

Grove Avenue Corridor Project

SAN BERNARDINO COUNTY, CALIFORNIA
DISTRICT 8 – SBD – Ontario
FPN HPLUL-5092(039)/ Project ID: 0815000220

Final Environmental Impact Report/ Environmental Assessment with Finding of No Significant Impact



Prepared by the

**State of California Department of Transportation
and
City of Ontario**

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and the Memorandum of Understanding dated December 23, 2016, and executed by FHWA and Caltrans.



March 2021



General Information about This Document

What's in this document:

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), and the City of Ontario have prepared this Final Environmental Impact Report/Environmental Assessment (EIR/EA), which examines the potential environmental impacts of the alternatives being considered for the Grove Avenue Corridor Project (proposed project or project) located in San Bernardino County, California. Caltrans is the lead agency under the National Environmental Policy Act (NEPA). The City of Ontario is the lead agency under the California Environmental Quality Act (CEQA). The document tells you why the project is being proposed, what alternatives we have considered for the project, how the existing environment could be affected by the project, the potential impacts of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

The Draft Environmental Impact Report/Environmental Assessment was circulated to the public for 45 of days between August 19 and October 2, 2019. Comments received during this period are summarized in Chapter 4 and included in Appendix J. Elsewhere throughout this document, a vertical line in the margin indicates a change made since circulation of the draft environmental document. Minor editorial changes and clarifications have not been so indicated.

- Additional copies of this document and the related technical studies are available for review at: Caltrans District 8 office at 464 W. 4th Street, San Bernardino, CA 92401
- City of Ontario City Clerk at 303 East “B” Street, Ontario, CA 91764-4105
- South Ontario Library, 3850 East Riverside Drive, Ontario, CA 91761
- Ovitt Family Community Library, 215 East “C” Street, Ontario, CA 91764

This document may be downloaded at the following website:

www.ontarioca.gov/planning.

Alternative formats:

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Mr. Charles Mercier, Principal Planner, City of Ontario, Planning Department, “Attn: Grove Avenue Corridor Project”, 303 East “B” Street, Ontario, CA 91764-4105; (909) 395-2036 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY to Voice), 1 (800) 735-2922 (Voice to TTY), 1 (800) 855-3000 (Spanish TTY to Voice and Voice to TTY), 1-800-854-7784 (Spanish and English Speech-to-Speech) or 711.

Widen Grove Avenue, from 4th Street to Airport Drive

**FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT with
Finding of No Significant Impact**

Submitted Pursuant to: (State) Division 13, Public Resources Code
(Federal) 42 U.S.C. 4332(2)(C)

THE STATE OF CALIFORNIA
Department of Transportation
and
City of Ontario

4/30/2021

Date of Approval



David Bricker
Deputy District Director, District 8
Division of Environmental Planning
California Department of Transportation
NEPA Lead Agency

4/30/2021

Date of Approval



Charles Mercier
City of Ontario
CEQA Lead Agency

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

Charles Mercier
City of Ontario
909-395-2036
303 East "B" Street
Ontario, CA 91764

**CALIFORNIA DEPARTMENT OF TRANSPORTATION
FINDING OF NO SIGNIFICANT IMPACT (FONSI)**

for

Grove Avenue Corridor Project

The California Department of Transportation (Caltrans) and the City of Ontario have determined that the Build Alternative of the proposed project will have no significant impact on the human environment. This FONSI is based on the attached Environmental Impact Report/Environmental Assessment (EIR/EA), which has been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. Caltrans takes full responsibility for the accuracy, scope, and content of the attached EIR/EA.

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and the Memorandum of Understanding dated December 23, 2016, and executed by FHWA and Caltrans.

4/30/2021

Date



David Bricker
Deputy District Director, District 8
Division of Environmental Planning
California Department of
Transportation NEPA Lead Agency

Summary

National Environmental Policy Act Assignment

California participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 United States Code (U.S.C.) 327, for more than 5 years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (Moving Ahead for Progress in the 21st Century) (Public Law [P.L.] 112-141), signed by President Obama on July 6, 2012, amended 23 U.S.C. 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, the California Department of Transportation (Caltrans) entered into a Memorandum of Understanding (MOU) pursuant to 23 U.S.C. 327 (National Environmental Policy Act [NEPA] Assignment MOU) with the Federal Highway Administration (FHWA). The NEPA Assignment MOU became effective October 1, 2012, and was renewed on December 23, 2016, for a term of 5 years. In summary, Caltrans continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned and Caltrans assumed all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off of the State Highway System within the State of California, except for certain categorical exclusions (CE) that FHWA assigned to Caltrans under the 23 U.S.C. 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

Caltrans is the lead agency under NEPA. The City of Ontario (City) is the lead agency under the California Environmental Quality Act (CEQA). The proposed project is known as the Grove Avenue Corridor Project (Project) and is located in the city of Ontario, San Bernardino County, California.

S-1 Overview of Project Area

The City, in cooperation with Caltrans District 8, proposes to widen Grove Avenue in the city of Ontario and the county of San Bernardino from four to six lanes between 4th Street and State Street/Airport Drive. Grove Avenue is located approximately 1.4 miles east of Euclid Avenue and approximately 1.2 miles west of Vineyard Avenue along Interstate 10 (I-10). The project area is bound on the north by 4th Street and on the south by State Street/Airport Drive. The widened segment of Grove Avenue would be located south of I-10 and would serve the city of Ontario.

Land uses in the project vicinity include residential, commercial, industrial, parks and recreation, and public facilities. In the project study area, several approved or planned projects in the project study area may affect or require design coordination with the project. These projects are:

- I-10 Corridor Project (FHWA)
- I-10/Grove Avenue Interchange Project
- Omnitrans West Valley Connector (Federal Transit Administration [FTA])
- I-15 Corridor Improvement Project
- San Bernardino County Flood Control District's Master Stormwater System Maintenance Program (MSWMP)
- Metro Gold Line Foothill Extension Construction Authority
- College Park Specific Plan
- Ontario Center Specific Plan
- Ontario Festival Specific Plan
- Meredith International Centre Specific Plan
- Guasti Plaza Specific Plan
- Omnitrans Route 290
- San Bernardino County Transportation Authority (SBCTA) Ontario Airport Rail Access
- Mountain Village – City of Ontario Specific Plan
- Pomona Corridors Specific Plan

S-2 Purpose and Need

The purpose of the proposed Grove Avenue Corridor Project is to accomplish the following objective:

- Alleviate existing and anticipated future congestion along Grove Avenue between 4th Street and Airport Drive and improve traffic operations along the corridor in the city of Ontario.

Improvements to Grove Avenue are needed to accommodate recent and projected growth in passenger and goods/trucks movement associated with Ontario International Airport and changes in land use since Grove Avenue was originally constructed.

Based on traffic projections and the existing and planned land uses in the vicinity, the existing Grove Avenue facility is forecast to operate at unsatisfactory level of service (LOS) at three intersections within the project limits by 2045 without improvements.

S-3 Proposed Action

Caltrans, in cooperation with the City and the County, proposes to widen Grove Avenue from a four-lane roadway to a six-lane roadway from 4th Street to State Street/Airport Drive. Grove Avenue is located approximately 1.4 miles east of Euclid Avenue and approximately 1.2 miles west of Vineyard Avenue along I-10. The project area is bound on the north by 4th Street and on the south by State Street/Airport Drive.

One No Build Alternative and one Build Alternative are under consideration. The No Build Alternative would include no improvements.

The Build Alternative proposes local street improvements along Grove Avenue and improvements at the Grove Avenue/Holt Boulevard intersection. This alternative is bound on the north by 4th Street and on the south by State Street/Airport Drive. Table S-1 provides a summary of these alternatives. Because the No Build Alternative represents the scenario under which existing conditions remain unchanged, the Build Alternative has been identified by the Project Development Team (PDT) as the preferred alternative and is generally referred to as the Grove Avenue Corridor Project or the proposed project (or project) in this document.

S-4 Joint CEQA/NEPA Document

The Grove Avenue Corridor Project is subject to federal, as well as City and State, environmental review requirements because the City proposes the use of federal funds from FHWA and/or the project requires an approval from FHWA. Project documentation, therefore, has been prepared in compliance with both CEQA and NEPA. The City is the project proponent and the lead agency under CEQA. FHWA's responsibility for environmental review, consultation, and any other actions required by applicable federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. Section 327 and the MOU dated December 23, 2016, and executed by FHWA and Caltrans. With NEPA Assignment, FHWA assigned and Caltrans assumed all of the USDOT Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off of the State Highway System within California, except for certain categorical exclusions that FHWA assigned to Caltrans under the 23 U.S.C.

326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

Some impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA. Because NEPA is concerned with the significance of the project as a whole, quite often a “lower level” document is prepared for NEPA. One of the most commonly seen joint document types is an Environmental Impact Report (EIR)/Environmental Assessment (EA).

After receiving comments from the public and reviewing agencies, this Final EIR/EA was prepared. The City and Caltrans may prepare additional environmental and/or engineering studies to address comments. The Final EIR/EA includes responses to comments received on the Draft EIR/EA and identifies the preferred alternative. If the decision is made to approve the project, a Notice of Determination will be published for compliance with CEQA, and Caltrans will decide whether to issue a Finding of No Significant Impact (FONSI) or require an Environmental Impact Statement (EIS) for compliance with NEPA. A Notice of Availability (NOA) of the FONSI will be sent to the affected units of federal, state, and local government, and to the State Clearinghouse in compliance with Executive Order (EO) 12372.

S-5 Project Impacts

Table S-1 provides a brief comparison of the impacts of the No Build Alternative and the Build Alternative (proposed project). Other alternatives to the project (e.g., alternative sites, reversible lanes, widening both sides, widening to the west) would not meet the purpose and need or would have greater impacts and have been considered but dismissed from further consideration.

Table S-1. Summary of Major Potential Impacts from Alternatives

Environmental Resource	No Build Alternative	Build Alternative (Proposed Project)	Avoidance, Minimization or Mitigation Measures
<p>Consistency with State, Regional, and Local Plans and Programs</p>	<p>The No Build Alternative is inconsistent with several plans.</p>	<p>Properties used as temporary construction easements (TCE) would maintain their existing land use during and after project construction.</p> <p>The Build Alternative is inconsistent with the Southern California Association of Governments (SCAG) Regional Comprehensive Plan (RCP).</p>	<p>LU-3: The remnant parking lot on the west side of John Galvin Park will be reconfigured to maintain as many parking spots at this location as possible.</p> <p>VA-2: Where it is not feasible to save the existing trees, new tree and vegetation plantings shall be included in the final design of the roadway. Replacement trees shall be two 24-inch boxed trees for each tree removed by the project. All areas disturbed by the project shall be fitted with new landscaping, including trees, groundcovers, accent plants, and turf grass (in park areas adjacent to existing remaining turf).</p> <p>NC-1: The project shall preserve as many mature trees as practicable. Although there is no City or County ordinance for tree removal, the project's landscape plan will incorporate a tree replacement plan with a replacement ratio of 2:1 – for every mature tree removed, two trees will be planted to be consistent with Measure VA-2. Mature trees (larger than 20 feet high) that are to be removed shall be replaced with two 24-inch box trees. Design plans shall indicate locations of existing mature trees (larger than 20 feet high) to be preserved in place. Tree replacement shall meet all Caltrans and City standards and policies, and near John Galvin Park, the replacement tree species will incorporate species that have been identified as those of the original planting of John Galvin Park in the 1930s.</p>
<p>Parks and Recreation</p>	<p>No impact.</p>	<p>Permanent impacts to approximately 0.06 acre of park space would occur. Also, 1.2 acres of park space would be temporarily impacted due to temporary construction easements (TCE). Impacts are considered de minimis.</p>	<p>LU-1: Turf grass and rock curbs will be replaced in TCE areas within Grove Memorial Park to match pre-project conditions in consultation with the property owner (City) during and at completion of construction.</p> <p>LU-2: Turf grass and rock curbs will be replaced in TCE areas within John Galvin Park to match pre-project conditions in consultation with the property owner (City) during and at completion of construction.</p> <p>LU-3: The remnant parking lot on the west side of John Galvin Park will be reconfigured to maintain as many parking spots at this location as possible.</p>

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Growth	The No Build Alternative is inconsistent with the regional mobility goals in the study area; however, it is not anticipated to influence growth within the study area.	No impact.	No avoidance, minimization, and/or mitigation measures required.
Cultural Resources	No impact.	No impact.	<p>CR-1: If cultural resources are discovered at the job site, all work activities shall stop within a 60-foot radius of the discovery, the discovery area shall be protected, and the Resident Engineer shall be notified. Cultural resources shall not be moved or taken from the job site until Caltrans investigates and determines the significance of the find. Work activities shall not resume within the discovery area until Caltrans provides written notification authorizing work activities to resume.</p> <p>CR-2: Human Remains. If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities will cease in any area or nearby area suspected to overlie remains, and the County Coroner will be contacted. Pursuant to Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC), who will designate the Most Likely Descendent (MLD). At this time, the Caltrans District 8 Environmental Branch Chief, Andrew Walters (909) 383-2647, will be contacted so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.</p>
Community Character and Cohesion and Environmental Justice	No impact.	No impact.	<p>COM-1: Where acquisition and relocation are unavoidable, provisions of the Uniform Act and the 1987 Amendments, as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs adopted by USDOT (March 2, 1989) and, where applicable, the California Public Park Preservation Act of 1971, will be followed. An appraisal of the affected property will be obtained, and an offer for the full appraisal will be made.</p> <p>COM-2: Outreach activities targeted to low-income residents will be conducted during the planning, design, and construction phases of the Build Alternative.</p>

Table S-1. Summary of Major Potential Impacts from Alternatives

Environmental Resource		No Build Alternative	Build Alternative (Proposed Project)	Avoidance, Minimization or Mitigation Measures
Utilities/Emergency Services		Without the proposed project improvements, emergency response times would continue to worsen.	Approximately 136 utilities have the potential to be affected by the proposed Build Alternative. Short-term construction activities could result in temporary traffic delays, road closures, lane closures, or detours that may impair the ability of law enforcement, fire, and other emergency service providers to meet response time goals.	<p>UT-1: During final design, the Project Engineer will prepare utility relocation plans in consultation with the affected utility providers/owners for those utility facilities that will need to be relocated, removed, or protected in-place.</p> <p>UT-2: During final design, the Project Engineer will prepare utility relocation plans in consultation with the affected utility providers/owners for those utility facilities that will need to be relocated, removed, or protected in place. If relocation is necessary, the final design will focus on relocating utilities within the State right-of-way (ROW) or other existing public ROWs and/or easements. If relocation outside of existing or the additional public ROWs and/or easements required for the project is necessary, the final design will focus on relocating those facilities in adjacent public ROWs and in a manner so as to not result in significant community, land use, or natural resource impacts.</p> <p>UT-3: Close coordination with utility service providers and implementation of a public outreach program will be conducted, as needed, to minimize impacts to surrounding communities.</p> <p>UES-1: Prior to and during any construction activities, the City will coordinate with emergency service providers to ensure that all providers are aware of temporary road closures and detours.</p> <p>UES-2: Emergency service phone numbers (i.e., fire, emergency medical, police) will be posted in visible locations in all active construction areas.</p> <p>UES-3: To avoid conflicts during construction, the project's Resident Engineer will notify all emergency and other essential service providers no less than 2 weeks prior to the start of construction. Agencies to be notified include:</p> <ul style="list-style-type: none"> • City of Ontario Police Department • City of Ontario Fire Department • San Bernardino County Sherriff's Department • San Bernardino County Fire Department
Relocation	Business displacements	No impact.	0 full business relocations	<p>COM-1: Where acquisition and relocation are unavoidable, provisions of the Uniform Relocation Act and the 1987 Amendments, as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for</p>

Table S-1. Summary of Major Potential Impacts from Alternatives

Environmental Resource		No Build Alternative	Build Alternative (Proposed Project)	Avoidance, Minimization or Mitigation Measures
	Residential displacements	No impact.	12 full residential property displacements	Federal and Federally Assisted Programs adopted by USDOT (March 2, 1989) and, where applicable, the California Public Park Preservation Act of 1971 will be followed. An appraisal of the affected property will be obtained, and an offer for the full appraisal will be made.
Traffic and Transportation/ Pedestrian and Bicycle Facilities		Two intersections are forecast to operate at unsatisfactory LOS in opening year (2025) no-build conditions: By 2045, four intersections in the immediate vicinity are forecast to operate at unsatisfactory LOS in design-year (2045) no-build conditions.	In the short term, construction activities would result in street closures and detours that would temporarily delay traffic flow, affect business parking, and impede access to businesses. In the long term, average delays for intersections in the immediate project vicinity are forecast to significantly improve with implementation of the Build Alternative. Because no arterial roadways would be permanently closed, there are no permanent impacts to access or circulation, and no indirect impacts are anticipated with implementation of the Build Alternative.	<p>T-1: Final Transportation Management Plan (TMP) – A TMP (July 2015) was prepared during development of the preliminary engineering for the project. During final design, a Final TMP will be prepared. At a minimum, the Final TMP will include the detailing of any projected temporary street closures or expected traffic delays due to project construction activities. The Final TMP will include a public awareness program that will use an appropriate combination of the Highway Advisory Radio (HAR), local media, newsletters, and/or flyers. The following elements will be major components of the Final TMP: Public Awareness Campaign, particularly related to the scheduling of work; Construction Zone Enhanced Enforcement Program (COZEEP); utilization of portable changeable message signs (CMSs); and notification to be sent to local cities and emergency responders, if applicable.</p> <p>T-2: During project construction, the Project Engineer will ensure that the measures in the Final TMP are properly implemented by the contractor.</p> <p>T-3: During final design and construction, the Project Engineer will work with affected property owners to identify means to avoid and minimize parking impacts, including space management, such as restriping of parking areas and identifying parking replacement options.</p> <p>T-4: All pedestrian facilities will be designed to meet or exceed requirements of the Americans with Disabilities Act (ADA) and current safety standards. Access to pedestrians and bicyclists shall be maintained to the extent practicable during the construction period.</p> <p>T-5: Prior to and during construction, the Project Engineer will coordinate with Omnitrans, the Ontario-Montclair School District, and other affected transit providers to request and comply with applicable procedures for any required temporary bus stop relocations or other disruptions to transit service during construction, if necessary.</p>

Table S-1. Summary of Major Potential Impacts from Alternatives

Environmental Resource	No Build Alternative	Build Alternative (Proposed Project)	Avoidance, Minimization or Mitigation Measures
			<p>T-6: During final design and prior to and during construction, the Project Engineer will coordinate with the design and construction team for the I-10/Grove Avenue Interchange Project to ensure the Grove Avenue Corridor Project and the I-10/Grove Avenue Interchange Project are designed compatibly.</p>
Paleontological Resources	No impact	Low to moderate potential for impacting paleontological resources.	<p>P-1: Develop and implement a Paleontological Monitoring Plan (PMP), with monitoring in excavations more than 10 feet deep for sediments mapped as Holocene at the surface and more than 5 feet deep for excavations mapped as Pleistocene at the surface. The PMP will guide and facilitate the identification and treatment of paleontological resources, if any are found, during project construction to reduce adverse effects on significant resources. The PMP will summarize identified paleontologically sensitive areas within the area of potential effects (APE), the organization and responsibilities of the paleontological team, the responsibilities of other parties, and the treatment and communications procedures to be implemented if paleontological resources are encountered during the project.</p>
Hazardous Waste/Materials	No impact.	The project may require the removal of utility poles along Grove Avenue and Holt Boulevard that consist of creosote treated wood and are considered areas of concern (AOCs). If removed, the poles should be managed as treated wood waste (TWW) in accordance with Caltrans' Standard Specification 14-11.14 for the proper handling and disposal of TWW. PCBs and hazardous substances in pole mounted transformers, street lighting, traffic signals, utility boxes, meters, and associated electrical components shall be properly collected, stored, transported, and disposed of in accordance with Caltrans'	<p>HW-1: If any discolored, odorous or compromised soils are encountered during excavation, they shall be tested and removed and disposed of per regulatory requirements.</p>

Table S-1. Summary of Major Potential Impacts from Alternatives

Environmental Resource	No Build Alternative	Build Alternative (Proposed Project)	Avoidance, Minimization or Mitigation Measures
		SSP 14 -11.15C, Waste Management. The Build Alternative would require the removal of multiple residential structures and, depending on the structures' age, they may contain asbestos-containing material (ACM) and lead-based paint (LBP). The presence of these materials would need to be investigated prior to removal of the structures to comply with environmental and worker safety regulatory requirements for ACM and LBP. Roadway paint and yellow striping on Grove Avenue and Holt Boulevard should be tested for LBP prior to removal to determine proper handling and disposal requirements in accordance with Caltrans' Standard Specification 14-11.12, Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue. Any ADL-contaminated soils should be reused, stockpiled, transported, and/or disposed of in compliance with the ADL Agreement between Caltrans and DTSC and addressed in an LCP.	
Cumulative Impacts	No impact.	No impact.	No avoidance, minimization, and/or mitigation measures required.
Visual/Aesthetics	No impact.	During and after construction, visual impacts would be less than substantial, with the long-	VA-1: The existing trees, particularly within the park area, provide scale, shade, and visual relief to the extent of roadway

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		<p>term effect anticipated to be a moderately low change to the visual environment.</p>	<p>paving. Preserving existing trees to the extent feasible will help maintain the existing visual character of the roadway.</p> <p>VA-2: Where it is not feasible to save the existing trees, new tree and vegetation plantings shall be included in the final design of the roadway. Replacement trees shall be two 24-inch boxed trees for each tree removed by the project. All areas disturbed by the project shall be fitted with new landscaping, including trees, groundcovers, accent plants, and turf grass (in park areas adjacent to existing remaining turf).</p> <p>VA-3: To support the replacement of plantings, the project shall include a permanent irrigation system to all new plantings. Materials used for irrigation shall be as per City of Ontario standards.</p> <p>VA-4: Decorative paving shall be employed for medians, islands, and parkway strips that are too narrow to plant. Paving color and texture/pattern shall match City of Ontario standards.</p>
Floodplain/Hydrology	No impact.	<p>Temporary construction activities may introduce pollutants into the stormwater. Culvert crossings would be extended to accommodate the roadway widening by 37 feet. The 100-year flood event would still be contained in the channel.</p>	<p>HYD-1: Provide positive drainage during construction and refrain from filling designated floodplains. Construction site surface runoff will be channeled into existing drainage facilities so as to not cause water flow on neighboring properties. Offsite flows will be managed in a manner that will mimic the existing drainage network and will not inundate the roadway surface of any of the existing drainage systems.</p> <p>HYD-2: Implement standard Best Management Practices (BMPs) as identified in the City of Ontario's Water Quality Management Plan, including temporary construction site BMPs to address site soil stabilization and reduce deposition of sediments to receiving waters.</p> <p>HYD-3: Include erosion control and water quality protection during construction at the West Cucamonga Channel. BMPs will be designed and implemented to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP). Typical measures that may be implemented include preservation of existing vegetation, use of soil binders or hydroseeding, and installation of silt fences or fiber rolls.</p> <p>HYD-4: Contractor shall develop a contingency plan for unforeseen discovery of underground contaminants in the Stormwater Pollution Prevention Plan (SWPPP).</p> <p>HYD-5: Limit construction activities between October and May to those actions that can adequately withstand high flows and</p>

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Environmental Resource	No Build Alternative	Build Alternative (Proposed Project)	Avoidance, Minimization or Mitigation Measures
			<p>entrainment of construction materials. The Contractor shall prepare a Rain Event Action Plan (REAP) and discuss high flows mitigation.</p>
Water Quality	No impact.	<p>Construction activities would increase the sources of pollution in the storm drain system serving the area in the short-term. The Build Alternative would add 2.57 acres of additional Impervious Surface Area in the long-term.</p>	<p>WQ-1: Implement Temporary Construction BMPs. The project will be required to conform to the requirements of the National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities, Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ, NPDES No. CAS000002.</p> <p>WQ-2: Prepare and Implement an SWPPP. The Contractor will be required to develop an acceptable SWPPP. The SWPPP shall contain BMPs that have demonstrated effectiveness at reducing stormwater pollution. The SWPPP shall address all construction-related activities, equipment, and materials that have the potential to affect water quality. All Construction Site BMPs will be installed, maintained, and inspected to control and minimize the impacts of construction-related pollutants. The SWPPP shall include BMPs to control pollutants, sediment from erosion, stormwater runoff, and other construction-related impacts. In addition, the SWPPP shall include implementation of specific stormwater effluent monitoring requirements based on the project's risk level to ensure that the implemented BMPs are effective in preventing discharges from exceeding any of the water quality standards.</p> <p>WQ-3: Incorporate Design Principles into Final Roadway Design. Design Principles are permanent measures to minimize pollution discharges by retaining source materials and stabilizing soils. The three objectives associated with Design Principle BMPs include maximizing vegetated surfaces; preventing downstream erosion; and stabilizing soil areas. These design objectives will be applied to the entire project.</p>
Air Quality	No impact.	<p>Minimal short-term construction impacts are anticipated to be generated from excavation, grading, hauling, and various other activities needed to construct the project; however, reactive organic gas (ROG) and other emissions are expected to be low due to the limited</p>	<p>AQ-1: The City shall encourage construction contractors to apply for SCAQMD "SOON" funds. The "SOON" program provides funds to applicable fleets for the purchase of commercially available low-emission heavy-duty engines to achieve near-term reduction of NO_x emissions from in-use off-road diesel vehicles. More information on this program can be found at SCAQMD's website: http://www.aqmd.gov/home/programs/business/business-detail?title=off-road-diesel-engines&parent=vehicle-engine-upgrades.</p>

Table S-1. Summary of Major Potential Impacts from Alternatives

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		<p>construction activities scheduled for the project. Therefore, the thresholds of significance established for ROG emissions by the South Coast Air Quality Management District (SCAQMD) would not be exceeded during construction of the project. In the long term, the project is not expected to noticeably change overall traffic volumes, and vehicular flow near intersections would be improved, which would reduce localized concentrations of pollutant emissions.</p>	
<p>Noise</p>	<p>Without the proposed project, approximately 166 dwelling units would experience noise impacts. Noise levels for design-year no-build conditions are expected to increase up to 3 decibels (dB) over existing noise levels due to projected traffic volume increases over existing conditions. Estimated no-build traffic noise levels were found to approach or exceed the applicable Noise Abatement Criteria (NAC) at representative residential locations.</p>	<p>Noise impacts during construction would affect nearby sensitive land uses but this impact would be temporary as each roadway section is under construction. Also, 127 dwelling units are expected to experience long-term noise impacts. Increases in noise levels are due to the addition of the two lanes (one in each direction) within the Grove Avenue corridor. The additional lanes would shift traffic closer to representative receivers within the proposed project area. Under future design-year 2045 build conditions, most of the receiver locations have traffic noise levels that were found to</p>	<p>N-1: Based on the studies completed to date and input from the public, Caltrans and the City will incorporate noise abatement in the form of soundwalls that meet the criteria for reasonableness and feasibility. The recommended soundwalls would reduce the traffic noise by at least 5 dB at the impacted receivers, would meet the design goal by providing a 7-dB reduction for at least one receiver, and would cost less than the reasonable cost allowance. If conditions have substantially changed during final design, noise abatement may change or may not be necessary, depending on the results of the updated noise analysis during final design information. The final decision of the noise abatement will be made upon completion of the project design and the public involvement process.</p> <p>After circulation of the draft environmental document, soundwall surveys were conducted with all property owners and residents of benefited receptors located within the footprint of the Build Alternative. Where 100 percent of the responding benefited receptors did not support the soundwall, the soundwall will not be constructed.</p> <p>However, if conditions substantially change at the time of final design, a noise analysis and/or soundwall surveys may be</p>

Table S-1. Summary of Major Potential Impacts from Alternatives

Environmental Resource	No Build Alternative	Build Alternative (Proposed Project)	Avoidance, Minimization or Mitigation Measures
		approach or exceed the applicable NAC.	conducted again, and the final decision on noise abatement will be reconsidered as part of the project design.
Natural Communities	No impact.	The site is highly urbanized and no impact to communities of concern or regional species of concern would occur. The project would result in permanent unavoidable impacts to approximately 174 trees (by trimming and removals).	NC-1: The project shall preserve as many mature trees as practicable. Although there is no City or County ordinance for tree removal, the project's landscape plan will incorporate a tree replacement plan with a replacement ratio of 2:1 – for every mature tree removed, two trees will be planted to be consistent with Measure VA-2. Mature trees (larger than 20 feet high) that are to be removed shall be replaced with two 24-inch box trees. Design plans shall indicate locations of existing mature trees (larger than 20 feet high) to be preserved in place. Tree replacement shall meet all Caltrans and City standards and policies, and near John Galvin Park, the replacement tree species will incorporate species that have been identified as those of the original planting of John Galvin Park in the 1930s.
Threatened and Endangered Species	No impact.	No impact.	No avoidance, minimization, and/or mitigation measures required.
Invasive Species	No impact.	There is potential to spread invasive species by the entering and exiting of construction equipment contaminated by invasives, the inclusion of invasive species in seed mixtures and mulch, and the improper removal and disposal of invasive species so that seed is spread along the highway.	IS-1: In compliance with the EO on Invasive Species (EO 13112) and guidance from FHWA, the landscaping and erosion control included in the project will not use species listed as invasive. In areas of particular sensitivity (i.e., near or adjacent to drainages), extra precautions will be taken if invasive species are found in or next to the construction areas. This includes the inspection and cleaning of construction equipment and eradication strategies, as required by the City of Ontario Biological Monitor, to be implemented should an invasion occur. Any cleaning of equipment or site watering will be conducted in adherence to any applicable drought conditions and related regulations. A City of Ontario biologist or landscape Architect will approve any seed lists (for planting).
Animal Species	No impact.	Construction activities may disturb animal species on and near the construction site but this impact would be less than significant impact after mitigation.	Mitigation Measure AS-1: To avoid effects to nesting birds, the Project Engineer will require the contractor to conduct vegetation removal or tree-trimming activities outside of the nesting bird season (i.e., February 15 through August 31). If vegetation clearing is necessary during the nesting season, the Project Engineer will require the contractor to have a qualified biologist conduct a preconstruction survey within 150 feet of construction areas no more than 10 days prior to construction at

Table S-1. Summary of Major Potential Impacts from Alternatives

Environmental Resource	No Build Alternative	Build Alternative (Proposed Project)	Avoidance, Minimization or Mitigation Measures
			<p>the location to identify the location of nests, if any. A qualified biologist is one that has previously surveyed for nesting bird species within southern California.</p> <p>Should nesting birds be found, an exclusionary buffer will be established by the qualified biologist around each nest site. The buffer will be clearly marked in the field by construction personnel under guidance of the contractor's qualified biologist, and construction or clearing will not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active.</p> <p>The qualified biologist will monitor the nests on a weekly basis to ensure that construction activities do not disturb or disrupt nesting activities.</p> <p>If the qualified biologist determines that construction activities are disturbing or disrupting nesting activities, then the biologist will notify the Project Engineer, who has the authority to stop or modify construction to reduce the noise and/or disturbance to the nests. Responses may include, but are not limited to, increasing the size of the exclusionary buffer, curtailing nearby work activities, turning off vehicle engines and other equipment wherever possible to reduce noise, installing a protective noise barrier between the nest and the construction activities, and/or working in other areas until the young have fledged.</p>
Wetlands and Other Waters	No impact.	The project would result in no permanent impacts to wetlands and approximately 0.46 acre (795 linear feet) of temporary impacts to nonwetland Waters of the U.S. as a result of improvements to existing, enclosed box culverts for Grove Avenue.	<p>WET-1: Construction activities within the West Cucamonga Channel and Princeton Basin will be designed and conducted to maintain downstream flow conditions. All construction activities will be effectively isolated from water flows to the greatest extent feasible. This may be accomplished by working in the dry season or dewatering the work area in the wet season. When work in standing or flowing water is required, structures for isolating the in-water work area and/or diverting the water flow must not be removed until all disturbed areas are cleaned and stabilized. The diverted water flow must not be contaminated by construction activities. Structures used to isolate the in-water work area and/or diverting the water flow (e.g., coffer dam, geotextile silt curtain) must not be removed until all disturbed areas are stabilized.</p>

S-6 Coordination with Public and Other Agencies

Table S-2 lists the permits/approval status of each permit required for construction of the project (Build Alternative).

Table S-2. Project Permits and Approvals

Agency	Permit/Approval	Status
U.S. Army Corps of Engineers	Non-notifying Clean Water Act (CWA) Section 404 Nationwide Permit (NWP) 14 (Linear Transportation Projects), provided all terms and conditions of the NWP permit program (33 <i>Code of Federal Regulations</i> [CFR] 330) are met.	Section 404 Permit will be obtained prior to start of construction
San Bernardino County Flood/U.S. Army Corps of Engineers	A 408 permit will be required for potential impacts to the Cucamonga Creek.	Section 408 Permit will be obtained prior to start of construction
San Bernardino County Flood Control District (SBCFCD)	An encroachment permit prior to construction on SBCFCD easements, properties and facilities.	Encroachment Permit will be obtained prior to start of construction
Regional Water Quality Control Board	CWA Section 401 Water Quality Certification. It should be noted that although it is anticipated that the project may likely qualify for a non-notifying NWP 14, CWA Section 401 Water Quality Certification must be issued prior to CWA Section 404 authorization for (any) impacts to Waters of the U.S. A fee commensurate with the extent of the activity will be required as part of this permit.	Section 401 Water Quality certification will be obtained prior to start of construction
California Department of Fish and Wildlife	Lake or Streambed Alteration Agreement (SAA). A fee commensurate with the extent of the activity will be required as part of this permit.	Section 1602 Streambed Alteration Agreement will be obtained prior to start of construction
City of Ontario	Pursuant to Section 10-2.06, the City requires approval and removal permits for parkway trees to be removed. To remove a parkway tree, it must meet criteria set forth by the City. No person shall remove or relocate any parkway tree without prior authorization from the City.	Tree removal permit will be obtained prior to any tree removal
State Water Resources Control Board	Construction General Permit, Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS000002.	Construction General Permit will be obtained prior to start of construction
State Historic Preservation Officer	Determination of Eligibility.	Letter of Concurrence dated April 25, 2017
FHWA	Air Quality Conformity Determination.	Letter of Conformity dated August 26, 2020

In addition to the permits listed above, a cooperative agreement with Omnitrans will be required to temporarily defer or relocate the five bus stop stations within the limits of the project. Three bus stations on 4th Street between N. Virginia Avenue and N. Calaveras Avenue are part of Bus Route 86, and two bus stations located on Holt Boulevard at the intersection of Holt Boulevard and Grove Avenue are part of Bus Routes 61 and 80.

The project anticipates entering into a Service Agreement with the Union Pacific Railroad (UPRR) (formerly the Southern Pacific Railroad [SPRR]) for flaggers and inspection during periods of work along Grove Avenue between Holt Boulevard and Airport Drive. It is also anticipated that a Construction and Management (C+M) Agreement and Operations Engineer (OE) clearance, Section 13 Clauses, will be inserted into the Construction Specifications.

Individual utility agreements are expected with the associated owners of gas, electrical, water, and communication facilities for the Build Alternative (proposed project). Additional agreements may be required depending on selection of the preferred alternative. For the Build Alternative (proposed project), agreements will be needed for the oil companies.

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) and the City of Ontario (City) propose to widen Grove Avenue from 4th Street to State Street/Airport Drive for the design year of 2045 under the proposed Grove Avenue Corridor Project. The No Build Alternative would retain the existing configuration of Grove Avenue, while the Build Alternative (as the preferred alternative and proposed project) proposes to widen Grove Avenue from a four-lane roadway to a six-lane roadway from Interstate 10 (I-10) to State Street/Airport Drive. Implementation of the Build Alternative would alleviate existing and anticipated future congestion, improve traffic operations and mobility, and provide route continuity along Grove Avenue in conformance with the City of Ontario's General Plan Circulation Element. Specifically, it would accommodate recent and projected growth in passenger and goods/trucks movement associated with Ontario International Airport. This project would coincide with the I-10/Grove Avenue Interchange Project, which would construct a new interchange along I-10 at Grove Avenue, replacing the existing interchange at 4th Street. The Grove Avenue Corridor Project is currently expected to be open to traffic in year 2025.

Caltrans is the lead agency under the National Environmental Policy Act (NEPA). The City is the lead agency under the California Environmental Quality Act (CEQA).

1.1.1 Project Location and Setting

Within the project area, Grove Avenue is an arterial road that runs in the north-south direction through Ontario in San Bernardino County. The proposed Grove Avenue Corridor Project would occur on an approximately 1.24-mile-long stretch of Grove Avenue between 4th Street to the north and State Street/Airport Drive to the south (see Figures 1-1 and 1-2). There are also proposed improvements to the Grove Avenue and Holt Boulevard intersection. The closest major freeways to the project area are I-10 to the north and State Route (SR) 60 to the south.

The project limits extend approximately 550 feet north of 4th Street to approximately 650 feet south of State Street/Airport Drive. Grove Avenue has two lanes each running northbound and southbound, including a center turning lane in two sections, starting from south of 4th Street to the northern project limit and from Holt Street to D Street. The Grove Avenue corridor right-of-way (ROW) is owned by the City, and all required easements for the project would be acquired by the City. Refer to Figures 1-1 and 1-2 for the project location and vicinity maps.

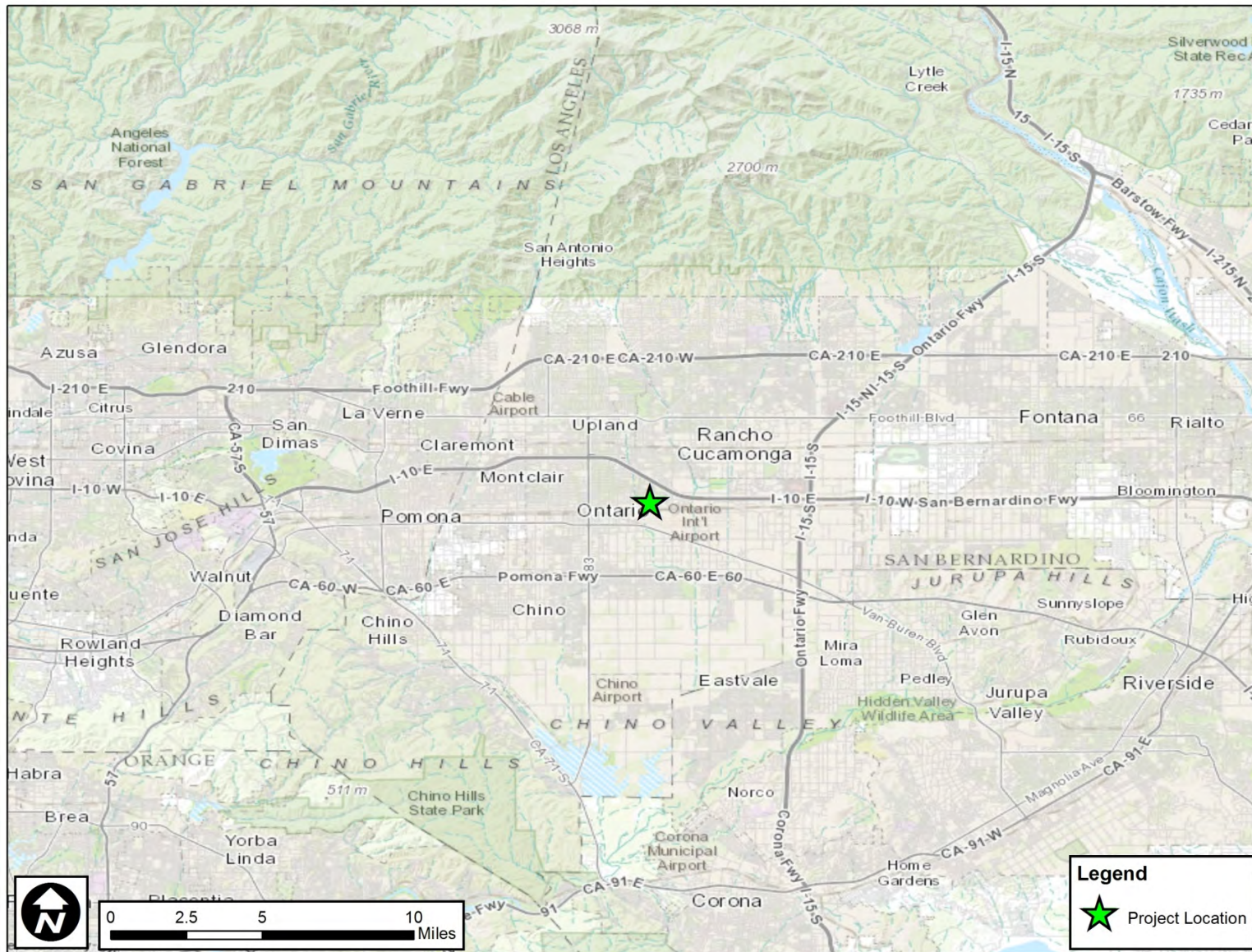
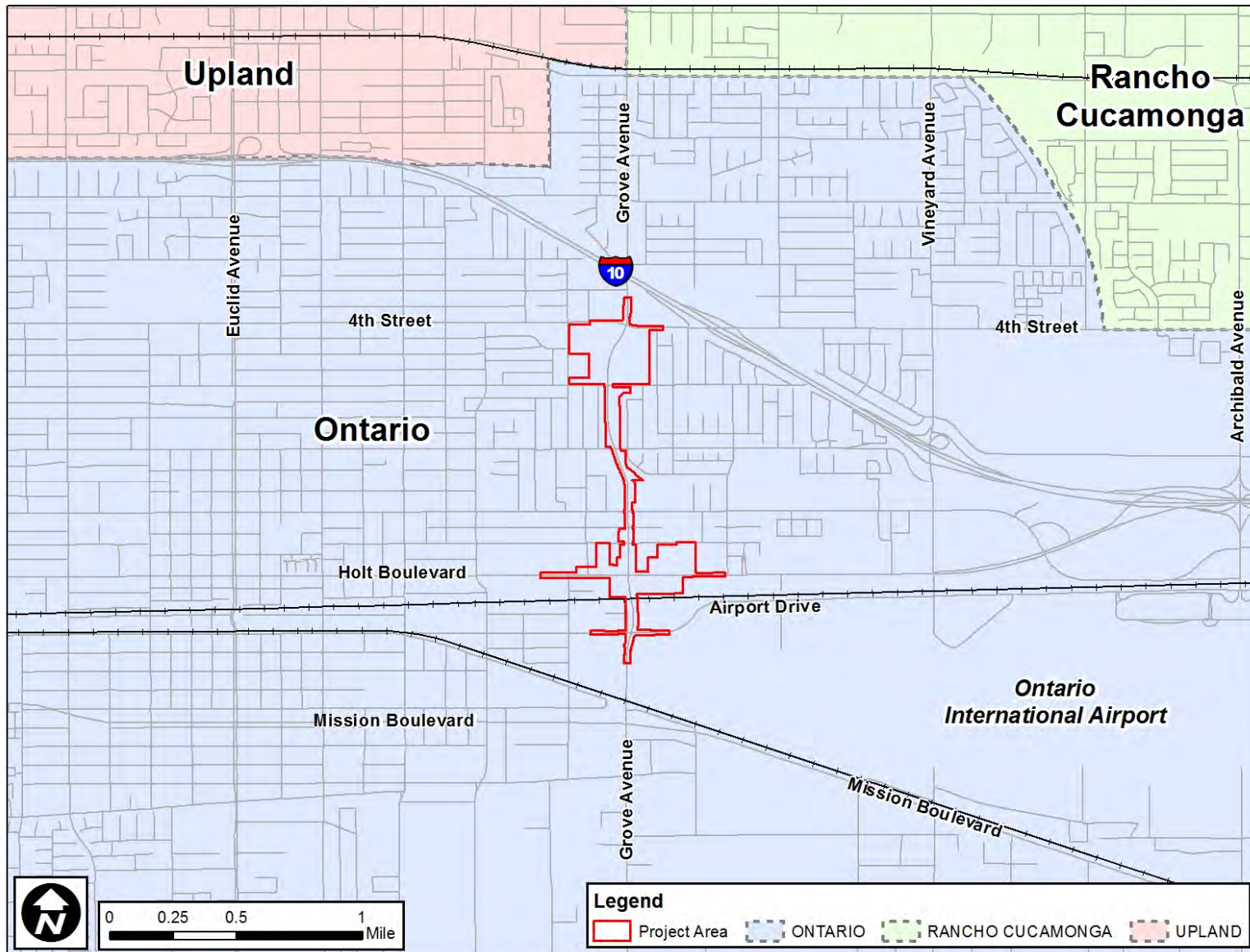


Figure 1-1. Project Location Map



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Figure 1-2. Project Vicinity Map

The primary intersections in the project area are 4th Street, Holt Boulevard, and State Street/Airport Drive. In addition, 4th Street is classified by the City as a principal arterial east of Grove Avenue and a collector street to the west. Holt Boulevard is a primary arterial, and State Street/Airport Drive is a collector street.

