, sewer manholes, overhead power lines with pole-mounted transformers) were observed adjoining the subject site during the October 22, 2013 site visit. No visible signs of staining or leaking were noted within the vicinity of the subject site.

#### **4.2.2 Chemical Storage Tanks**

No evidence of ASTs or USTs associated with off-site uses was observed during the October 22, 2013 site visit.

### **4.2.3 Hazardous Materials**

There are no off-site uses in the Project Vicinity that are known to currently handle/maintain hazardous materials, as observed during the October 22, 2013 site visit of immediately adjacent properties. No unusual or suspicious material handling or storage practices were observed with respect to adjoining properties. Refer to Section 3.0, Historical Uses, for a discussion of historical off-site properties known to handle/use/store hazardous materials.

# Section 5 FINDINGS, OPINIONS, AND RECOMMENDATIONS

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*RBF has performed a Phase I ISA in general conformance with the scope of services and limitations of ASTM E 1527-05 Standard Practice for the SR-241/SR-91 Express Lanes Connector Project, located within the County of Orange, California; also known as the subject site within this Phase I ISA. Any exceptions to, or deletions from, this practice are described in Section 1.0, Introduction, of this report. This Phase I ISA has revealed the following in connection with the subject site.*

## 5.1 FINDINGS AND OPINIONS

The following findings and opinions are based upon review of reasonably ascertainable referenced material available to RBF during the preparation of this Phase I ISA, which included historical aerial photographs, historical topographic maps, regulatory databases, interviews, site reconnaissance, and other documentation.

### 5.1.1 On-Site Bridge Structures

#### 5.1.1.1 Asbestos Containing Materials

Asbestos is a strong, incombustible, and corrosion resistant material, which was used in many commercial products since prior to the 1940s and up until the early 1970s. If inhaled, asbestos fibers can result in serious health problems. Asbestos containing-materials (ACMs) are building materials containing more than one percent (1%) asbestos (some state and regional regulators impose a one-tenth of one percent (0.1%) threshold).

Due to the age of the on-site bridge structure 55-0724L (constructed in 1998), the potential for ACMs to be found on-site is considered unlikely. However, the Gypsum Canyon Road Undercrossing was constructed in 1971 and could contain ACMs. The on-site bridge structure appeared to be in fair condition and no visible evidence to suggest the release of ACMs into the environment was observed. Therefore, it is RBF's opinion that the on-site bridge structure has not resulted in a REC on the subject site as a result of ACMs.

Although typically performed during the PA/ED phase, confirmation of the presence or absence of asbestos in the Gypsum Canyon Road Undercrossing should be confirmed during the Final Design process (as nominal amounts of ACMs are anticipated to be disturbed at this bridge structure, if any) by a certified specialist. If asbestos is present, the certified asbestos abatement specialist should monitor the disposal of the ACMs as they are uncovered. The contractor would be required to comply with Caltrans Standard

Specifications Section 14-9.02 pertaining to air pollution control compliance with rules, regulations, ordinances, and statutes during renovation and demolition activities.

#### **5.1.1.2 Lead-Based Paints**

Until 1978, when the U.S Consumer Product Safety Commission (CPSC) phased out the sale and distribution of residential paint containing lead, many homes were treated with paint containing some amount of lead. It is estimated that over 80 percent of all housing built prior to 1978 contains some LBP. The mere presence of lead in paint may not constitute a material to be considered hazardous. In fact, if in good condition (no flaking or peeling), most intact LBP is not considered to be a hazardous material. In poor condition LBPs can create a potential health hazard for building occupants, especially children. The on-site bridge structures do not appear to include features that have been painted; thus, LBPs in association with the on-site bridge structure itself is considered unlikely. Therefore, it is RBF's opinion that the on-site bridge structures have not resulted in a REC on the subject site as a result of LBPs and no further recommendation is necessary at this time.

#### **5.1.2 Treated Wood Waste**

Treated wood waste comes from old wood that has been treated with chemical preservatives. These chemicals help protect the wood from insect attack and fungal decay while it's being used. Fence posts, sill plates, landscape timbers, pilings, guardrails, and decking, to name a few, are all examples of chemically treated wood. Treated wood waste contains hazardous chemicals that pose a risk to human health and the environment. Arsenic, chromium, copper, creosote, and pentachlorophenol are among the chemicals used to preserve wood and are known to be toxic or carcinogenic. Harmful exposure to these chemicals may result from touching, inhaling or ingesting treated wood waste particulate (e.g., sawdust and smoke).