At the State Street/Airport Drive intersection, the project construction limits extend approximately 700 feet in either direction on State Street/Airport Drive. At the Holt Boulevard intersection, the construction limits extend on Holt Avenue for approximately 1,600 feet to the west and 1,750 feet to the east. At the 4th Street intersection, the construction limits extend for approximately 650 and 630 feet to the west and east of the intersection, respectively.

Grove Avenue crosses under an Amtrak railroad grade separation between Holt Boulevard and State Street/Airport Drive.

Land uses in the project study area include residential, commercial, industrial, and open space, with most land uses being low- to medium-density residential uses. Grove Avenue goes through the center of John Galvin Park in the northern portion of the project area. Ontario International Airport is adjacent to the southeast corner of the project area.

1.1.2 Programming Status

The proposed Grove Avenue Corridor Project is included in the 2015 Federal Statewide Transportation Improvement Program (FSTIP), Amendment #15-04. The FSTIP approved \$2.293 million in federal funds in the 2014/2015 fiscal year for preliminary engineering. Of that \$2.293 million, \$1.693 million is dedicated to design and \$0.720 million is dedicated to the environmental process. There is a total capital cost estimation of \$31.8 million for the entire Grove Avenue Corridor Project.

1.1.3 Planning Background

The proposed Grove Avenue Corridor Project would conform to the City of Ontario's General Plan. The General Plan is considered the general framework for the City's growth over the next 20 years or more into the future. To accommodate the anticipated growth, the General Plan provides numerous lasting policies, governance manuals, city council priorities, and implementation plans. Specifically, the General Plan's Functional Roadway Classification Plan shows existing and proposed traffic and circulation facilities within the City. Included in the Functional Roadway Classification Plan is the Grove Avenue Corridor Project, which proposes to widen the existing roadway from four lanes to six lanes between I-10 and Holt Boulevard. A Project Study

Report for the Grove Avenue corridor improvements was conducted in 2010 by the City.

1.2 Purpose and Need

The purpose and need statement for any given project serves three primary functions. First, it establishes the problem, or problems, leading up to why the project is being proposed (i.e., need); second, it identifies the project objectives that would solve those problems (i.e., purpose). A third, and equally important, function of the purpose and need statement is that it provides a basis for comparing the alternatives against one another and comparing the alternatives against the project. The following sections describe in more detail the project's purpose and need.

1.2.1 Purpose of the Project

The purpose of the proposed Grove Avenue Corridor Project is to accomplish the following objective:

- Alleviate existing and anticipated increases in congestion along Grove Avenue between 4th Street and Airport Drive and improve traffic operations along the corridor in the city of Ontario.

1.2.2 Need for the Project

Improvements to Grove Avenue are needed to accommodate recent and projected growth in passenger and goods/trucks movement associated with Ontario International Airport and changes in land use since Grove Avenue was originally constructed.

Based on traffic projections and the existing and planned land uses in the vicinity, the existing Grove Avenue facility is forecast to operate at unsatisfactory level of service (LOS) at three intersections within the project limits by 2045 without improvements.

1.2.2.1 Capacity, Transportation Demand, and Safety

Currently, there is sufficient capacity on the Grove Avenue corridor to accommodate existing travel demands within the project limits.

Existing traffic conditions play a critical role in the overall analysis of infrastructure investments. Existing conditions and volumes provide a baseline by which to evaluate current performance of the circulation system and are used as the basis of future forecast volumes. Capacity on a corridor such as Grove Avenue is measured by analyzing performance at intersections. A basic signalized intersection can be

characterized by performance measures as a function of the average vehicle control delay. Control delay is the portion of the total delay attributed to traffic signal operation for signalized intersections. Control delays include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Once delays have been estimated for each lane group and aggregated for each approach and the intersection as a whole, the appropriate LOS is determined. All LOS analyses use methodologies approved in the *Highway Capacity Manual 2000 Edition* (HCM).

As shown in Table 1-1, there are six grades of LOS, ranging from LOS A (representing excellent operation) to LOS F (representing forced flow and jammed conditions).

Table 1-1. LOS Thresholds for an Intersection with Traffic Signals

Level of Service	Description	Signalized Intersection Delay (seconds per vehicle)
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	≤ 10
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	>10 and ≤ 20
C	Good operation. Occasionally drivers may have to wait more than 60 seconds, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted.	> 20 and ≤ 35
D	Fair operation. Some long-standing vehicular queues develop on critical approaches to intersections. Delays may be up to several minutes.	>35 and ≤ 55
E	Poor operation. Some long-standing vehicular queues develop on critical approaches to intersections. Delays may be up to several minutes.	>55 and ≤ 80
F	Forced flow. Represents jammed conditions. Backups form at locations downstream or on the cross street and may restrict or prevent movement of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop-and-go type traffic flow.	> 80

Source: *Highway Capacity Manual, Special Report 209, Transportation Research Board, Washington, D.C., 2000.*

The existing Grove Avenue corridor traffic analysis follows the HCM intersection capacity analysis method using Synchro 7 Software computer program. The study was conducted in February 2013. The results provide average control delay and volume to capacity (v/c) delay, which are used to generate LOS. Each intersection is based on vehicle delay analysis for the morning peak period (7:00 a.m. to 9:00 a.m.) and evening

peak period (4:00 p.m. to 6:00 p.m.), resulting in four segments for analysis: eastbound, westbound, northbound, and southbound. Table 1-2 provides existing HCM average control delays, HCM v/c ratio, and HCM LOS, reported in the *Traffic Operations Analysis* (January 2015) Technical Appendix.

Table 1-2. Existing (2013) Peak Hour Intersection LOS Summary

Intersection	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
Grove Avenue/4 th Street	35.0	D	34.5	C
Grove Avenue/I Street	5.7	A	3.8	A
Grove Avenue/G Street	7.1	A	5.5	A
Grove Avenue/D Street	5.4	A	4.4	A
Grove Avenue/Holt Boulevard	33.7	C	31.8	C
Grove Avenue/State Street-Airport Drive	20.4	C	29.9	C

Source: *Traffic Operations Analysis Report, 2015.*

All intersections are functioning at LOS C or better, except for 4th Street during the AM peak hour; however, the 4th Street intersection is borderline LOS D while still providing flow above unstable levels.

Population and Traffic Forecasts

Based on Federal Highway Administration (FHWA) and Caltrans requirements for the I-10/Grove Avenue Interchange Project, traffic forecasts need to address a horizon of 20 years beyond project opening, which requires development of 2045 conditions because the opening year for the proposed Grove Avenue Corridor Project and proposed I-10/Grove Avenue Interchange Project is anticipated to be 2025.

A key objective of the traveling modeling effort for this project was to maintain consistency with the traffic forecasts developed for the recently completed *I-10 Corridor Study – Project Approval/Environmental Document (PA/ED) High Occupancy Vehicle (HOV) and Express Lanes Project* by the San Bernardino County Transportation Authority (SBCTA). The San Bernardino County Transportation Analysis Model (SBTAM) used for the *I-10 Corridor Study – PA/ED HOV and Express Lanes Project* was utilized for the Grove Avenue Corridor Project, including all roadway network and demographic data assumptions. The SBTAM, which utilizes the TransCAD platform (version 5.0 r4), includes additional detail within San Bernardino County and has been recalibrated based on countywide traffic activity. The Grove

Avenue Corridor Project model analysis includes a No Build Alternative and a Build Alternative.

The SBTAM incorporates the baseline demographic dataset developed by SBCTA for San Bernardino County consistent with population growth forecasts published by the Southern California Association of Governments (SCAG). The SCAG region consists of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. Key demographic projections for San Bernardino County and the SCAG region are provided in Table 1-3.

Table 1-3. Key Demographic Data

Area	Population	Resident Population	Households	Residents Employed
Existing – 2012				
San Bernardino County	2,015,994	1,962,290	605,913	700,600
SCAG Region	16,964,830	16,640,598	548,465	7,386,196
2035				
San Bernardino County	2,749,810	2,685,254	847,405	1,059,329
SCAG Region	21,852,486	21,497,514	7,230,262	9,310,132
Percent Growth from 2012 to 2035				
San Bernardino County	36	37	40	51
SCAG Region	29	29	29	26

Source: I-10 Corridor Project Traffic Study, August 2014 (Appendix A-3).

Although the regional growth rate stabilized in the last 20 years, from 1990 to 2010 the urbanization and suburbanization of the region has continued (SCAG Regional Transportation Plan [RTP]). In 2010, San Bernardino County exceeded 2 million people and increased its share of the population from 17.7 percent in 1990 to 23.4 percent in 2010. According to SCAG, the fast growth of population relative to employment in Riverside and San Bernardino counties has led to an imbalance of jobs and housing in the region, posing a serious transportation problem.

Projected Capacity Needs, Delay, and Level of Service

The I-10 Corridor Traffic Operations Analysis (January 2015) provided data for existing traffic conditions (2012), opening year conditions (2025), and the horizon year (2045). Because the horizon year forecasts for 2045 are required in this analysis, the 2035 forecast volumes were post-processed by applying the forecast annual growth rate in 2035 forecast volumes to generate 2045 forecasts. Overall, the average growth of traffic volumes at the study area intersections between existing and opening year 2025

was approximately 2 percent per year. Between opening year 2025 and horizon year 2045, the average growth of traffic volumes at the study area intersections was approximately 1 percent per year.

Opening year 2025 no-build conditions assume the current interchange conditions at 4th Street and existing lane configurations are the same in the study area. Table 1-4 summarizes the opening year 2025 no-build peak-hour LOS results at the study intersections.

Table 1-4. Opening Year 2025 No-Build Peak-Hour Intersection LOS Summary

Intersection	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
Grove Avenue/4 th Street	44.7	D	63.8	E
Grove Avenue/I Street	6.7	A	6.3	A
Grove Avenue/G Street	9.0	A	9.0	A
Grove Avenue/D Street	6.4	A	9.2	A
Grove Avenue/Holt Boulevard	82.8	F	134.7	F
Grove Avenue/State Street	25.1	C	29.3	C

Note: **BOLD** indicates unsatisfactory.

Horizon year 2045 no-build conditions also assume the current interchange conditions at 4th Street and existing lane configurations in the study area. Table 1-5 summarizes the horizon year 2045 no-build peak-hour LOS results at the study intersections.

Table 1-5. Horizon Year 2045 No-Build Peak-Hour Intersection LOS Summary

Intersection	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
Grove Avenue/4 th Street	51.2	D	117.4	F
Grove Avenue/I Street	8.0	A	7.5	A
Grove Avenue/G Street	11.1	B	20.6	C
Grove Avenue/D Street	18.3	B	14.8	B
Grove Avenue/Holt Boulevard	213.8	F	352.9	F
Grove Avenue/State Street	88.3	F	83.2	F

Note: **BOLD** indicates unsatisfactory.

By opening year, these forecasts predict that the Grove Avenue and Holt Boulevard intersection will operate at LOS F conditions under no-build conditions. The Holt Boulevard, 4th Street, and State Street intersections will continue to deteriorate to LOS F conditions as forecasted in the horizon year 2045 No Build LOS summary.

Safety

Corridors that are highly congested generally have higher congestion-related crash rates. Demand for higher capacity is a result of the tremendous growth in passenger and goods/truck movement associated with Ontario International Airport and the overall change in land use since the existing interchange was built in the late 1950s.

There are three critical transportation deficiencies in the project area:

1. Several local street corridors, street intersections, and freeway ramps will suffer from congestion as a result of inadequate capacity to handle future traffic operations leading to the I-10/4th Street interchange. This congestion is a result of the growth in goods movement and truck traffic in the city of Ontario, especially near Ontario International Airport.
2. The existing Grove Avenue roadway cross section and its connections to the State and National Highway System are currently inconsistent and nonuniform for its role as an alternate north-south arterial corridor to Interstate 15 (I-15).
3. Provide route continuity along Grove Avenue in conformance with the City of Ontario General Plan Circulation Element, which identifies Grove Avenue as a six-lane principal arterial.

These deficiencies will be further exacerbated by the future traffic forecasts and anticipated traffic demands in the project area.

1.2.2.2 Roadway Deficiencies

Several local street corridors, street intersections, and freeway ramps will suffer from congestion as a result of inadequate capacity to handle future traffic operations leading to the I-10/4th Street interchange resulting from growth in goods movement and truck traffic in Ontario, especially near Ontario International Airport.

Existing Grove Avenue's roadway cross section and access to the State and National highway systems are currently inconsistent and nonuniform for its role as an alternate north-south arterial corridor to I-15.

These deficiencies will be further exacerbated by the future year traffic forecasts and anticipated traffic demands for the project area.

1.2.2.3 Social Demands or Economic Development

The existing Grove Avenue corridor is a primary regional access for the city of Ontario and Ontario International Airport. Ontario International Airport is the center of a developing freight movement system that includes the airport, two railroads, four major freeways, and an expanding network of freight forwarders.

The existing 4th Street/I-10 interchange in the project area also provides direct access to the cities of Ontario, Rancho Cucamonga, and Upland via I-10, as well as key residential, retail, industrial, commercial, and mixed-use developments highlighted in their General Plans.

Construction of the Build Alternative would result in the conversion of existing land uses to transportation-related uses. The Build Alternative would permanently affect existing residential, commercial, industrial, parks and recreation, and public facilities, but it has been designed to avoid existing built land uses to the extent practicable while adhering to design and operational criteria to maintain a safe roadway. During final design, efforts would be undertaken to further minimize construction and operation impacts to existing and planned land uses.

Given the shortage of major developable vacant lands adjacent to the proposed project, the Build Alternative would provide a significant advantage to affect development decisions in the area. The Grove Avenue Corridor Project is not expected to substantially influence the overall amount or type of growth. The pattern and rate of population and housing growth would be expected to remain consistent with the population anticipated by existing General Plans for the area. The potential for growth in the study area is consistent with local land use plans and current trends. The project would not influence growth, and no growth-related impacts are expected. Current growth trends and potential future growth are considered in local land use plans, and the project would not influence growth that is not currently planned.

1.2.2.4 Legislation

SBCTA is responsible for administering the County's half-cent sales tax dedicated to transportation, Measure I, and as the County Transportation Commission, SBCTA is responsible for overseeing certain federal and State funding programs. Measure I was first approved in November 1989 and was extended through 2040. Major street improvement projects, such as the widening of Grove Avenue, are identified as part of the Measure I 2010-2040 Strategic Plan and SBCTA Ordinance No. 04-01.

1.2.2.5 Modal Interrelationships and System Linkages

Freight Movement

The continuous movement of goods is a crucial aspect of continued economic development for Ontario, the Inland Empire, and the nation. Freight movement via truck transport is a major component to maintain the complex trade system, including southern California's seaports, airports, rail yards, and distribution centers. If no improvements are made to the existing Grove Avenue corridor, trucks traveling from Ontario International Airport to I-10 will experience severe traffic congestion by design year 2045.

Omnitrans

The project site and its vicinity are served by Omnitrans. Omnitrans is a public transit agency that provides an extensive fixed-route bus system, including Routes 61, 63, and 80 in the project area. In particular, Omnitrans Routes 63 and 80, which travel along Holt Boulevard within the project study area, would benefit from more reliable travel if the proposed improvements were constructed at the Grove Avenue/Holt Boulevard intersection.¹ In addition to their existing fixed route system, Omnitrans is conducting a route and mode-of-transit analysis for the Holt Boulevard/4th Street corridor. If implemented, this new route would cross Grove Avenue at Holt Boulevard and would run from Fontana near the Kaiser Permanente Medical Center; through Rancho Cucamonga, Ontario, and Montclair; and end at the Transcenter in Pomona.

Metrolink

Metrolink is a commuter rail line that provides service to Ontario and other cities in San Bernardino and Riverside counties. The Metrolink San Bernardino Line is perpendicular to Grove Avenue north of I-10. The Riverside Line connects Union Station in Los Angeles to the downtown Riverside Station with a stop at the East Ontario Station in Ontario, southeast of the proposed Grove Avenue Corridor Project area. The Metrolink San Bernardino Line connects Union Station in Los Angeles to the downtown Riverside Station with a stop near the proposed project at the Upland Station, approximately 1.5 miles northwest of the proposed project.

Ontario International Airport

Ontario International Airport is a 1,700-acre passenger and commercial service airport adjacent to the southeast portion of the project site. Ontario International Airport is the third major airport in the area after Los Angeles International Airport and John Wayne Airport. In 2014, approximately 4.2 million passengers used the airport. In addition to

¹ <http://omnitrans.org/schedules/>

passenger services, Ontario International Airport is a hub for commercial traffic, accounting for 474,346 tons of air cargo in 2014. Ontario International Airport is the west coast air and truck hub for UPS and is a major distribution point for FedEx, Ameriflight, Empire, Kalitta, and West Air. The proposed Grove Avenue Corridor Project is an integral component for the success of the airport because it would greatly enhance north-south mobility leading to Ontario International Airport.²

Highways

I-10 connects to I-15 approximately 5 miles east of Grove Avenue. I-15 provides a regional connection between Orange, Riverside, and San Bernardino counties through its interchanges with SR-60 and SR-91. The SR-60/Grove Avenue interchange is approximately 2 miles south of the project area.

1.2.2.6 Air Quality Improvements

The following transportation control measures are anticipated to improve air quality and are included as part of the proposed project:

- Implementation of the Build Alternative would produce benefits to regional air quality by reducing project congestion levels within the study area.
- Grove Avenue is designated as a Bicycle Corridor by the City of Ontario Multipurpose Trails and Bikeway Corridor Plan. The Build Alternative proposes an outside lane width of 15 feet, in accordance with the City of Ontario Master Plan of Streets and Highways. Standard sidewalks would be provided on both sides of Grove Avenue within the project limits.

1.2.2.7 Independent Utility and Logical Termini

FHWA regulations (*23 Code of Federal Regulations* [CFR] 771.111 (f)) require that a proposed project:

1. Connect logical termini and be of sufficient length to address environmental matters on a broad scope;
2. Have independent utility or independent significance (be usable and require a reasonable expenditure even if no additional transportation improvements in the area are made); and
3. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

² Ontario International Airport... News and Facts... Statistics... Volume of Air Traffic... Retrieved March 9, 2015.

The project corridor is of sufficient length (approximately 1.24 miles) to adequately address transportation issues that have been identified in the stated purpose and need. The Build Alternative would be of sufficient length to provide significant congestion relief in this corridor within the project limits. These improvements would function effectively in addressing the congestion on Grove Avenue and coincide with the I-10/Grove Avenue Interchange Project. As a result, the proposed project connects logical termini on Grove Avenue with the I-10 mainline. This project area is large enough to appropriately address the potential environmental impacts of the proposed project. In addition, the proposed project can meet the identified need for congestion relief as an independent project and is not dependent on any other projects to meet the identified purpose for the interchange improvements. Finally, the proposed improvements would be designed and constructed to minimize potential conflict with other reasonably foreseeable transportation improvements in the area.

1.3 Project Description

This section describes the proposed action and the project alternatives developed to meet the purpose and need of the project, while avoiding or minimizing environmental impacts. There is one Build Alternative and a No Build Alternative. The project is located in San Bernardino County on a 1.24-mile-long stretch of the Grove Avenue corridor south of the I-10/Grove Avenue interchange. Within the limits of the project, Grove Avenue is a conventional four-lane road. The purpose of the project is to widen the corridor to alleviate existing and anticipated future congestion, provide improved traffic operations, and provide route continuity along Grove Avenue in conformance with the City of Ontario's General Plan Circulation Element.

1.3.1 Project Alternatives

The Grove Avenue Corridor Project considers one No Build Alternative and one Build Alternative to address existing and future projected traffic demands. A summary of the proposed project alternatives is provided below.

This project contains a number of standardized project measures, which are employed on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposal project. These measures are addressed in more detail in the Environmental Consequences sections found in Chapter 2.

1.3.1.1 Build Alternative (Preferred Alternative and Proposed Project)

The Build Alternative, shown in Figure 1-3, includes widening Grove Avenue from four lanes to six lanes between 4th Street and State Street/Airport Drive in accordance with the City of Ontario Master Plan. South of 4th Street, Grove Avenue would be widened to the west to avoid impacts to the historic Jay Littleton Ballpark. Between I Street and Holt Boulevard, Grove Avenue would be widened to the east, and between Holt Boulevard and State Street/Airport Drive, Grove Avenue would be widened on both sides.

In addition, Holt Boulevard would be widened at the Grove Avenue intersection from one through lane, one through-right lane, and one left-turn lane in each direction to two through lanes, one through-right lane, and two left-turn lanes in each direction. The Build Alternative would include covering a portion of two culverts: G Street Culvert and Grove Avenue Culvert.

Earthwork and Retaining Walls

The cut slopes would be a standard 2 (horizontal) to 1 (vertical), and fill slopes would be a standard 4 (horizontal) to 1 (vertical). Four retaining walls are proposed under the Union Pacific Railroad (UPRR) (formerly Southern Pacific Railroad [SPRR]) Bridge between Holt Boulevard and State Street/ Airport Drive to accommodate the widening of Grove Avenue to avoid impacts to the UPRR Bridge. The retaining walls would range from 6 to 10 feet in height and would be constructed at the following locations:

- Northbound Grove Avenue under the UPRR Bridge, between the roadway and the sidewalk
- Northbound Grove Avenue between the UPRR Bridge and Holt Boulevard, at the back of the sidewalk
- Southbound Grove Avenue under the UPRR Bridge, between the roadway and the sidewalk
- Southbound Grove Avenue between the UPRR Bridge and Holt Boulevard, at the back of the sidewalk

Nonmotorized and Pedestrian Features

Grove Avenue is designated as a Bicycle Corridor by the City of Ontario Multipurpose Trails and Bikeway Corridor Plan. The Build Alternative proposes an outside lane width of 15 feet in accordance with the City of Ontario Master Plan of Streets and Highways. Standard sidewalks would be provided on both sides of Grove Avenue within the project limits.

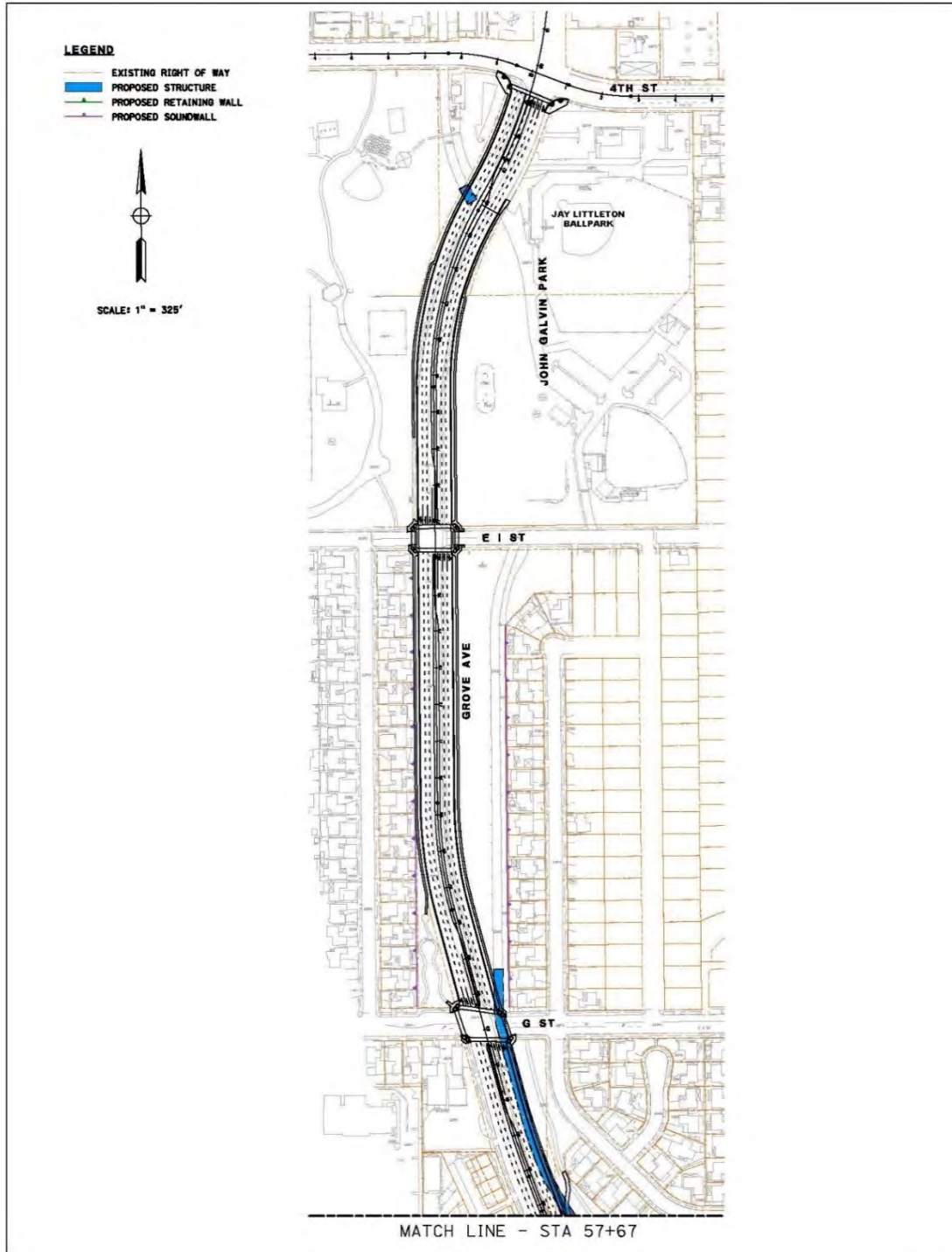


Figure 1-3. Build Alternative (Sheet 1 of 2)

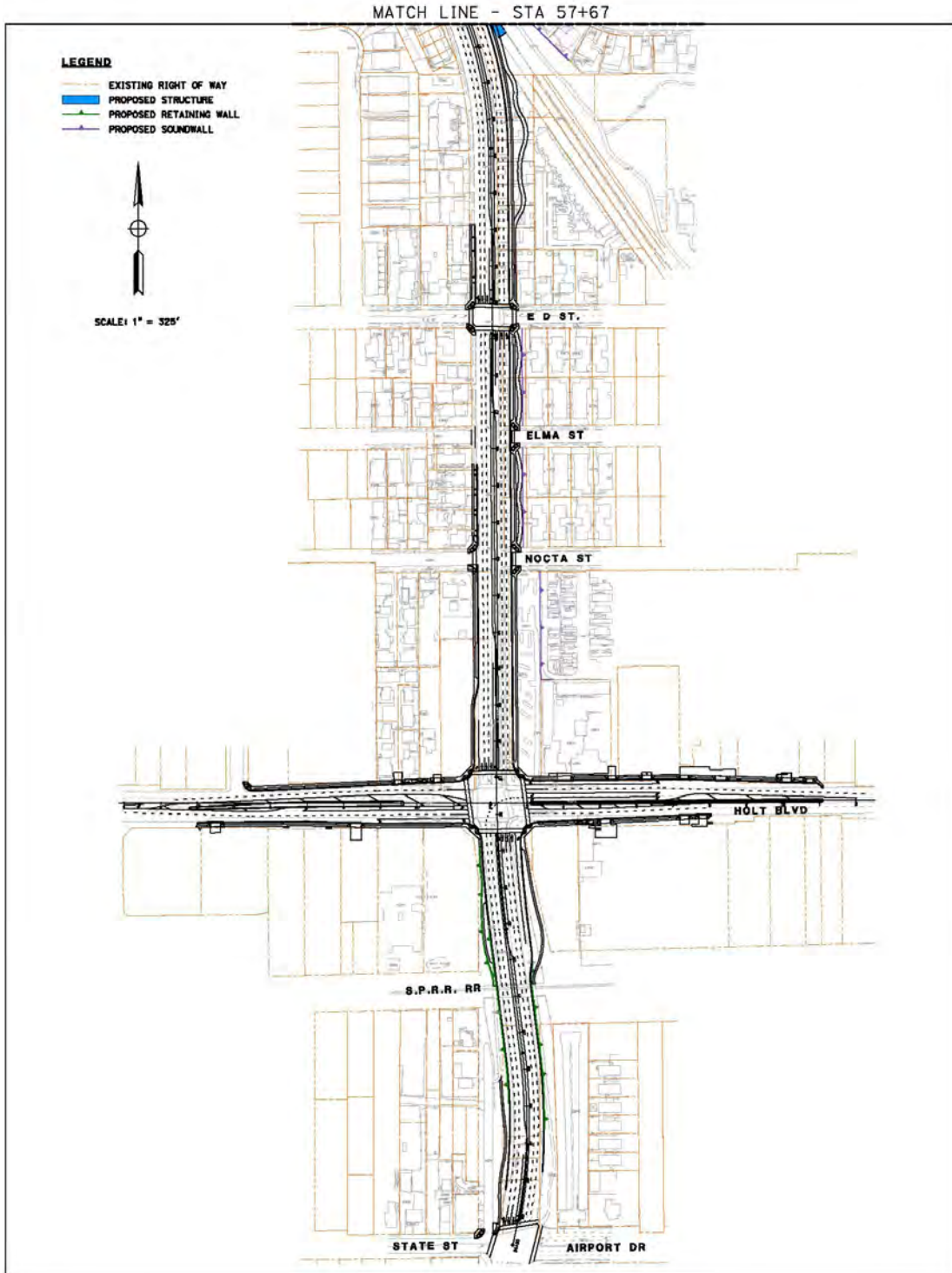


Figure 1-3. Build Alternative (Sheet 2 of 2)

Right-of-Way Acquisition

The proposed project impacts a mostly developed area of Ontario. To provide ROW for the local street widening, the Build Alternative would acquire approximately 14 properties and partially acquire approximately 70 properties. The ROW impacts consist of single-family and multi-family residential properties, vacant parcels, and commercial properties including, but not limited to, an auto repair facility and a towing yard. In addition, temporary construction easements (TCEs) would be needed from several properties where grading and other temporary construction uses would occur.

Unique Features of the Build Alternative

The Build Alternative was designed to reduce impacts associated with property acquisitions. The Build Alternative reduces the number of property acquisitions to 14, which includes 8 single-family residences, and would not result in demolition of Sovereign Grace Baptist Church.

1.3.1.2 Transportation System Management and Transportation Demand Management Alternatives

Although transportation system management measures alone could not satisfy the purpose and need of the project, the following transportation system management measures have been incorporated into the Build Alternative for this project:

- Coordination of traffic signals

1.3.1.3 No Build Alternative

The No Build Alternative proposes no improvements within the project area. Grove Avenue would maintain the existing four through lanes, and the existing configuration at the Grove Avenue/Holt Boulevard intersection would be maintained.

As discussed in Section 1.2.2.1, Capacity, Transportation Demand, and Safety, while the existing configuration is adequate for existing traffic flows, there will be inadequate service at the Grove Avenue/Holt Boulevard intersection by the 2025 build year. Intersection performances will continue to deteriorate up to the 2045 horizon year.

1.3.2 Comparison of Alternatives

After comparing and weighing the benefits and impacts of all feasible alternatives, some of which are summarized in Table 1-6, the Project Development Team (PDT) identified the Build Alternative as the Preferred Alternative, subject to public review. Because the other alternative is the No Build Alternative (under which no

improvements would be constructed on Grove Avenue), the Build Alternative also serves as the proposed project as analyzed in this environmental document.

The Build Alternative proposed for this project requires a commitment of resources and would result in some environmental impacts. This commitment is balanced with the ability to meet the purpose and need and the effects of not implementing the project (the No Build Alternative). Table 1-6 provides a summary of key issues where impacts have been identified.

Table 1-6. Key Issues

Criteria		No Build Alternative	Build Alternative (Proposed Project)
<p>Meets the purpose and need: The purpose of the proposed Grove Avenue Corridor Project is to accomplish the following objectives:</p> <ul style="list-style-type: none"> • Alleviate existing and anticipated future congestion along Grove Avenue between 4th Street and Airport Drive; • Improve traffic operations and mobility to and from Ontario International Airport, a future cargo hub facility near Grove Avenue and Holt Boulevard, and other planned uses; and • Provide route continuity along Grove Avenue in conformance with the City of Ontario General Plan Circulation Element, which identifies Grove Avenue as a six-lane principal arterial. <p>Improvements to Grove Avenue are needed to accommodate recent and projected growth in passenger and goods/trucks movement associated with Ontario International Airport and changes in land use since Grove Avenue was originally constructed.</p>		<p>No – Does not alleviate existing or future congestion along Grove Avenue; does not improve traffic operations and mobility; and does not conform with the City of Ontario’s General Plan Circulation Element.</p>	<p>Yes – Would alleviate existing and future congestion along Grove Avenue between 4th Street and Airport Drive; would improve traffic operations and mobility to and from Ontario International Airport; and would provide route continuity along Grove Avenue in conformance with the City of Ontario’s General Plan Circulation Element.</p>
Traffic and Transportation		None	None
Number of Acquisitions	Acquisitions	0	14
	Partial Acquisitions	0	70
Relocations		0	18 residential, 0 business
Parks and Recreation		None	Permanent impacts to approximately 0.06 acre of park space. 1.2 acres of park space would be temporarily impacted due to TCEs.
Cultural Resources		None	None

Table 1-6. Key Issues

Criteria	No Build Alternative	Build Alternative (Proposed Project)
Noise	Without the proposed project, approximately 99 dwelling units will experience noise impacts. Noise levels for design-year no-build conditions are expected to increase up to 2 decibels (dB) over existing noise levels due to projected traffic volume increases over existing conditions. Estimated no-build traffic noise levels were found to approach or exceed the applicable Noise Abatement Criteria (NAC) at representative residential locations.	132 dwelling units are expected to experience noise impacts. Increases in noise levels are due to the addition of the two lanes (one in each direction) within the Grove Avenue corridor. The additional lanes would shift traffic closer to representative receivers within the proposed project area. Under future design-year 2045 build conditions, most of the receiver locations have traffic noise levels that were found to approach or exceed the applicable NAC.
Air Quality	None	Minimal short-term construction impacts are anticipated to be generated from excavation, grading, hauling, and various other activities needed to construct the project; however, reactive organic gas (ROG) and other emissions are expected to be low due to the limited construction activities scheduled for the project. Therefore, the thresholds of significance established for ROG emissions by the South Coast Air Quality Management District (SCAQMD) would not be exceeded during construction of the project.
Natural Communities	None	No impact to communities of concern or regional species on concern. The project would result in permanent unavoidable impacts to approximately 174 trees (by trimmings and removals).
Floodplain/Hydrology	None	Culvert crossings would be extended to accommodate the roadway widening by 37 feet. The 100-year flood event would still be contained in the channel.

Table 1-6. Key Issues

Criteria	No Build Alternative	Build Alternative (Proposed Project)
Water Quality	None	Would add 2.57 acres of additional impervious surface area.
Wetlands and Other Waters	None	The project would result in no permanent impacts and approximately 0.46 acre (795 linear feet) of temporary impacts to nonwetland Waters of the U.S. as a result of improvements to existing, enclosed box culverts for Grove Avenue.
Capital Cost of Alternative	\$0	\$31.8 million

1.3.3 Identification of Preferred Alternative

After comparing and weighing the benefits and impacts of all feasible alternatives (see Table 1-6 above for a summary of impacts identified for the No Build Alternative and the Build Alternative), the PDT initially identified the Build Alternative as the Preferred Alternative during preparation of the draft environmental document. This selection was primarily because the No Build Alternative would not meet the project’s purpose and need.

The purpose of the project is to:

- Alleviate existing and anticipated future congestion along Grove Avenue between 4th Street and Airport Drive and improve traffic operations along the corridor in the city of Ontario.

The Build Alternative would meet this purpose, while the No Build Alternative would not.

The need for the project is centered on improving Grove Avenue to accommodate recent and projected growth in passenger and goods/trucks movement associated with Ontario International Airport and changes in land uses since Grove Avenue was originally constructed. Based on traffic projections and the existing and planned land uses in the vicinity, the existing roadway facility is forecast to operate at unsatisfactory level of service (LOS) at three intersections within the project limits by 2045 without

improvements. The Build Alternative would meet this need, while the No Build Alternative would not.

The Build Alternative and the No Build Alternative are evaluated at the same level of detail in this Final EIR/EA, allowing for a determination of the impacts and/or effects on the environment to be made. As discussed throughout Chapter 2 below and Table 1-6 above showing a summary of impacts identified for the No Build Alternative and Build Alternative. An Environmental Commitments Record (see Appendix D) lists measures that would reduce the impacts of the Build Alternative. These measures are also listed under each topic in Chapter 2 and in Section 3.3. After the public circulation period of the Draft EIR/EA, all comments were considered, and the City and Caltrans selected the preferred alternative and made the final determination of the project's effect on the environment. Final identification of the Build Alternative as the Preferred Alternative by the City and Caltrans was based on the Build Alternative meeting the project purpose and need and having no significant unavoidable environmental impacts, with the implementation of avoidance, minimization, and mitigation measures. Potential impacts of the Build Alternative, which would not occur under the No Build Alternative, include:

- The Build Alternative is not consistent with some open space policies in SCAG's Regional Comprehensive Plan (RCP) but measures would be implemented to reduce impacts to parks and the loss of trees. Permanent and temporary impacts to Grove Memorial Park and John Galvin Park would be minor and minimized by returning areas under temporary construction easements to pre-project conditions and reconfiguring the remnant parking lot. Measures have also been provided for the inadvertent discovery of cultural resources and human remains.
- Land acquisition and associated residential displacement would occur with the Build Alternative but relocation services would be provided in accordance with the Uniform Relocation Assistance and Real Property Acquisition Regulations. Utility relocations and disruptions to emergency services would be temporary and coordination with affected agencies would reduce impacts. Construction activities would result in street closures and detours that would temporarily delay traffic flow, affect business parking, and impede access to businesses. Various measures to minimize these impacts would be implemented by the project. In the long term, average delays at intersections in the immediate project vicinity are forecast to significantly improve under the Build Alternative.

- While there is low to moderate potential for impacting paleontological resources, a Paleontological Monitoring Plan (PMP) would be prepared to avoid impacts to paleontological resources.
- Construction of the project would lead to the disturbance of soils and structures that may contain hazardous materials and wastes. Compliance with existing regulations for the removal, handling, storage, transport and disposal of hazardous materials and wastes would prevent the creation of public safety and health hazards to the construction crew and adjacent land uses.
- Changes in visual quality during and after construction are anticipated to be moderately low and minimization measures have been developed to retain and improve the visual quality of the project corridor through the preservation of existing trees, replacement of trees that cannot be preserved, and the use of decorative paving.
- The proposed culvert crossing extension and additional impervious areas would alter the local hydrology and water quality in the West Cucamonga Channel but design measures and best management practices (BMPs) would be implemented to retain existing drainage patterns and protect water quality. Under the Build Alternative, the 100-year flood event would still be contained in the channel.
- Minimal short-term air quality impacts are anticipated to be generated from excavation, grading, hauling, and various other activities needed to construct the Build Alternative. These pollutant emissions would not exceed SCAQMD's regional thresholds of significance but would exceed the localized significance threshold for PM₁₀. An extensive list of air quality control measures would be implemented to reduce PM₁₀ emissions during construction. A measure to encourage contractors to reduce equipment emissions has also been provided. Long-term improvements in traffic flow would reduce associated vehicle emissions and improve local air quality.
- Construction noise would affect adjacent land uses along Grove Avenue. Noise control measures would be implemented in compliance with existing regulations to minimize noise disturbances at sensitive areas during construction. Several dwelling units along the project corridor would experience long term increases in noise levels. Soundwalls have been designed for these receptors and a number have been found to be reasonable and feasible. However, public input has only identified one soundwall as acceptable to the property owner. Where soundwalls would not be constructed, the increases in noise levels would be less than 12 decibels (dB) and thus, would not be considered substantial or significant.

- The Build Alternative would have no impacts on natural communities or Threatened and Endangered species but a number of trees are proposed for trimming or removal. Measures to minimize tree removal, require tree replacement, and avoid the introduction of invasive species into the project site have been included. Potential disturbance of nesting birds would be avoided by scheduling the start of construction outside the nesting season or conducting nesting surveys and the protection of any active nests.
- Temporary impacts to nonwetland Waters of the US at the box culverts on the West Cucamonga Channel would be minimized by measures to limit disturbance and maintain downstream flow conditions.

These impacts are not considered substantial or would be reduced to less than significant levels with compliance with existing regulations/standard conditions and the implementation of avoidance, minimization and mitigation measures.

While the No Build Alternative would not result in environmental impacts, the selection of the Build Alternative as the Preferred Alternative is justified based on the following:

- The Build Alternative has been designed to minimize impacts on the surrounding land uses and facilities and there are no other reasonable alternatives that will further avoid such impacts or uses.
- Several alternatives were considered for the project, as discussed in Section 1.3.4 below, but none of these alternatives would best meet the project purpose and need and result in less environmental impacts. Thus, there are no reasonable alternatives or mitigation measures that will avoid or substantially lessen the impacts of the Build Alternative.
- The Build Alternative will result in irreversible environmental impacts, none of the impacts will be significant and unavoidable with the implementation of avoidance, minimization and mitigation measures. There are no specific factors or conditions (e.g., economic, social, or other factors) that make the Build Alternative unreasonable or that make the other alternatives environmentally superior to the Build Alternative.

Under CEQA, the City will certify that the project complies with CEQA, prepare findings that all significant impacts identified will be mitigated below a level of significance, and certify that the Final EIR/EA has been considered prior to project approval. The City will then file a Notice of Determination (NOD) with the San

Bernardino County Clerk and the State Clearinghouse. The NOD will identify that the project will have significant impacts, that mitigation measures were included as conditions of project approval, and that findings were made. Similarly, Caltrans, as assigned by FHWA, has determined the NEPA action does not significantly impact the environment and will issue a Finding of No Significant Impact (FONSI).

1.3.4 Alternatives Considered but Eliminated from Further Discussion Prior to Draft Environmental Impact Report/Environmental Assessment (EIR/EA)

Assembly Bill (AB) 2542 requires any state or local automobile capacity-increasing project or a major street or highway lane realignment project sent to the California Transportation Commission for approval consider reversible lanes in the design of the project. The Grove Avenue Corridor Project is a capacity-increasing project; therefore, AB 2542 applies. Evaluation of the feasibility of reversible lanes on Grove Avenue from 4th Street to Airport Drive indicates that reversible lanes would not be feasible due to the short segment (1.24 miles) proposed for widening; the presence of seven intersections at even shorter segments within the corridor; and the lack of highly-defined directional traffic during the AM or PM peak hours. In addition, the City's General Plan shows Grove Avenue as a six-lane Principal Arterial without reversible lanes.

During the initial design of this project, two alternatives were considered: widening Grove Avenue to the east and widening Grove Avenue to the west. Both alternatives included three through lanes in each direction along Grove Avenue. The alternative that widened Grove Avenue to the east was chosen as the Build Alternative. The rejected alternative, which widened Grove Avenue to the west, is described below.

1.3.4.1 Widen to the West Alternative

From State Street north to the UPRR crossing, the Widen to the West Alternative matched the Build Alternative configuration. North of the UPRR, Grove Avenue would be widened to the west until north of G Street. North of G Street to 4th Street, the alignment matched that of the Build Alternative.

This alternative would have the following ROW impacts:

- 19 property acquisitions
 - 13 single-family residences
 - 3 apartment buildings – 8 units each

- 2 vacant parcels
- Demolition of one building associated with Sovereign Grace Baptist Church at the southwest corner of Grove Avenue and G Street
- Partial acquisition of 0.06 acre of Grove Memorial Park, located northwest of the Grove Avenue/G Street intersection
- *De Minimis* Section 4(f) impacts to John Galvin Park

Due to the extensive ROW requirements and associated property and park impacts, the Widen to the West Alternative was eliminated from further consideration; therefore, this alternative cannot be considered an environmentally superior alternative to the proposed Build Alternative that is carried through for further analysis in this document.

1.4 Permits and Approvals Needed

Table 1-7 lists the permits, reviews, and approvals that would be required for project construction of the Build Alternative (proposed project).

Table 1-7. Required Permits, Reviews, and Approvals

Agency	Permit/Approval	Status
U.S. Army Corps of Engineers	Non-notifying Clean Water Act (CWA) Section 404 Nationwide Permit (NWP) 14 (Linear Transportation Projects), provided all terms and conditions of the NWP permit program (33 CFR 330) are met.	Section 404 Permit will be obtained prior to start of construction
San Bernardino County Flood/U.S. Army Corps of Engineers	A 408 permit will be required for potential impacts to the Cucamonga Creek.	Section 408 Permit will be obtained prior to start of construction
Regional Water Quality Control Board	CWA Section 401 Water Quality Certification. It should be noted that although it is anticipated that the project may likely qualify for a non-notifying NWP 14, CWA Section 401 Water Quality Certification must be issued prior to CWA Section 404 authorization for (any) impacts to Waters of the U.S. A fee commensurate with the extent of the activity will be required as part of this permit.	Section 401 Water Quality certification will be obtained prior to start of construction
California Department of Fish and Wildlife	Lake or Streambed Alteration Agreement (SAA). A fee commensurate with the extent of the activity will be required as part of this permit.	Section 1602 Streambed Alteration Agreement will be obtained prior to start of construction

Table 1-7. Required Permits, Reviews, and Approvals

Agency	Permit/Approval	Status
City of Ontario	Pursuant to Section 10-2.06, the City requires approval and removal permits for parkway trees to be removed. To remove a parkway tree, it must meet criteria set forth by the City. No person shall remove or relocate any parkway tree without prior authorization from the City.	Tree removal permit will be obtained prior to any tree removal
State Water Resources Control Board	Construction General Permit, Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS000002.	Construction General Permit will be obtained prior to start of construction
State Historic Preservation Officer	Determination of Eligibility.	Letter of Concurrence dated April 25, 2017
FHWA	Air Quality Conformity Determination.	Letter of Conformity dated August 26, 2020

In addition to the permits listed above, a cooperative agreement with Omnitrans will be required to temporarily defer or relocate the five bus stop stations within the limits of the project. Three bus stations on 4th Street between N. Virginia Avenue and N. Calaveras Avenue are part of Route 86, and two bus stations located on Holt Boulevard at the intersection of Holt Boulevard and Grove Avenue are part of Routes 61 and 80.

The project anticipates entering into a Service Agreement with UPRR for flaggers and inspection during periods of work along Grove Avenue between Holt Boulevard and Airport Drive. It is also anticipated that additional agreements, clearances, and clauses will be inserted into the Construction Specifications.

Individual utility agreements are expected with the associated owners of gas, electrical, water, and communication facilities with the Build Alternative. Additional agreements may be required depending on selection of the preferred alternative. For the Build Alternative, an agreement will be needed for the oil companies.

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

2.1 Topics Considered but Determined not to be Relevant

As part of the scoping and environmental analysis carried out for the project, the following environmental issues were considered, but no adverse impacts were identified:

- Coastal Zone. There will be no effect to Coastal Zones because the project is not located near any coasts.
- Wild and Scenic Rivers. There will be no effect to Wild and Scenic Rivers because there are no rivers near the project footprint.
- Timberland. There are no timberlands located in or near the project footprint.
- This project is located outside of National Marine Fisheries Service (NMFS) jurisdiction; therefore, an NMFS species list is not required, and no effects to NMFS species are anticipated.
- The project is located outside of National Oceanic and Atmospheric Administration's National Marine Fisheries (NOAA Fisheries) jurisdiction; therefore, an NOAA species list is not required, and no effects to NOAA species are anticipated.

As a result, there is no further discussion about these issues in this document.

2.2 Human Environment

2.2.1 Existing and Future Land Use

This section discusses impacts to land use as a result of implementation of the proposed project. The analysis is based on the results of the *Community Impact Assessment* (October 2016) prepared for this project. This section addresses potential impacts to existing and planned land uses in the project area that could result from implementation of the project alternatives.

2.2.1.1 Affected Environment

Existing land uses located immediately adjacent to the proposed project area were identified from west to east. The summary of existing land uses is based on City and

County of San Bernardino (County) planning documents, Google Earth Surveys, and windshield surveys conducted in 2015.

The Grove Avenue Corridor Project is located in the northwest portion of the city of Ontario. Residential neighborhoods dominate the land uses to the west of the project area, with commercial uses clustered at major intersections. Similarly, the eastern side of Grove Avenue is also dominated by residential land uses. To the north of the project area is an area of commercial development and a large drainage basin located adjacent to the southern side of I-10. Immediately south of 4th Street, Grove Avenue goes through the center of John Galvin Park. Grove Memorial Park is located along the eastern side of Grove Avenue between I Street and G Street. Business parks and light industrial uses are found on the southern end of the project area, and Ontario International Airport is located adjacent to the southeast corner of the project area. The Grove Avenue corridor is primarily built out, although there are some vacant parcels at the southern end of the corridor. Existing land uses within 0.5 mile of the project area are depicted in Figure 2.2.1-1. As shown in Table 2.2.1-1, medium-high density residential makes up most of the land uses found within 0.5 mile of the Grove Avenue corridor at approximately 45 percent. Ontario International Airport and vacant land are at approximately 12 and 11 percent, respectively.

Table 2.2.1-1. Land Use within 0.5 Mile of the Project Corridor

Land Use	Acreage	Percentage
Agriculture	4.48	0.3
Airports	171.79	11.6
Commercial	130.51	8.8
Educational Facilities	57.83	3.9
Industrial	89.10	6.0
Low Density Residential	19.34	1.3
Medium-High Density Residential	667.79	44.9
Office	18.81	1.3
Open Space & Recreation	60.23	4.1
Public Facilities	37.07	2.5
Transportation & Utilities	50.29	3.4
Under Construction	7.92	0.5
Vacant	156.56	10.5
Water & Floodways	14.01	0.9

Source: Parsons, SBCTA Existing Land Use, 2012.

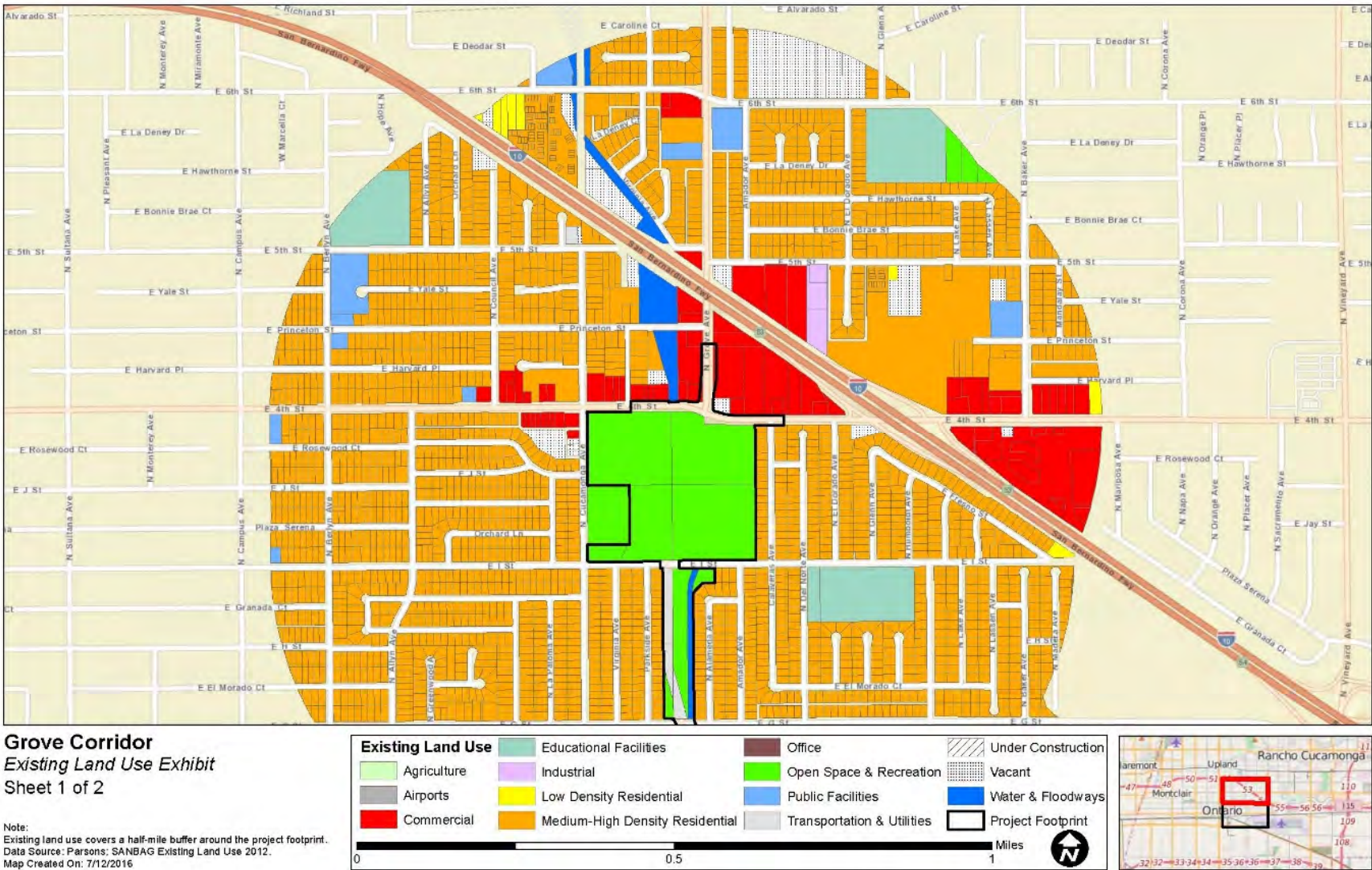


Figure 2.2.1-1. Existing Project Area Land Use (Sheet 1 of 2)

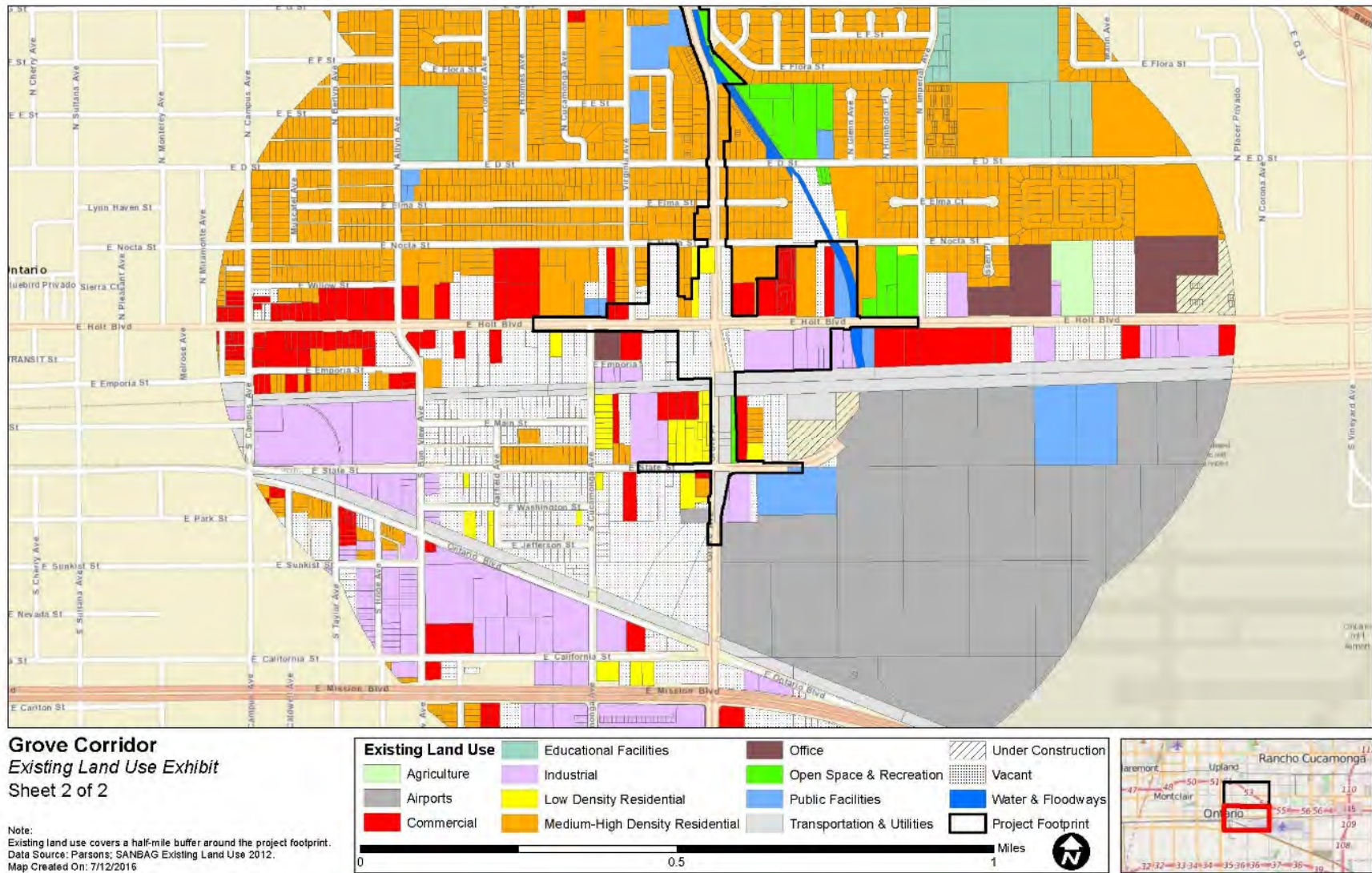


Figure 2.2.1-1. Existing Project Area Land Use (Sheet 2 of 2)

Development Trends

Recent development trends in the Grove Avenue Corridor Project area have been primarily focused on land development projects. Table 2.2.1-2 and Figure 2.1.1-2 identify transportation and residential projects located within 5 miles of the proposed alignment and all other development located within 2 miles that may occur within 3 years of the proposed project implementation (2025). The search radius includes the cities of La Verne, Pomona, Claremont, Montclair, Chino, Ontario, Upland, Rancho Cucamonga, Fontana, Eastvale, and Jurupa Valley. The identified projects were used to analyze cumulative impacts of the proposed project. See Section 2.5 for the discussion of cumulative impacts.

Table 2.2.1-2. Related Projects

Project Name, Type, Status, and ID Number (Refer to Figure 2.2.1-1)	Project Description
<p>I-10 Corridor Project – ID Number 1</p> <ul style="list-style-type: none"> • Transportation project • SBCTA and Caltrans project • Located in the cities of Pomona, Claremont, Montclair, Upland, Ontario, Fontana, Bloomington, Rialto, Colton, San Bernardino, Loma Linda, Redlands, and Yucaipa • Final environmental document approved in May 2017 	<p>The I-10 Corridor Project is proposed to improve safety and relieve traffic congestion on I-10, 0.4 mile west of White Avenue in Pomona at Post Mile 44.9 to just east/west of Live Oak Canyon Road in Yucaipa at Post Mile 37.0.</p>
<p>I-10/Grove Avenue Interchange Project – ID Number 2</p> <ul style="list-style-type: none"> • Transportation project • City of Ontario project • Located in the city of Ontario • Currently in the preliminary engineering and environmental document phase 	<p>The I-10/Grove Avenue Interchange Project proposes to improve upon the operational deficiencies of the existing interchange and relieve traffic congestion to accommodate anticipated increases in automobile and truck traffic in the study area. Two build alternatives and one No Build Alternative are being considered.</p> <p>Build Alternative 1 proposes a new spread diamond interchange at Grove Avenue. Build Alternative 2 proposes a new partial cloverleaf interchange at Grove Avenue. The proposed build alternatives would require closure of the existing I-10/4th Street interchange. Improvements along Grove Avenue include widening the local street from four lanes to six lanes between the westbound ramps and 4th Street. Grove Avenue would taper back to four lanes north of the westbound ramps and tie in with the existing four-lane cross section before 6th Street. Improvements along 4th Street include widening the local street from two through lanes to four through lanes under I-10. Caltrans has jurisdiction of the development.</p>

Table 2.2.1-2. Related Projects

Project Name, Type, Status, and ID Number (Refer to Figure 2.2.1-1)	Project Description
<p>Omnitrans West Valley Connector – ID Number 19 – ID Number 3</p> <ul style="list-style-type: none"> • Transportation project • Located in the cities of Fontana, Rancho Cucamonga, Ontario, Montclair, and Pomona • Omnitrans project • Currently in the preliminary engineering and environmental document phase 	<p>Omnitrans' West Valley Connector Corridor would provide mobility with a state-of-the-art bus transit system to accommodate the growing population and bus ridership demand and aim at connecting all major activity centers in the area. The transit system would focus on two transit services on the Holt Boulevard/Route 61 and Foothill Boulevard/Route 66 corridors. The build alternatives, Rapid Bus and Bus Rapid Transit, would decrease the wait time and increase effectiveness. Alternative 2, Rapid Bus, would limit stop service on mixed-flow lanes, and Bus Rapid Transit would limit stop service on 3.5 or 6.5 miles of dedicated lanes.</p>
<p>I-15 Corridor Improvement Project – ID Number 4</p> <ul style="list-style-type: none"> • Transportation project • Located in the cities of Jurupa Valley, Eastvale, Norco, Corona, and Riverside • Riverside County Transportation Commission (RCTC) and Caltrans project • Environmental approval was obtained in May 2016 	<p>RCTC, in partnership with Caltrans District 8, is exploring improvements on a 14.6-mile-long segment of the I-15 corridor. The proposed project would include the addition of one to two Tolled Express Lanes in each direction from Cajalco Road, where it crosses I-15 in Corona, to just south of the I-15 and SR-60 interchange at Riverside Drive. This project has an estimated construction cost of \$415 million.</p>
<p>San Bernardino County Flood Control District's Master Stormwater System Maintenance Program (MSWMP)</p> <ul style="list-style-type: none"> • Located within the San Bernardino County Flood Control District (SBCFCD) Jurisdiction • SBCFCD project • A Notice of Preparation of a Draft Environmental Impact Report (EIR) was circulated on June 30, 2014 <p>(The project is located throughout San Bernardino County and will apply to all Flood Control District Facilities. It is not shown in the Related Projects map.)</p>	<p>SBCFCD is proposing to implement a comprehensive program to prepare and implement a Maintenance Plan for maintenance of flood facilities throughout San Bernardino County. Types of routine operations and maintenance activities include, but are not limited to, removing excess sediment, debris, and vegetation; stockpiling excess material and debris following removal; maintaining sufficient flow paths; grooming/repairing earthen and improved channel slopes and bottoms; and maintaining culverts and bridges to ensure proper drainage and structural integrity.</p>
<p>Metro Gold Line Foothill Extension Construction Activity: Ontario Airport Extension – ID Number 5</p> <ul style="list-style-type: none"> • Transportation project • Located in the cities of Montclair, Upland, and Ontario • Metro project • Funding for the Ontario Airport Extension has not been identified; project timeline is uncertain • Groundbreaking occurred in December 2017. 	<p>The Ontario Airport Extension would extend the Gold Line approximately 8 miles – from the TransCenter in Montclair, located just east of Monte Vista Avenue and north of Arrow Highway, to Ontario – and terminate the line at Ontario International Airport. Although not formally part of the Foothill Extension Project, the Construction Authority completed a study to understand the feasibility of extending the line from Montclair to the airport in 2008. The initial study concluded that extending the line was feasible and provided many potential route options.</p>

Table 2.2.1-2. Related Projects

Project Name, Type, Status, and ID Number (Refer to Figure 2.2.1-1)	Project Description
<p>College Park Specific Plan – ID Number 6</p> <ul style="list-style-type: none"> • Land development project • Located in the city of Upland • City of Upland Housing Element – Specific Plan • To be implemented between 2013 and 2021 	<p>In 2004, the City of Upland adopted the College Park Specific Plan to encourage mixed-use development in southwest Upland and provide housing opportunities for the Claremont Colleges. The planning area includes 25 acres of residential land that can accommodate approximately 500 housing units. A total of 450 apartment units have been built. An additional 92 small-lot, detached single-family units are planned at a density of 10 units per acre. This Specific Plan area is composed of a residential development with a small commercial-retail component. The Specific Plan proposes 355 multi-family attached and 14 detached residential units. The area is bounded by Foothill Boulevard, Monte Vista Avenue, and west Arrow Route, just below Central Avenue.</p>
<p>Ontario Center Specific Plan – ID Number 7</p> <ul style="list-style-type: none"> • Land development project • Located in the city of Ontario • City of Ontario Specific Plan • An amendment to the Ontario Specific Plan was approved in 2006 	<p>The Ontario Center site consists of approximately 88 acres of vacant land located at the northerly boundary of the eastern portion of Ontario, south of 4th Street, between Haven Avenue and Milliken Avenue, and less than 0.25 mile north of I-10. The Ontario Center will include urban commercial, urban residential, garden commercial, and open space elements.</p>
<p>Ontario Festival Specific Plan – ID Number 8</p> <ul style="list-style-type: none"> • Land development project • Located in the city of Ontario • City of Ontario Specific Plan • Approved in 2012 	<p>The Ontario Festival Specific Plan is a comprehensive plan for the development of a planned residential site that could accommodate up to 472 dwelling units on approximately 37.6 acres. This project will be located along Inland Empire Boulevard between Archibald Avenue and Turner Avenue, just below Guasti Regional Park.</p>
<p>Meredith International Centre Specific Plan – ID Number 9</p> <ul style="list-style-type: none"> • Land development project • Located in the city of Ontario • City of Ontario Specific Plan • An Initial Study was prepared for the project in 2014 	<p>The Meredith International Centre Specific Plan Amendment Project proposes a mix of industrial, commercial, and residential land uses on approximately 257 acres located in the southeast portion of Ontario within San Bernardino County. The site is generally located north of I-10, south of 4th Street, between Vineyard Avenue and Archibald Avenue. The project area is located in between the Southern Pacific Trail and west Arrow Route.</p>

Table 2.2.1-2. Related Projects

Project Name, Type, Status, and ID Number (Refer to Figure 2.2.1-1)	Project Description
<p>Guasti Plaza Specific Plan – ID Number 10</p> <ul style="list-style-type: none"> • Land development project • Located in city of Ontario • City of Ontario Specific Plan • Updated in 2011 	<p>The Guasti Specific Plan (approved in 1997) was updated in 2011 with the addition of the Guasti Major Amendment No. 1 (GMA-1). The amendment would allow construction of residential units as an alternative to office use, called the Residential Overlay Zone. The Residential Overlay Zone is within the Guasti Specific Plan boundaries and, more specifically, bounded by Guasti Road in the north with Turner Avenue to the east and the proposed road, Via Biane, on the west. Pepper Tree Lane is south of the Residential Overlay Zone where the smaller historic buildings will be retained and/or relocated. The Residential Overlay Zone will consist of 7.6 acres. The residential units may be constructed at a density of 25 to 60 units per acre.</p>
<p>Omnitrans Route 290 – ID Number 11</p> <ul style="list-style-type: none"> • Transportation project • Located in the cities of San Bernardino, Montclair, Colton, Ontario • Omnitrans project began in September 2015 	<p>Omnitrans is proposing to offer a second freeway express route that will connect Downtown San Bernardino with Arrowhead Regional Medical Center, Ontario Mills, and the Montclair Transit Center. The service is proposed to run as a peak morning and evening service. The proposed schedule for Route 290 is designed to maximize transfer potential to Foothill Transit’s Silver Streak in Montclair, Metrolink trains, and other Omnitrans routes.</p>
<p>SBCTA Ontario Airport Rail Access – ID Number 12</p> <ul style="list-style-type: none"> • Transportation project • Located in the cities of Ontario, Rancho Cucamonga, and Upland 	<p>The Ontario Airport Rail Access project is designed to improve passenger access to public transportation, such as the three Metrolink stations within 5 miles from the airport. This project also aims to assist with anticipated future population growth in the area. An Ontario Airport Rail Access Study Report was completed in November 2014.</p>
<p>Mountain Village – ID Number 13</p> <ul style="list-style-type: none"> • Land development project • Located in the city of Ontario • City of Ontario Specific Plan • Approved in 1997 	<p>The purpose of the Mountain Village Specific Plan is to use blighted parcels to build residential and commercial development consisting of four Development Districts: Entertainment District, Main Street District, Sixth Street District, and Residential District. The Residential District will contain single-family homes.</p> <p>The area is bound by I-10 and the city of Upland to the north, Colony Park to the south, single-family residences to the east, and single- and multi-family residences to the west.</p>
<p>Pomona Corridors SP – ID Number 14</p> <ul style="list-style-type: none"> • Land development project • Located in the city of Pomona • City of Pomona Specific Plan • Public review draft issued in June 2013 	<p>The Pomona Corridors SP is designed to develop private and public investment activities along Garvey Avenue, Holt Avenue, Mission Boulevard, and Foothill Boulevard to promote the type of investment that will enhance the beauty and vitality of the city’s primary commercial corridors. The specific plan is composed of portions of Garey Avenue, Holt Avenue, Mission Boulevard, and Foothill Boulevard corridors.</p>

Note: Information was collected from each project’s Web site in 2015.

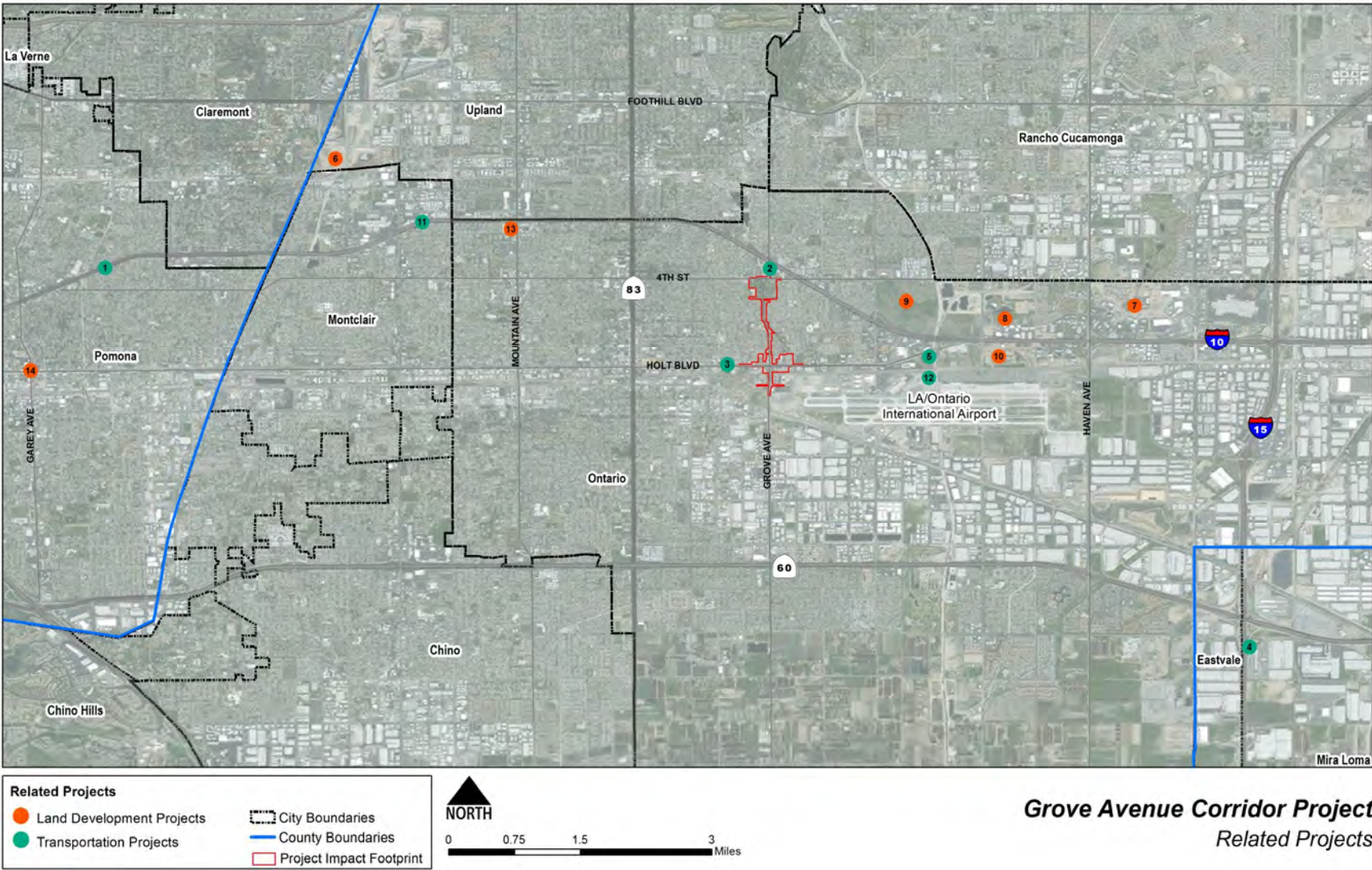


Figure 2.2.1-2. Related Projects

2.2.1.2 Environmental Consequences

No Build Alternative

The No Build Alternative would maintain the current configuration of Grove Avenue. Under the No Build Alternative, the project would not be constructed, and no temporary or permanent impacts to existing land use would occur.

Build Alternative (Proposed Project)

Permanent Impacts

The Build Alternative would result in permanent impacts to 87 parcels, including 84 parcels subject to acquisition and 3 permanent easements. Property acquisitions associated with the Build Alternative would result in the conversion of 4.04 acres of existing land uses, such as residential, industrial, and public land, to transportation-related uses. See Section 2.2.7 for further discussion of parcel acquisitions and relocations. Table 2.2.1-3 shows the Build Alternative impacts to existing land use types.

Table 2.2.1-3. Build Alternative Existing Land Use Impacts

Land Use	Permanent Impacts (acres)	Temporary Construction Easement Impacts (acres)
Residential	2.03	0.34
Commercial/Office	0.01	0.11
Industrial	0.03	0.05
Vacant	1.25	0.25
Public Land	0.66	0.36
Railroad	0.00	0.08
Park or Recreational Facility	0.06	1.20
Total	4.04	2.39

Implementation of the Build Alternative would require permanent easements on three parcels: one parcel owned by Southern Pacific Transportation and two owned by the San Bernardino County Flood Control District (SBCFCD).

The conversion of 4.04 acres of various land uses, including just over 2 acres of residential uses, for transportation-related uses would not change the overall land use patterns in the area or influence or inhibit future land use development in the area. Grove Avenue would continue to function as a major transportation corridor surrounded by the same land uses as currently exist.

Permanent indirect impacts to land use patterns, such as changes to regional development and growth-related changes, are not anticipated with implementation of the Build Alternative. The area subject to ROW acquisition is urbanized, containing few vacant parcels that are available and/or entitled for development. The Build Alternative would not remove large tracts of land available for future development nor result in major land use changes; therefore, it would have a negligible effect on regional development patterns. Potential growth-related changes associated with the project are discussed in Section 2.2.5, Growth.

Temporary Impacts

Forty-seven (47) TCEs, totaling 2.39 acres, would be required to construct the proposed Build Alternative. Properties used as TCEs would maintain their existing land use during and after project construction.

In addition, access to businesses along Grove Avenue, 4th Street, and Holt Boulevard in the project area may be temporarily restricted or modified during construction due to TCEs. Access to businesses would be maintained at all times during construction, consistent with Section 7-1.03, Public Convenience of Caltrans' Standard Specifications (2018). Temporary impacts to access and circulation are discussed in further detail in Section 2.2.10, Traffic and Transportation/Pedestrian and Bicycle Facilities.

2.2.1.3 Avoidance, Minimization, and/or Mitigation Measures

The project is generally consistent with current and future planned land uses as discussed in this section. The Build Alternative has been designed to avoid existing built land uses to the extent practicable while adhering to design and operational criteria to maintain a safe roadway. During final design, additional efforts will be explored to reduce the required project footprint and further minimize any construction and operational impacts to existing and planned land uses.

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

The following discussion describes the adopted plans within the project area and the goals, policies, or objectives of those plans that are applicable to this project. To ensure project consistency with local transportation and residential projects, the *Community Impact Assessment* (Chapter 2.1.1.1) reviewed transportation and residential projects located within 5 miles of the proposed alignment and all other development located within 2 miles. The search radius includes the cities of La Verne, Pomona, Claremont, Montclair, Chino, Ontario, Upland, Rancho Cucamonga, Fontana, Eastvale, and Jurupa Valley. The list of related projects includes projects that may occur within 3 years of the proposed project implementation (2025). The identified projects were used to analyze cumulative impacts of the proposed project.

State law is the foundation for local planning in California. The California Government Code (Sections 65000 *et seq.*) contains many of the laws pertaining to the regulation of land uses by local governments, including the general plan requirement, specific plans, subdivisions, and zoning. However, the State is seldom involved in local land use and development decisions; these have been delegated to the city councils and boards of supervisors of the individual cities and counties. Local decision makers adopt their own set of land use policies and regulations based on State laws.

SCAG is the largest Metropolitan Planning Organization (MPO) in the nation. The SCAG region includes six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 191 cities. As the designated MPO, SCAG is mandated by federal and State law to research and develop an RTP, which now incorporates a Sustainable Communities Strategy (SCS) as well. SCAG is currently undertaking a variety of planning and policy initiatives to foster a more sustainable southern California.

SCAG develops long-term solutions for regional challenges such as transportation, air quality, housing, growth, hazardous waste, and water quality. Because these issues cross city and county boundaries, SCAG works with cities, counties, and public agencies in the six-county region to develop plans and strategies. SCAG has developed strategies that specifically address the growth and transportation issues facing southern California. These plans include the Regional Comprehensive Plan (RCP) and the RTP/SCS, as mentioned above. The RCP presents the full body of planning and policy work produced by SCAG and ties it together.

The RTP/SCS is a comprehensive long-term transportation plan that provides a vision for the future of the SCAG region's multimodal transportation system and specifies how that vision can be achieved for the region. The RTP/SCS identifies major

challenges, as well as potential opportunities associated with growth, transportation finances, the future of airports in the region, and impending transportation system deficiencies that could result from growth projections for the region.

In addition to the regional plans, State law requires that each city and county adopt a general plan containing the following seven components or elements: land use, circulation, housing, conservation, open space, noise, and safety (Government Code Sections 65300 *et seq.*). At the same time, each jurisdiction is free to adopt a wide variety of additional elements covering subjects of particular interest to that jurisdiction, such as recreation, urban design, or public facilities. The local general plan can be described as the city or county's "blueprint" for future development.

Community plans and specific plans are often used by cities and counties to plan the future of a particular area at a finer level of detail than that provided by the general plan. A community plan is a portion of the local general plan focusing on the issues pertinent to a particular area or community within the city or county. It supplements the policies of the general plan. Specific plans describe allowable land uses, identify open space, and detail the availability of facilities and financing for a portion of the community. Specific plans must be consistent with the local general plan. A specific plan implements, but is not technically part of, the general plan.

The County and the City's General Plans were reviewed to understand the development trends, land use related goals, and specific policies of the local jurisdictions that could be affected by the proposed project. The land use, community design, open space, and/or mobility elements for each plan provided most of the goals or policies relevant to the proposed project.

The following sections discuss the regional, local, and General Plan policies relevant to the Grove Avenue Corridor Project.

2.2.2.1 Affected Environment

Regional Plans

SCAG 2008 Regional Comprehensive Plan

The SCAG RCP, adopted in 2008, provides a vision for the southern California region that addresses future needs while recognizing the interrelationship between economic prosperity, natural resource sustainability, and quality of life. Through measured performance, the RCP serves as a voluntary action plan with short-term guidance and strategic, long-term initiatives. The RCP complements SCAG's RTP/SCS, which is discussed in detail below.

SCAG Regional Transportation Plan/Sustainable Communities Strategy

The 2012, 2016 and 2020 RTP contains goals and policies that are pertinent to the proposed project, and the SCS is incorporated into the RTP, per Senate Bill (SB) 375. The SCS demonstrates how the region will meet its greenhouse gas (GHG) reduction targets. The RTP/SCS's vision encompasses three principles that motivate southern California planning: mobility, economy, and sustainability.

General Plans

San Bernardino County General Plan (Adopted 2007, Amended 2014)

San Bernardino County is bordered by Los Angeles County, Orange County, and Kern County on the west; the Colorado River and the states of Arizona and Nevada on the east; Riverside County on the south; and Inyo County and the southwest corner of Clark County, Nevada, on the north. San Bernardino County includes the following cities located within the proposed project area: Montclair, Upland, Ontario, and Rancho Cucamonga.

San Bernardino County, with a land area of 20,106 square miles, is the largest county in the continental United States. Although San Bernardino County is the largest county in the contiguous United States, the span of control of the Board of Supervisors over the entire county is limited. Federal and State agencies own and control most of the County lands, and only 15 percent of the total land area in San Bernardino County is regulated by the County Board of Supervisors.

The County identifies itself as a crossroads of global, multimodal transportation, and commerce, with an abundance of affordable land and a skilled workforce. It also recognizes its rural and urban amenities.

City of Ontario General Plan (2010)

Ontario is comprised of approximately 50 square miles. It is bordered by unincorporated San Bernardino County, Montclair, Upland, Rancho Cucamonga, and Fontana to the north, and Chino and Riverside County to the south. Several highways run through the city limits, including I-10, I-15, and SR-60.

The vision of the Ontario General Plan, or the Ontario Policy Plan, includes goals and policies to create and maintain distinct neighborhoods and activity centers; encourage diverse residential uses; a mix of employment, retail, entertainment, community, and recreational services; and a world-class airport, which are connected through a unified mobility system.