No visible evidence to suggest the release of treated wood waste was noted during the course of this Phase I ISA. No REC has resulted on-site in this regard. However, this issue is of environmental concern, as the Proposed Project would require the removal/disposal of treated wood associated with on-site guardrails. The removal and disposal of treated wood waste will be required to comply with Caltrans Standard Specifications Section 14-10 pertaining to the disposal of treated wood waste.

#### **5.1.3 Traffic Striping Materials**

LBPs were commonly used in traffic striping materials before the discontinued use of lead chromate pigment in traffic striping/marketing materials and hot-melt thermoplastic stripe materials discontinued in 1996 and 2004, respectively). RBF observed traffic striping along SR-241 and SR-91 within the boundaries of the subject site during the October 22, 2013 site visit. Thus, the potential for LBPs to be present on-site as a result of traffic striping is likely.

No visible evidence to suggest the release of LBPs into the environment was observed; therefore, it is RBF's opinion that the likely presence of LBPs in traffic striping materials is not an REC at the time of this Phase I ISA. Although RBF has determined that the on-site freeways (SR-241 and SR-91) containing traffic striping have not resulted in an REC at the subject site as a result of LBPs, this issue is of environmental concern, as the Proposed Project involves the disturbance of these materials.

The contractor would be required to comply with Caltrans Standard Specifications Section 14-11 pertaining to the testing, removal, and disposal of any traffic striping and pavement marking materials.

#### **5.1.4 Aerially Deposited Lead**

Until the mid-1980s, gasoline and other fuels contained lead, a toxic metal. As each car or truck traveled highways and roads, tiny particles of lead were released in the exhaust and settled on the soils next to the road. Most of the time, lead tends not to move very far or fast in the environment.

Caltrans has sampled sediment adjacent to traffic lanes in major metropolitan areas and determined that lead from leaded gasoline emissions is present. Elevated lead levels have been found to be highest at the surface (zero to six inches) and decreases with depth. Levels are highest immediately adjacent to the traveled way and decreases with distance from the road. Total lead levels on average are not greater than the Total Threshold Limit Concentration (TTLC) but would often exceed the Soluble Threshold Limit Concentration (STLC) found in Title 22, California Code of Regulations (CCR). The construction process of excavation, stockpiling, transporting, and disposing of material (i.e., soils), which exceeds the STLC for lead, makes the material a hazardous waste. If the material exceeds the Threshold Concentration Leaching Potential (TCLP) test limits for lead, it is considered a Federal hazardous waste. However, tests conducted by Caltrans has concluded that materials excavated adjacent to freeways rarely exceed the TCLP threshold.

SR-241 was constructed on-site in the 1990's. Thus, aerially deposited lead in association with SR-241 is unlikely. However, SR-91 has been associated with a high number of vehicles since prior to 1935. According to the *Final Aerially Deposited Lead Survey Report* and the *Final Aerially Deposited Lead Survey Report Addendum* (prepared as part of the SR-91 CIP 2012 Final EIR/EIS), test results indicated that soluble lead was detected in 94 out of 148 samples analyzed.

Concentrations of soluble lead in soils ranged from 0.1 mg/L to 2.1 mg/L. The criteria against which the lead analytical results for the *Final Aerially Deposited Lead Survey Report* were evaluated are as follows: If the 95 percent upper confidence limit (UCL) mean for soluble lead is less than 0.5 mg/L, the soil is considered non-hazardous for reuse on site. Although the maximum soluble lead concentration of 21 mg/L was detected in soils, a statistical analysis of soluble lead indicated that the 95 percent UCL for soluble lead analysis is less than 0.5 mg/L.