Specific Plans

No Specific Plans were found to be located within or immediately adjacent to the proposed project alignment.

2.2.2.2 Environmental Consequences

An evaluation of the proposed project’s consistency with related plans and policies is presented in Table 2.2.2-1.

Table 2.2.2-1. Consistency with Plans and Policies

Goal/Policy	Project Consistent with Plan, Goal, Objective or Policy		Consistency Analysis
	No Build Alternative	Build Alternative	
SCAG 2008 Regional Comprehensive Plan			
Land Use and Housing Chapter: Focusing growth in existing and emerging centers and along major transportation corridors.	Consistent	Consistent	The Build Alternative would not induce growth because the proposed project would be built along an existing corridor and is consistent with existing and future plans. The No Build Alternative would not induce growth because there would be no change to the existing land use development.
Land Use and Housing Chapter: Protecting important open space, environmentally sensitive areas (ESAs), and agricultural lands from development.	Consistent	Inconsistent	The Build Alternative would require acquisition of 0.06 acre of park space from Grove Memorial Park and John Galvin Park. The acquisitions make up less than 2.5 percent of each park. While acquisition of this space is not consistent with SCAG’s goal of protecting open space, it is not anticipated to impair the use of recreational facilities and activities within this park. In addition, the Build Alternative would require temporary use of 1.22 acres through TCEs. Although TCEs would temporarily reduce the overall park areas during construction, it would not affect existing recreational activities, features, or attributes in the parks. No open space, ESAs, or agricultural lands would be affected as a result of the No Build Alternative.

Table 2.2.2-1. Consistency with Plans and Policies

Goal/Policy	Project Consistent with Plan, Goal, Objective or Policy		Consistency Analysis
	No Build Alternative	Build Alternative	
<p>Open Space and Habitat Chapter: Conserving natural lands that are necessary to preserve the ecological function and value of the region's ecosystems.</p>	Consistent	Inconsistent	<p>No natural communities of concern were identified within the project area; however, trees and shrubs within the Biological Study Area (BSA) provide suitable habitat for nesting birds, including raptors, protected under the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFG Code). The Build Alternative would result in permanent unavoidable impacts to 174 trees. (Permanent impacts were determined if at least 50 percent of the tree occurred within the permanent impact area.) The Build Alternative is not consistent with this goal.</p> <p>No natural lands would be affected as a result of the No Build Alternative.</p>
<p>Open Space and Habitat Chapter: Conserving wildlife linkages as critical components of the region's open space infrastructure.</p>	Consistent	Consistent	<p>No wildlife linkages would be affected by either of the alternatives.</p>
<p>Open Space and Habitat Chapter: Coordinating transportation and open space to reduce transportation impacts to natural lands.</p>	Consistent	Inconsistent	<p>No natural communities of concern were identified within the project area; however, trees and shrubs within the BSA provide suitable habitat for nesting birds, including raptors, protected under the federal MBTA and CFG Code. The Build Alternative would result in permanent unavoidable impacts to 174 trees. (Permanent impacts were determined if at least 50 percent of the tree occurred within the permanent impact area.) The Build Alternative is not consistent with this goal.</p> <p>No natural lands would be affected as a result of the No Build Alternative.</p>
<p>Transportation Chapter: A more efficient transportation system that reduces and better manages vehicle activity.</p>	Inconsistent	Consistent	<p>Proposed project improvements associated with the Build Alternative would result in a more efficient transportation system.</p> <p>Under the No Build Alternative, traffic conditions would continue to worsen along Grove Avenue without implementation of the proposed improvements.</p>

Table 2.2.2-1. Consistency with Plans and Policies

Goal/Policy	Project Consistent with Plan, Goal, Objective or Policy		Consistency Analysis
	No Build Alternative	Build Alternative	
Transportation Chapter: A cleaner transportation system that minimizes air quality impacts and is energy efficient.	Inconsistent	Consistent	The Build Alternative would improve traffic flow along Grove Avenue, especially for trucks travelling from I-10 to Ontario International Airport. Increased throughput resulting from the proposed project would minimize air quality impacts and increase energy efficiency. Under the No Build Alternative, traffic conditions would continue to worsen along Grove Avenue, thereby increasing air quality impacts and decreasing energy efficiency.
SCAG Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS)			
Goal: Maximize mobility and accessibility for all people and goods in the region.	Inconsistent	Consistent	The Build Alternative would improve traffic flow and decrease congestion along Grove Avenue, thereby improving mobility and enhancing goods movement capabilities; therefore, it is consistent with this goal. Under the No Build Alternative, traffic conditions would continue to worsen along Grove Avenue without implementation of the proposed improvements.
Goal: Ensure travel safety and reliability for all people and goods in the region.	Inconsistent	Consistent	The Build Alternative is anticipated to create a safer transportation corridor for automobile, truck, transit, or nonmotorized travel modes. In addition, the Build Alternative proposes improvements to pedestrian and bicycle facilities in the project area. Therefore, the Build Alternative is considered consistent with this goal Under the No Build Alternative, no improvements for automobile, truck, transit, or nonmotorized travel modes would be constructed, thereby worsening safety and traffic conditions along Grove Avenue and the intersections within the project area. Therefore, the No Build Alternative is inconsistent with this policy.

Table 2.2.2-1. Consistency with Plans and Policies

Goal/Policy	Project Consistent with Plan, Goal, Objective or Policy		Consistency Analysis
	No Build Alternative	Build Alternative	
Goal: Preserve and ensure a sustainable regional transportation system.	Inconsistent	Consistent	The proposed Build Alternative would improve operations on Grove Avenue and surrounding local streets. The proposed project is also anticipated to improve the regional transportation system by facilitating improved access between I-10 and Ontario International Airport. Traffic conditions on the existing Grove Avenue would continue to worsen without implementation of the Build Alternative; therefore, the Build Alternative is consistent with this goal. Under the No Build Alternative, traffic conditions would continue to worsen without implementation of the proposed improvements.
Goal: Maximize the productivity of our transportation system.	Inconsistent	Consistent	The proposed Build Alternative would improve traffic flow along Grove Avenue between I-10 and Ontario International Airport, thereby maximizing the productivity of the existing transportation system. Traffic conditions would continue to worsen under the No Build Alternative.
Goal: Actively encourage and create incentives for energy efficiency, where possible.	Inconsistent	Consistent	The proposed Build Alternative would improve traffic flow along Grove Avenue between I-10 and Ontario International Airport, thereby maximizing the productivity of the existing transportation system. Traffic conditions would continue to worsen under the No Build Alternative.
Policy 2: Ensuring safety, adequate maintenance, and efficiency of operations on the existing multimodal transportation system should be the highest RTP/SCS priorities for any incremental funding in the region.	Inconsistent	Consistent	The existing multimodal transportation system would continue to degrade without proposed project improvements, thereby diminishing safety, adequate maintenance, and efficiency.

Table 2.2.2-1. Consistency with Plans and Policies

Goal/Policy	Project Consistent with Plan, Goal, Objective or Policy		Consistency Analysis
	No Build Alternative	Build Alternative	
San Bernardino County General Plan			
Goal CI 1. The County will provide a transportation system, including public transit, which is safe, functional, and convenient; meets the public's needs; and enhances the lifestyles of county residents.	Consistent	Consistent	The Build Alternative would not result in any permanent impacts to the County's public transportation system, but it would result in improved conditions within the project area. The No Build Alternative would not result in changes to the County's transportation system.
Goal CI 2. The County's comprehensive transportation system will operate at regional, countywide, community, and neighborhood scales to provide connectors between communities and mobility between jobs, residences, and recreational opportunities.	Inconsistent	Consistent	Coordination is ongoing between regional and local government agencies involved in the proposed project to improve traffic conditions on Grove Avenue and throughout the jurisdictions located near the project area. The No Build Alternative would not result in any traffic improvements to the corridor.
Policy CI 2.1. Work with adjacent jurisdictions to minimize inconsistencies in existing and ultimate ROW and roadway capacity across jurisdictional boundaries.			
Policy CI 2.2. Coordinate financial plans for transportation system improvements with other agencies and jurisdictions in the county.			
Policy CI 2.3. Where appropriate, jointly fund studies and improvements to the transportation system, with cities and other public agencies and developers.	Inconsistent	Consistent	Study of the proposed Build Alternative is being conducted as part of a jointly funded project development approach using State and local funds. The No Build Alternative would not result in jointly funded improvements; therefore, the No Build Alternative is not consistent with this policy.

Table 2.2.2-1. Consistency with Plans and Policies

Goal/Policy	Project Consistent with Plan, Goal, Objective or Policy		Consistency Analysis
	No Build Alternative	Build Alternative	
<p>Policy CI 2.7. Coordinate with Caltrans, SBCTA, SCAG, and other agencies regarding transportation system improvements in the County's Measure I and other adopted Capital Improvement Programs.</p>	Consistent	Consistent	<p>Coordination is ongoing between the City of Ontario, SBCTA, SCAG, and Caltrans to improve traffic conditions on Grove Avenue throughout the jurisdictions located in the project area.</p> <p>If selected, the No Build Alternative would not result in any traffic improvements to Grove Avenue.</p>
<p>Policy CI 2.8. Continue to participate in SBCTA, which is the County's Transportation Commission and transportation planning coordinator for all local agencies in the County, and regularly attend meetings of SBCTA Plans and Programs Committee and Comprehensive Transportation Plan Technical Advisory Committee meetings to discuss planning items of mutual concern.</p>			
<p>Policy CI 2.10. Identify important long-range transportation corridors, in conjunction with plans of regional transportation agencies (e.g., SCAG and SBCTA) to protect sufficient ROW for the development of long-range corridors.</p>	Consistent	Consistent	<p>The intent of this policy is to provide ROW for, and minimize ROW impacts of, transportation corridor projects planned by agencies. The Build Alternative is shown in circulation plans for the City of Ontario. As such, the proposed project is consistent with this policy.</p>
<p>Goal CI 3. The County will have a balance between different types of transportation modes, reducing dependency on the automobile and promoting public transit and alternate modes of transportation, in order to minimize the adverse impacts of automobile use on the environment.</p>	Inconsistent	Consistent	<p>The Build Alternative would improve bicycle and pedestrian connections through the project area along Grove Avenue. As such, the Build Alternative would incentivize nonmotorized trips.</p> <p>The No Build Alternative would not construct nonmotorized improvements; therefore, it is inconsistent with this policy.</p>
<p>Policy CI 3.1. Encourage the reduction of automobile usage through various incentive programs.</p>			

Table 2.2.2-1. Consistency with Plans and Policies

Goal/Policy	Project Consistent with Plan, Goal, Objective or Policy		Consistency Analysis
	No Build Alternative	Build Alternative	
Policy CI 4.5. Coordinate with local and regional transportation agencies and cities to plan and construct new multi-modal transportation facilities on the basis of this General Plan that are consistent throughout the neighboring jurisdictions.	Inconsistent	Consistent	Coordination is ongoing between the City of Ontario, SBCTA, SCAG, and Caltrans to improve traffic conditions on Grove Avenue throughout the jurisdictions located in the project area. If selected, the No Build Alternative would not result in any traffic improvements to Grove Avenue.
Goal CI 5. The County's road standards for major thoroughfares will complement the surrounding environment appropriate to each geographic region.	Inconsistent	Consistent	The Build Alternative would result in increased roadway capacity, as well as offer alternative travel options. The No Build Alternative would not result in increased roadway capacity.
Policy CI 5.2. Protect and increase the designed roadway capacity of all vehicular thoroughfares and highways.			
Goal CI 6. The County will encourage and promote greater use of nonmotorized means of personal transportation. The County will maintain and expand a system of trails for bicycles, pedestrians, and equestrians that will preserve and enhance the quality of life for residents and visitors.	Inconsistent	Consistent	New Americans with Disabilities Act (ADA)-compliant sidewalks would be constructed in Ontario as a result of the Build Alternative, thereby increasing opportunities for walking. The No Build Alternative would not construct new sidewalks.
Policy CI 6.1. Require safe and efficient pedestrian and bicycle facilities in residential, commercial, industrial, and institutional developments to facilitate access to public and private facilities and to reduce vehicular trips. Install bicycle lanes and sidewalks on existing and future roadways, where appropriate and as funding is available.			

Table 2.2.2-1. Consistency with Plans and Policies

Goal/Policy	Project Consistent with Plan, Goal, Objective or Policy		Consistency Analysis
	No Build Alternative	Build Alternative	
<p>Goal CI 13. The County will minimize impacts to stormwater quality in a manner that contributes to improvement of water quality and enhances environmental quality.</p> <p>Policy CI 13.1. Utilize site-design, source-control, and treatment control Best Management Practices (BMPs) on applicable projects, to achieve compliance with the County Municipal Stormwater National Pollutant Discharge Elimination System (NPDES) Permit.</p>	Consistent	Consistent	<p>Best Management Practices (BMPs) would be incorporated into the Build Alternative design to comply with the County Municipal Stormwater National Pollutant Discharge Elimination System (NPDES) Permit.</p> <p>No changes to stormwater would result from the No Build Alternative.</p>
City of Ontario General Plan			
<p>Goal M 2. A system of trails and corridors that facilitates and encourages bicycling and walking.</p> <p>Policy M 2-1. Bikeway Plan. We maintain our Multipurpose Trails & Bikeway Corridor Plan to create a comprehensive system of on- and off-street bikeways that connects residential areas, businesses, schools, parks, and other key destination points.</p> <p>Policy M 2-2. Bicycle System. We provide off-street multipurpose trails and Class II bikeways as our primary paths of travel and use the Class III for connectivity in constrained circumstances.</p> <p>Policy M 2-3. Pedestrian Walkways. We require walkways that promote safe and convenient travel between residential areas, businesses, schools, parks, recreation areas, and other key destination points.</p>	Inconsistent	Consistent	<p>The Build Alternative would retain and improve upon existing pedestrian circulation routes. Currently, there is no pedestrian sidewalk on the west side of Grove Avenue between I Street and G Street. The Build Alternative would improve nonmotorized transportation by constructing a new sidewalk that connects an existing walkway with Grove Memorial Park. Additionally, pedestrian sidewalks along the project corridor would include a landscaped median between traffic and pedestrians to enhance safety. There would also be a design element that provides a pedestrian connection across the West Cucamonga Channel to an existing trail leading to James Galanis Park. All sidewalks constructed under the Build Alternative would be ADA-compliant. The project would also design Grove Avenue to include a new Class III bikeway in conformance with SBCTA's Non-Motorized Transportation Plan 2014. The Build Alternative is consistent with these goals and policies.</p> <p>The No Build Alternative would not result in improved sidewalks or bikeways; therefore, it is inconsistent with this goal.</p>

Table 2.2.2-1. Consistency with Plans and Policies

Goal/Policy	Project Consistent with Plan, Goal, Objective or Policy		Consistency Analysis
	No Build Alternative	Build Alternative	
Goal M 4-2. Regional Participation. We work with regional and subregional transportation agencies to plan and implement goods movement strategies, including those that improve mobility, deliver goods efficiently and minimize negative environmental impacts.	Inconsistent	Consistent	The Build Alternative would improve traffic flow and decrease congestion along the corridor, thereby improving mobility and enhancing goods movement capabilities. Coordination is ongoing between the multiple regional and local government agencies involved in the proposed project. The No Build Alternative would not improve mobility or goods movement capabilities.
Goal CD 1-4. Transportation Corridors. We will enhance our major transportation corridors within the city through landscape, hardscape, signage, and lighting.	Consistent	Consistent	The Build Alternative would include landscaping that would be included in the project design to minimize visual impacts (e.g., replacement tree plantings; pavers). Adequate street lighting and signage would be maintained or enhanced. No changes to the aesthetic quality of the city would result from the No Build Alternative.

Sources: SCAG; County of San Bernardino; City of Ontario, and Parsons, 2015.

No Build Alternative

The No Build Alternative would maintain the current configuration of Grove Avenue. Under the No Build Alternative, no improvements would be constructed. As identified in Table 2.2.2-1, the No Build Alternative is inconsistent with various goals and policies of the local and regional plans. Some of the goals and policies the No Build Alternative is inconsistent with include improving travel safety and reliability for all people and goods; accommodating pedestrians and motorists; and improving intersection capacity. The No Build Alternative would not create a more efficient transportation system. Under the No Build Alternative, traffic conditions would continue to worsen along the existing Grove Avenue. This continual degradation of the transportation network would result in increased air quality impacts, energy usage, and other negative externalities that are not consistent with the goals to improve to mobility, economy, and sustainability.

Build Alternative (Proposed Project)

This section summarizes the consistency of the Build Alternative with existing plans and policies.

SCAG. The Build Alternative is consistent with SCAG’s 2008 RCP because it does not induce additional growth; rather, the Build Alternative would include roadway improvements along an existing transportation corridor and is consistent with existing and future plans. The Build Alternative would also improve the efficiency of the current transportation system, subsequently leading to improved traffic flow and increased energy efficiency. However, the Build Alternative would require permanent removal of 0.0606 acre of open space parkland and removal of approximately 174 trees, actions that are not consistent with the SCAG RCP policies promoting the protection of open space and natural resources. These minor inconsistencies are less than significant.

The Build Alternative is consistent with the SCAG RTP/SCS. The Build Alternative would help decrease congestion, improve safety, and maximize the productivity of the transportation system. The project would support land use and growth patterns that facilitate transit and nonmotorized transportation, further contributing to a more sustainable community and region.

Consistent with the SCAG Sustainability Planning Program growth management framework, the Build Alternative would improve mobility and sustainability in the project area through transportation investments.

City and County General Plans. The purpose of the proposed project is to alleviate existing and anticipated future congestion along Grove Avenue between 4th Street and Airport Drive; improve traffic operations and mobility to and from Ontario International Airport and the existing and future cargo hub facilities near Grove Avenue and Holt Boulevard; and provide route continuity along Grove Avenue to conform with the City’s General Plan Circulation Element, which identifies Grove Avenue as a six-lane principal arterial. The Build Alternative is generally consistent with the County General Plan and City General Plan described above. These plans anticipate growth within the project area and have adopted goals and policies to reduce congestion.

The Build Alternative would support continued economic vitality of the surrounding communities by improving conditions for the movement of goods and people. In addition, the Build Alternative would enhance public safety through improved driving conditions and enhanced environmental conditions through an improvement in traffic mobility and accessibility.

2.2.2.3 Avoidance, Minimization, and/or Mitigation Measures

Avoidance and minimization measures for the proposed project to reduce impacts associated with inconsistencies to SCAG's 2008 RCP have been identified for other resource areas. Minimization Measure LU-3 reduces the impacts to parks, and Minimization Measures VA-2 and NC-1 reduce the impacts associated with the loss of trees.

2.2.3 Parks and Recreational Facilities

The information in this section is from the *Community Impact Assessment* (October 2016) and the *De Minimis* Impact Determination (September 2016) prepared for this project. The project area for parks and recreational facilities includes those resources within a 0.5-mile radius of the project.

2.2.3.1 Regulatory Setting

The Park Preservation Act (California Public Resources Code [PRC] Sections 5400-5409) prohibits local and State agencies from acquiring any property that is in use as a public park at the time of acquisition unless the acquiring agency pays sufficient compensation or land, or both, to enable the operator of the park to replace the parkland and any park facilities on that land.

2.2.3.2 Affected Environment

Five public parks and recreational areas are located within 0.5 mile of the existing Grove Avenue corridor and are considered Section 4(f) resources. Section 4(f) resources include any publicly owned public park, recreational area, or wildlife or waterfowl refuge or any publicly or privately owned historic site. See Appendix A for further evaluation of Section 4(f) resources.

Table 2.2.3-1 lists the parks and recreational areas within the project area, and Figure 2.2.3-1 displays their locations in relation to the proposed project. These public parks are subject to the Park Preservation Act.

**Table 2.2.3-1. Parks and Recreational Resources
within the Study Area**

Property Name	Location	Current Ownership	Facilities
James Galanis Park	1259 E. D Street Ontario, CA 91764	City of Ontario	5.10 acres; turf area – multiuse
Veterans Memorial Park	1259 E. D Street Ontario, CA 91764	City of Ontario	8.90 acres; community center; restrooms; tot lot; basketball courts; picnic tables; barbecues; soccer, football, softball fields; pedestrian/bike paths; drinking fountains
Grove Memorial Park	800 Block of Grove Avenue Ontario, CA 91764	City of Ontario	<u>Western Portion</u> : 0.48 acre; two benches; horseshoe-shaped walking path <u>Eastern Portion</u> : 3.84 acres; standard curb for pedestrians
John Galvin Park	900 Block of Grove Avenue Ontario, CA 91764	City of Ontario	<u>Western Portion</u> : 19.71 acres; baseball field; tennis courts; playgrounds; horseshoe pits; picnic shelters and BBQs <u>Eastern Portion</u> : 15.23 acres; Jay Littleton Ballpark; two additional baseball fields; picnic shelters and BBQs; basketball courts
Vineyard Neighborhood Park	1530 E. 6 th Street Ontario, CA 91764	City of Ontario	9.60 acres; pool; restrooms; tot lot; basketball courts; picnic tables; barbecues; turf area/ multiuse; benches; drinking fountains

Source: Section 4(f) Evaluation Grove Avenue Corridor Project, Parsons, 2016.

2.2.3.3 Environmental Consequences

An evaluation of potential impacts to recreational resources associated with each alternative is presented below.

No Build Alternative

The No Build Alternative would maintain the current configuration of Grove Avenue in the project area. Under the No Build Alternative, the project would not be constructed, and no impacts to parks and recreational facilities would occur.

Build Alternative (Proposed Project)

Permanent Impacts

Grove Memorial Park. The Build Alternative would require acquisition of 0.005acre (218 square feet) of Grove Memorial Park on both sides of Grove Avenue, which represents approximately 1.3 percent of the park’s pre-project acreage.

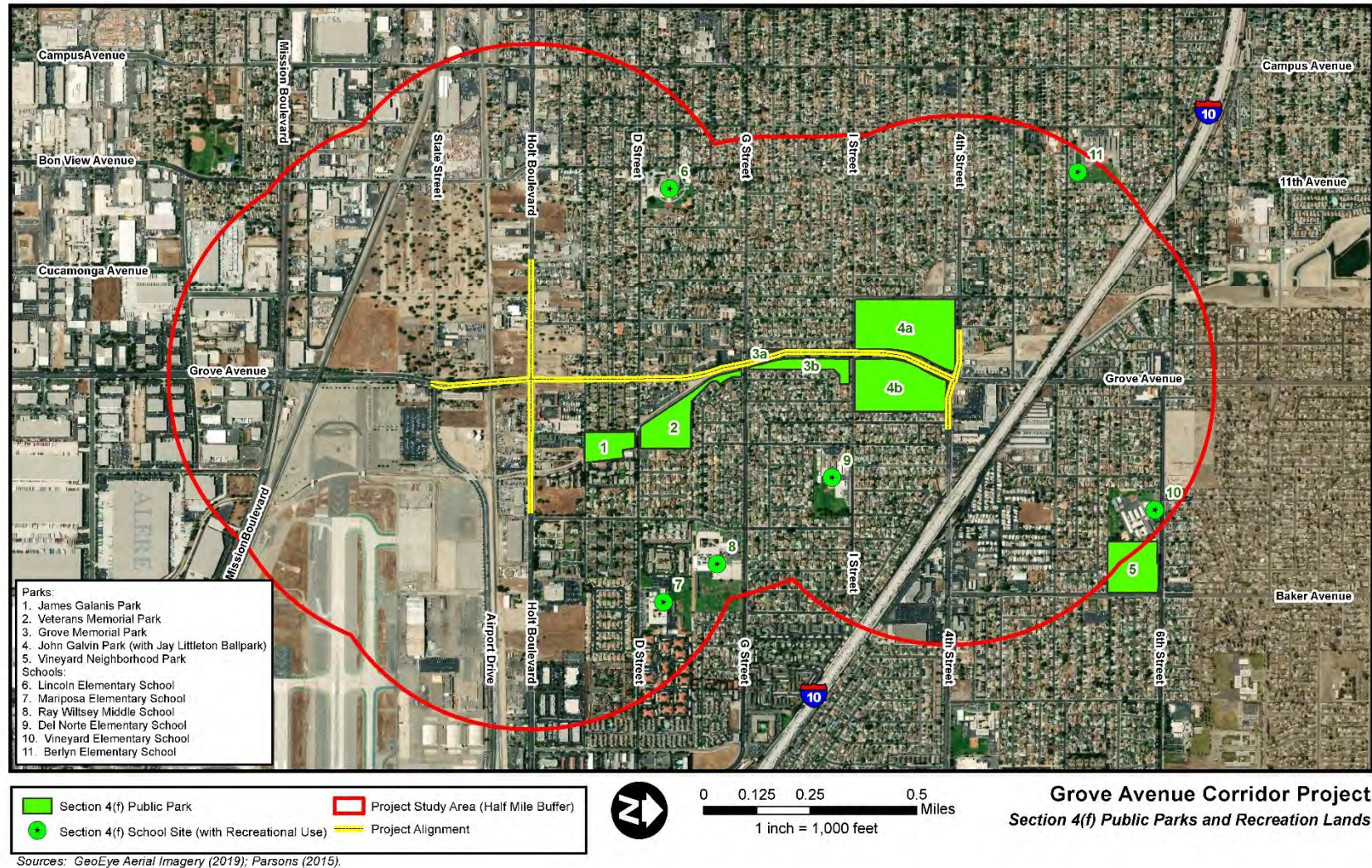


Figure 2.2.3-1. Section 4(f) Public Parks and Recreation Lands

Along the western portion of Grove Memorial Park, acquisition would be necessary to accommodate a modified curb return and a connection with the proposed new sidewalk, which would connect this side of the park with John Galvin Park 0.2 mile to the north. With construction of a new sidewalk connection between I Street and G Street, the Build Alternative would help increase access to this section of the park and would provide improved pedestrian connectivity between Grove Memorial Park and John Galvin Park.

Along the eastern portion of Grove Memorial Park, partial acquisition would be necessary to extend the covered portion of the existing West Cucamonga Creek concrete channel. Given that this park has no active use areas, this minor acquisition of parkland is not anticipated to impair recreational values of the park.

The permanent acquisitions described above would not adversely affect any of the recreational activities, features, or attributes within either portion of Grove Memorial Park and thus, are considered less than significant. Although the acquisition area would minimally reduce the overall size of the park, it would not inhibit existing recreational activities within the park. In fact, given that this park is primarily used by walkers and joggers, improving pedestrian connectivity along the western side of Grove Avenue with a new sidewalk would help to increase its utility for neighborhood residents.

John Galvin Park. The Build Alternative would require acquisition of 0.055 acre (2,304 square feet) of John Galvin Park. This area of acquisition makes up 0.14 percent of the park's pre-project acreage.

On the western portion of John Galvin Park, partial acquisition would be necessary to accommodate two curb returns and widening of the 4th Street Culvert. In addition, the Build Alternative proposes permanent removal of approximately 40 parking spaces that are currently available for users of the western portion of John Galvin Park in the Grove Avenue and 4th Street parking lot. Although these parking spaces are within the Grove Avenue ROW and not technically within the John Galvin Park boundaries, the impacted parking spaces are currently accessible to park users and are perceived as belonging to the park. As part of the project, the remnant parking lot would be reconfigured to maintain as many parking spots at this location as possible. A secondary parking lot in the eastern portion of the park and ample on-street parking are available in the immediate vicinity of the western portion of John Galvin Park. In addition, many users of this portion of the park are local residents who generally walk to the park, as observed during field studies at the site. Finally, given that the western

section of John Galvin Park does not have facilities for organized sports or other large events, it is highly unlikely that the proposed permanent removal of parking spaces would impair usage of this section of the park.

At the eastern portion of John Galvin Park, partial acquisition would be necessary to accommodate two curb returns at 4th Street and I Street.

No permanent impacts to the parking lot in the eastern portion of John Galvin Park are proposed. Access to the parking lot and the total number of parking spaces available would remain the same after project construction. Implementation of the Build Alternative would not result in a significant increase in use of the existing parks in the corridor, nor would it necessitate the need for construction of new parks.

Temporary Impacts

Grove Memorial Park. Under the Build Alternative, a 0.52-acre TCE would be required at Grove Memorial Park to allow construction of curb returns and new sidewalks on both sides of Grove Avenue, and to extend the covered portion of the existing West Cucamonga Creek concrete channel. Although this TCE would temporarily reduce the overall park area during construction, it would not affect existing recreational activities, features, or attributes in the park. Pedestrian connectivity along Grove Avenue through Grove Memorial Park would be maintained at all times during project construction.

Vehicular and pedestrian access to Grove Memorial Park would be maintained at all times during construction and operation of the Build Alternative.

John Galvin Park. Under the Build Alternative, a 0.68-acre TCE would be required at John Galvin Park to allow construction of curb returns and sidewalks. Although the temporary TCEs would temporarily reduce the overall park area available to users during construction, the proposed TCEs would not affect existing recreational activities, features, or attributes in the park. The areas proposed as TCEs are landscaped areas at the edge of the western and eastern sections of John Galvin Park and, as such, are not used for recreational purposes. Furthermore, pedestrian access along Grove Avenue through John Galvin Park would be maintained at all times during project construction.

Visual impacts at both parks during construction would be typical of roadway construction projects, including construction fencing, construction equipment, material stockpiles, and vegetation removal, which would collectively temporarily disturb the

park's existing landscape aesthetic. Temporarily disturbed areas would be returned to pre-project conditions once construction is completed.

These parks and recreational facilities are protected by the Park Preservation Act and Section 4(f) of the Department of Transportation Act of 1966. The project would result in "direct and temporary use" of these facilities as defined by Section 4(f). Please see Appendix A, Section 4(f) Evaluation, for additional details.

Concurrence on the *de minimis* finding and that the temporary occupancy and permanent transportation use of portions of Grove Memorial Park and John Galvin Park would not adversely affect the activities, features, or attributes of the parks has been obtained from the City of Ontario Planning Director, as the official with jurisdiction over the parks.

Indirect Impacts

Street closures and slower travel times due to construction on Grove Avenue near John Galvin Park and Grove Memorial Park are not anticipated to inhibit existing recreational activities within the parks; therefore, the project would not result in any indirect impacts.

2.2.3.4 Avoidance, Minimization, and/or Mitigation Measures

The following minimization measures were identified for the proposed project. Further details are identified in the Section 4(f) *De Minimis* Impact Determination report (see Appendix A).

- LU-1:** Turf grass and rock curbs will be replaced in TCE areas within Grove Memorial Park to match pre-project conditions in consultation with the property owner (City) during and at completion of construction.
- LU-2:** Turf grass and rock curbs will be replaced in TCE areas within John Galvin Park to match pre-project conditions in consultation with the property owner (City) during and at completion of construction.
- LU-3:** The remnant parking lot on the west side of John Galvin Park will be reconfigured to maintain as many parking spots at this location as possible.

2.2.4 Farmlands

Within the project corridor, agriculture land faces continuing conversion pressures from urbanization, foreign competition, and rising production costs for agricultural producers; therefore, the conversion of agricultural land to nonagricultural uses represents an important environmental concern requiring appropriate consideration as part of this environmental analysis. This section identifies applicable federal, State, and local policies regarding agricultural resources, summarizes existing agricultural conditions in the study area, and identifies potential impacts for the Build Alternative.

2.2.4.1 Regulatory Setting

NEPA and the Farmland Protection Policy Act (FPPA) (7 U.S.C. 4201-4209; and its regulations, 7 CFR Part 658) require federal agencies, such as FHWA, to coordinate with the Natural Resources Conservation Service (NRCS) if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

CEQA requires the review of projects that would convert Williamson Act contract land to nonagricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to discourage the early conversion of agricultural and open space lands to other uses.

2.2.4.2 Affected Environment

This section provides a summary of existing agricultural conditions in the study area and identifies applicable federal, State, and local policies regarding agricultural resources. The study area for farmlands for the Grove Avenue Corridor Project is a 1-mile buffer from the project limits. This study area is consistent with the study area requirements for the NRCS analysis of farmland impacts.

Farmland Designations and Existing Agricultural Uses

Farmland Mapping and Monitoring Program Agricultural Land Designations

Pursuant to California Government Code, Section 65570, the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) reports biannually on the conversion of farmland and grazing land, and it compiles important farmland maps and datasets for each county in the state. The farmland maps incorporate data from the United States Department of Agriculture (USDA) NRCS soil survey and current county land use information. Maps and statistics are produced every 2 years

using a process that integrates aerial photo interpretation, field mapping, computerized mapping, and public review. The FMMP maps and datasets categorize land use into nine different mapping categories to describe farmland and nonagricultural uses, as described below:

1. **Prime Farmland:** Prime Farmland is land that has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods. Prime Farmland must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use.
2. **Farmland of Statewide Importance:** Farmland of Statewide Importance is land other than Prime Farmland that has a good combination of physical and chemical characteristics for the production of crops. It must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use.
3. **Unique Farmland:** Unique Farmland is land that does not meet the criteria for Prime Farmland or Farmland of Statewide Importance that has been used for the production of specific high-economic-value crops at some time during the 4 years prior to the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality and/or high yields of a specific crop when treated and managed according to current farming methods. Examples of such crops may include oranges, olives, avocados, rice, grapes, and cut flowers. It does not include publicly owned lands for which there is an adopted policy preventing agriculture use.
4. **Farmland of Local Importance:** Farmland of Local Importance is either currently producing crops, has the capability of production, or is used for the production of confined livestock. Farmland of Local Importance is land other than Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. This land may be important to the local economy due to its productivity or value. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use.
5. **Grazing Land:** Grazing Land is land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock. The minimum mapping unit for Grazing Land is 40 acres. Grazing Land

does not include land previously designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. It also does not include heavily brushed, timbered, excessively steep, or rocky lands that restrict the access and movement of livestock, rural residential land, or publicly owned land for which there is an adopted policy preventing agricultural use.

6. **Urban and Built-Up Land:** Urban and Built-Up Land is used for residential, industrial, commercial, construction, institutional, public administrative process, railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment plants, water control structures, and other development purposes. Highways, railroads, and other transportation facilities are mapped as part of Urban and Built-Up Land if they are part of the surrounding urban area.
7. **Other Land:** Land that does not meet the criteria of any other category is designated as Other Land. Typical uses include low-density rural development, heavily forested land, mined land, or government land with restrictions on use.
8. **Water:** Water areas with an extent of at least 40 acres are designated Water.
9. **Area Not Mapped:** Areas that fall outside of the NRCS soil survey are designated Area Not Mapped.

Existing Agricultural Uses

Agricultural production in the study area is extremely limited due to existing and proposed dense urban and suburban development.

As shown in Table 2.2.4-1, 4.3 acres (0.1 percent of the total study area) of Farmland of Statewide Importance are located within 1 mile of the Grove Avenue Corridor Project. The remaining 99.9 percent of land in the study area is comprised of urban and built-up land, and other nonagricultural land use categories. No other farmland categories were found within the study area. Per correspondence with the City of Ontario Planning Department, there are no parcels with Williamson Act contracts located within the study area.³

Table 2.2.4-1. FMMP Lands in the Project Study Area

Land Mapping Category	Total Acres within the Study Area	% of Total Study Area Acres
Prime Farmland	0	0
Farmland of Statewide Importance	4.30	0.11
Unique Farmland	0	0

³ Based on correspondence with Richard Ayala, Senior Planner for the City of Ontario in May 2015.

Table 2.2.4-1. FMMP Lands in the Project Study Area

Land Mapping Category	Total Acres within the Study Area	% of Total Study Area Acres
Farmland of Local Importance	0	0
Grazing Land	0	0
Urban and Built-Up Land	3,920.78	99.04
Other Land	33.54	0.85
Outside of Survey Boundary/Data not Available	0	0
Total Acres within the Study Area	3,958.62	100

Source: *Farmland Mapping and Monitoring Program, State of California DOC, 2010.*

2.2.4.3 Environmental Consequences

An evaluation of potential impacts to farmlands for each alternative is presented below.

No Build Alternative

The No Build Alternative would maintain the current configuration of Grove Avenue in the study area. Under the No Build Alternative, the project would not be constructed, and no impacts to farmlands or timberlands would occur.

Build Alternative (Proposed Project)

Permanent Impacts

While 4.3 acres of Farmland of Statewide Importance exist within the 1-mile study area, this land is located approximately 1 mile south of the southern project limits. Additionally, this land is not currently used for agricultural purposes. No farmlands occur within or immediately adjacent to the proposed improvements along the Grove Avenue corridor; therefore, no permanent impacts to farmlands would occur as a result of the Build Alternative.

Temporary Impacts

While 4.3 acres of Farmland of Statewide Importance exist within 1 mile of the study area, no farmlands occur within or immediately adjacent to the proposed improvements along the Grove Avenue corridor; therefore, no temporary impacts to farmlands would occur as a result of the Build Alternative.

2.2.4.4 Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are warranted because there are no impacts to farmlands or timberlands.

2.2.5 Growth

Analysis of the potential growth-inducing impacts of the proposed project is based on demographic information from the 2010 United States Census data and the SCAG 2012–2035 RTP growth forecasts for the city of Ontario and San Bernardino County.

2.2.5.1 Regulatory Setting

The Council on Environmental Quality (CEQ) regulations, which established the steps necessary to comply with NEPA, require evaluation of the potential environmental effects of all proposed federal activities and programs. This provision includes a requirement to examine indirect effects that may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The CEQ regulations (40 CFR 1508.8) refer to these consequences as indirect impacts. Indirect impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

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

2.2.5.2 Affected Environment

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

Different transportation projects influence growth to different degrees and in different ways, and the guidance for evaluation of growth-related impacts uses a two-phase approach. The first phase, called “first-cut screening,” is designed to figure out the likely growth potential effect and whether further analysis of the issue is necessary.

The first-cut screening involves examining a variety of interrelated factors to answer the following questions:

- To what extent would travel times, travel cost, or accessibility to employment, shopping, or other destinations be changed? Would this change affect travel behavior, trip patterns, or the attractiveness of some areas to development over others?
- To what extent would change in accessibility affect growth or land use change—its location, rate, type, or amount?
- To what extent would resources of concern be affected by this growth or land use change?

This section discusses whether the proposed Grove Avenue Corridor Project improvements would result in unforeseen direct, indirect, or secondary growth, or would otherwise influence population growth. This discussion is based on guidance from the Caltrans Standard Environmental Reference (SER) and the Guidance for Growth-Related Indirect Impact Analyses (May 2006). There are many factors that may affect the amount, location, and rate of growth in the region of a project. Such factors include:

- Market demand for housing, employment, and commercial services;
- Desirability of the climate and living or working environment;
- Strength of the local employment and commercial economy;
- Availability of other roadway improvements;
- Availability of other services and infrastructure (e.g., schools, water); and
- Land use and growth management policies of the local jurisdictions.

Factors affecting growth and its effects tend to be regional and specific in nature; therefore, this analysis presents information about the larger region (San Bernardino County) and the jurisdiction containing the study area (City of Ontario).

The project area, as well as all of southern California, has experienced dramatic growth in the last 30 years, and this trend is expected to continue. During the past several decades, the SCAG region, including Orange, Imperial, Riverside, San Bernardino, Los Angeles, and Ventura counties, has been one of the fastest-growing regions in the nation. Between 1950 and 1970, the population doubled in size, growing at a rate of 5 percent per year. Between 1980 and 1990, the region's population grew by more than 25 percent, to 14.6 million. Between 1990 and 2000, the region's population grew by

nearly 15 percent, to 16.5 million. Additional population and employment growth within the study area is expected to take place through the natural increase and redevelopment of existing land uses or infill development of vacant parcels. Land uses within the project area are already established, with limited opportunity for new unplanned large-scale development.

A comparison of the SCAG population, household, and employment estimates and the annual average growth rates between 2008 and 2035 for the City of Ontario; San Bernardino and Los Angeles counties; and the SCAG region is provided in Table 2.2.5-1.

Table 2.2.5-1. Annual Average Growth Rate

Jurisdiction	Population 2008-2035	Households 2008-2035	Employment 2008-2035
SCAG	0.9	1.0	0.8
San Bernardino County	1.3	1.5	1.9
City of Ontario	3.3	3.5	3.2

Source: SCAG, *Regional Growth Forecasts, 2012-2035*
<http://www.scaq.ca.gov/DataAndTools/Pages/GrowthForecasting.aspx>.

According to the SCAG forecasts, the city of Ontario is projected to increase at a faster rate than San Bernardino County and the overall SCAG region. The projected growth shown includes future approved development as discussed in Section 2.2.1, Land Use. Due to the lack of undeveloped private vacant land in the project area, there are limited opportunities for large-scale new development to occur.

2.2.5.3 Environmental Consequences

An evaluation of potential growth-related impacts associated with each alternative is presented below.

No Build Alternative

Under the No Build Alternative, no modifications to the existing Grove Avenue corridor would occur. By not providing any improvements along the existing corridor, the No Build Alternative is not consistent with the regional mobility goals of the City, nor would it meet the goals and objectives of the SCAG RTP. These regional planning documents anticipate the growth planned within the local jurisdictions within San Bernardino County and respond to this projected growth. Implementation of the No Build Alternative would have no influence on the level of growth within the city of Ontario. Ontario is predominantly built out, with limited area available for development

or redevelopment; and because the No Build Alternative is making no changes to existing land use patterns or transportation infrastructure, it would not influence the amount, location, and/or distribution of growth or housing and jobs in the local cities and unincorporated areas within the project area. Existing congestion and traffic conditions would remain along Grove Avenue and would continue in the future under the No Build Alternative.

Build Alternative (Proposed Project)

The “first-cut screening” was conducted to determine what influence construction of the Build Alternative might have on growth and development in the project area. This screening evaluated the following:

- The project’s potential to change accessibility;
- How, if at all, the project type and location, as well as growth pressure, could influence growth in the area; and
- Whether resources of concern would be affected by project growth or land use change.

Potential Change to Accessibility

The Build Alternative proposes to widen Grove Avenue to alleviate existing congestion and accommodate future traffic; improve mobility to and from Ontario International Airport; and provide route continuity along Grove Avenue to conform with the City of Ontario General Plan Circulation Element. Because Grove Avenue is already utilized as an established north-south travel route in the cities of Ontario and Rancho Cucamonga, the Build Alternative is not anticipated to significantly alter travel patterns, locally or regionally. The proposed Build Alternative would not change points of accessibility to undeveloped land or provide new access to the area.