Therefore, according to DTSC Variance No. V09HQSCD006, soils located within the Project limits to a depth of 3 feet (ft) bgs between Gypsum Canyon Road and Magnolia Avenue and 5 ft bgs along eastbound SR-91 starting east of the Weir Canyon Road Undercrossing and extending east of the Gypsum Canyon Road Undercrossing may be released to the contractor as nonhazardous soils and reused on site without restrictions under the DTSC Variance No. V09HQSCD006 (effective June 30, 2015, and extended through October 31, 2015) for aerially deposited lead (ADL) impacted soil. Compliance with the requirements for Variance No. V09HQSCD006 may include the following measures; however, should the project be constructed after October 31, 2015, the project would be subject to the applicable DTSC Variance/regulations:

- Caltrans would be required to provide at least 30 day advance written notification to the DTSC prior to project implementation and would be required to send copies of the notification to the RWQCB, South Coast Air Quality Management District, and local Certified Uniform Program Agencies (CUPAs), as applicable. The advance written notification must include the following information:
  - A statement that the project will entail excavation, stockpiling and burial of ADL-contaminated soil pursuant to DTSC Variance No. V15HWMP001;
  - Project number;
  - Project description;
  - Project Limits;
  - Electronic versions of the following documents:
    - The environmental document prepared for the project;
    - The Variance; and
    - DTSC-prepared fact sheet about the Variance.
  - Identify any ADL soil that will be moved from the project area to another project area with a complete description of additional project areas.
  - The following documents must be made available as described above within 10 days of completion:
    - The Caltrans-approved Excavation and Transportation Plan; and
    - Contact information for Resident Engineer and Project Manager.
- For every property where ADL-Contaminated soil is buried pursuant to the Variance, Caltrans must, in compliance with California Code of Regulations, Title 22, Section 67391.1, execute a legal instrument restricting use of that property, which instrument would be binding in perpetuity upon Caltrans or any future legatee of the property. Said instrument would be a land use covenant, except as provided by that listed below, and must be recorded with the county (or counties) wherein ADL-contaminated soil has been buried.
  - For any property for which the DTSC determines as set forth in California Code of Regulations, Title 22, Section 67391.1(f) a land use covenant is not feasible, then another institutional control mechanism may be used as approved by the DTSC.

Implementation of the proposed project would not require soil export from the project site to another area. No further recommendation is necessary in this regard. It is the opinion of RBF that the presence of ADL within the boundaries of the subject site does not present a REC at the time of this Phase I ISA. However, the presence of ADL within exposed soils along SR-91 presents an environmental concern if these materials are transported off-site.

In accordance with the Minimization Measure HW-3 of the SR-91 CIP Project, the Project Engineer will ensure that a qualified consultant conducts a new soil Aerially Deposited Lead (ADL) evaluation and/or investigation for this project at the Design Phase. The previous ADL test results may be used if applicable along with any new ADL test results. The new soil ADL evaluation and/or investigation will be consistent with the approved DTSC Variance at that time. If no Variance is in place at this time, the qualified consultant should develop a plan for handling of ADL on-site such that risk to worker safety and the environment are minimized to the extent feasible.

## **5.1.5 Public Records**

### **5.1.5.1 On-Site Properties**

Available public records provided by EDR were reviewed by RBF on September 27, 2013. The lists that were reviewed did not report any regulatory properties within the boundaries of the subject site. Therefore, no known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on the subject site. The subject site has not been under investigation for violation on any environmental laws, regulations, or standards, as identified in the databases reported by EDR. As no contamination or associated cleanup activities associated with a release of hazardous materials on-site has been reported, it is RBF's opinion that no REC is present as a result of on-site regulatory properties and no further recommendation is necessary at this time.

### **5.1.5.2 Off-Site Properties**

Multiple listed regulatory sites are located within a one mile radius of the subject site and are listed in one or more of the regulatory databases listed in Appendix B, *EDR Database Search*. For a complete list of sites identified and their status, refer to Appendix B, *EDR Search*. The majority of the listed regulatory sites are considered to have a low potential of affecting the subject site for one or more of the following reasons: distance from the subject site, direction of anticipated groundwater flow, site status, and/or no contamination has been reported. However, due to the location of the following off-site property, verification of the status was further reviewed as part of this Phase I ISA:

**Former Gypsum Canyon Quarry Operations:** The former Gypsum Canyon Quarry property adjoins the northern portion of the subject site to the south-southeast (cross-gradient) of the subject site. Property owners/operations associated with this quarry

include, but are not limited to, Industrial Asphalt, R.F. White, Owl Rock Products Company, The Irvine Company, Robertson's Ready Mix, Asphalt Ready Mix, and Southern California Edison. In September 2004, a comprehensive environmental site assessment/investigation was performed on the Quarry with plans for future residential site development. The OCHCA oversaw cleanup of the Gypsum Canyon Quarry area related to environmental concerns found in surface soils. Cleanup activities in 2005 included excavation and off-site treatment and recycling of 84 tons of hydrocarbon-affected soil associated with a former underground storage tank UST.