The Build Alternative is intended to facilitate improved connectivity to the I-10 corridor from the local transportation network and Ontario International Airport. The Build Alternative is not anticipated to accommodate additional traffic beyond what is currently projected with or without the project.

Project Factors’ Influence on Growth

The Build Alternative is not a trip generator and would not influence growth. The proposed improvements along Grove Avenue would accommodate existing and future growth associated with the development identified in the regional and local plans, including the SCAG RCP, SCAG RTP, and City of Ontario General Plan. The location, timing, and level of future growth in the area would depend on the availability of certain

types of infrastructure/services (e.g., water, sanitary sewers, and schools). Accommodating critical future infrastructure is addressed by individual jurisdictions and agencies providing these services to existing and future development, and their availability would affect the location, level, and timing of future development regardless of the proposed project. Because the proposed transportation improvements accommodate existing and planned future development, the proposed project would not have potential for stimulating the location, rate, timing, or amount of growth locally or regionally. Furthermore, because the project area and immediate vicinity is generally built-out, there are very few open areas available to create new housing.

In addition, the Build Alternative would not remove an impediment to growth because the proposed project would not provide an entirely new public facility; rather, the Build Alternative includes capacity improvements along an existing corridor to respond to expected traffic demand and to improve operations. The proposed project is a response to address the existing and future development trends near Grove Avenue and Holt Boulevard. A primary purpose of the proposed project would be to accommodate the anticipated growth in automobile and truck traffic along Grove Avenue between I-10 and Ontario International Airport. As discussed in Section 2.2.1010, Traffic and Transportation/Pedestrian and Bicycle Facilities, the average growth of traffic volumes at the study area intersections between existing and opening year 2025 is approximately 2 percent per year. Between opening year 2025 and horizon year 2045, the average traffic volume at the study area intersections is anticipated to grow approximately 1 percent per year.

Reasonable Foreseeable Growth Potential

As noted above, the Build Alternative would facilitate the improved mobility for future conditions and would not directly or indirectly result in project-related growth or influence growth locally or regionally. In terms of foreseeable impacts to resources of concern, the proposed Build Alternative would not affect resources of concern (e.g., utilities, population, and housing) because land use development within the project area is controlled by local jurisdictions. Service providers also regularly evaluate growth trends and provide required infrastructure upgrades as needed.

Conclusion

This “first-cut screening” analysis demonstrates that the Build Alternative would not change access or influence growth but would instead facilitate improved mobility to the regional transportation system from the local transportation network. The Build Alternative would provide improved mobility and safety along the existing Grove

Avenue corridor. Resources of concern would not be affected because the Build Alternative is not growth inducing and would not result in reasonably foreseeable growth. Based on the analysis above, the proposed project would not require further analysis of growth-related impacts.

2.2.5.4 Avoidance, Minimization, and/or Mitigation Measures

The proposed project is not growth-inducing, and no further analysis of growth-related impacts is required. The potential for unplanned development is limited given the built-out nature of the project area and entitlement status of existing vacant land. Therefore, no avoidance, minimization, and/or mitigation measures are required.

2.2.6 Community Character and Cohesion

Community cohesion is the degree to which residents feel a sense of belonging to their neighborhood, their level of commitment to the community, or a strong attachment to neighbors, groups, and institutions, usually as a result of continued association over time.

This section discusses impacts to the community as a result of implementation of the proposed project. The analysis is based on the results of the *Community Impact Assessment* (October 2016) prepared for the project.

2.2.6.1 Regulatory Setting

NEPA, as amended, established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 U.S.C. 4331[b][2]). FHWA, in its implementation of NEPA (23 U.S.C. 109[h]), directs that final decisions on projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

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

2.2.6.2 Affected Environment

Figure 2.2.6-1 identifies the census tracts within 0.25 mile of the Grove Avenue corridor. The 0.25-mile study area consists of six U.S. Census Bureau census tracts. The study area includes a larger area than that directly affected by project construction and ROW acquisitions to provide a broader picture of the area affected by the project. City of Ontario and County of San Bernardino (County) demographic data were analyzed to present the general population and housing characteristics for the study area.

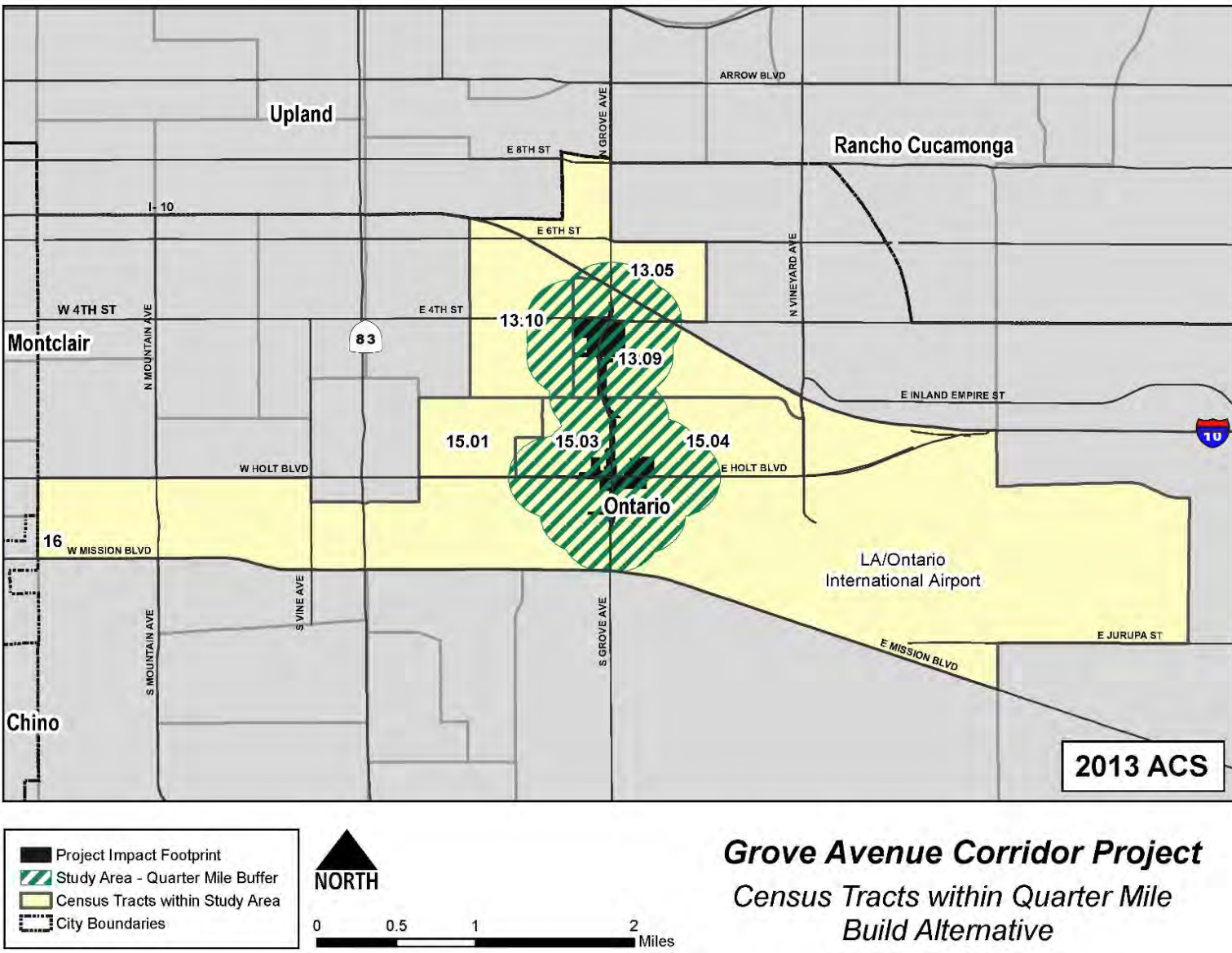


Figure 2.2.6-1. Census Tracts within 0.25 Mile (Build Alternative)

Census tracts were used for the environmental justice analysis because they are the most complete dataset for the level of detail required for this analysis. In addition, census tracts incorporate populations that may not be directly affected by the project but may be indirectly affected by project construction and operation.

Neighborhoods

Five neighborhoods were delineated within the study area based on census tract boundaries, common land use types, and distinct physical boundaries generally based on major roads. These five neighborhoods are described below.

Southwest of I-10 and West of Grove Avenue: This neighborhood is generally located south of I-10, north of 4th Street, west of Grove Avenue, and east of Campus Avenue. Land use in the neighborhood generally consists of single-family residences built in the 1950s on lots ranging from approximately 6,500 to 9,000 square feet.

West of Grove Avenue: This neighborhood is generally located south of 4th Street, north of D Street, east of Allyn Avenue, and west of Grove Avenue. Several community facilities are located within this neighborhood. The western portion of John Galvin Park is located in the northeast corner of the neighborhood. Lincoln Elementary School is located in the southwest corner of this neighborhood. Two churches, Sovereign Grace Baptist Church and Bible Baptist Church International, are also located in this neighborhood. Land use in the neighborhood primarily consists of single-family residences, with several multi-family residences near Grove Avenue between D Street and G Street. Most of the homes contained in this neighborhood were constructed between 1945 and 1960, with a handful that were built in the early 1920s and early 1980s. Lot sizes in this neighborhood generally range from approximately 6,000 to 8,000 square feet.

South of I-10 and East of Grove Avenue: This neighborhood is generally located south of 4th Street and I-10, north of D Street, east of Grove Avenue, and west of Corona Avenue. Three parks run along the western border of this neighborhood: John Galvin Park, Grove Memorial Park, and D Street Park. Del Norte Elementary School, Ray Wiltsey Middle School, and Mariposa Middle School are all located within 0.5 mile between D Street and I Street. Land use in the neighborhood primarily consists of single-family residences, with several multi-family residences in the eastern part of this neighborhood. One senior living community, Palm Terrace I Co-op Apartments, is bordered by Ray Wiltsey Middle School and Mariposa Elementary. Single-family residences contained in the northern part of this neighborhood were constructed

between 1950 and 1963, with lot sizes ranging from approximately 6,000 to 8,000 square feet. Homes south of G Street and north of D Street were generally constructed between 1978 and 2005. Lot sizes in this southern portion of the neighborhood vary widely, ranging from 1,500 to 8,000 square feet.

Southwest of East D Street and Grove Avenue: This neighborhood is generally located south of D Street, north of Holt Boulevard, east of Allyn Avenue, and west of Grove Avenue. Residential land use in this neighborhood is a mixture of single-family and multi-family residences. The Korean Church of Pomona Valley is located on the northwest corner of this neighborhood. Homes contained in this neighborhood were constructed between 1930 and 1982, with lot sizes ranging from approximately 6,000 to 8,000 square feet. Land uses along the southern border of this neighborhood (Holt Boulevard) are commercial or industrial, with several vacant lots near Grove Avenue and Holt Boulevard.

James Galanis Park: This neighborhood is generally located south of D Street, north of Holt Boulevard, east of Grove Avenue, and west of Imperial Avenue. This neighborhood is made up of several multi-family residential developments, with a handful of single-family homes, and one mobile home community. James Galanis Park is located at the center of this neighborhood. The southwest corner of this neighborhood has one vacant parcel that is adjacent to commercial land uses along Holt Boulevard. Homes contained in this neighborhood were constructed in various phases between 1979 and 2005, with lot sizes generally ranging from approximately 1,500 to 5,500 square feet, except for several homes located in the center of this neighborhood that have lot sizes ranging from 11,000 to 20,000 square feet.

Demographic Data

Elements of community cohesion can be found in U.S. Census demographic data used to profile communities. Some specific indicators of community cohesion are as follows (and discussed later in this chapter):

- **Age:** Elderly and stay-at-home parents tend to be more active in their community. They have time to become involved. The transit-dependent population is comprised of the population under age 18 and age 65 and older.
- **Ethnicity:** Ethnic homogeneity is associated with a higher degree of community cohesion.
- **Household Size:** Households of two or more people tend to correlate with a higher degree of community cohesion.

- **Home Ownership:** Prevalence of owner-occupied units is also associated with a high degree of community cohesion.

Age

Table 2.2.6-1 shows the distribution of the population by age in the state, county, and in the study area city based on 2000 and 2010 Census data, as well as 2013 American Community Survey (ACS) data for census tracts within a 0.25-mile buffer of the Build Alternative. Three age groups are identified as most descriptive of the overall population. Those residents younger than 18 and older than 64 represent the transit-dependent population. The age range of 18 to 64 represents the working-class population. San Bernardino County and the City of Ontario exhibit similar age distribution patterns as the state average.

Table 2.2.6-1. Age Distribution

Geography	Year	Total (Percentage)		
		Population < 18	Population 18-64	Population > 64
State				
California	2000	9,249,829 (27.3%)	21,026,161 (62.1%)	3,595,658 (10.6%)
	2010	9,295,040 (25.0%)	23,712,402 (63.6%)	4,246,514 (11.4%)
County				
San Bernardino	2000	552,047 (32.3%)	1,010,928 (59.1%)	146,459 (8.6%)
	2010	594,588 (29.2%)	1,259,274 (61.9%)	181,348 (8.9%)
City/Community				
Ontario	2000	54,304 (34.4%)	94,381 (59.7%)	9,322 (5.9%)
	2010	49,443 (30.2%)	103,427 (63.1%)	11,054 (6.7%)
Census Tracts				
13.05 (Ontario)	2013	1,821 (36.3%)	2,879 (57.4%)	312 (6.2%)
13.09 (Ontario)	2013	1,397 (28.4%)	2,969 (60.3%)	561 (11.4%)
13.10 (Ontario)	2013	1,511 (26.7%)	3,637 (64.2%)	520 (9.2%)
15.01 (Ontario)	2013	1,353 (34.9%)	2,383 (61.4%)	144 (3.7%)
15.03 (Ontario)	2013	1,257 (37.4%)	1,942 (57.8%)	160 (4.8%)
15.04 (Ontario)	2013	1,833 (33.0%)	3,380 (60.9%)	340 (6.1%)
16 (Ontario)	2013	2,131 (36.8%)	3,387 (58.6%)	265 (4.6%)

Source: U.S. Census, 2000, 2010, and 2009-2013 American Community Survey.

All seven census tracts within the study area featured 57.4 to 64.2 percent of residents between the ages of 18 and 64. On average, the age composition of each census tract consists of 33.4 percent below 18 years old, 60.1 percent between 18 and 64 years old, and 6.6 percent older than 64 years old.

Ethnicity

Table 2.2.6-2 shows the 2000 and 2010 ethnic composition of the study area county and city populations. ACS data from 2013 were also collected for the study area census tracts. Based on the 2010 Census, the largest ethnic group in San Bernardino County and the study area census tracts was Hispanic or Latino.

In Ontario, the white population decreased between 2000 and 2010, which coincided with an increase in the Hispanic or Latino population. The census tracts within the study area had an average Hispanic or Latino population of 82.4 percent, representing the majority. There is a wide distribution of white populations within the census tracts, ranging from 5.8 to 21.2 percent. The black populations ranged from 0.0 to 13.6 percent of residents.

The census tracts with the highest percentage of white populations were Tracts 13.10 and 13.09, with 21.2 and 13.3 percent, respectively. All other census tracts had white population percentages less than 9.3 percent. Most of the project area census tracts are comprised of less than 2.1 percent African Americans, except for Census Tracts 13.09 and 15.04, where African Americans represent 13.6 and 9 percent of the population, respectively. Six out of the seven census tracts in the study area had Asian populations 2.1 percent or below, while 6.8 percent of residents in Census Tract 15.04 identified as Asian. The other racial categories did not represent a large proportion of the population, ranging from zero to 3 percent.

Housing

Table 2.2.6-3 shows the census tracts in the Grove Avenue Corridor Project area, except for Tract 13.10, have lower home ownership rates and higher rental rates than the San Bernardino County averages; and only two tracts (Tract 13.05 and Tract 13.10) have equal or higher home ownership rates than the city of Ontario as a whole.

Table 2.2.6-2. Ethnic Composition

Geography	Year	Total (Percentage)							
		White	Black	American Indian/ Native Alaskan	Asian	Hawaiian/ Pacific Islanders	Other	Two or More Races	Hispanic or Latino
State									
California	2000	20,170,059	2,263,882	333,346	3,697,513	116,961	5,682,241	1,607,646	10,966,556
California	2010	21,453,934	2,299,072	362,801	4,861,007	144,386	6,317,372	1,815,384	1,4013,719
County									
San Bernardino	2000	752,222 (44.0%)	150,201 (8.8%)	9,804 (0.6%)	78,154 (4.6%)	4,387 (0.3%)	3,039 (0.2%)	42,240 (2.5%)	669,387 (39.2%)
	2010	677,598 (33.3%)	170,700 (8.4%)	8,523 (0.4%)	123,978 (6.1%)	5,845 (0.3%)	4,055 (0.2%)	43,366 (2.1%)	1,001,145 (49.2%)
City/Community									
Ontario	2000	42,048 (26.6%)	11,317 (7.2%)	475 (0.3%)	5,914 (3.7%)	519 (0.3%)	284 (0.2%)	2,840 (1.8%)	94,610 (59.9%)
	2010	29,898 (18.2%)	9,598 (5.9%)	361 (0.2%)	8,078 (4.9%)	448 (0.3%)	386 (0.2%)	2,070 (1.3%)	113,085 (69.0%)
Census Tracts									
13.05 (Ontario)	2013	466 (9.3%)	105 (2.1%)	0 (0.0%)	103 (2.1%)	0 (0.0%)	0 (0.0%)	61 (1.2%)	4,277 (85.3%)
13.09 (Ontario)	2013	654 (13.3%)	669 (13.6%)	0 (0.0%)	87 (1.8%)	0 (0.0%)	20 (0.4%)	0 (0.0%)	3,497 (71.0%)
13.10 (Ontario)	2013	1,203 (21.2%)	84 (1.5%)	0 (0.0%)	21 (0.4%)	0 (0.0%)	0 (0.0%)	170 (3.0%)	4,190 (73.9%)
15.01 (Ontario)	2013	229 (5.9%)	59 (1.5%)	0 (0.0%)	4 (0.1%)	0 (0.0%)	0 (0.0%)	13 (0.3%)	3,575 (92.1%)
15.03 (Ontario)	2013	225 (6.7%)	0 (0.0%)	25 (0.7%)	57 (1.7%)	0 (0.0%)	0 (0.0%)	92 (2.7%)	2,960 (88.1%)
15.04 (Ontario)	2013	474 (8.5%)	501 (9.0%)	0 (0.0%)	378 (6.8%)	0 (0.0%)	14 (0.3%)	79 (1.4%)	4,107 (74.0%)
16 (Ontario)	2013	337 (5.8%)	38 (0.7%)	16 (0.3%)	25 (0.4%)	14 (0.2%)	0 (0.0%)	0 (0.0%)	5,353 (92.6%)

Source: U.S. Census, 2000, 2010, 2013.

Table 2.2.6-3. Housing Profile

Geography	Year	Total (Percentage)					
		Total Housing Units	Housing Units, Occupied	Housing Units, Vacant	Owner-Occupied Units	Renter-Occupied Units	Average Household Size
County							
San Bernardino	2013	701,332	603,879 (86.1%)	97,453 (13.9%)	373,813 (61.9%)	230,066 (38.1%)	3.33
City							
Ontario	2013	48,849	45,270 (92.7%)	3,579 (7.3%)	25,584 (56.5%)	19,686 (43.5%)	3.64
Census Tracts							
13.05 (Ontario)	2013	1,415	1,195 (84.5%)	220 (15.5%)	675 (56.5%)	520 (43.5%)	4.15
13.09 (Ontario)	2013	1,218	1,150 (94.4%)	68 (5.6%)	590 (51.3%)	560 (48.7%)	4.27
13.10 (Ontario)	2013	1,573	1,521 (96.7%)	52 (3.3%)	1,161 (76.3%)	360 (23.7%)	3.61
15.01 (Ontario)	2013	1,037	902 (87.0%)	135 (13.0%)	415 (46.0%)	487 (54.0%)	4.39
15.03 (Ontario)	2013	881	744 (84.4%)	137 (15.6%)	185 (24.9%)	559 (75.1%)	4.47
15.04 (Ontario)	2013	1,718	1,525 (88.8%)	193 (11.2%)	315 (20.7%)	1,210 (79.3%)	3.62
16 (Ontario)	2013	1,480	1,396 (94.3%)	84 (5.7%)	574 (41.1%)	822 (58.9%)	4.08

In the project area census tracts, there is generally an above county-average level of occupied units, with census tracts reporting an average home occupation rate of 90 percent. The percentile range of owner-occupied units and renter-occupied units varies greatly. Tract 13.10 has the highest percentage of owner-occupied units at 76.3 percent and the corresponding lowest percentage of renter-occupied units at 23.7 percent. Likewise, Tract 15.04 reported the highest percentage of renter-occupied units at 79.3 percent and the lowest percentage of owner-occupied at 20.7 percent. The average household size in the study area is 4.1, above both county and city averages. Census Tract 15.03 in Ontario has the largest average household size of 4.47 people, and Census Tract 13.10 has the lowest at 3.61 people.

According to the key indicators of community cohesion described above, it can be determined that there is only a moderate degree of community cohesion in the study area. While there is high ethnic homogeneity, low homeownership rates and lack of a large elderly population presence suggest a more transient population and lack of strong community cohesion.

2.2.6.3 Environmental Consequences

An evaluation of potential impacts to community character and cohesion associated with each alternative is presented below.

No Build Alternative

The No Build Alternative would maintain the current configuration of Grove Avenue in the study area. Under the No Build Alternative, the project would not be constructed, and congestion would continue to worsen for adjacent neighborhood residents without the proposed project improvements. There would be no changes to the community cohesion as it currently exists.

Build Alternative (Proposed Project)

Permanent Impacts

The Build Alternative would result in physical changes along the Grove Avenue corridor. The project would result in a wider roadway than currently exists and would provide improved accessibility for motorists, pedestrians, and bicyclists. In addition, there would be improved sidewalks, crosswalks, lighting, and landscaping. While several residential properties (eight single-family units and four parcels with multi-family units) located along the east side of Grove Avenue would be acquired for construction of the Build Alternative, it is not expected that the loss of these units would affect the overall community character or cohesion of the largely residential use project area. See Section 2.2.7, Relocations and Real Property Acquisitions, for the discussion

of residential displacements. There are adequate resources currently existing within the area vicinity to relocate residents (i.e., a sufficient number of comparable replacement dwellings meeting the decent, safe, and sanitary standards exist within the study area or in neighboring communities).

Aside from relocation impacts, the project is not anticipated to have any impact on existing age distribution, ethnic composition, or household characteristics within the project study area. On streets affected by the project, sidewalks, crosswalks, lighting, and landscaping familiar to the residents would be replaced with improved facilities.

Construction of the project improvements would not divide an existing community or create a barrier between communities because Grove Avenue is an existing transportation corridor; therefore, no adverse permanent impacts to community character and cohesion would occur.

As stated in Section 2.2.3, Parks and Recreational Facilities, the Build Alternative would remove approximately 40 parking spaces on the western portion of John Galvin Park in the Grove Avenue and 4th Street parking lot. These parking spaces are currently accessible to park users and are perceived as belonging to the park. As part of the project, the remnant parking lot would be reconfigured to maintain as many parking spots at this location as possible. A secondary parking lot in the eastern portion of the park and ample on-street parking are available in the immediate vicinity near John Galvin Park. In addition, many users of this portion of the park are local residents who generally walk to the park, as observed during field studies at the site. Also, given that the western section of John Galvin Park does not have facilities for organized sports or other large events, it is highly unlikely that the proposed permanent removal of parking spaces would affect parking availability. In addition, the loss of parking associated with the displacement of residences would not affect parking demand in the area.

No business displacements would occur with the project. Thus, no loss of employment or loss of tax base from local businesses would occur. In addition, no loss or change in access to established businesses, either temporary or permanent, are proposed. As such, a social or economic change that may result in a related physical impact would not accompany the Build Alternative.

There are no homeless persons along the project alignment on the Grove Avenue Corridor that would require relocation from the ROW prior to construction.

Temporary Impacts

Construction of the Build Alternative has the potential to result in short-term effects to neighborhoods (e.g., temporary road closures and detours). Construction activities include grading, excavation, road detours, and temporary road closures. As discussed in Section 2.2.10, implementation of the project's Final Transportation Management Plan (TMP) would reduce project-related temporary impacts to community character and cohesion. In addition, during the construction period local residents and businesses would experience temporary visual changes associated with the construction activities and equipment in the area. There would also likely be temporary increases in noise and dust associated with the construction activities, although these impacts would be for a limited duration and, with the implementation of appropriate BMPs, would be minimized.

2.2.6.4 Avoidance, Minimization, and/or Mitigation Measures

Community disruption during project construction would be temporary and minimized by developing and implementing a Final TMP and incorporating the following minimization measures:

- T-1:** Final TMP – A TMP (July 2015) was prepared during development of the preliminary engineering for the project. During final design, a Final TMP will be prepared. At a minimum, the Final TMP will include the detailing of any projected temporary street closures or expected traffic delays due to project construction activities. The Final TMP will include a public awareness program that will use an appropriate combination of the Highway Advisory Radio (HAR), local media, newsletters, and/or flyers. The following elements will be major components of the Final TMP: Public Awareness Campaign, particularly related to the scheduling of work; Construction Zone Enhanced Enforcement Program (COZEED); utilization of portable changeable message signs (CMSs); and notification to be sent to local cities and emergency responders, if applicable.

- COM-1:** Where acquisition and relocation are unavoidable, provisions of the Uniform Act and the 1987 Amendments, as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs adopted by the United States Department of Transportation (USDOT) (March 2, 1989) and, where applicable, the California Public Park Preservation Act of 1971, will be

followed. An appraisal of the affected property will be obtained, and an offer for the full appraisal will be made.

COM-2: Outreach activities targeted to low-income residents will be conducted during the planning, design, and construction phases of the Build Alternative.

2.2.7 Relocations and Real Property Acquisition

2.2.7.1 Regulatory Setting

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

All relocation services and benefits are administered without regard to race, color, national origin, persons with disabilities, religion, age, or sex. Please see Appendix B for a copy of the Caltrans Title VI Policy Statement.

2.2.7.2 Affected Environment

This section summarizes information from the *Relocation Impact Statement* (RIS) (October 2016). The RIS provides more-precise estimates of the residential and nonresidential displacements by the Grove Avenue Corridor Project.

The affected environment is identical to the area described in Section 2.2.6, Community Character and Cohesion.

2.2.7.3 Environmental Consequences

An evaluation of potential relocation impacts associated with each alternative is presented below.

No Build Alternative

The No Build Alternative would maintain the current configuration of Grove Avenue in the study area. Under the No Build Alternative, the project would not be constructed, and no impacts or relocations would occur.

Build Alternative (Proposed Project)

Permanent Impacts

As shown in Table 2.2.7-1, the Build Alternative would displace 12 residential parcels with 18 dwelling units. Of the 18 residential units to be acquired for construction of the Build Alternative, 8 are single-family residences and 10 are multi-family units. Total residential household displacements are estimated at 47 persons, based on an average of 2.73 residents per unit calculated by the 2010 U.S. Census.

Table 2.2.7-1. Estimated Residential Displacement Units

Unit Type	Build Alternative
Single-Family Units	8
Mobile Homes	0
Multi-Family Units	10
Total Residential Units	18
Total Persons (average number/household)	2.73 / 47

Source: RIS prepared for the Grove Avenue Corridor Project (October 2016).

To the extent feasible, during the final design phase of the project, ROW impacts to these parcels would be minimized and some may be avoided. The property owners would be entitled to compensation to the extent provided by law in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended.

As identified in the RIS, there were nearly 700 single-family, condominium, and multi-family units that were for sale and for rent within 5 miles of the project site at the time of research, and 6 development projects with capacity for more than 1,000 housing units are planned in the surrounding area (see Table 2.2.1-2, Related Projects). Thus, there are ample single-family residential and multi-family replacement properties on the market similar to the displacement properties; therefore, the construction of new replacement housing would not be necessary. With the large number of potential replacement housing units in the surrounding area, there is a high probability that comparable decent, safe, and sanitary relocation sites can be found for all affected residents within the replacement area of the cities of Ontario, Upland, Rancho Cucamonga, and Montclair. Additional detail on the adequacy of relocation resources is provided in the project's RIS.

As stated in Section 2.2.6, Community Character and Cohesion, the Build Alternative would not result in business displacements, and there are no homeless persons along the project alignment that would require relocation from the ROW prior to construction.

Temporary Impacts

As discussed in Section 2.2.1, 47 TCEs would be required to construct the Build Alternative. The properties affected by TCEs would maintain their existing use during and after project construction. All areas disturbed as part of the TCEs would be restored.

Avoidance, Minimization, and/or Mitigation Measures

To minimize potential relocation impacts, the following minimization measure will be implemented prior to construction.

COM-1: Where acquisition and relocation are unavoidable, provisions of the Uniform Act and the 1987 Amendments, as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs adopted by USDOT (March 2, 1989) and, where applicable, the California Public Park Preservation Act of 1971, will be followed. An appraisal of the affected property will be obtained, and an offer for the full appraisal will be made.

2.2.8 Environmental Justice

Executive Order (EO) 12898 requires each federal agency (or its designee) to take the appropriate and necessary steps to identify and address “disproportionately high and adverse” effects of federal proposed projects on the health or environment of minority and low-income populations, known as environmental justice populations.

2.2.8.1 Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President William J. Clinton on February 11, 1994. This EO directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2020, this was \$26,200 for a family of four.

All considerations under Title VI and related statutes have also been included in this project. Caltrans’ commitment to upholding the mandates of Title VI is demonstrated by its Title VI Policy Statement, signed by the Director, which can be found in Appendix B of this document.

2.2.8.2 Affected Environment

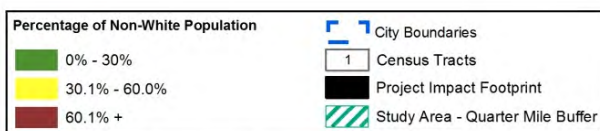
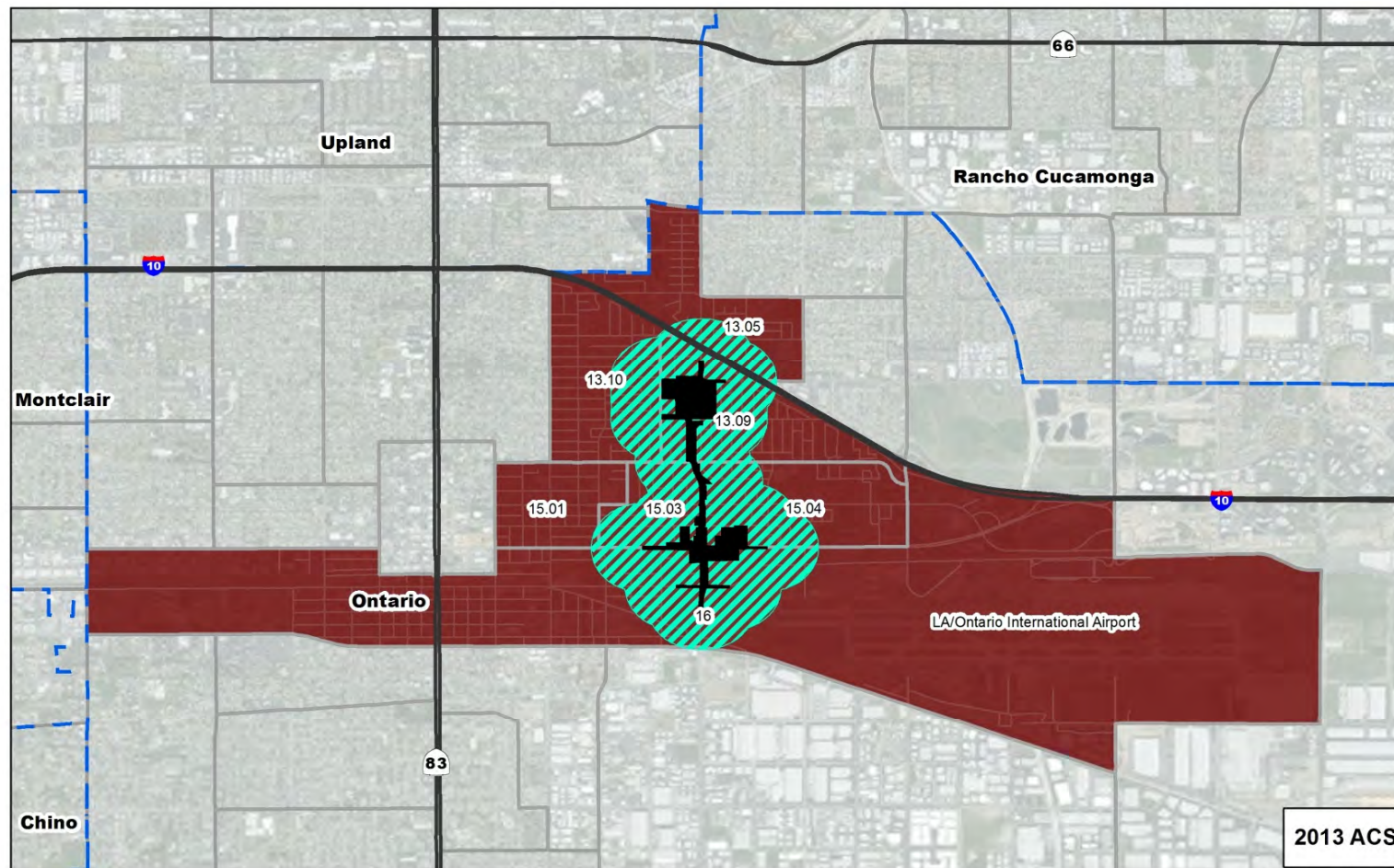
The environmental justice analysis was conducted using census information from the U.S. Census Bureau 2013 ACS dataset for the referenced population of San Bernardino County and the census tracts located within 0.25 mile of the proposed Build Alternative, as shown in Table 2.2.8-1. The following analysis provides a comparison of four measures with which to evaluate impacts to environmental justice populations:

- Percentage of Non-White residents in the study area census tracts, as shown in Figure 2.2.8-1 (Build Alternative)
- Percentage of Hispanic or Latino residents in the study area census tracts, as shown in Figure 2.2.8-2 (Build Alternative)
- Percentage of population below poverty level in the study area census tracts, as shown in Figure 2.2.8-3 (Build Alternative)
- Median household income in the study area census tracts, as shown in Figure 2.2.8-4 (Build Alternative)

Table 2.2.8-1. Minority and Low-income Populations

Census Tract	Year	Non-White (%)	Hispanic or Latino (%)	Persons below Poverty Level (%)	Median Household Income
County					
San Bernardino	2013	67.5	49.9	18.7	\$54,090
City					
Ontario	2013	81.9	69.6	18.1	\$54,249
Census Tracts (City of Ontario)					
13.05	2013	90.7	85.3	26.0	\$44,244
13.09	2013	86.7	71.0	32.0	\$49,097
13.10	2013	78.8	73.9	14.7	\$51,719
15.01	2013	94.1	92.1	42.9	\$30,263
15.03	2013	93.3	88.1	39.4	\$31,611
15.04	2013	91.5	74.0	38.2	\$39,736
16	2013	94.1	92.6	44.6	\$30,464

Source: U.S. Census, American Community Survey, 5-year estimates, 2013.



Grove Avenue Corridor Project
Percentage of Non-White Population
for Build Alternative

Source: US Census Bureau 2013; Parsons 2015

Figure 2.2.8-1. Percentage of Non-White Population (Build Alternative)

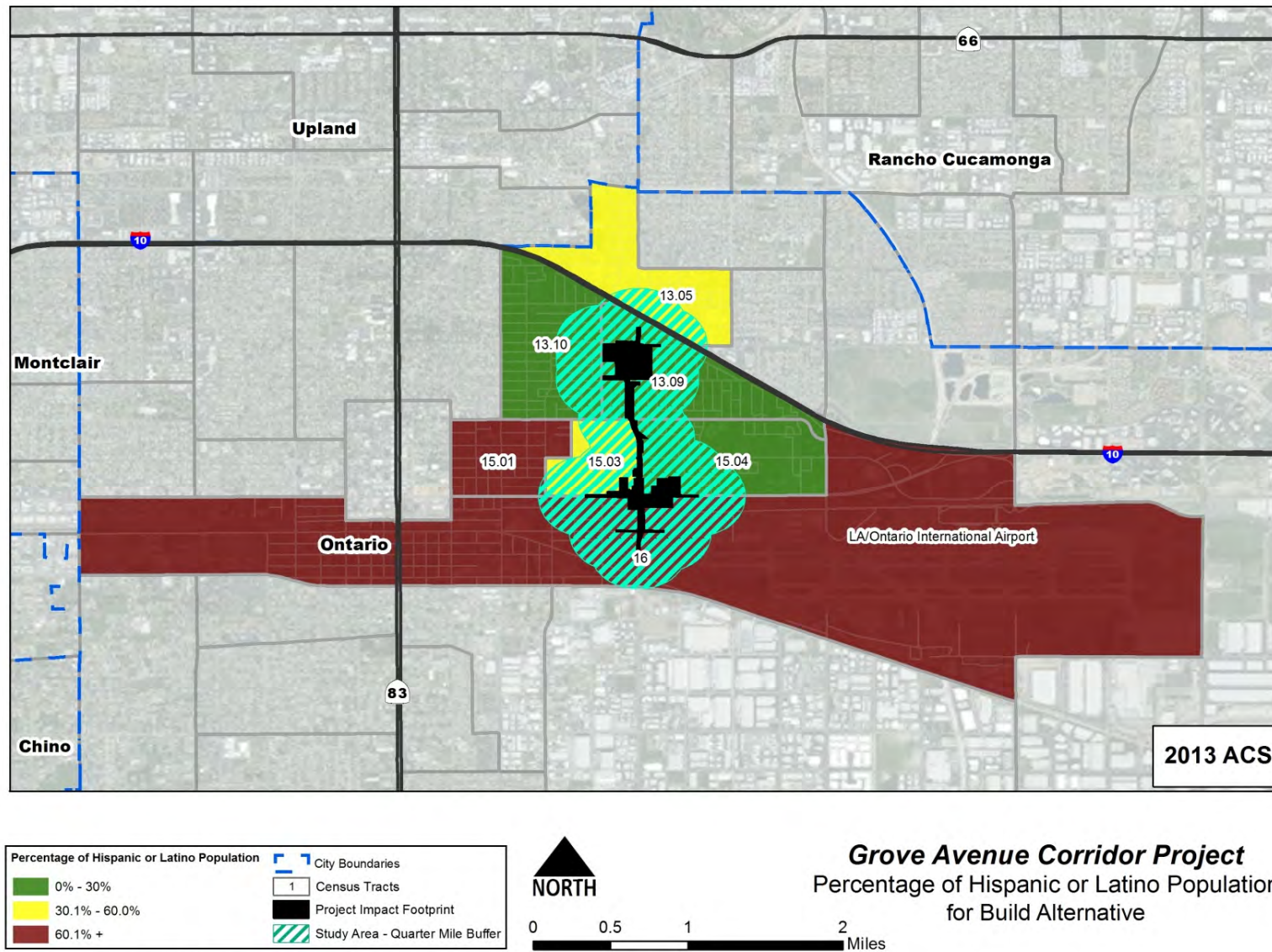
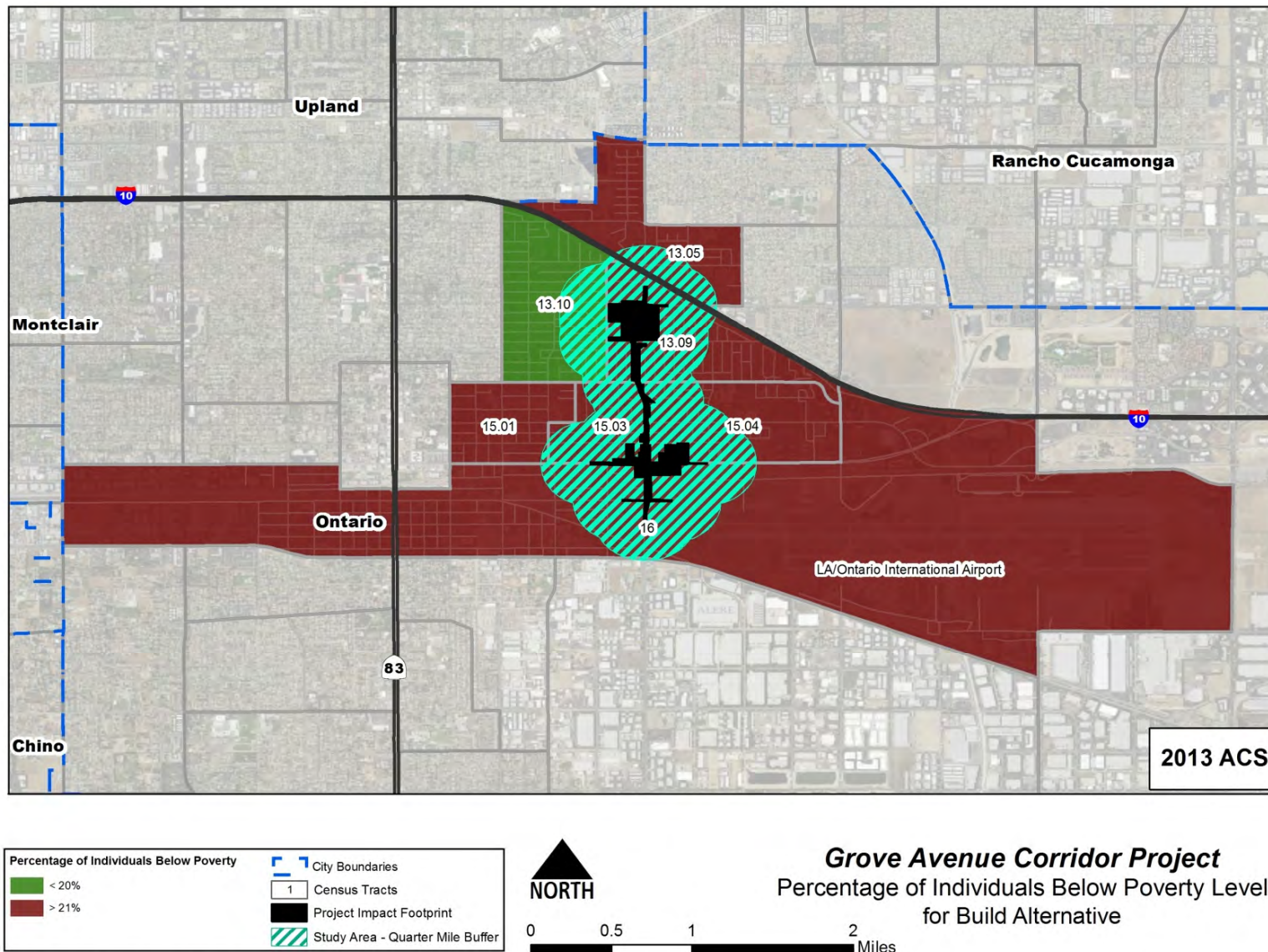
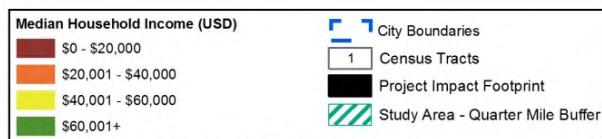
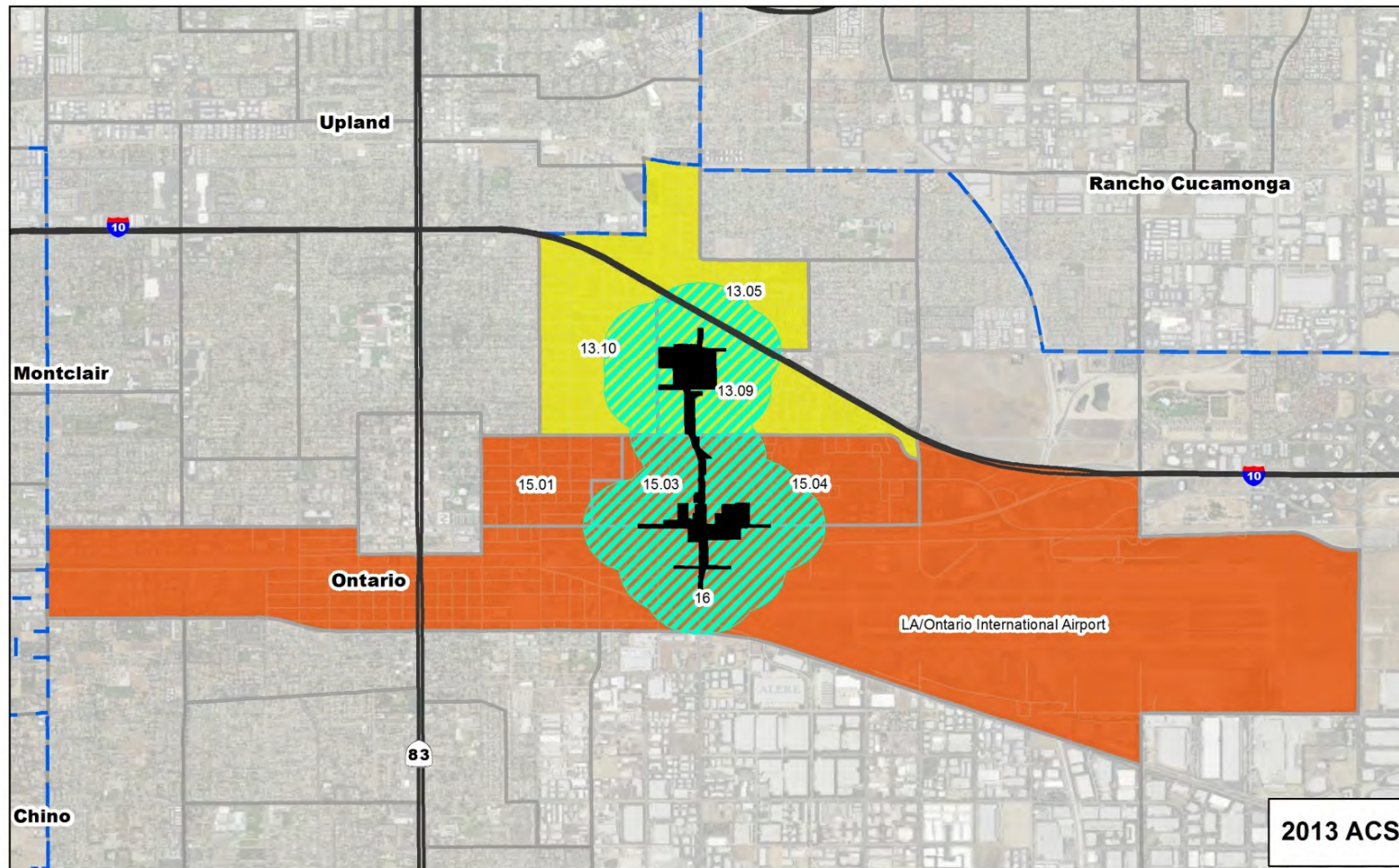


Figure 2.2.8-2. Percentage of Hispanic or Latino Population (Build Alternative)



Source: US Census Bureau 2013; Parsons 2015

Figure 2.2.8-3. Percentage of Individuals below Poverty Level (Build Alternative)



Source: US Census Bureau 2013; Parsons 2015



Grove Avenue Corridor Project
Median Household Income
for Build Alternative

Figure 2.2.8-4. Median Household Income (Build Alternative)

2.2.8.3 Environmental Consequences

No Build Alternative

The No Build Alternative would maintain the current configuration of Grove Avenue in the study area. No project improvements would be constructed; therefore; no impacts to environmental justice populations would occur under the No Build Alternative.

Build Alternative (Proposed Project)

Permanent Impacts

With implementation of the Build Alternative, minority and low-income populations could potentially be affected in several ways. The most evident potential effect is that the proposed project could result in the direct displacement and relocation of environmental justice populations. Other potential effects include temporary construction impacts to an ethnic or low-income neighborhood. However, the project also could provide benefits to minority and low-income populations if transportation efficiency improves and/or transit services are made more reliable, accessible, or convenient. The Build Alternative would improve transportation efficiency along Grove Avenue and would increase pedestrian connectivity to John Galvin Park.

In the Caltrans Desk Guide, *Environmental Justice in Transportation Planning and Investments* (January 2003), no definitive guidelines are given for determining what impacts should be considered disproportionately high or adverse; however, two general issues are weighed for environmental justice analysis for transportation projects:

- Whether the adverse impact(s) of the proposed project will be predominantly borne by a minority or low-income population group; or
- Whether the adverse impact(s) of the proposed project will be appreciably more severe or greater in magnitude than the adverse impacts to nonminority and/or non-low-income population groups even after mitigation measures and offsetting project benefits are considered.

“Low-income” and “minority populations” are defined as any readily identifiable group of low-income or minority persons who live in geographically adjacent areas, or groups of geographically dispersed or transient persons who would be similarly affected by a proposed FHWA program, policy, or activity. Transportation agencies such as Caltrans and SBCTA must collect and evaluate data on minority and income characteristics, increase public participation in decision-making, and provide mitigation measures to avoid or minimize the adverse effects of the federal action.

The following four measures are used as the basis to evaluate disproportionate impacts to environmental justice populations:

- Percentage of Non-White residents
- Percentage of Hispanic or Latino residents
- Percentage of population below poverty level
- Median household income

As shown in Table 2.2.8-1 and Figure 2.2.8-1, all tracts within the project area have Non-White populations above 78 percent. In addition, poverty levels are higher and median income is lower than county and city averages for multiple census tracts in the study area. The Non-White population in these seven census tracts ranges from 78.8 to 94.1 percent. Census Tract 16 has the highest percentage of Hispanic or Latino residents (92.6 percent). The tract with the least amount of Hispanic or Latino residents, Census Tract 13.09 (71.0 percent), is located on the east side of the project corridor. The lowest percentage of residents living below poverty is in Census Tract 13.10 at 14.7 percent, and the highest percentage is Census Tract 16 at 44.6 percent. Census Tract 15.01 has the lowest median household income (\$30,263), and Census Tract 13.10 has the highest (\$51,719).

For the purposes of this analysis, the approach for identifying environmental justice communities published in *Promising Practices for EJ Methodologies in NEPA Reviews* (NEPA Committee, 2016) was adopted to identify minority and low-income populations within the study area. To identify minority populations, the first step was to analyze and identify census tracts with minority populations that meet or exceed 50 percent of the total tract population for heightened focus. Step two determined whether the percentage of minority residents in those tracts identified in step one were “meaningfully greater” than the minority population percentage of the city of Ontario, the reference community. Though what constitutes “meaningfully greater” varies by agency, it has become acceptable in planning studies that “meaningfully greater” is represented by 10 percent or greater. To identify low-income populations, the Department of Health and Human Services (HHS) discloses the poverty threshold for identifying low-income populations in the affected environment. For 2015, this is \$24,250 for a family of four.

After conducting the “meaningfully greater” analysis described above, three census tracts within the Build Alternative footprint, Census Tracts 15.01, 15.03, and 16.00, were identified as having a meaningfully greater minority non-white population

compared to its reference municipality. The median household income for the reference community and individual census tracts studied are above the HHS poverty threshold for an average family size of four of \$24,250, which indicates the study area as a whole and each individual census tract studied is not considered to be a low-income population; therefore, no census tracts were identified as environmental justice communities based on income. None of the relocations identified in the RIS (October 2016) for the Build Alternative would take place in any of the environmental justice communities identified above.

Overall, environmental justice populations exist within the study area, particularly dominating the southern portion of the proposed project area, while the northern portion consists of fewer minorities.

While the Build Alternative would provide a benefit to most study area residents, including minority and low-income populations, by improving mobility and circulation throughout the study area, it would have a direct effect on communities that have a higher number of Non-White persons, larger Hispanic or Latino populations, higher numbers of persons living below the poverty line (\$24,250 for a family of four), and lower median incomes than the counties and cities within the study area.

The transportation benefits would be equally available to all residents of the area. For example, all users, including transit users, pedestrians, and bicyclists, would benefit from less-congested streets and improved connectivity. Private vehicles, public transportation, and freight vehicles would benefit from the increased capacity and decreased traffic delays on Grove Avenue. The Build Alternative would affect minority and low-income populations, as well as non-minority and higher-income populations, resulting primarily from residential acquisitions and temporary impacts. There would not be disproportionately high or adverse impacts, per EO 12898, to Non-White, Hispanic or Latino, or low-income populations within the referenced populations because the adverse impacts would not be predominantly borne by a minority or low-income population, nor would adverse impacts be appreciably more severe to these environmental justice populations.

Community outreach and participation have been integrated into the project development process from the outset, including public mailers, newspaper advertisements, and a public hearing. Given the large percentage of Non-White residents within the study area, particularly Hispanic or Latino residents, a concerted effort was placed into providing Spanish translators and materials at public meetings

to encourage participation of Spanish-speaking populations. To the greatest extent possible, an atmosphere of equal participation was fostered, thus encouraging Non-White minority populations to freely voice any questions or concerns they may have with the project. More detail of the project outreach efforts is provided in Chapter 4.

Temporary Impacts

Relocated residents who are considered part of the identified environmental justice populations may experience temporary impacts; however, relocation assistance would be provided per the Uniform Relocation Assistance and Real Property Acquisition Policies Act.

The proposed project would have a prolonged period for construction of the Build Alternative. Area residents would endure greater impacts resulting from construction activities compared to the surrounding population. Once construction is complete, traffic circulation would soon return to normal.

2.2.8.4 Avoidance, Minimization, and/or Mitigation Measures

Based on the environmental justice analysis, the Build Alternative would not cause disproportionately high and adverse effects on minority or low-income populations as per EO 12898. No further environmental justice analysis is required. However, implementation of Minimization Measure COM-2 would minimize the impacts associated with required property relocations.

COM-2: Outreach activities targeted to low-income residents will be conducted during the planning, design, and construction phases of the Build Alternative.

2.2.9 Utilities/Emergency Services

Many public utilities are located within the project area (i.e., the area disturbed during construction or within the proposed ROW of the Build Alternative). These include telecommunication, electrical, natural gas, water, and solid waste/sewer lines. Most of the existing utility lines are located within public ROW. Local jurisdictions along the project corridor provide public services. Additionally, there are also private service providers. Descriptions of utilities, emergency service providers, and the project's potential operational effects are also described in this section.

2.2.9.1 Affected Environment

This section is based on a review of the existing utility and emergency service providers and facilities in the study area, the *Project Report* (March 2017), and the *Community Impact Assessment* (October 2016).

This subsection summarizes major utilities found within the project area. There are approximately 253 underground and aerial utilities within the project area, including storm drain, sewer, water, traffic signal, street light, petroleum, natural gas, electrical, cable television, fiber optic, and telecommunication. Grove Avenue and local roads have parallel encroachments that include utilities such as cable television, telecommunications, electrical, fiber optic, natural gas, water, storm drain, and sewer. Significant intersecting encroachments include petroleum and fiber optics. Utilities in the project area are shown in Table 2.2.9-1. There are no landfills or wastewater treatment facilities within the project area.

Table 2.2.9-1. Utilities

Agency/Utility	Service Provided
City of Ontario	Water, Traffic, Storm Drain, Sewer, Electric
City of Upland	Sewer
Inland Empire Utility Agency (IEUA)	Sewer
San Antonio Water Company (SAWCO)	Water
SBCFCD	Storm Drain
Southern California Edison	Electric
Southern California Gas	Gas
Time Warner Cable (Spectrum)	Television Cable
Verizon	Telecommunications
Kinder Morgan	Petroleum
Level 3	Fiber Optic

Note: Information was collected from each affected jurisdiction's website in 2014.

Emergency Services

Fire protection and emergency services are jointly provided by the respective jurisdictions and County, depending on the location of the emergency. In addition, each municipality contracts its emergency service transportation services to private ambulance companies. The nearest hospital providing 24-hour emergency services is the San Antonio Regional Hospital in the city of Upland, located approximately 3 miles west of Grove Avenue.

Law Enforcement Services

Law enforcement services in the project study area are provided by the City of Ontario Police Department. The closest police station to the project study area is at 2500 South Archibald Avenue, approximately 3 miles southeast of the Grove Avenue corridor.

2.2.9.2 Environmental Consequences

An evaluation of potential impacts to utilities and emergency services associated with each alternative is presented below.

Permanent Impacts

Utilities

Utility facilities (e.g., water lines, sewer laterals, electrical connections/lines/poles, natural gas service lines, streetlights, fire hydrants, and cable television lines and utility boxes) in the Grove Avenue ROW would be subject to abandonment, removal, and relocation or replacement as a result of project construction. Utility companies would be given enough notice to relocate their facilities before construction or at a later stage of construction, as appropriate.

Such coordination is standard during the design phase of the project. Utility relocations would be done using standard engineering practices, so substantial service disruption is not expected and impacts are minimized.

No Build Alternative

The No Build Alternative would maintain the current configuration of the Grove Avenue corridor in the study area. Under the No Build Alternative, the project would not be constructed, and no impacts to utilities would occur.

Build Alternative (Proposed Project)

The proposed improvements under the Build Alternative would result in the relocation of some major electrical and water utilities, but they would not adversely affect the long-term operations of these utilities. As a road widening project, the Build

Alternative would not require construction of new water, wastewater, electrical, or solid waste facilities to accommodate the project.

Up to 136 of the 253 utilities within the project area, including 5 cable television, 2 fiber-optic utilities, 2 petroleum lines, 11 power/electrical utilities, 4 power transformers, 21 sewer utilities, 16 storm drain utilities, 9 telephone utilities, 14 water utilities, 8 fire hydrants, 17 traffic signals, and 27 street lights, have the potential to be affected by the proposed improvements. Up to 28 of these potentially affected utilities would require minor to moderate work, such as extending the utility, constructing a structure or encasement around the utility, pouring a slurry mixture over the utility, or requiring a hand digging method when performing excavation around the utility. Up to 108 utilities would need to be removed and completely relocated to accommodate the proposed project improvements.

Utility facility relocations, removals, and/or protection in-place would be necessary in areas where project construction would occur. As a result, utility services could be temporarily interrupted or facilities damaged. The decision on relocation, removal, and/or protection in-place would be made during final design in consultation with the owner of each affected utility.

Law Enforcement, Fire, and Emergency Medical Services

No Build Alternative

The No Build Alternative does not propose any project improvements and would not provide benefits of improved transportation operations along Grove Avenue to police, fire, and emergency services. Continued deterioration of traffic conditions within the project area under the No Build Alternative would potentially result in increased delays and increased response times for emergency service providers in the future.

Build Alternative (Proposed Project)

Implementation of the Build Alternative would improve traffic throughput and travel times along the Grove Avenue corridor, and it would correct deficiencies in the existing roadway system. The improved traffic conditions along the corridor would have beneficial effects for law enforcement protection and emergency service access and response times. As such, no permanent police protection or emergency service impacts are expected.

Temporary Impacts

Utility relocations, removals, and/or protection in-place would be necessary in areas where project construction would occur. As a result, utility services could be temporarily interrupted or facilities damaged. The decision on relocation, removal, and/or protection in-place would be made during final design in consultation with the owner of each affected utility.

The proposed project would have a prolonged period of construction for the Build Alternative. Once construction is complete, traffic circulation would return to normal. A TMP would be implemented to ensure any potential temporary effects to utilities are minimized.

Construction of the Build Alternative could result in temporary traffic delays, road closures, lane closures, or detours that may impair the ability of law enforcement, fire, and other emergency service providers to meet response time goals.

Non-fire-related medical emergencies could temporarily increase during project construction with the presence of construction workers and heavy machinery in the construction area.

During construction of the Build Alternative, motorists and emergency service providers can expect to experience typical construction-related temporary changes in access, with intermittent delays on adjacent local roadways; however, as stated in Measure COM-1 in Section 2.2.6, Community Character and Cohesion, implementation of a TMP would be required. During final design, a TMP would be developed for implementation during project construction. Known temporary and long-term closures for the Build Alternative are discussed in detail in Section 2.2.6.

As described in the TMP, alternate emergency service routes and traffic handling plans must be coordinated with local jurisdictions and emergency service providers (e.g., California Highway Patrol [CHP], local police, fire, paramedics) during final design. The TMP would include emergency service routes that serve hospitals, fire/police stations, emergency shelters, emergency command centers, and other facilities that provide essential services in times of emergencies within the study area. These emergency service routes would be maintained during construction or alternate routes would be provided. Construction contract documents would require that emergency service providers be notified in advance prior to any lane closures, interruptions on emergency service routes, or changes in traffic control.

Although construction-related delays and detours may temporarily affect the response times of emergency service providers, measures identified in the TMP would minimize project effects on emergency service providers. The Build Alternative would not result in any substantial effects on emergency service providers and/or response times.

2.2.9.3 Avoidance, Minimization, and/or Mitigation Measures

Adverse impacts to utilities or emergency services would not occur as a result of operation of the proposed project. The following minimization measures were identified for impacts to emergency services and utilities during construction of the proposed project. Additional avoidance, minimization, and/or mitigation measures for impacts to utilities and emergency services will be considered upon completion of coordination with utility companies and emergency service providers.

UT-1: During final design, the Project Engineer will prepare utility relocation plans in consultation with the affected utility providers/owners for those utility facilities that will need to be relocated, removed, or protected in-place.

UT-2: During final design, the Project Engineer will prepare utility relocation plans in consultation with the affected utility providers/owners for those utility facilities that will need to be relocated, removed, or protected in place. If relocation is necessary, the final design will focus on relocating utilities within the State ROW or other existing public ROWs and/or easements. If relocation outside of existing or the additional public ROWs and/or easements required for the project is necessary, the final design will focus on relocating those facilities in adjacent public ROWs and in a manner so as to not result in significant community, land use, or natural resource impacts.

UT-3: Close coordination with utility service providers and implementation of a public outreach program will be conducted, as needed, to minimize impacts to surrounding communities.

UES-1: Prior to and during any construction activities, the City will coordinate with emergency service providers to ensure that all providers are aware of temporary road closures and detours.

UES-2: Emergency service phone numbers (i.e., fire, emergency medical, police) will be posted in visible locations in all active construction areas.

UES-3: To avoid conflicts during construction, the project's Resident Engineer will notify all emergency and other essential service providers no less than 2 weeks prior to the start of construction. Agencies to be notified include:

- City of Ontario Police Department
- City of Ontario Fire Department
- San Bernardino County Sheriff's Department
- San Bernardino County Fire Department

2.2.10 Traffic and Transportation/Pedestrian and Bicycle Facilities

This section addresses the potential effects to traffic and circulation associated with construction of the proposed project and compares the relative benefits of each alternative. The traffic circulation analysis is based on the results of the *Traffic Operations Analysis* (January 2015). The *Traffic Operations Analysis* evaluates the existing and future traffic flow conditions within the traffic study area of San Bernardino County (defined below in Section 2.2.10.2, Affected Environment).

The *Traffic Operations Analysis* evaluation includes demand, capacity, and LOS for study area intersections. LOS analysis was conducted for the a.m. and p.m. peak hours (7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.) based on the HCM 2000, which states:

LOS is a quality of measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Six LOS are defined for each type of facility that has analysis procedures available (see Table 2.2.10-1). Letters designate each level, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each LOS represents a range of operating conditions and the driver's perception of those conditions. (HCM, page 2-2)

Table 2.2.10-1. Intersection Level of Service Definitions

Level of Service	Description	Signalized Intersection Delay (seconds per vehicle)	Unsignalized Intersection Delay (seconds per vehicle)
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	≤ 10	≤ 10
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	>10 and ≤ 20	>10 and ≤ 15
C	Good operation. Occasionally drivers may have to wait more than 60 seconds, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted.	>20 and ≤ 35	>15 and ≤ 25

Table 2.2.10-1. Intersection Level of Service Definitions

Level of Service	Description	Signalized Intersection Delay (seconds per vehicle)	Unsignalized Intersection Delay (seconds per vehicle)
D	Fair operation. Cars are sometimes required to wait more than 60 seconds during short peaks. There are no long-standing traffic queues.	>35 and ≤ 55	>25 and ≤ 35
E	Poor operation. Some long-standing vehicular queues develop on critical approaches to intersections. Delays may be up to several minutes.	>55 and ≤ 80	>35 and ≤ 50
F	Forced flow. Represents jammed conditions. Backups form locations downstream or on the cross street may restrict or prevent movement of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop and go type traffic flow.	> 80	> 50

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, Washington, DC, 2000.

The City maintains a standard of LOS E or better as acceptable operating LOS at its intersections. At freeway ramp intersections, which fall under Caltrans’ jurisdiction, a standard of LOS D or better is considered acceptable in this analysis.

The analysis was conducted for the following scenarios:

- Existing (2013);
- Opening Year 2025 No Build Alternative;
- Opening Year 2025 Build Alternative;
- Horizon Year 2045 No Build Alternative; and
- Horizon Year 2045 Build Alternative.

2.2.10.1 Regulatory Setting

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

In July 1999, USDOT issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR Part 27) implementing Section 504 of the Rehabilitation Act (29 U.S.C. 794). FHWA has enacted regulations for implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to federal-aid projects, including Transportation Enhancement Activities.

2.2.10.2 Affected Environment

The existing lane configuration, traffic volumes, LOS, and other operational characteristics within the traffic study area are presented in this subsection.

Traffic Study Area

Within the project area, Grove Avenue is a collector street that runs in the north-south direction through Ontario. The existing Grove Avenue corridor is a critical arterial in the region's transportation network connecting automobile and truck traffic between I-10 and Ontario International Airport. Much of the project area is characterized by typical highway-adjacent urban residential neighborhoods, commercial, and light industrial properties with on-street and off-street parking in residential areas and usually plentiful off-street surface parking at commercial lots. The traffic study area, as shown in Figure 2.2.10-1, includes Grove Avenue interchanges between Mission Boulevard and 4th Street. The area for analysis includes the following seven intersections:

1. Grove Avenue/4th Street
2. Grove Avenue/I Street
3. Grove Avenue/G Street
4. Grove Avenue/D Street
5. Grove Avenue/Holt Boulevard
6. Grove Avenue/State Street-Airport Drive
7. Grove Avenue/Mission Boulevard

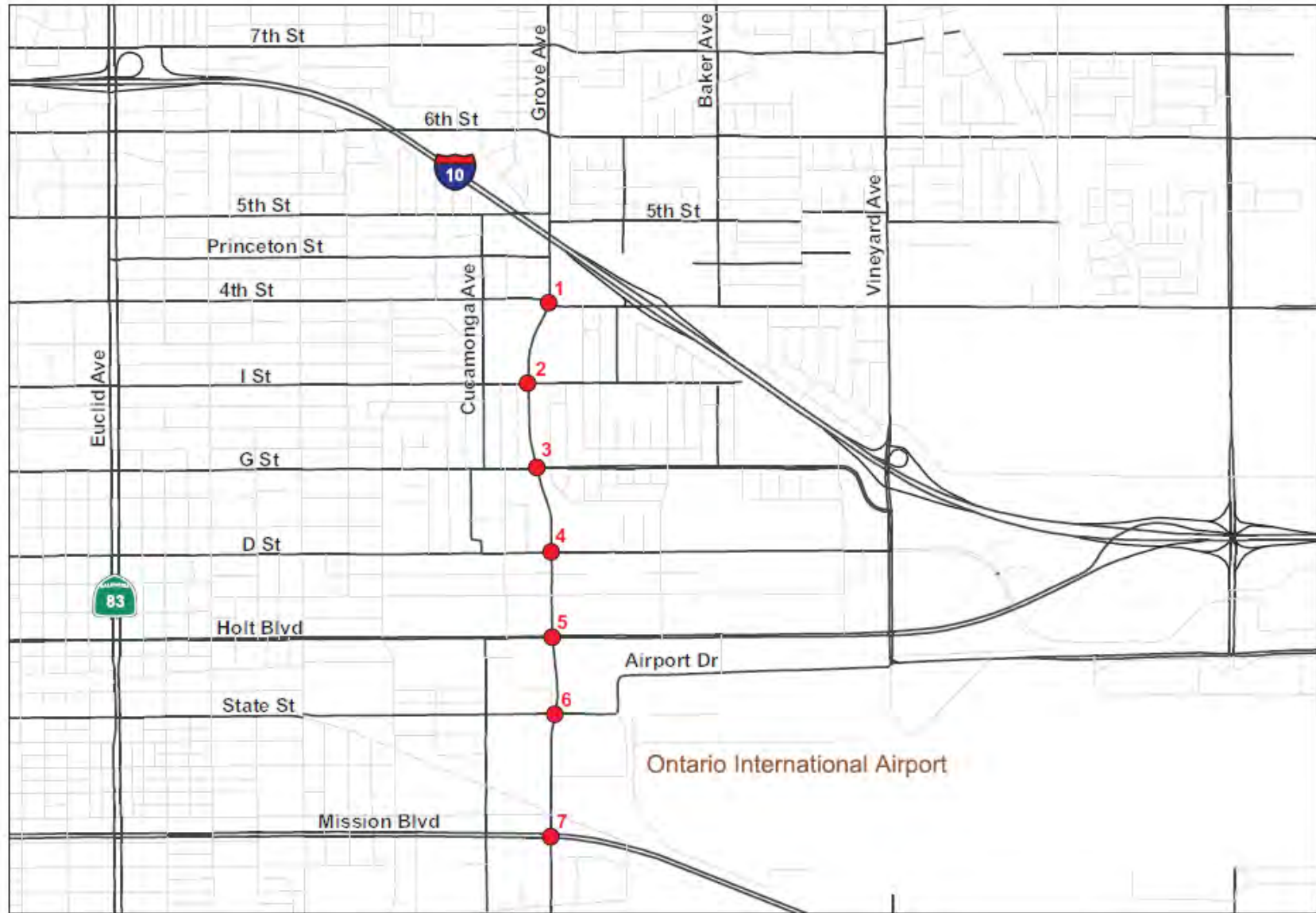


Figure 2.2.10-1. Grove Avenue Corridor Project Study Intersections

Existing Traffic Conditions

Existing traffic data for the traffic study area are for the year 2013. Existing conditions traffic data and the results of operational analysis are presented below for the Grove Avenue corridor intersections.

The existing a.m. and p.m. peak period (7:00 to 9:00 a.m., 4:00 to 6:00 p.m.) intersection turning movement counts were collected at the study intersections near the existing I-10/4th Street interchange in February 2013. All intersection traffic counts were collected while local schools were in session. As part of the volume development, trucks were converted into their respective passenger car equivalents (PCE). PCE factors of 1.5, 2, and 3 were used for light-duty trucks, medium-duty trucks with three axles, and heavy-duty trucks with four axles, respectively. The peak hour was determined by taking the peak 1-hour interval within the peak period. Existing a.m. and p.m. peak-hour intersection volumes are shown in Figure 2.2.10-2. All study intersections are currently operating at LOS D or better and are at sufficient capacity to accommodate existing travel demands within the project limits, as shown in Table 2.2.10-2.

Table 2.2.10-2. Existing (2013) Peak-Hour Intersection LOS Summary

Intersection	AM Peak Hour 2013		PM Peak Hour 2013	
	Delay (sec)	LOS	Delay (sec)	LOS
1) Grove Avenue/4 th Street	35.0	D	34.5	C
2) Grove Avenue/I Street	5.7	A	3.8	A
3) Grove Avenue/G Street	7.1	A	5.5	A
4) Grove Avenue/D Street	5.4	A	4.4	A
5) Grove Avenue/Holt Boulevard	33.7	C	31.8	C
6) Grove Avenue/State Street	20.4	C	29.9	C
7) Grove Avenue/Mission Boulevard	44.4	D	36.5	D

Note: sec = seconds;

Source: *Traffic Operations Analysis, 2015.*

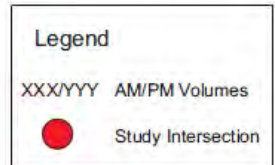
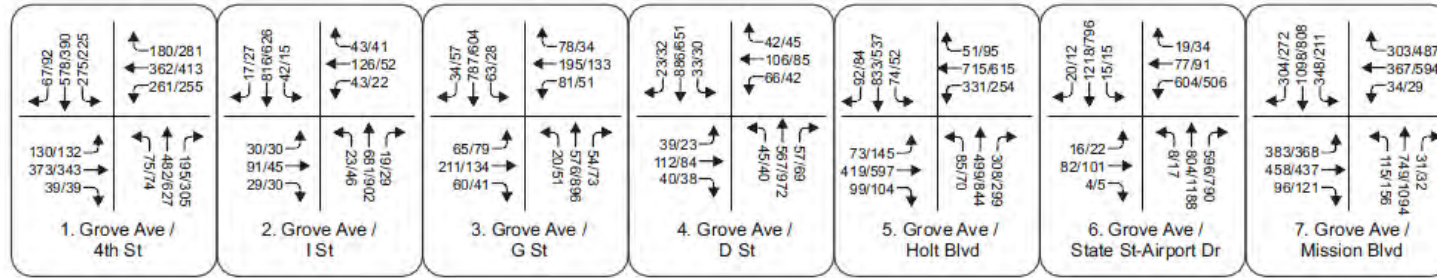


Figure 2.2.10-2. Existing Peak-Hour Intersection Volumes

Pedestrian and Bicycle Facilities

SBCTA's Non-Motorized Transportation Plan (2014) identifies existing and planned bikeways that run below or adjacent to the proposed project area, as shown in Figure 2.2.1010-3. There are three classes of bikeways: Class I, Class II, and Class III. A Class I bikeway, or shared-used path or bike path, is a bikeway physically separated from any street or highway and used by a variety of users. Class II bikeways, or bike lane, is a portion of a roadway that is designated by striping, signaling, and pavement markings for the preferential or exclusive use of bicyclists. Class III bikeways, or bike routes, are any road, street, path, or way that in some manner is specifically designed for bicycle travel regardless of whether such facilities are designated for the exclusive use of bicycles or shared with other transportation modes.

2.2.10.3 Environmental Consequences

An evaluation of the traffic and transportation impacts associated with each alternative is presented below.

Permanent Impacts

Year 2025 is the year in which the proposed project is scheduled to open to traffic if the Build Alternative is implemented. Year 2045 is the design horizon year for the proposed Build Alternative; therefore, traffic analyses were conducted for the following five future conditions:

- Existing (2013)
- Opening Year 2025 No Build Alternative
- Opening Year 2025 Build Alternative
- Design Year 2045 No Build Alternative
- Design Year 2045 Build Alternative

The traffic modeling effort sought to maintain consistency with the traffic forecasts developed for the recently completed *I-10 Corridor Study – PA/ED HOV and Express Lanes Project* by SBCTA. The SBTAM in that study was utilized for the I-10/Grove Avenue Interchange PA/ED, including all roadway network and demographic data assumptions.

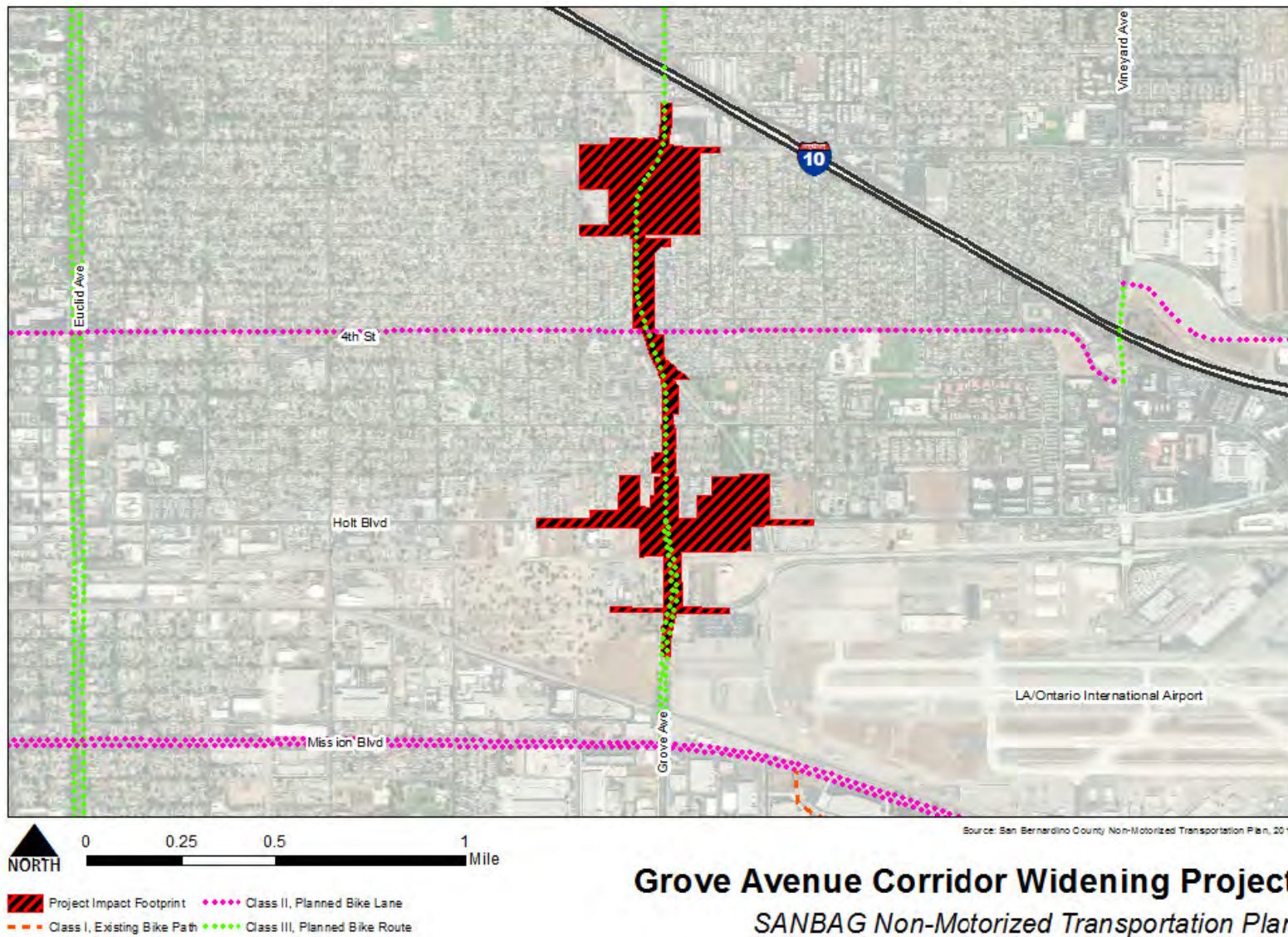


Figure 2.2.10-3. San Bernardino County Bikeways in Project Area

The two alternatives are generally described as follows:

No Build Alternative

The No Build Alternative would maintain four through lanes along Grove Avenue within the project limits and the existing configuration at the Grove Avenue/Holt Boulevard intersection. Figures 2.2.10-4 and 2.2.10-5 show forecasted intersection traffic volumes under the No Build Alternative in opening year (2025) and design year (2045), respectively.

In Table 2.2.10-3, the length of delay and LOS at each study area intersection under no-build conditions for opening year (2025) and design year (2045) are shown.

Table 2.2.10-3. 2025 and 2045 No-Build Peak-Hour Intersection LOS Summary

Intersection	AM Peak Hour				PM Peak Hour			
	2025		2045		2025		2045	
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
1) Grove Avenue/4 th Street	44.7	D	51.2	D	63.8	E	117.4	F
2) Grove Avenue/I Street	6.7	A	8.0	A	6.3	A	7.5	A
3) Grove Avenue/G Street	9.0	A	11.1	B	9.0	A	20.6	C
4) Grove Avenue/D Street	6.4	A	18.3	B	9.2	A	14.8	B
5) Grove Avenue/Holt Boulevard	82.8	F	213.8	F	134.7	F	352.9	F
6) Grove Avenue/State Street	25.1	C	88.3	F	29.3	C	83.2	F
7) Grove Avenue/Mission Boulevard	60.9	E	117.1	F	102.8	F	265.6	F

Note: sec = seconds; **BOLD** indicates unsatisfactory

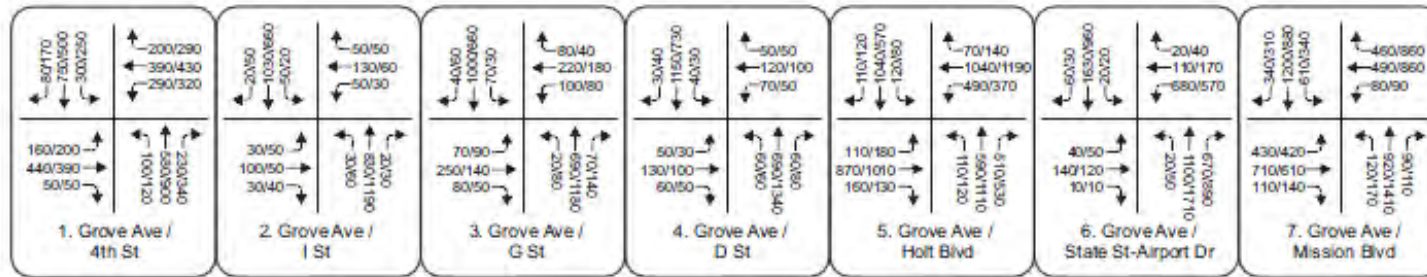
Source: Traffic Operations Analysis, 2015.

The following intersections are forecast to operate at unsatisfactory LOS in opening year (2025) No Build conditions:

- Grove Avenue/Holt Boulevard (a.m. and p.m. peak hour); and
- Grove Avenue/Mission Boulevard (p.m. peak hour).

By 2045, the following intersections are forecast to operate at unsatisfactory LOS in opening year (2045) no-build conditions:

- Grove Avenue/4th Street (p.m. peak hour);
- Grove Avenue/Holt Boulevard (a.m. and p.m. peak hour);
- Grove Avenue/State Street-Airport Drive (a.m. and p.m. peak hour); and
- Grove Avenue/Mission Boulevard (a.m. and p.m. peak hour).



Note: Volumes have been rounded to the nearest 10 trips

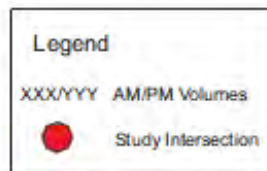
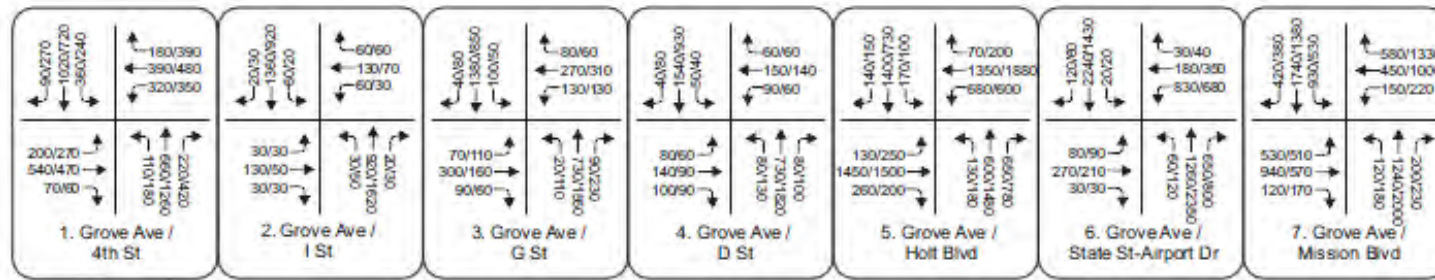


Figure 2.2.10-4. Opening Year 2025 No-Build AM/PM Peak-Hour Intersection Volumes



Note: Volumes have been rounded to the nearest 10 trips

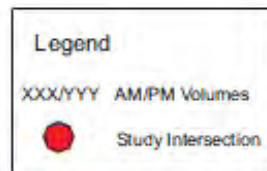


Figure 2.2.10-5. Design Year 2045 No-Build AM/PM Peak-Hour Intersection Volumes

Direct effects of the No Build Alternative would include continued increases of vehicle miles traveled (VMT), deterioration of LOS, and congestion of freeway and local interchange operations. Indirect and cumulative effects of the No Build Alternative are projected to increase effects on the communities related to increased commute times and traffic diversion through adjacent neighborhoods as drivers seek alternate routes. Additionally, the No Build Alternative would increase the amount of time the users/ travelers have to endure construction-related effects associated with addressing the corridor needs through many smaller projects completed over an extended period of time.