Contamination was reported to be associated with soils at this off-site property. Based on this reviewed documentation as well as case-closure status obtained for this property by the SWRCB, DTSC, and City of Anaheim Public Utilities Department, it is the opinion of RBF that this off-site property has not resulted in a REC at the subject site at the time of this Phase I ISA and no further recommendation is necessary at this time.

#### **5.1.5.3 Unmapped Properties**

An REC on the subject site caused by one or more of the reported Unmapped Properties located within the vicinity of the subject site is considered to be low due to the distance from the subject site and/or the status of the identified sites. Thus, it is the opinion of RBF that reported Unmapped Properties have not resulted in an REC at the subject site and no further recommendation is necessary at this time.

#### **5.1.6 Historical Recognized Environmental Condition(s)**

No Historical RECs (HRECs) have been noted within the boundaries of the subject site. Thus, it is the opinion of RBF that no REC has resulted at the subject site as a result of HRECs and no further recommendation is necessary at this time.

#### **5.1.7 Historical Use(s) Information**

Based upon evaluation of the documented land use as demonstrated in the review of historical aerial photographs and maps as well as the site visit, the subject site appears to have been historically utilized as vacant land, agricultural, and transportation uses (SR-241 and SR-91). The eastern portion of the subject site appears to have consisted of agricultural uses from the early 1940's until SR-91 was widened in the early 1970's.

Therefore, a combination of several commonly used pesticides (i.e., DDD, DDT, DDE), which are now banned, may have been used throughout the subject site. The historical use of agricultural pesticides may have resulted in pesticide residues of certain persistence in soil at concentrations that are considered to be hazardous based on established federal regulatory levels. The primary concern

with historical pesticide residues is human health risk from inadvertent ingestion of contaminated soil, particularly by children. The presence of moderately elevated pesticide residuals in soil presents potential health and marketplace concerns.

Based on the SR-91 CIP 2012 Final EIR/EIS, a *Detailed Site Investigation Report* was prepared by SCS Engineers in December 2011 that included further testing to confirm whether or not presence of moderately elevated pesticide residuals in soil are present. Based on the results, low concentrations of DDT, DDE, DDD, chlordanes, and dieldrin were identified in near-surface soils in these portions of the subject site. However, the detected concentrations were all below the current CHHSLs for both residential and commercial/industrial land uses. Thus, based on this information, it is the opinion of RBF that the historical on-site agricultural activities conducted at the north-eastern portion of the subject site has not resulted in a REC.

Surrounding uses appear to have consisted of vacant land, infrastructure, industrial, recreational, agricultural, and residential land uses. Adjoining historical uses included a gravel pit, reservoir, rocket fuel test site, and associated water tanks noted to the east of the subject site as well as minor areas of agricultural land uses to the north of the eastern portion of the subject site. Based on the sources reviewed as part of this Phase I ESA as well as the site visit and location of off-site historical uses, no historical use information pertaining to off-site uses (which would point to the potential for presence of a REC) has been noted within the boundaries of the subject site and no further recommendation is necessary at this time.

### **5.1.8 Acquisition Summary**

Permanent right-of-way acquisition would be required for approximately 5.09 ac of land owned and operated by the County of Orange (APN 085-071-56) located to the south of eastbound SR-91 (approximately 3,600 ft west of the Coal Canyon Undercrossing). This property is currently comprised of vacant land, with varying topography associated with the Santa Ana Mountains. No known hazardous materials are associated with this property, currently or historically. Therefore, it is the opinion of RBF that the permanent right-of-way acquisition of this area is not a REC at the time of this ISA and no further recommendation is necessary at this time.

### **5.1.9 Other Potential Sources of Hazardous Materials**

Based on the current and historical topographic maps reviewed as part of this Phase I ISA, a petroleum pipe line appears to be traversing the northern portion of the subject site in an east/west direction. According to the Mountain Park Specific Plan Amendment Draft EIR No. 331, this pipe line is the Southern Trails (Questar) Pipe Line. This pipe line is currently not in use and the owner/operator has plans to convert the pipe line to a natural gas facility in the future. This pipe line has been well documented through the Mountain Park Specific Plan Amendment Draft EIR No. 331. This pipe line has not reported any releases to date, is not in use, and the conditions do not appear to

have changed since adoption of the Mountain Park Specific Plan Amendment EIR. Based on an interview conducted with Mr. Steve Chapman (a Questar representative) conducted on August 25, 2014, the 2005 Mountain Park Specific Plan EIR description of the pipe line remains current. No potential environmental concerns associated with this pipe line were noted as part of the Mountain Park Specific plan Amendment Draft EIR No. 331 as well. Based on the information reviewed as part of the Phase I ISA, it is the opinion of RBF that no additional sampling is required at this time. No evidence to suggest that this pipe line has ruptured was noted during the course of this Phase I ISA. Thus, it is the opinion of RBF that no REC has resulted on-site as a result of the petroleum pipe line.

Although RBF has determined that the on-site petroleum pipe line has not resulted in an REC at the subject site, prior to site disturbance, the contractor would be required to comply with Caltrans Standard Specifications pertaining to excavation. With implementation of Caltrans Standard Specifications with regard to notification to the regional notification center would ensure that all utility owners within the Project disturbance limits identify the locations of underground transmission lines and facilities (including underground petroleum pipe lines), which would reduce the environmental concern in this regard.

Based on available past environmental documentation prepared for the Mountain Park Specific Plan, located to the east of the northern portion of the subject site, the following historical off-site property was noted:

**Former Rocket Fuel Test Site:** The former Douglas Aircraft Company (McDonnell-Douglas Corporation and Astropower) leased an approximate 480-ac (to the south of the Former Gypsum Canyon Quarry Operations) for use as a rocket fuel test research facility commencing on August 1, 1961. The operational area was located approximately one mile south of the mouth of Gypsum Canyon and the development spanned the east and west sides of Gypsum Creek. The majority of activity at the McDonnell-Douglas property occurred between 1961 and 1971 and the lease expired on December 31, 1991. McDonnell-Douglas demolished the majority of buildings upon its exit from the site and the few remaining structures were demolished in 2003. The prior structures consisted of office trailers, central maintenance and support buildings, smaller maintenance and support buildings, storage bunkers, test pads, blockhouses, storage magazines, and ballistic test range. Water for the operation was piped in from the mouth of Gypsum Canyon in an aboveground metal delivery pipe line.

Based on the EDR database search, this historical off-site property does not appear to have impacted groundwater underlying the subject site. This property has been investigated as part of other reported contamination at this site, as discussed in Off-Site Regulatory Properties (Former Gypsum Canyon Quarry Operations) above. During these investigations, no potential contamination to groundwater as a result of the off-site Rocket Fuel Test Site was noted. As no files reviewed indicate that

contamination to groundwater has resulted from this off-site property and investigations at this site and in the area have been sampled and undergone site sampling with regulatory agencies in order to prepare the site for future development, it is the opinion of RBF that this off-site property has not resulted in a REC at the subject site and no further recommendation is necessary at this time.

#### **5.1.10 Data Gaps**

A data gap is a lack of or inability to obtain information required by the ASTM E 1527-05 Standard Practice despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice, including, but not limited to, site reconnaissance and interviews. RBF did not interview local government officials at the time of this Phase I ISA. Based on the database search, historical records, and site visit conducted, it is the opinion of RBF that any interviews with local government officials would not aid RBF in making a conclusion that indicates a recognized environmental condition in connection with the subject site. Thus, it is the opinion of RBF that based on the documentation and records search reviewed as part of this Phase I ISA as well as the site reconnaissance, this data gap is not significant and no REC has resulted in this regard.

## **5.2 CONCLUSIONS**

RBF has performed a Phase I ISA in conformance with the scope and limitations of ASTM E 1527-05 Standard Practice for the SR-241/SR-91 Express Lanes Connector Project. Any exceptions to, or deletions from, this practice are described in Section 1.0, *Introduction*, of this report. This assessment has revealed no evidence of RECs in connection with the property. However, it should be noted that the following environmental concerns have been identified, and implementation of the recommendations outlined below as well as federal, state, and local laws and regulations, including Caltrans Standard Specifications and Special Provisions during construction, these issues would no longer be of concern.

- ◆ Aerially Deposited Lead (for exposed soils along SR-91 only);
- ◆ Asbestos-Containing Materials (associated with Gypsum Canyon Road Undercrossing only);
- ◆ Treated Wood Waste (for guardrails);
- ◆ Traffic Striping Materials; and
- ◆ An On-Site Petroleum Pipe Line.