Build Alternative (Proposed Project)

The Build Alternative includes widening Grove Avenue from four lanes to six lanes between 4th Street and State Street/Airport Drive in accordance with the City of Ontario Master Plan. The proposed widening would not conflict with congestion management plans or applicable transportation-related plans, policies, or programs. The roadway improvements would be designed to meet all applicable roadway design standards.

South of 4th Street, Grove Avenue would be widened to the west to avoid impacts to the historic Jay Littleton Ballpark. Between I Street and Holt Boulevard, Grove Avenue would be widened to the east, and between Holt Boulevard and State Street/ Airport Drive, Grove Avenue would be widened on both sides.

In addition, Holt Boulevard would be widened at the Grove Avenue intersection from two through lanes, two through-right lanes, and one left–turn lane to four through lanes, two through-right lanes, and two left–turn lanes. Figure 2.2.10-6 shows the future lane configurations at the study intersections with implementation of the proposed widening along Grove Avenue and the additional project improvements described.

Figures 2.2.10-7 and 2.2.10-8 show forecasted intersection traffic volumes under the Build Alternative in opening year (2025) and design year (2045), respectively.

As shown in Table 2.2.10-4, under the Build Alternative the Grove Avenue/Mission Boulevard intersection, which is located outside of the project limits, is forecasted to operate at unsatisfactory LOS in opening year 2025 build conditions in the p.m. peak hour. By 2045, the intersection would operate at unsatisfactory LOS levels for both the a.m. and p.m. peak periods.

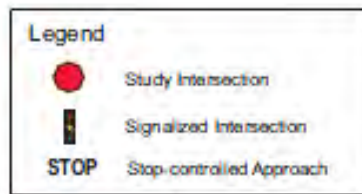
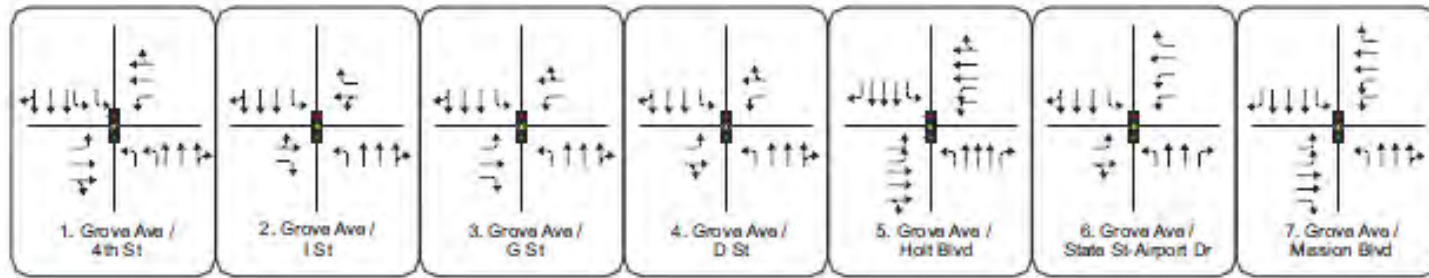
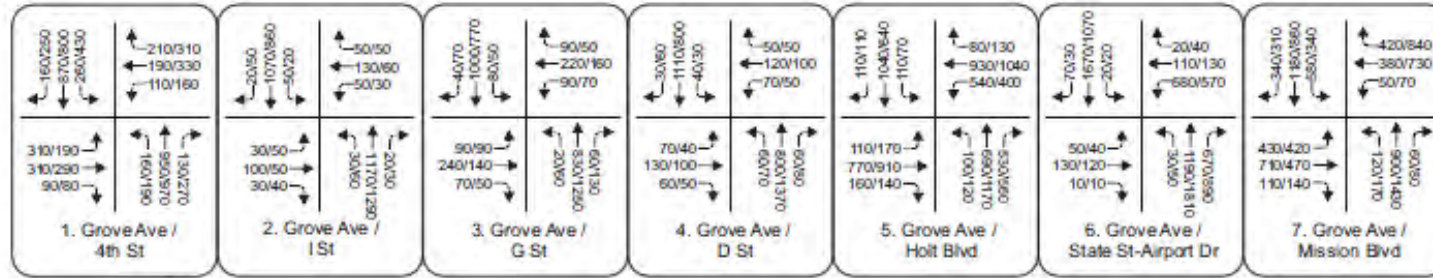


Figure 2.2.10-6. Build Alternative Intersection Lane Configurations



Note: Volumes have been rounded to the nearest 10 trips

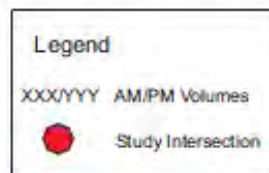
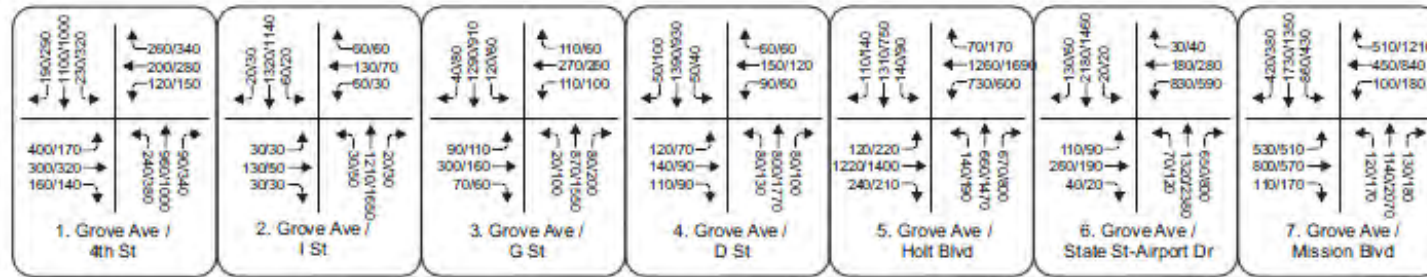


Figure 2.2.10-7. Opening Year 2025 Build Alternative AM/PM Peak-Hour Intersection Volumes



Note: Volumes have been rounded to the nearest 10 trips

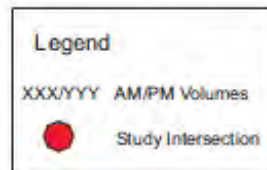


Figure 2.2.10-8. Design Year 2025 Build Alternative AM/PM Peak-Hour Intersection Volumes

**Table 2.2.10-4. 2025 and 2045 Build Alternative Peak-Hour
Intersection LOS Summary**

Intersection	AM Peak Hour				PM Peak Hour			
	2025		2045		2013		2025	
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
1) Grove Avenue/4 th Street	39.0	D	49.4	D	46.4	D	47.8	D
2) Grove Avenue/I Street	6.4	A	5.9	A	5.4	A	5.0	A
3) Grove Avenue/G Street	8.8	A	11.5	B	8.4	A	10.9	B
4) Grove Avenue/D Street	8.3	A	7.6	A	5.9	A	6.9	A
5) Grove Avenue/ Holt Boulevard	38.7	D	61.3	E	37.9	D	59.5	E
6) Grove Avenue/State Street	27.0	C	39.2	D	30.4	C	71.8	E
7) Grove Avenue/Mission Boulevard	52.3	D	95.5	F	101.5	F	233.7	F

Note: sec = seconds; **BOLD** indicates unsatisfactory

Source: *Traffic Operations Analysis, 2015*

While the Grove Avenue/Holt Boulevard, Grove Avenue/State Street-Airport Drive, and Grove Avenue/Mission Boulevard intersections are forecast to continue to operate at LOS E or F in horizon year 2045 build conditions, the average delays are forecast to significantly improve with implementation of the Build Alternative compared to the No Build Alternative.

Because no arterial roadways would be permanently closed, there are no permanent impacts to access or circulation, and no indirect impacts are anticipated with implementation of the Build Alternative.

Nonmotorized and Pedestrian Features

Grove Avenue is designated as a Bicycle Corridor by the City of Ontario Multipurpose Trails and Bikeway Corridor Plan. The project would include a new Class III bikeway along Grove Avenue in conformance with SBCTA’s Non-Motorized Transportation Plan 2014. The Build Alternative would be designed to retain and improve the existing pedestrian sidewalk on the west side of Grove Avenue between I Street and G Street. The Build Alternative would improve pedestrian connectivity by constructing a new sidewalk that seamlessly connects with an existing walkway in Grove Memorial Park. Additionally, pedestrian sidewalks along the project area would include a landscaped median between traffic and pedestrians to enhance safety. There would also be a design element that provides a pedestrian connection across the West Cucamonga Channel to an existing trail leading to James Galanis Park. All pedestrian sidewalk changes would be ADA-compliant. As such, no adverse effects with respect to nonmotorized and pedestrian features would occur as a result of implementation of the Build Alternative.

Temporary Impacts

No Build Alternative

There are no improvements proposed under the No Build Alternative; therefore, there would be no temporary impacts.

Build Alternative (Proposed Project)

Temporary impacts to circulation and access would result from construction activities. Street closures and detours would temporarily delay goods movements, affect business parking, and impede access to businesses. To the extent feasible, this work would occur during non-peak commute hours, at night, or on weekends.

As discussed in previous sections, a TMP would be implemented to minimize temporary construction impacts to circulation. Closure of streets that are in proximity to one another would not coincide so there would be convenient nearby alternate routes available for automobiles and pedestrians.

TMP strategies would accommodate major traffic movements during construction and minimize construction impacts by maintaining pedestrian, bicycle, business, and residential access to the extent practicable; minimizing parking impacts; and avoiding disruptions to existing transit service operating in the project vicinity, including OmniTrans Bus Route 63, which runs along 4th Street and 6th Street and Ontario-Montclair School District bus routes. Coordination with local jurisdictions and emergency service providers would be made during the final design to identify emergency service routes that serve hospitals, fire/police stations, emergency shelters, emergency command centers, and other facilities that provide essential emergency services within the study area. Emergency service routes would be maintained during construction or alternate routes would be provided.

The Grove Avenue Corridor Project was originally intended to be analyzed at the same time as the I-10/Grove Avenue Interchange Project. These two projects are now on separate design and environmental clearance schedules. Coordination with the design and construction team for the I-10/Grove Avenue Interchange Project would need to occur to ensure the Grove Avenue Corridor Project and the I-10/Grove Avenue Interchange Project are designed compatibly.

2.2.10.4 Avoidance, Minimization, and/or Mitigation Measures

The following minimization measures were identified for impacts to traffic and transportation as a result of the proposed project:

- T-1:** Final TMP – A TMP (July 2015) was prepared during development of the preliminary engineering for the project. During final design, a Final TMP will be prepared. At a minimum, the Final TMP will include the detailing of any projected temporary street closures or expected traffic delays due to project construction activities. The Final TMP will include a public awareness program that will use an appropriate combination of the HAR, local media, newsletters, and/or flyers. The following elements will be major components of the Final TMP: Public Awareness Campaign, particularly related to the scheduling of work; COZEEP; Utilization of portable CMSs; and notification to be sent to local cities and emergency responders, if applicable.
- T-2:** During project construction, the Project Engineer will ensure that the measures in the Final TMP are properly implemented by the contractor.
- T-3:** During final design and construction, the Project Engineer will work with affected property owners to identify means to avoid and minimize parking impacts, including space management, such as restriping of parking areas and identifying parking replacement options.
- T-4:** All pedestrian facilities will be designed to meet or exceed requirements of the ADA and current safety standards. Access to pedestrians and bicyclists shall be maintained to the extent practicable during the construction period.
- T-5:** Prior to and during construction, the Project Engineer will coordinate with Omnitrans, the Ontario-Montclair School District, and other affected transit providers to request and comply with applicable procedures for any required temporary bus stop relocations or other disruptions to transit service during construction, if necessary.
- T-6:** During final design and prior to and during construction, the Project Engineer will coordinate with the design and construction team for the I-10/Grove Avenue Interchange Project to ensure the Grove Avenue Corridor Project and the I-10/Grove Avenue Interchange Project are designed compatibly.

2.2.11 Visual/Aesthetics

2.2.11.1 Regulatory Setting

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

CEQA establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of *aesthetic*, natural, scenic, and historic environmental qualities” (CA PRC Section 21001[b]).

California Streets and Highways Code Section 92.3 directs Caltrans to use drought-resistant landscaping and recycled water, when feasible, and incorporate native wildflowers and native and climate-appropriate vegetation into the planting design, when appropriate.

In addition to federal and State environmental regulations, local agencies may also have requirements or recommendations regarding developments within their boundaries. The project corridor falls within jurisdiction of the City of Ontario, which has established guidelines and requirements for development within the community through its Municipal Code and the City of Ontario Development Code. The following codes reinforce the need for landscaping and other aesthetic treatments to roadways within the city and do not discuss the interface between City roads and Interstate 10 (I-10):

- Design Quality:
 - Rich blend of architectural styles, including the historic downtown, residential neighborhoods, equestrian properties, commercial centers, and industrial and office complexes.
 - Encourage durable landscaping materials and design that enhance the aesthetics of structures, create and define public and private spaces, and provide shade and environmental benefits.
 - Encourage the inclusion of amenities, signage, and landscaping at the entry to neighborhoods, commercial centers, mixed-use areas, industrial developments, and public spaces that reinforce them as uniquely identifiable places.

- Pedestrian and Transit Environments
 - Require that pedestrian, vehicular, bicycle, and equestrian circulation on both public and private property is coordinated and designed to maximize safety, comfort, and aesthetics.
 - Utilize landscaping to enhance the aesthetics, functionality, and sustainability of streetscapes, outdoor spaces, and buildings.
- City Identity
 - For many, the primary image of Ontario is shaped by what is seen from these transportation systems. Enhancing these transportation corridors to provide aesthetically pleasing visual experiences will make people want to experience more of what Ontario has to offer.

2.2.11.2 Affected Environment

This section describes the aesthetic and visual resource conditions within the project limits and discusses potential aesthetic impacts that could result from implementation of the proposed project Build Alternative. A program of minimization measures is also identified. Information in this section is based on the *Visual Impact Assessment* completed for this project (November 2016).

The visual impacts of the proposed project were determined by assessing the existing visual resources, the visual resource change due to the project, and predicting viewer response to that change. The degree of visual quality in a view was evaluated using the following FHWA descriptive terms:

- *Vividness*: Vividness is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns (e.g., Niagara Falls is a highly vivid landscape component).
- *Intactness*: Intactness is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements. This factor can be present in well-kept urban and rural landscapes and natural settings (e.g., a two-lane road that meanders through the countryside).
- *Unity*: Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the landscape (e.g., an English or Japanese garden).

The degree of visual character in a view was evaluated using the following FHWA descriptive terms:

- *Scale*: Visual scale is the apparent size relationship between landscape components or features and their surroundings.
- *Diversity*: Diversity is the number of pattern elements, as well as the variety among them and edge relationships between them.
- *Continuity*: Continuity is the uninterrupted flow pattern elements and the maintenance of visual relationships between immediately connected or related landscape components or features.
- *Dominance*: Dominance is components or specific features in a scene that may be dominant because of prominent positioning, contrast, extent, or importance of pattern elements.

For projects that do not create a significant impact on existing visual character or quality, a more nuanced approach categorizes impact levels as low, moderately low, moderate, moderately high, and high based on the following descriptions:

- *Low (L)*: Low negative change to existing visual resources and low viewer response to change. May or may not require mitigation.
- *Moderately Low (ML)*: Low negative change to the visual resource with a moderate viewer response or moderate negative change to the resource with a low viewer response. Impact can be mitigated using conventional methods.
- *Moderate (M)*: Moderate negative change to the visual resource with moderate viewer response. Impact can be mitigated within 5 years using conventional practices.
- *Moderately High (MH)*: Moderate negative change in the visual resource with high viewer response or high negative change with a moderate viewer response. Extraordinary mitigation practices may be required. Landscape treatment required will generally take longer than 5 years to mitigate.
- *High (H)*: High level of negative change in character or a high level of viewer response to the change such that extraordinary architectural design and landscape treatments may not mitigate impacts below a high level. An alternative project design may be required to avoid high negative impacts.

Visual Environment

The project is located within Ontario. Grove Avenue is currently a four-lane road that traverses through commercial, park, and residential land. Buildings adjacent to the existing roadway are one- to two-story buildings. The regional landscape of the project corridor is characterized by two identifying elements: the flat appearance of the foreground landscape and the steep San Bernardino and San Gabriel mountains, which

form a dramatic backdrop. One additional element to be considered in the regional landscape is the haze that frequently develops in the area, obscuring the views of the mountains and influencing the overall appearance of the regional landscape.

Project Viewshed

A viewshed is the area normally visible from an observer's viewpoint of location and is limited by the screening/obstruction effects of any vegetation or structures. A viewshed can include views from within the project outward or from outside of the area into the project corridor. While viewpoints represent specific locations within the project area, a viewshed describes what is seen from that viewpoint, including the limits of what can be seen. When these individual points are strung together, the viewsheds create an overall project viewshed that can be used to describe the project area. The viewshed includes the locations of viewers within the project area that are likely to be affected by visual changes brought about by the project features.

For the Grove Avenue Corridor Project, the presence of the existing roadway in the corridor establishes much of the existing visual quality present in the corridor. The other element that contributes a large component to the visual character in the north end of the project is John Galvin Park and the plantings associated with it. The middle reach of the project has a moderate visual character, with the residences and their associated landscaping adding to the character, while the existing concrete drainage ditch and overhead wires detract. The southern reach of the project is typified by undeveloped land. The visual character is moderately low given the open and weedy appearance of the adjacent fields.

Landscape Unit

Landscape units are defined as that portion of the regional landscape that can be thought of as containing a distinct visual character. A landscape unit will often correspond to a place or district that is commonly known among the community.

In accordance with the criteria described above, the Grove Avenue Corridor Project only contains one landscape unit: the area in and around John Galvin Park. The visual character of the rest of the corridor is largely established by the existing roadway. Typical views for the John Galvin Park landscape unit are shown in Figure 2.2.11-1.

Existing Visual Character: Within the John Galvin Park landscape unit, the roadway traverses through the park, giving viewers a direct line of sight to the plantings associated with the park.



Figure 2.2.11-1. Typical Viewpoints within the Project Corridor

Existing Visual Quality: The park nature of the view gives the existing parkway a moderately high visual quality, with moderately high vividness, intactness, and unity.

Key Viewpoints

The FHWA analysis methodology recommends selecting key viewpoints that represent the potential visual effects of the project and the viewers' experience. A key viewpoint is representative, typical, characteristic, and has a clear perception of project elements to the primary viewer group. Neighbors (people with views to the road) and roadway users (people with views from the road) are the two broadly defined user groups that could be most affected by the project. Key viewpoints also need to represent the landscape units and include all of the project elements. Viewpoints #2 and #4 were not chosen to be evaluated further because the visual quality of the existing corridor is not anticipated to be substantially altered from the existing by the proposed project. The largest effect on the existing corridor would be the removal of existing mature trees within the parkway strip, assessed in Viewpoints #1 and #3 for the John Galvin Park Landscape Unit. Descriptions of the key viewpoints are provided below.

- **Viewpoint #1, John Galvin Park Landscape Unit:** This view was taken looking north from the center northbound lanes of Grove Avenue within the area of John Galvin Park. The view was selected as key because it demonstrates the proposed roadway changes and views to the widened corridor within the park area.
- **Viewpoint #3, John Galvin Park Landscape Unit:** This view was taken from the north end of the pocket park at Grove Avenue and East G Street. This view was selected as a key viewpoint because it shows the widening associated with the project as it crosses the area of the park.

2.2.11.3 Environmental Consequences

An evaluation of potential visual impacts associated with each alternative is presented below.

Permanent Impacts

No Build Alternative

The No Build Alternative would maintain the existing roadway; therefore, it would not alter existing views. Existing visual/aesthetic resources would not be permanently affected by the No Build Alternative.

Build Alternative (Proposed Project)

The anticipated visual impact of the Build Alternative is expected to be low. The presence of the existing roadway in the corridor establishes much of the existing visual quality present in the corridor. The new, widened corridor is not anticipated to create

any new sources of glare. The existing roadway is already lit, and lighting would be incorporated into the new configuration at a similar lighting level as the existing roadway.

The other element that contributes a large component to the visual character of the project area is the John Galvin Park Landscape Unit and its associated plantings. It is anticipated that removal of trees within the existing parkway strips is likely to be the area of most concern for residents living near the proposed project. Replanting would follow the guidance in Section 92.3 of the Streets and Highways Code as it relates to the use of native and climate-appropriate vegetation and recycled water for irrigation when practicable. The removals could, in the short term, increase light trespass from streetlights along the widened road into adjacent neighborhoods. It is anticipated that this effect would be reduced over time as the newly planted trees in the new parkway strips grow; however, it would be many years before the new trees reach the stature to achieve the previously existing character along Grove Avenue. While there are no designated scenic vistas or scenic resources along the corridor, the proposed roadway modifications should allow a more direct line of sight to the mountains, given its wider cross section.

Key Viewpoints – Build Alternative

Viewpoints identified as key for identifying the changes to the visual environment anticipated with the Build Alternative are Viewpoints #1 and #3. These are evaluated below.

The post-construction simulations shown for the key viewpoints on the following pages include application of BMPs and avoidance and minimization measures described in Section 2.2.11.4 for each particular view. Aesthetic treatments shown in the simulations, such as specific plant types, are representative only. Actual types of treatments and landscaping would be based on community and City input during the design phase of the work. The location of each key viewpoint is denoted with a star in Figure 2.2.11-1.

Viewpoint #1 Analysis

Orientation: Figure 2.2.11-2 shows the location of Viewpoint #1. Figure 2.2.11-3 shows a photosimulation for Viewpoint #1 and depicts the pre- and post-construction views. The photograph is taken looking north from the center northbound lanes of Grove Avenue within the area of John Galvin Park.

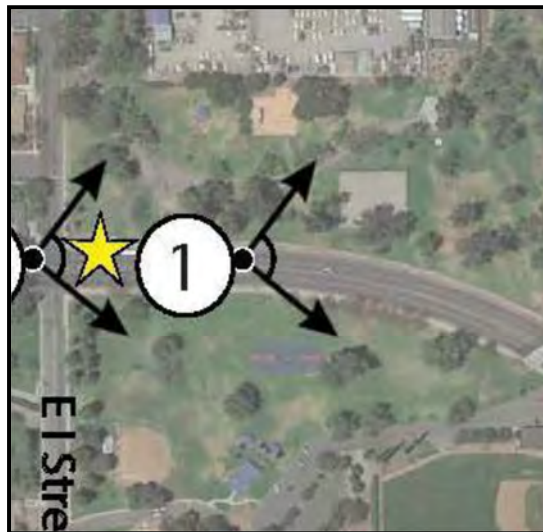


Figure 2.2.11-2. Location of Key Viewpoint #1

Existing Visual Character/Quality: The view shows Grove Avenue as it currently appears in the area of John Galvin Park. The park nature of the view gives it a moderately high visual quality, with moderately high vividness, intactness, and unity.

Proposed Project Features: The proposed project features in this view include an additional lane constructed in each direction, plus a landscaped median. Some of the existing trees in the background of this view (those closest to the road, past the bend) would be removed by construction of the new roadway; however, a new parkway strip would be constructed, and new street trees would be included in this strip. It is also anticipated that the new center median would be planted.

Changes to Visual Character: From the vantage of the roadway traveler, the anticipated changes are anticipated to be minor and mostly associated with the extra lanes and new median in the road, which are elements that are not currently part of the view. The replacement plantings in the parkway strip along the roadway would eventually create a similar visual character to the existing (as the trees grow and mature), and the planted median would help relieve the additional roadway paving associated with the new lanes.

Anticipated Viewer Response: Given the City's requirements for aesthetics and comfort that are described by the local regulatory environment, as described in the *Visual Impact Assessment*, it is anticipated that the viewers would be sensitive to changes to their visual environment. Due to this regulatory requirement, the potential impact has been categorized as moderately high.

Resulting Visual Impact: The overall anticipated impact of the project on the view is expected to be less than substantial. Overall, the effect is anticipated to be a moderately low change to the visual environment given the inclusion of minimization measures discussed in Section 2.2.11.4.



Figure 2.2.11-3. Viewpoint #1, Looking North along Grove Avenue near East I Street

Minimization measures depicted in the simulation include replacement plantings. Aesthetic and landscape treatments are representative only. Actual aesthetics and landscaping would be designed in collaboration with City staff during the design phase.

Viewpoint #3 Analysis

Orientation: Figure 2.2.11-4 shows the location of Viewpoint #3. Figure 2.2.11-5 shows a photosimulation for Viewpoint #3 and depicts the pre- and post-construction views. The photograph is taken from the north end of the pocket park at Grove Avenue and East G Street.

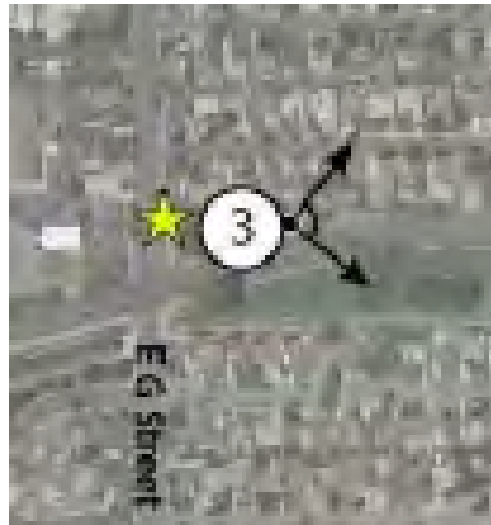


Figure 2.2.11-4. Location of Key Viewpoint #3

Existing Visual Character/Quality: The view shows Grove Avenue as it exits the area of John Galvin Park. The cars coming towards the photographer are the southbound vehicles on Grove Avenue. The park nature of the view gives it a moderately high visual quality, with moderately high vividness, intactness, and unity.

Proposed Project Features: The proposed project features in this view are an additional lane constructed in each direction, plus a landscaped median. The existing row of trees along the back wall/fence of the neighbors (left side of the image, mid-ground) would be removed by construction of the sidewalk; however, a new parkway strip would be constructed, and new street trees would be included in this strip. It is also anticipated that the new center median would be planted.

Changes to Visual Character: From the vantage of the existing pocket park, the anticipated changes are anticipated to be minor and mostly associated with the new sidewalk. The replacement plantings in the parkway strip behind the existing fence line would, over time, create a similar visual character to the existing, and the planted median would help relieve the additional roadway paving associated with the new lanes.

Anticipated Viewer Response: Given the City's requirements for aesthetics and comfort that are described by the local regulatory environment, as described in the *Visual Impact Assessment*, it is anticipated that the viewers would be sensitive to changes to their visual environment. Due to this regulatory environment, the anticipated viewer response is categorized as moderately high sensitivity.



Figure 2.2.11-5. Viewpoint #3, Looking North along Grove Avenue at the Existing Pocket Park

Minimization measures depicted in the simulation include replacement plantings. Aesthetic and landscape treatments are representative only. Actual aesthetics and landscaping would be designed in collaboration with City staff during the design phase.

Resulting Visual Impact: The overall anticipated impact of the project on the view is expected to be less than substantial. The visual character (scale, diversity, continuity, and dominance) of the corridor is expected to have a low degree of change, with a 4.88 percent change in rating post-project. The change is primarily related to the increased presence of the roadway, due to its wider cross section, in the view. The visual quality (vividness, intactness, and unity) of the corridor is also expected to have a low degree of change, with a rating change of 2.51 percent post-project. Overall, the effect is anticipated to be a moderately low change to the visual environment.

Table 2.2.11-1 provides a summary of findings from the analysis for each key viewpoint for the anticipated change to the visual resource, the anticipated viewer response to that change, and the overall anticipated visual impact for the Build Alternative.

Table 2.2.11-1. Summary of Anticipated Visual Impacts of Build Alternative by Key Viewpoint

Key Viewpoint	Anticipated Change to Visual Resource	Anticipated Viewer Response	Anticipated Visual Impact
Key Viewpoint #1	Low	Moderately High	Moderately Low
Key Viewpoint #3	Low	Moderately High	Moderately Low

Overall, the new widened roadway is not anticipated to change the overall visual character or quality of the corridor. While the widened pavement section would detract from existing views, the addition of planted medians, preserving as much of the existing trees in the corridor as feasible, and the addition of new street tree plantings would have the overall effect of maintaining the existing character and quality. The undergrounding of power lines in the southern stretch of the corridor would also help improve the quality of the views in that portion of the project area.

2.2.11.4 Avoidance, Minimization, and/or Mitigation Measures

To address the potential adverse visual impacts to the project area and to generate public acceptance of the project, the following actions are required. With implementation of these minimization measures, the visual impacts of this project

would be reduced and would not result in a substantial change in overall visual quality for the area.

- VA-1:** The existing trees, particularly within the park area, provide scale, shade, and visual relief to the extent of roadway paving. Preserving existing trees to the extent feasible will help maintain the existing visual character of the roadway.
- VA-2:** Where it is not feasible to save the existing trees, new tree and vegetation plantings shall be included in the final design of the roadway. Replacement trees shall be two 24-inch boxed trees for each tree removed by the project. All areas disturbed by the project shall be fitted with new landscaping, including trees, groundcovers, accent plants, and turf grass (in park areas adjacent to existing remaining turf).
- VA-3:** To support the replacement of plantings, the project shall include a permanent irrigation system to all new plantings. Materials used for irrigation shall be as per City of Ontario standards.
- VA-4:** Decorative paving shall be employed for medians, islands, and parkway strips that are too narrow to plant. Paving color and texture/pattern shall match City of Ontario standards.

2.2.12 Cultural Resources

This section addresses potential impacts to archaeological and architectural resources that are historic properties and are within the defined Area of Potential Effects (APE). The APE includes areas that may be directly or indirectly affected by construction of the project's Build Alternative. An indirect impact occurs when the project would cause a change in character or use of the historic property but would not directly encroach or physically alter the property.

2.2.12.1 Regulatory Setting

The term "cultural resources," as used in this document, refers to the "built environment" (e.g., structures, bridges, railroads, water conveyance systems), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms including "historic properties," "historic sites," "historical resources," and "tribal cultural resources." Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 CFR 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among FHWA, the ACHP, the California State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both state and local, with FHWA involvement. The PA implements the ACHP's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. The FHWA's responsibilities under the PA have been assigned to Caltrans as part of the Surface Transportation Project Delivery Program (23 U.S.C. 327).

CEQA requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. California PRC Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). In 2014, AB 52 added the term "tribal cultural resources" to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the

process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the NRHP listing criteria. It further requires Caltrans to inventory State-owned structures in its ROWs. Sections 5024(f) and 5024.5 require State agencies to provide notice to and consult with the SHPO before altering, transferring, relocating, or demolishing State-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as California Historical Landmarks. Procedures for compliance with PRC Section 5024 are outlined in a Memorandum of Understanding (MOU) between Caltrans and SHPO, effective January 1, 2015. For most federal-aid projects on the State Highway System, compliance with the Section 106 PA will satisfy the requirements of PRC Section 5024.

2.2.12.2 Affected Environment

Cultural resource studies completed for this project are the *Historic Property Survey Report* (HPSR) (March 2017), and an *Archaeological Survey Report* (ASR) (March 2017), and *Historical Resources Evaluation Report* (HRER) (March 2017). Although the cultural resource reports completed for this project specifically address evaluation significance with regard to the federal NHPA and evaluation significance under NEPA, the information and analyses are consistent with the accepted approaches to support this analysis of evaluation significance under CEQA because of the similarity in the established criteria.

The purpose of the HRER and ASR is to identify and evaluate buildings, structures, and sites along the project alignments that may qualify for listing in the NRHP and the CRHR. Both reports were prepared using the established framework for resource identification and treatment outlined in the First Amended Section 106 PA (2014), as appropriate. Potential historic properties were identified and evaluated for inclusion in the NRHP as required by 36 CFR Part 800 and the regulations implementing Section 106 of the NHPA. This assessment also conforms to CEQA requirements and evaluates potential historical resources for inclusion in the CRHR in accordance with Section 15064.5(a) (2)–(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the PRC.

Methodology and Results

The project APE includes all areas where potential direct and indirect impacts to cultural resources could occur as a result of project construction, operation, and maintenance. The same APE is used for archaeological and architectural history study areas. Consistent with general cultural resource practices, the APE for potential impacts was established as the project footprint, which includes all areas of permanent and temporary impacts. Properties that may be affected have been included within the APE, as well as existing and proposed ROW, TCEs, staging areas, and areas where there are potential visual/setting impacts. Potential indirect impacts are generally established as the legal parcel adjacent to where potential impacts would occur. If any part of a parcel would be temporarily or permanently impacted, then the whole parcel was included in the APE footprint. In terms of the vertical APE, construction of the additional street lanes would generally be confined to previously disturbed sediments that resulted from the original construction and maintenance of Grove Avenue and the existing commercial, residential, and other infrastructure developments. The exceptions may include areas associated with the proposed widening and reconstruction or construction of some of the bridge overcrossings, which have potential for undisturbed native sediments.

The minimum age threshold for the NRHP and CRHR eligibility consideration is established as 50 years. A resource less than 50 years old may be considered for listing in the registers if it can be demonstrated that sufficient time has passed to understand its historical importance. The baseline age for studying cultural resources within the project's APE was established as 1967, or the year that properties will achieve 50 years of age in 2017, which is the anticipated year of environmental clearance for the project. This is to account for lead time between preparation of Section 106 compliance documentation and the conclusion of environmental analysis and is consistent with general cultural resources practices.

The ASR and HRER evaluated the eligibility of properties and sites within the APE using the NRHP criteria:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of significant persons in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded or may be likely to yield, information important in history or prehistory.

Within this Environmental Impact Report (EIR)/Environmental Assessment (EA), CRHR eligibility criteria and City-designated historic properties are considered in addition to the NRHP criteria listed above. The CRHR criteria are similar to the NRHP. The four criteria for the CRHR are:

1. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
2. It is associated with the lives of persons important to local, California, or national history; or
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Any property located in California that is listed in or eligible for the NRHP is automatically eligible for the CRHR. The CRHR criteria are tied to CEQA and any resource that meets the criteria listed above is considered a historical resource under CEQA.

The following standard sources of information were consulted in the process of compiling this report:

- NRHP Web site (<http://www.cr.nps.gov/nr>), through August 2015
- California Historical Landmarks
- California Points of Historical Interest

- City of Ontario List of Designated Historic Landmarks and Historic Districts
- City of Ontario Public Library
- San Bernardino County Historical Archives

In addition, archival research helped determine the location of previously documented cultural resources proximate to the project and helped establish a context for significance. In March 2015, a literature and records search was conducted at the San Bernardino Archaeological Information Center (SBAIC). The records search covered a 1-mile radius around the APE boundary. National, State, and local inventories of cultural resources were examined to identify local historical events and personages, development patterns, and interpretations of architectural styles.

Results of the literature and records search and subsequent research indicate that there are two previously recorded sites located within the project's APE. A total of 17 cultural resources have been previously documented to be outside the APE but within the 1-mile search radius. These include four sites within a 0.25-mile radius of the APE, five sites within a 0.5-mile radius of the APE, and eight sites documented between a 0.5- to 1-mile radius of the APE. All of the previously recorded sites are of the historic built environment type; no archaeological resources were identified.

Of the two sites located within the APE, one is the UPRR, which crosses Grove Avenue 0.1 mile south of Holt Boulevard in Ontario; however, it is located above the vertical extent of improvements associated with this project and is thus above and outside of the APE established for this project. No impacts would occur to the railroad or its operations.

John Galvin Park is located between 4th Street and I Street, with Grove Avenue bisecting the park into east and west halves. John Galvin Park is listed on the Historical Resources Inventory with a status code of 7N, indicating that it needed to be re-evaluated, which was done in conjunction with this project. John Galvin Park appears to be ineligible for listing in the NRHP.

However, Jay Littleton Ballpark, which is located within John Galvin Park, appears eligible for listing in the NRHP and CRHR, even though John Galvin Park does not appear eligible for listing in the NRHP or CRHR. The ballpark was evaluated as a result of the cultural reports prepared for this project and was found eligible under Criteria A and C at the local level of significance, with the period 1937–1960 as the span of significance.

To identify archaeological resources, an intensive-level pedestrian survey of the APE was completed on May 26, 2015. The survey consisted of walking parallel transects, spaced at 10-meter intervals, in nonhardscaped areas within the APE while closely inspecting the ground surface. Existing disturbances (e.g., rodent burrows, ditches) were examined for artifacts or buried cultural deposits. Most of the APE consisted of hardscaped, paved roads, curbs, sidewalks, and portions of the channelized Cucamonga Creek. Hardscaped areas were not surveyed because there was no ground visibility.

As a result of this survey and the project plans, no known archaeological resources are anticipated to be negatively impacted by this project.

Eight of the 85 parcels located within the APE contained buildings, groups of buildings, or structures that were constructed in or before 1967 and possess sufficient integrity to warrant evaluation in this study, as defined by the PA. These include seven historic architectural properties. Seven of these eight properties that were evaluated in the HRER were found to be ineligible for the NRHP:

- 1111 E. Holt Boulevard, Ontario, CA
- 1101 E. Holt Boulevard, Ontario, CA
- 1175 E. Holt Boulevard, Ontario, CA
- 1179 E. Holt Boulevard, Ontario, CA
- 1300 E. Holt Boulevard, Ontario, CA
- 1329 E. Holt Boulevard, Ontario, CA
- John Galvin Park, Ontario, CA

The oldest building in the APE was constructed in 1920; however, most of the buildings are houses constructed in the 1950s and 60s as part of larger post-World War II housing tracts. Some of these residences have been converted to other uses or have been infilled with commercial buildings, and they were excluded from a formal evaluation due to substantial compromises in integrity as is allowed under the Caltrans Section 106 PA Attachment 4 as Property Type 7. Numerous post-war residential tracts are located throughout the APE; however, research does not indicate these tracts are associated with either historically significant events at the local or regional level or associated with persons known to have made contributions to local history. In addition, many of the residences no longer retain sufficient integrity due to numerous alterations to character-defining features. In sum, many of the neighborhoods fronting Grove Avenue contain a diverse mixture of old and new residential and commercial buildings, and they no longer represent intact neighborhoods or integral districts within the APE.

SHPO concurred with the exemptions and the evaluations on April 25, 2017. See Appendix G for the SHPO concurrence letter.

Public Participation and Native American Coordination

In accordance with Section 106 of the NHPA, on April 15, 2015, letters were sent to local historical societies/historic preservation groups requesting from them any information they may have regarding any cultural resources that may be of significance within the project APE. Letters were also sent to the Museum of History and Art, Ontario; the Chaffey Communities Cultural Center; and the Cooper Regional Museum on June 5, 2015. Follow-up phone calls to these entities were made on August 17, 2015. No response has been received to date.

A response was received via e-mail from Mr. Richard Delman on behalf of the Ontario Heritage Society on June 9, 2015, indicating the presence of a historic building at 1206 N. Grove Avenue (also 1204 N. Grove Avenue), which is now a local business known as Halgren's Chocolates, as well as indicating that John Galvin Park could potentially be a national or State historic resource. It should be noted that the Jay Littleton Ballpark would not be impacted by the project, and the building located at 1206 N. Grove Avenue was not found to be a historic property using the NRHP criteria because it does not appear to retain integrity of setting, feeling, or association (it is also not located within this project's APE).

A sacred lands records search was requested for this project from the Native American Heritage Commission (NAHC) on March 27, 2015. The NAHC responded on April 22, 2015, that a search of the sacred lands file failed to indicate the presence of Native American cultural resources in the immediate project area. The NAHC requested that four Native American tribes or individuals be contacted for further information regarding the general project vicinity. Caltrans requested an additional two be contacted; however, one of them overlapped with another contact. The results are as follows:

- **Gabrieleno/Tongva Band of Mission Indians:** The Chairperson of the Gabrieleno/Tongva Band of Mission Indians, San Gabriel, Mr. Anthony Morales, responded by phone. Mr. Morales felt that archaeological monitoring should be conducted in case of subsurface archaeological material.
- **Sandonne Goad, Chairperson, Gabrielino/Tongva Nation.** Letter sent May 13, 2015; e-mail sent June 5, 2015; and a follow-up phone call made June 12, 2015. On June 12, 2015, Ms. Goad deferred to Mr. Sam Dunlap, who provides all cultural

resource consultation comments for the Gabrielino/Tongva Tribe. See below for Mr. Dunlap's response.

- Gabrielino Band of Mission Indians: Mr. Andrew Salas, Chairperson of the Gabrielino Band of Mission Indians, Covina, did not respond to any of the three attempts to contact him.
- Gabrielino/Tongva Nation Los Angeles: Mr. Sam Dunlap, Cultural Resources Director of the Gabrielino/Tongva Nation Los Angeles, responded by e-mail and recommended implementing Native American monitoring oversight during construction and to be informed of any unanticipated discovery of prehistoric cultural material. Ms. Sandonne Goad of the Gabrielino/Tongva Nation Los Angeles was reached by phone. Ms. Goad deferred to Mr. Dunlap for cultural resources consultation comments concerning the Gabrielino/Tongva Tribe.
- San Manuel Band of Mission Indians: The San Manuel Band of Mission Indians representative Leslie Mouriquand responded by e-mail asking for further information about the project and requested a copy of the cultural records search and the draft ASR. These documents were provided to her. Ms. Mouriquand commented by e-mail on the report the same day to Monica Corpuz, noting that the ethnography section contained no discussion of the Serrano. Cogstone was informed of the request and added the information to the report. Lee Claus, Cultural Resources Department Manager, responded by e-mail to the revised report asking that the tribal territory match the description developed by the tribe, that nearby villages be mentioned, and that mention of the Vanyume be removed.
- Serrano Nation: Ms. Goldie Walker of the Serrano Nation, in a phone conversation, requested to be notified if any cultural resources are observed during construction activities and emphasized she would like to be contacted no matter how small the artifact. She also requested to be contacted immediately if any human remains are encountered.