Based on the documentation review and site visit conducted as part of this Phase I ISA, it is the opinion of RBF that with implementation of the recommendations outlined below as well as federal, state, and local laws and regulations, including Caltrans Standard Specifications and Special Provisions during construction, no further Preliminary Site Investigation is necessary at this time.

## 5.3 RECOMMENDATIONS

The following recommendations are the opinion of RBF Consulting and are based on the findings, opinions, and conclusions noted during the course of this Phase I ISA.

### *Aerially Deposited Lead*

- ◆ In accordance with the Minimization Measure HW-3 of the *State Route 91 Corridor Improvement Project Final Environmental Impact Report/Environmental Impact Statement* (SR-91 CIP 2012 Final EIR/EIS), dated August 2012, the Project Engineer will ensure that a qualified consultant conducts a new soil Aerially Deposited Lead (ADL) evaluation and/or investigation for this project at the Design Phase. The previous ADL test results may be used if applicable along with any new ADL test results. The new soil ADL evaluation and/or investigation will be consistent with the approved DTSC Variance at that time. If no Variance is in place at this time, the qualified consultant should develop a plan for handling of ADL on-site such that risk to worker safety and the environment are minimized to the extent feasible.

### *ACMs*

- ◆ Although RBF has determined that the Gypsum Canyon Road Undercrossing has not resulted in a REC on the subject site as a result of potential ACMs, it is the opinion of RBF that confirmation of the presence or absence of asbestos in the Gypsum Canyon Road Undercrossing should be confirmed during the Final Design process by a certified specialist. If asbestos is present, the certified asbestos abatement specialist should monitor the disposal of the ACMs as they are uncovered. The contractor will be required to comply with Caltrans Standard Specifications Section 14-9.02 pertaining to air pollution control compliance with rules, regulations, ordinances, and statues during renovation and demolition activities.

### *Treated Wood Waste*

- ◆ Although RBF has determined that potential on-site treated wood waste (associated with on-site guardrails) has not resulted in a REC on the subject site, the removal and disposal of treated wood waste will be required to comply with Caltrans Standard Specifications Section 14-10 pertaining to the disposal of treated wood waste during construction.

### *Disturbance of Traffic Striping*

- ◆ Although RBF has determined that the on-site freeways (SR-241 and SR-91) containing traffic striping has not resulted in an REC at the subject site as a result of LBPs, it is the

opinion of RBF that the contractor will be required to comply with Caltrans Standard Specifications Section 14-11 pertaining to the testing, removal, and disposal of any traffic striping and pavement marking materials during construction.

#### *Petroleum Pipe Line*

- ◆ Although RBF has determined that the on-site petroleum pipe line has not resulted in an REC at the subject site, prior to site disturbance, the contractor will be required to comply with Caltrans Standard Specifications pertaining to excavation during construction. The contractor will be required to notify the regional notification center prior to ground disturbance activities, ensuring that all utility owners within the Project disturbance limits identify the locations of underground transmission lines and facilities (including underground petroleum pipe lines).

#### *General Site Disturbance Activities*

- ◆ Prior to the start of construction, the Project Engineer should require the contractor to prepare a Construction Contingency Plan (CCP) in accordance with Caltrans Unknown Hazards Procedures for Construction, of Caltrans Construction Manual. The CCP will include provisions for emergency response in the event that unidentified hazardous materials, petroleum hydrocarbons, or hazardous or solid wastes are discovered during construction activities. The CCP will address field screening, contaminant materials testing methods, mitigation and contaminate management requirements, and health and safety requirements for construction workers.

The contractor will be required to implement the CCP during all construction activities. During construction, the contractor will be required 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, the contractor will be required to notify the National Response Center by calling 1-800-424-8802. The contractor will be required to perform cleanup of unexpected releases under the appropriate federal, state, and local agency oversight.

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## Section 6 REFERENCES

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Date	Approximate Scale	Source
1938	1" = 1000'	Laval
1938	1" = 1000'	Laval
1938	1" = 1000'	Laval
1946	1" = 1000'	Jackmann Air
1946	1" = 1000'	Jackmann Air
1946	1" = 1000'	Jackmann Air
1953	1" = 1000'	Pacific Air
1953	1" = 1000'	Pacific Air
1953	1" = 1000'	Pacific Air
1960	1" = 1000'	Fairchild
1960	1" = 1000'	Fairchild
1960	1" = 1000'	Fairchild
1968	1" = 1000'	Teledyne
1968	1" = 1000'	Teledyne
1968	1" = 1000'	Teledyne
1977	1" = 1000'	Teledyne
1977	1" = 1000'	Teledyne
1977	1" = 1000'	Teledyne
1989	1" = 1000'	USGS
1989	1" = 1000'	USGS
1989	1" = 1000'	USGS
1994	1" = 1000'	USGS
1994	1" = 1000'	USGS
1994	1" = 1000'	USGS
2002	1" = 1000'	USGS
2002	1" = 1000'	USGS
2002	1" = 1000'	USGS

Note: 1938-2002 Historical Aerial Photographs provided by Environmental Data Resources, Inc, on October 2, 2013.

American Society for Testing and Materials International, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, Designation: E 1527 – 05.

City of Anaheim, General Plan for the City of Anaheim, May 2004.

City of Anaheim, Anaheim General Plan and Zoning Code Update EIR, May 2004.

City of Anaheim, Mountain Park Specific Plan No. 90-4, Amendment No. 1, 2005.

City of Anaheim, Mountain Park Specific Plan Amendment Draft EIR No. 331, 2005.

City of Yorba Linda, City of Yorba Linda General Plan/EIR, December 6, 1993.

Database Search/GeoCheck, Environmental Data Resources, Inc., September 27, 2013.

Department of Conservation, Division of Oil, Gas and Geothermal Resources, Version 2.1 of the Online Mapping System (DOMS), <http://maps.conservation.ca.gov/doms/index.html>, accessed on October 21, 2013 and May 6, 2015.

Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, dated August 2000.

EDR City Directory Abstract, Environmental Data Resources, Inc., dated September 25, 2013.

EnviroStor Database, Department of Toxic Substances Control, accessed October 21, 2013.

EPA Map of Radon Zones, U.S. EPA, 1986-1992.

Flood Insurance Rate Map, Federal Emergency Management Agency, Index Map Numbers 06059C0180J and 06059C0185J, maps revised December 3, 2009, and 06065C1335G and 06065C0668G, maps effective August 28, 2008.

GeoTracker Database, State Water Resources Control Board, accessed October 21, 2013.

Interview, Jennifer Chan, P.E., RBF Consulting, e-mail correspondence conducted on November 4, 2013.

Interview, Mr. Steve Chapman, Questar, telephone correspondence conducted on August 25, 2014.

Kleinfelder West, Inc., *Final Aerially Deposited Lead Survey Report for the State Route 91 Corridor Improvement Project*, December 2008, revised June 2010.

Kleinfelder West, Inc., *Final Aerially Deposited Lead Survey Report Addendum for the State Route 91 Corridor Improvement Project*, July 2009, second revision June 2010.

LSA Associates, Inc., *State Route 91 Corridor Improvement Project, Final Environmental Impact Report/Environmental Impact Statement*, August 2012.

LSA Associates, Inc., *Natural Environment Study*, draft dated May 2015.

Parsons Brinckerhoff, *Final Initial Site Assessment for the SR-91 Corridor Improvement Project*, July 2010.

Parsons Brinckerhoff, *Final Supplemental Initial Site Assessment for the SR-91 Corridor Improvement Project*, September 2011.

RealQuest Property Data, *First American Real Estate Solutions*, accessed on March 30, 2015.

Sanborn Fire Insurance Maps, provided by EDR, via The Sanborn Library, LLC, searched on September 25, 2013.

SCS Engineers, *Detailed Site Investigation Report for the State Route 91 Corridor Improvement Project*, December 2011.

SCS Engineers, *Final Asbestos, Lead-Based Paint, and Hazardous Materials Survey Report for the State Route 91 Corridor Improvement Project*, November 2011.

Site Visit, conducted on October 22, 2013.

Transportation Corridor Agencies, *Eastern Transportation Corridor Final Environmental Impact Report*, May 14, 1992.

United States Department of Agriculture, *Natural Resources Conservation Service Web Soil Survey*, accessed September 26, 2013.

United States Department of Agriculture, *Soil Survey of Orange County and Western Part of Riverside County, California*, issued September 1978.

USGS Historical Topographic Quadrangles, *Southern CA Sheet 1, Corona, Prado, Prado Dam, and Black Star Canyon, California Quadrangles*, 1901 through 1997.

USGS Topographic Quadrangle, *Black Star Canyon, California Quadrangle*, dated 1967, photorevised 1988.

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