Due to the limited archaeological sensitivity of the project APE (i.e., no previously identified prehistoric archaeological sites were identified) and because the area is generally disturbed by previous development, archaeological monitoring during construction was determined not to be warranted. In the event of an unanticipated discovery during construction, the Gabrielino/Tongva Tribe will be consulted (Minimization Measures CR-1 and CR-2).

The requested changes provided by the San Manuel Band of Mission Indians were made to the ASR prepared for the project.

2.2.12.3 Environmental Consequences

No Build Alternative

The No Build Alternative would maintain the existing roadway; therefore, it would not alter existing conditions. Existing built environment resources would not be permanently affected by the No Build Alternative.

Build Alternative (Proposed Project)

Archaeological Resources

No NRHP-eligible archaeological resources were identified during the survey for the current project. The literature and records search did not reveal any known archaeological sites within a 1-mile radius, and the NAHC sacred lands file search did not reveal any results. There are not any anticipated project-related effects to any archaeological resources.

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

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to CA PRC Section 5097.98, if the remains are thought to be Native American, the coroner will notify the NAHC, which will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Caltrans District 8 Environmental Branch Chief, Andrew Walters (909) 383-2647, so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Built Environment Resources

As a result of the cultural studies completed for this project, the APE contains one historic property that was determined to be eligible for listing in the NRHP (and is thus a CEQA resource as well) and two additional historical resources for the purposes of CEQA only, as defined by CEQA Section 21084.1.

Jay Littleton Ballpark

Jay Littleton Ballpark, located within John Galvin Park, consists of a baseball field, grandstands, press box, clubhouse, and lockers. The ballpark, built in 1937, is still in popular use today and is well maintained and in good condition. The Los Angeles Angels of the old Pacific Coast League (PCL) became the first professional ball club

to use Ontario as their spring training anchor in 1937. Other PCL teams followed their footsteps over the years, including the Hollywood Stars, San Diego Padres, Sacramento Solons, and Hawaiian Islanders. In addition to the PCL, major league baseball teams, including the Chicago Cubs, the Chicago White Sox, and the Pittsburgh Pirates, all played at the Ontario ballpark, coming in from their own spring training camps held elsewhere in southern California. However, by approximately 1960, the Ontario ballpark stopped hosting games for the PCL. Local organizations that used the park mainly in the post-WWII era included the Colt League, American Legion, American Baseball Congress, and Little League. The ballpark appears eligible under Criterion A and C at the local level of significance, with the period 1937–1960 as the span of significance.

On April 25, 2017, the SHPO concurred with Caltrans' determination that the Jay Littleton Ballpark was eligible for the NRHP at the local level under Criteria A and C, with a period of significance from 1937 to 1960.

Although the ballpark is within the APE, the project improvements do not infringe on the physical aspects of any portion of the ballpark. The project as proposed would widen Grove Avenue to the west, which is merely adjacent to the ballpark; therefore, there would be no impact to the sidewalk or area surrounding the ballpark. At a maximum, the following would be performed: pavement maintenance to the roadway (Grove Avenue), grind and overlay of hot mix asphalt, and repavement of the pavement delineation striping. The ballpark has been avoided in the engineering design. Access to the ballpark and its facilities would be maintained at all times throughout construction. Visual, noise, air quality, and vibration impacts during construction would be typical of roadway construction projects. Any minor visual changes associated with the Build Alternative would not be out of character with the existing corridor. The ballpark is currently subject to indirect air quality, vibration, and noise impacts due to its proximity to the existing I-10 mainline and Grove Avenue and due to the ballpark's location in a built-out suburban environment. The incremental increase in noise, vibration, and air quality impacts during construction and once the proposed project is built would not inhibit existing recreational functions in the park that are already subject to noise and air quality proximity impacts. Therefore, the Jay Littleton Ballpark, the only Historic Property in the APE, would not be directly affected by the undertaking, and potential indirect effects would be minimal. Pursuant to Caltrans Section 106 Programmatic Agreement Stipulation IX.A, Caltrans has made a finding of No Historic Properties Affected for the undertaking.

Fountain Winery

The one-story, 4,400-square-foot warehouse building located at 1300 E. Holt Boulevard in Ontario is located in the eastern portion of the parcel. The warehouse is estimated to have been built prior to 1927. The warehouse was known as the Fontaine Winery (alternately known as the Fountain Winery) from 1938 to 1972. No significant historical events could be identified to have occurred at this location. Although the Fountain Winery is one of the businesses associated with the wine industry in Ontario and the region, it was a small operation in comparison to many others in Ontario. Although the warehouse was not found to be eligible for the NRHP in consultation with SHPO (see April 25, 2017, letter), it has been determined eligible for the City's List of Eligible Historical Resources because of its historical associations with the local wine industry and is thus considered a CEQA-only resource (Note: The CEQA determination for this building was made by the City).

Cucamonga Valley Wine Company and Distillery

Estimated to have been built in the late 1920s, this approximately 6,500-square-foot building in the Mission Revival style is located at 1101 E. Holt Boulevard. The building originally served as a warehouse for a poultry rancher named Paul Walter, and then, beginning in 1933, as the Cucamonga Valley Wine Company and Distillery, which it remained until it began serving as a church. Although the building itself has lost some integrity over the years, the building is still easily recognizable in comparison with photos from the 1930s. While the former Cucamonga Winery warehouse located at 1101 E. Holt Boulevard does not appear to be eligible for the NRHP based on SHPO consultation (see April 25, 2017, letter), the building has been added to the City's List of Eligible Historical Resources as recommended by the City's Historic Preservation Commission in 2009, because of its associations with the local wine industry; thus, it is a resource for the purposes of CEQA (Note: The CEQA determination for this building was made by the City).

Based on SHPO consultation conducted in April 2017 (see Appendix G), Caltrans has made a finding of No Historic Properties Affected for the undertaking pursuant to Caltrans Section 106 Programmatic Agreement Stipulation IX.A.

Jay Littleton Ballpark was determined eligible for the NRHP under National Register Criteria A and C, with a period of significance from 1937 to 1955; therefore, it is considered a Section 4(f) resource. No historic archaeological sites were found eligible for listing in the NRHP. The three historic archaeological resources within the project APE were determined to meet Property Type 1 as defined in PA Attachment 4 (Properties Exempt from Evaluation).

Based on design plans for the project, Grove Avenue would be widened to the west to avoid the historic ballpark. Thus, no adverse effects to any cultural resources are anticipated. All historic properties identified along the project corridor are outside of the direct impact footprint and would not be directly affected by the Build Alternative.

However, Jay Littleton Ballpark, which was found eligible for listing in the NRHP, is located in the indirect APE. The Section 4(f) Evaluation for the project indicates that no indirect effects are anticipated at the ballpark and, with no historic properties being affected, there would be no constructive use of historic properties. Therefore, no further analysis of historic and archaeological Section 4(f) resources is required.

Thus, while there are historic properties protected by Section 4(f) of the Department of Transportation Act of 1966 within the project vicinity, the project will not “use” those properties as defined by Section 4(f). Please see Appendix A for resources evaluated relative to the requirements of Section 4(f) for additional details.

2.2.12.4 Avoidance, Minimization, and/or Mitigation Measures

The proposed project is not expected to impact any cultural resources. However, the following minimization measures will be followed in the event of any unanticipated discoveries:

CR-1: If cultural resources are discovered at the job site, all work activities shall stop within a 60-foot radius of the discovery, the discovery area shall be protected, and the Resident Engineer shall be notified. Cultural resources shall not be moved or taken from the job site until Caltrans investigates and determines the significance of the find. Work activities shall not resume within the discovery area until Caltrans provides written notification authorizing work activities to resume.

CR-2 **Human Remains.** If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities will cease in any area or nearby area suspected to overlie remains, and the County Coroner will be contacted. Pursuant to PRC Section 5097.98, if the remains are thought to be Native American, the Coroner will notify the NAHC, who will designate the MLD. At this time, the Caltrans District 8 Environmental Branch Chief, Andrew Walters (909) 383-2647, will be contacted so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

2.3 Physical Environment

2.3.1 Hydrology and Floodplains

This section describes the regulatory setting associated with hydrology and floodplains, the affected environment, the environmental consequences on hydrology and floodplains that would result from the project, and the minimization and/or mitigation measures that would reduce any potential impact.

2.3.1.1 Regulatory Setting

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

To comply, the following must be analyzed:

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

The base floodplain is defined as “the area subject to flooding by the flood or tide having a 1 percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

Floodplains are a natural feature of rivers that may also occur in portions of a watershed on land depressions or wetlands. They are the mostly flat land adjacent to the river and are formed due to the actions of a river. The base floodplain is defined as “the area subject to flooding by the flood or tide having a 1 percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

In general, a floodplain cannot be altered in any way until it has been shown that alteration will pass the base flood without significant damage to either the floodplain or surrounding areas. No bridge abutment or embankment shall encroach on a regulatory floodway.

The Federal Emergency Management Agency (FEMA) designates Special Flood Hazard Areas according to zones. The base flood elevation (BFE) is the water surface elevation of the 1 percent annual chance of flood. The zones are described as:

Zone A – Corresponds to the 100-year floodplains that are determined in the Flood Insurance Study (FIS) by approximate methods. No BFEs or depths have been determined.

Zone AE – Corresponds to the areas of 100-year floodplains that are determined in the FIS by detailed methods. In most instances, BFEs have been derived from detailed hydraulic analyses and are shown within this zone.

Zone AH – Corresponds to the areas of 100-year shallow flooding with a constant water surface elevation. Flood depths are 1 to 3 feet (usually areas of ponding); BFEs are derived from detailed hydraulic analyses and are shown at selected intervals within this zone.

Zone AO – Corresponds to the areas of 100-year shallow flooding. Flood depths are 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities are also determined.

Zone AR – Depicts areas protected from flood hazards by flood control structures such as levees that are being restored.

Zone X (dotted) – Other flood areas. Areas of 0.2 percent annual chance flood; areas of 1 percent annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1 percent annual chance flood.

Zone X – Areas determined to be outside the 0.2 percent annual chance floodplain.

2.3.1.2 Affected Environment

This section is based on the *Floodplain Evaluation Report* (September 2015) and *Water Quality Technical Report* (June 2016).

The primary drainage that conveys stormwater in the project corridor is the West Cucamonga Channel. The West Cucamonga Channel traverses south through the project corridor before terminating at the Ely Percolation Basins, just north of SR-60. Flow from Ely Basin is conveyed to Cucamonga Creek. Cucamonga Creek is a concrete-lined channel that serves as the major drainage course within Ontario. It flows

south through the approximate center of the city, converges with Lower Deer Creek Channel at Chris Basin (a small retention basin), exits the city, and eventually discharges to the Prado Flood Control Basin in Riverside County. Once the water reaches Prado Basin, it is discharged through the outlet of Prado Dam into the Santa Ana River, which ultimately discharges into the Pacific Ocean near the Huntington Beach/Newport Beach city boundary (The Planning Center, 2009).

In accordance with FEMA Flood Insurance Rate Map (FIRM), the project is fully encompassed by the 500-year flood plain (Zone X-shaded; 0.2 percent annual chance flood), and the West Cucamonga Channel resides in Zone A (1 percent annual chance flood). Appendix I contains the FIRM for the site and surrounding area.

2.3.1.3 Environmental Consequences

An evaluation of potential hydrological and floodplain impacts associated with each alternative is presented below.

Permanent Impacts

No Build Alternative

Implementation of the No Build Alternative would not result in any floodplain encroachment.

Build Alternative (Proposed Project)

The proposed Build Alternative improvements include roadway widening, grading, retaining walls, and culverts. There are two locations of floodplain encroachments where two existing culverts (12 feet by 6.5 feet and 12 feet by 8 feet) cross under Grove Avenue and G Street, respectively. At these two locations, the roadway widening would require covering portions of the West Cucamonga Channel, thereby extending the existing culverts.

Although the roadway widening associated with the Build Alternative would geometrically encroach on the West Cucamonga Channel's floodplain at the culvert crossings, it is not anticipated that the proposed work would alter the floodplain. The culvert crossings would only be extended to accommodate the roadway widening by a maximum of approximately 37 feet. Other than the culvert extensions, there would be no modifications to the existing channel, and the 100-year flood event would still be contained in the channel under the proposed conditions.

No natural or beneficial uses for this floodplain have been identified in the Santa Ana Regional Water Quality Control Board's (RWQCB) Basin Plan for the Santa Ana River Basin. As such, West Cucamonga Channel's only use is for drainage conveyance.

Because the proposed work is located on an existing roadway, a new roadway alignment is not a feasible alternative to avoid floodplain encroachment. The only variable to the impacts of the culvert extensions is the degree of encroachment; therefore, during the final design and construction phases, disturbance to the floodplain shall be minimized where possible. The project would not result in a significant encroachment to the 100-year floodplain.

Temporary Impacts

No Build Alternative

The No Build Alternative would not change the existing physical environment; therefore, the No Build Alternative would result in no temporary impacts to hydrology and floodplains.

Build Alternative (Proposed Project)

During construction of the Build Alternative, temporary impacts to hydrology and floodplains are not anticipated with inclusion of the measures described below.

2.3.1.4 Avoidance, Minimization, and/or Mitigation Measures

The proposed project would be designed to minimize impacts, where possible, by limiting the grading and structural encroachments at designated floodplain and floodway areas. The following minimization measures would be incorporated into the design and construction phases to minimize potential floodplain impact:

- HYD-1:** Provide positive drainage during construction and refrain from filling designated floodplains. Construction site surface runoff will be channeled into existing drainage facilities so as to not cause water flow on neighboring properties. Offsite flows will be managed in a manner that will mimic the existing drainage network and will not inundate the roadway surface of any of the existing drainage systems.

- HYD-2:** Implement standard BMPs as identified in the City of Ontario's Water Quality Management Plan, including temporary construction site BMPs to address site soil stabilization and reduce deposition of sediments to receiving waters.

- HYD-3:** Include erosion control and water quality protection during construction at the West Cucamonga Channel. BMPs will be designed and implemented to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP). Typical measures that may be implemented

include preservation of existing vegetation, use of soil binders or hydroseeding, and installation of silt fences or fiber rolls.

HYD-4: Contractor shall develop a contingency plan for unforeseen discovery of underground contaminants in the Stormwater Pollution Prevention Plan (SWPPP).

HYD-5: Limit construction activities between October and May to those actions that can adequately withstand high flows and entrainment of construction materials. The Contractor shall prepare a Rain Event Action Plan (REAP) and discuss high flows mitigation.

2.3.2 Water Quality and Stormwater Runoff

This section describes the regulatory setting associated with water quality, the affected environment, the environmental consequences on water quality and stormwater runoff that would result from the proposed project, and the minimization and/or mitigation measures that would reduce any potential impact.

2.3.2.1 Regulatory Setting

Federal Requirements: Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the U.S. from any point source⁴ unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. RWQCBs administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater from industrial/construction and municipal separate storm sewer systems (MS4s).
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the United States Army Corps of Engineers (USACE).

The goal of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

⁴ A point source is any discrete conveyance such as a pipe or a man-made ditch.

USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with United States Environmental Protection Agency's (EPA) Section 404 (b)(1) Guidelines (40 CFR Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by EPA in conjunction with USACE and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent⁵ standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements (see 33 CFR 320.4). A discussion of the LEDPA determination, if any, for the document is included in Section 2.4.2, Wetlands and Other Waters.

State Requirements: Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the state. Waters of the state include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of "waste" as defined, and this definition

⁵ EPA defines "effluent" as "wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall."

is broader than the CWA definition of “pollutant.” Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect these uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWQCBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

National Pollution Discharge Elimination System Program

Municipal Separate Storm Sewer Systems

Section 402(p) of the CWA requires issuance of NPDES permits for five categories of stormwater discharges, including MS4s. An MS4 is defined as “any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over stormwater, that is designed or used for collecting or conveying stormwater.” The SWRCB has identified Caltrans as an owner/operator of an MS4 under federal regulations. Caltrans’ MS4 permit covers all Caltrans ROWs, properties, facilities, and activities in the state.

The SWRCB or the RWQCB issue NPDES permits for 5 years, and permit requirements remain active until a new permit has been adopted.

Caltrans' MS4 Permit, Order No. 2012-0011-DWQ (adopted on September 19, 2012, and effective on July 1, 2013), as amended by Order No. 2014-0006-EXEC (effective January 17, 2014), Order No. 2014-0077-DWQ (effective May 20, 2014) and Order No. 2015-0036-EXEC (conformed and effective April 7, 2015), has three basic requirements:

1. Caltrans must comply with the requirements of the Construction General Permit (see below);
2. Caltrans must implement a year-round program in all parts of the State to effectively control stormwater and non-stormwater discharges; and
3. Caltrans stormwater discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the maximum extent practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the Statewide Storm Water Management Plan (SWMP) to address stormwater pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within Caltrans for implementing stormwater management procedures and practices, as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices Caltrans uses to reduce pollutants in stormwater and non-stormwater discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address stormwater runoff.

Construction General Permit

Construction General Permit, Order No. 2009-0009-DWQ (adopted on September 2, 2009, and effective on July 1, 2010), as amended by Order No. 2010-0014-DWQ (effective February 14, 2011) and Order No. 2012-0006-DWQ (effective on July 17, 2012), regulates stormwater discharges from construction sites that result in a Disturbed Soil Area (DSA) of 1 acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation result in soil

disturbance of at least 1 acre must comply with the provisions of the Construction General Permit. Construction activity that results in soil disturbances of less than 1 acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop SWPPPs; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and they are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory stormwater runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective SWPPP. In accordance with Caltrans' SWMP and Standard Specifications, a Water Pollution Control Program (WPCP) is necessary for projects with DSA less than 1 acre.

Local Agency Construction Activity Permitting. The City is regulated under an Area Wide Municipal Urban Storm Water Runoff Permit (NPDES Order No. R8 2010-0036, NPDES No. CAS 618036) issued by the Santa Ana RWQCB. This permit sets out guidelines and regulates WDRs for the discharge of stormwater from areas of San Bernardino County. The principal permittee of this permit is the SBCFCD, and there are 17 other co-permittees, including the City. It is noted that the above permit expired on January 29, 2015; this permit has been administratively extended. The SBCFCD is in the process of obtaining renewal of the County Municipal NPDES Stormwater Permit. On August 1, 2014, the SBCFCD submitted a Report of Waste Discharge on behalf of San Bernardino County and the 16 incorporated cities within San Bernardino County, including the City. The Report of Waste Discharge serves as the permit renewal application. The permit application is still in the permit renewal process. The new drafted Order is planned for release for public review in September/October 2020. The administrative extension will then expire on the date the new MS4 Order gets adopted, which is anticipated in late 2020/early 2021.

The Santa Ana RWQCB's General De Minimis Permit was previously identified as R8-2015-0004 (NPDES NO. CAG998001). This permit covered the General WDRs for Discharges to Surface Water which Pose an Insignificant (*De Minimis*) Threat to Water Quality from dewatering activities. A new permit (Order No. R8-2020-0006,

NPDES No. CAG998001) was adopted on June 19, 2020 and now serves as the General De Minimis Permit and will expire in June 2025. **Section 401 Permitting.** Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the U.S. must obtain a 401 Certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before USACE issues a 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as WDRs under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

Section 1602 Streambed Alteration Agreement. Section 1602 of the California Fish and Game Code (CFG Code) requires a Streambed Alteration Agreement for any alteration to the bank or bed of a stream or lake or for any activity that substantially diverts or obstructs the natural flow of any river, stream, or lake. Further coordination with the California Department of Fish and Wildlife (CDFW) regarding potential project impacts is required,

2.3.2.2 Affected Environment

Analysis in this section is based on the *Water Quality Technical Report* and *Water Quality Management Plan* (June 2016), *Floodplain Evaluation Report* (September 2015), and *Jurisdictional Delineation Letter Report* (September 2016) that were prepared for the project.

The project is located within the Santa Ana River hydrologic unit, and in the Chino Split hydrologic subarea (HSA) as identified in Table 2.33.2-1 by the Caltrans Water Quality Planning Tool (Caltrans, 2014). The Chino Split covers approximately 191,515 acres or approximately 300 square miles.

**Table 2.3.2-1. Grove Avenue Corridor Project
Receiving Hydrologic Units Hydrologic Subareas**

Hydrologic Unit	Hydrologic Area	Hydrologic Subarea #	Hydrologic Subarea Name
Santa Ana River	Middle Santa Ana River	801.21	Chino (Split)

The project corridor is located in the Chino Creek watershed and the Lower Chino Creek subwatershed. The primary drainage that conveys stormwater in the project corridor is the West Cucamonga Channel. The West Cucamonga Channel is an engineered, concrete channel that traverses south through the project corridor before terminating at the Ely Percolation Basins, just north of SR-60. Flow from Ely Basin is conveyed to Cucamonga Creek. Cucamonga Creek is a concrete-lined channel that serves as the major drainage course within Ontario. It flows south through the approximate center of the city, converges with Lower Deer Creek Channel at Chris Basin (a small retention basin), exits the city, and eventually discharges to the Prado Flood Control Basin in Riverside County. Once the water reaches Prado Basin, it is discharged through the outlet of Prado Dam into the Santa Ana River, which ultimately discharges into the Pacific Ocean near the Huntington Beach/Newport Beach city boundary (The Planning Center, 2009).

The Santa Ana RWQCB conducted a 6-year study (2006–2011) of the waterways within the Santa Ana River watershed under the Surface Water Ambient Monitoring Program. The purpose of the study was to determine the integrity of surface waters by sampling the biological (i.e., benthic macroinvertebrates), physical (i.e., in-stream habitat, surrounding riparian habitats), and chemical attributes. During the 2011 bioassessment sampling events, benthic macroinvertebrates were identified from 45 locations. Of the 45 locations, 2 are close to the Grove Avenue Corridor Project, as indicated in Table 2.3.2-2.

Table 2.3.2-2. Santa Ana River Watershed Sampling Sites

SWAMP Code	Stream Name	Latitude NAD 83	Longitude NAD 83	Distance from Proposed Project	Elevation (meters)	Collection Date
801RB8566	Cucamonga Creek	33.99743	-117.59924	6 miles southeast	216	June 15, 2011
801RB8197	Chino Creek	33.9827	-117.69921	8 miles southwest	179	July 11, 1011

Biological assessments provide a more familiar representation of the ecological health of a particular location. Locations can then be ranked by values and classified into qualitative categories of “very good,” “good,” “fair,” “poor,” and “very poor.” This system of ranking and categorizing biological conditions is referred to as an Index of Biotic Integrity (IBI). Water chemistry, IBI metrics, and the overall rating for the two locations within the Santa Ana River Watershed are provided in Appendix B of the Water Quality Technical Report. The overall rating for Cucamonga Creek Channel and Chino Creek was “poor.” In subsequent years, the Santa Ana RWQCB revisited the bioassessment sites to determine if biological conditions changed (2012-2015 and 2016-2017). The IBI was also replaced by the California Stream Condition Index (CSCI). Water quality at sampling sites near the project site indicate that biological conditions in Chino Creek and Cucamonga Creek remain characterized as “Very Likely Altered Conditions”, reflective of degraded biological conditions, and have not change significantly over prior years.

The drainage course of water from the proposed project corridor to offsite areas was used to determine what water bodies could potentially be impacted by the project. Table 2.3.2-3 summarizes these water bodies and lists the impairments and established TMDLs per the 2014/2016 Integrated Report (CWA Section 303(d) List/305(b) Report - SWRCB, 2019) and the Caltrans Water Quality Planning Tool⁶.

Table 2.3.2-3. Impaired Waters

Water Body	Impairment	Size (miles)	TMDL Status
Cucamonga Creek Reach 1 - Confluence with Mill Creek to 23 rd Street in Upland	Cadmium	10	Required
	Copper	10	Required
	Lead	10	Required
	Zinc	10	Required
Mill Creek (Prado Area)	Nutrients	1.6	Required
	Indicator Bacteria	1.6	Being addressed by an EPA-approved TMDL
	Total Suspended Solids	1.6	Required
Chino Creek 1A (Santa Ana River confluence with Mill Creek [Prado Area])	Nutrients	0.8	Required
	Indicator Bacteria	0.8	Being addressed by an EPA-approved TMDL
Santa Ana River, Reach 3 Prado Dam to Mission Boulevard in Riverside	Indicator Bacteria	26	Being addressed with EPA-approved TMDL
	Copper	26	Required

⁶ <http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx>.

Water Body	Impairment	Size (miles)	TMDL Status
	Lead	26	Required
Santa Ana River, Reach 2 17 th Street in Santa Ana to Prado Dam	--	20	--

Ontario sits on the Chino Groundwater Basin and in the Santa Ana River hydrologic unit. The basin is bounded by the Rialto-Colton Fault on the northeast, the Jurupa Mountains and La Sierra Hills to the southeast, the Central Avenue Fault to the southwest, and the San Jose Fault and Red Hill Fault to the northwest. Ontario currently draws all of its groundwater supply from the Chino Basin. The primary water quality concerns for Ontario’s groundwater wells are nitrate and perchlorate levels. Other contaminants of concern are volatile organic compounds (VOC) and total dissolved solids (TDS) (The Planning Center, 2009). There are known groundwater contamination plumes affecting Ontario’s groundwater supply although none of them are located within the project corridor.

The City of Ontario water supply is derived from a combination of local and imported water, obtained primarily from four sources: Ontario wells and treatment in the Chino Groundwater Basin; the Chino Desalter Authority wells and treatment in the Chino Groundwater Basin; treated State Water Project water from the Water Facilities Authority; and recycled water from the Inland Empire Utilities Agency, a member of the Metropolitan Water District.

Ontario has a rapidly expanding recycled water program and currently serves approximately 4,000 acre-feet per year of recycled water to more than 70 customers, including interim agricultural users in the area. The source for recycled water is locally reclaimed nonpotable wastewater provided by the wholesaler, Inland Empire Utilities Agency, which operates the regional wastewater treatment plants for the cities in the area and provides transmission back to Ontario.

Of the water quality impairments for receiving waters within the Grove Avenue Corridor, cadmium, copper, lead (Pb), zinc, and nutrients (e.g., nitrogen and phosphorus) are associated with roadway runoff and must therefore be considered when evaluating and implementing BMP techniques for utilization on the Grove Avenue Corridor Project.

2.3.2.3 Environmental Consequences

An evaluation of potential water quality impacts associated with each alternative is presented below.

Permanent Impacts

No Build Alternative

Under the No Build Alternative, no changes to the existing condition would occur. As such, there would be no increase in runoff flow velocities, volumes, or peak flow rates; therefore, no adverse impacts to water quality would result from the No Build Alternative.

Build Alternative (Proposed Project)

Based on the current level of design of the Build Alternative, there are no permanent impacts to jurisdictional features. As the design advances, the City would coordinate with resource agencies, including USACE, RWQCB, and CDFW, and keep Caltrans updated with the project status. Should final design of the Build Alternative result in impacts to jurisdictional features, the appropriate permits (i.e., Section 404 Permit from USACE, Section 401 Water Quality Certification from RWQCB, or Streambed Alteration Agreement from CDFW) would be obtained with all minimization and/or mitigation measures identified as part of the permitting process implemented.

Construction of the Build Alternative would add 2.57 acres of additional impervious surface area, as shown in Table 2.3.2-4. The additional impervious surface area would not alter the existing drainage patterns or result in runoff that would exceed the existing stormwater drainage system capacity. Construction of the project and the increase in runoff would potentially cause or contribute to an alteration in water quality and have the potential to affect the beneficial use of receiving water bodies downstream of the project corridor.

Table 2.3.2-4. Comparison of Existing and Proposed Impervious Surface Area for the Build Alternative

Existing Impervious Surface Area (acres)	Proposed Additional Impervious Surface Area (acres)	Total Impervious Surface Area (acres)
20.12	2.57	22.69

Source: Developed from the Water Quality Technical Report, 2016.

It is not anticipated that the Build Alternative would cause a change to sedimentation in downstream receiving water bodies because the proposed project would result in a

very minor increase in runoff compared to the entire hydrologic area. Design Principles, such as conservation of natural areas, minimization of disturbances to natural drainage, and use of landscaping to promote surface infiltration, would be implemented to the MEP once the project is complete.

The addition of impervious surfaces as a result of implementation of the Build Alternative would not interfere with groundwater recharge because the proposed project area is not located in an area used by local water districts for aquifer recharge. Recharge to the subbasins is predominantly accomplished at spreading grounds located outside of the proposed project corridor.

Table 2.3.2-5 summarizes the operation and maintenance (long-term) activities that were evaluated for their potential impact on downstream water bodies for the Build Alternative. No unique impacts were identified for the Build Alternative.

Table 2.3.2-5. Summary of Operation/Maintenance (Long-Term) Impacts to the Aquatic Environment

Summary of Impacts
Physical/Chemical Characteristics
Proposed slopes may be a source of sedimentation in downstream substrates.
Pollutants associated with the new roadway may create turbidity in downstream receiving water bodies.
Pollutants, such as oil and grease and other pollutants associated with operation of the proposed project, may impair downstream receiving water bodies.
Nutrients associated with chemicals used in roadway landscaping may cause oxygen depletion and increased temperatures in the aquatic environment.
Biological Characteristics
Sedimentation from natural erosion to any special aquatic sites located downstream from the project corridor.
Increase in stormwater discharge to the aquatic organisms' habitat downstream from the project and higher concentrations of pollutants of concern because of the increase in impervious surface area.
Human Use Characteristics
No long-term impacts to the human use characteristics of the aquatic environment are anticipated.

The proposed project is not sited in a location used by a local water district for existing or potential water supplies or water conservation; therefore, no changes to existing water supplies, potential water supplies, or water conservation are anticipated.

Temporary Impacts

No Build Alternative

The No Build Alternative would not change the existing physical environment; therefore, the No Build Alternative would result in no temporary water quality impacts.

Build Alternative (Proposed Project)

Construction of the proposed corridor has the potential to contribute pollutants to offsite receiving water bodies. These pollutants include sediment and silt associated with soil disturbance because of construction of the proposed corridor and chemical pollutants associated with the construction materials that are brought onto the project site. Table 2.3.2-6 summarizes the construction (short-term) activities that were evaluated for their potential impact on downstream water bodies for the Build Alternative. No unique impacts were identified for the Build Alternative.

Table 2.3.2-6. Summary of Construction (Short-Term) Impacts to the Aquatic Environment

Summary of Impacts
Physical/Chemical Characteristics
Excavation and trenching, soil compaction and moving, cut and fill activities, and grading could contribute sediment to downstream receiving water bodies.
Construction materials, waste handling, and the use of construction equipment could also result in stormwater contamination and affect water quality.
Chemical contaminants, such as oils, fuels, paints, solvents, nutrients, trace metals, and hydrocarbons, can attach to sediment and be transported to downstream drainages and ultimately into collecting waterways contributing to the chemical degradation of water quality.
Biological Characteristics
Erosion and sedimentation could affect biological characteristics of the aquatic environment in downstream water resources.
Human Use Characteristics
Service vehicle access.

Construction materials, waste handling, and the use of construction equipment could also result in stormwater contamination and affect water quality. Spills or leaks from heavy equipment and machinery can result in oil and grease contamination. Operation of vehicles during construction could also result in tracking of dust and debris. Staging areas can also be sources of pollutants because of the use of paints, solvents, cleaning agents, and materials containing metals that are used during construction.

A total of 13.60 acres of temporary DSA would result from construction of the Build Alternative. Implementation of the SWPPP is expected to attenuate and minimize the amount of sediments released from the construction site. Short-term impacts caused by the Build Alternative include potential increases in sediment loads because of removal of existing groundcover and disturbance of soil during grading. The temporary residual increase in sediment loads from construction areas is unlikely to alter the hydrologic response (i.e., erosion and deposition) downstream in the HSA and, subsequently, the sediment processes in these areas would be reduced because all DSAs would be stabilized before completion of construction with permanent landscaping and/or permanent erosion control measures.

During the construction phase, Construction Site BMPs would be implemented to treat stormwater and nonstormwater discharges to the MEP; therefore, runoff from the construction area would not likely create any surface water quality impacts.

2.3.2.4 Avoidance, Minimization, and/or Mitigation Measures

Project design features for the selected alternative would include Construction Site, Source Control, Design Principles, and BMP Techniques. These BMPs would be implemented to improve stormwater quality during construction and operation of the transportation facility to minimize potential stormwater and non-stormwater impacts to water quality. The County of San Bernardino’s Transportation Project BMP Guidance describes how the City would comply with their MS4 NPDES Permit. The BMPs are organized into four categories, as shown in Table 2.3.2-7.

Table 2.3.2-7. Transportation Project BMP Categories

BMP	Description
Construction Site	Temporary soil stabilization and sediment control, non-stormwater management, and waste management.
Design Principles	Conservation of natural areas, minimization of impervious surface areas, designing pervious areas to receive roadway runoff and use of landscaping to promote infiltration.
Techniques	Permanent treatment devices and minimizing street width.
Source Control	Includes nonstructural (e.g., litter pickup, landscape management, street sweeping) and structural (e.g., storm drain stenciling, efficient irrigation slope and channel protection) BMPs.

The Grove Avenue Corridor Project would require the following minimization measures to minimize potential water quality and hydrological impacts associated with implementation of the project.

- WQ-1: Implement Temporary Construction BMPs.** The project will be required to conform to the requirements of the NPDES Permit for Construction Activities, Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ, NPDES No. CAS000002.
- WQ-2: Prepare and Implement an SWPPP.** The Contractor will be required to develop an acceptable SWPPP. The SWPPP shall contain BMPs that have demonstrated effectiveness at reducing stormwater pollution. The SWPPP shall address all construction-related activities, equipment, and materials that have the potential to affect water quality. All Construction Site BMPs will be installed, maintained, and inspected to control and minimize the impacts of construction-related pollutants. The SWPPP shall include BMPs to control pollutants, sediment from erosion, stormwater runoff, and other construction-related impacts. In addition, the SWPPP shall include implementation of specific stormwater effluent monitoring requirements based on the project's risk level to ensure that the implemented BMPs are effective in preventing discharges from exceeding any of the water quality standards.
- WQ-3: Incorporate Design Principles into Final Roadway Design.** Design Principles are permanent measures to minimize pollution discharges by retaining source materials and stabilizing soils. The three objectives associated with Design Principle BMPs include maximizing vegetated surfaces; preventing downstream erosion; and stabilizing soil areas. These design objectives will be applied to the entire project.

2.3.3 Geology/Soils/Seismic/Topography

This section describes the regulatory setting, affected environment, environmental consequences on geological resources that would result from the proposed project, and minimization and/or mitigation measures that would reduce any potential impact. This section of the environmental document references findings from the Caltrans *Geotechnical Memorandum* (September 2015).

2.3.3.1 Regulatory Setting

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

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Structures are designed using the Caltrans’ Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A bridge’s category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please see the Caltrans Division of Engineering Services, Office of Earthquake Engineering, SDC.

2.3.3.2 Affected Environment

Topography

The natural site topography is relatively flat along the corridor, dropping from an elevation of near 1,070 feet on the north end of the corridor to approximately 960 feet on the south end of the corridor. There are no natural creeks, streams, or rivers within the site. There is a channelized storm drainage U-channel that crosses Grove Avenue south of 4th Street, goes into a buried box culvert until East I Street, where it again becomes a U-shaped open channel, runs along the east side of the Grove Avenue corridor until south of East G Street, where it diverges from Grove Avenue and heads southeast. The area between Holt Boulevard was excavated a maximum of approximately 20 feet below surrounding grades to create a grade separation at the UPRR, which creates a low-lying basin in this area.

Geology/Soils

The Grove Avenue Corridor Project is located at the northern end of the Peninsular Ranges geomorphic province of southern California. It is situated within the northern portion of the Perris Block, between the Elsinore and San Jacinto Fault Zones, and

north of the Santa Ana River. In the project area, the basement rock of the Perris Block has been buried by the deep alluvial fan sediments from the San Gabriel Mountains of the Transverse Ranges.

Based on the Geologic Map of the San Bernardino 30' x 60' Quadrangle (Figure 2.3.3-1), the surficial soils consist of young alluvial fan deposits derived from the San Gabriel Mountains in the Transverse Ranges to the north. Cucamonga Creek and other washes have contributed to the formation of the deep alluvial fan complexes along the steep mountain front. The project area is mapped as being completely underlain by middle Holocene young alluvial fan deposits. Regionally, these deposits are generally poorly consolidated, undissected to slightly dissected, boulder, cobble, gravel, sand and silt deposits, and are generally underlain by older more consolidated early Holocene and Pleistocene alluvial fan soils. Holocene alluvium in the area is up to 150 feet in thickness, underlain by 600 to 700 feet of Pleistocene alluvium. Due to natural hydraulic sorting, the alluvial fan grain size is coarsest near the mountains (containing boulders and cobbles), becoming finer farther down the fan. Within the project area, soils are mixtures of primarily sand, with a lesser percentage of silt and gravel.

Groundwater

The project site overlies the Chino Groundwater Basin. The groundwater within this managed basin is relatively deep. Current groundwater levels at the Grove Avenue Corridor Project site are at an elevation of approximately 615 to 625 feet, or more than 300 feet below current site grades. No groundwater was encountered in any of the previous borings drilled to depths of up to 30 feet below the ground surface (bgs). No springs, artesian conditions, or groundwater barriers are known to be present at the site. No known perched groundwater is present, but as with any site, localized perched water may be present due to man-made sources.

Faulting and Seismicity

The site is not located in an Alquist-Priolo Fault Special Studies Zone, it is not within 1,000 feet of any unzoned fault, and no faults considered capable of surface rupture are mapped at the site of projecting towards the site.

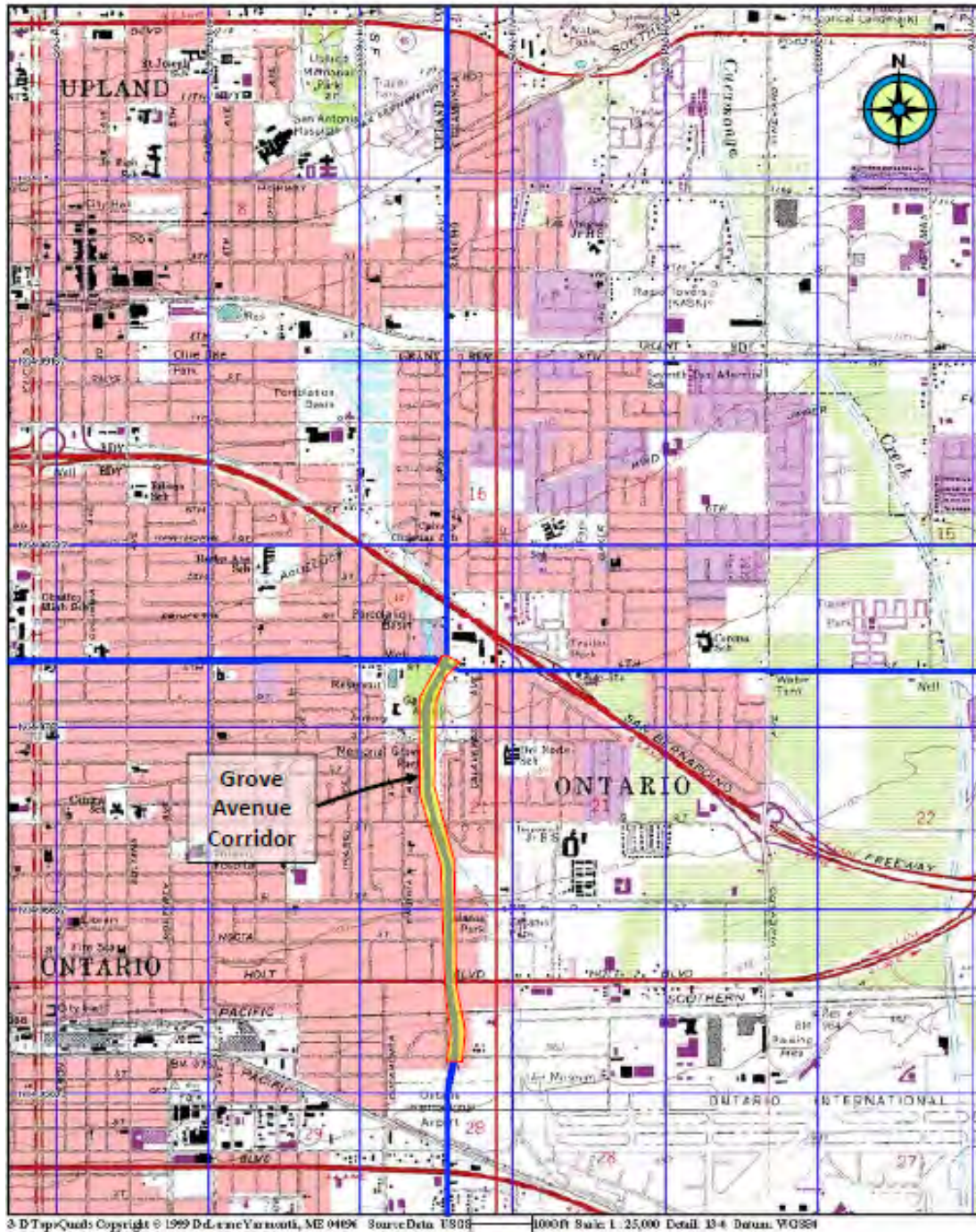


Figure 2.3.3-1. Topographic Map Quadrangle

However, the site is located within a seismically active region within the zone of influence of the highly active strike-slip faults of the Elsinore, San Jacinto, and San Andreas Fault Zones. Many other less significant strike-slip and reverse faults also contribute to the seismic risk at the site. Based on an estimated shear wave velocity of 300 m/s, the preliminary Peak Ground Acceleration at the site is estimated at 0.68g, with a probabilistic moment magnitude of 6.8.

2.3.3.3 Environmental Consequences

An evaluation of potential geology and seismic-related impacts associated with each alternative is presented below.

No Build Alternative

Under the No Build Alternative, there would be no change to the existing corridor, posing no changes to the existing environment and requiring no disturbance of soils; therefore, there would be no impact to geologic resources.

Build Alternative (Proposed Project)

The project area generally has a low to negligible potential for geologic hazards such as landslides, expansive soil, collapsible soil, tsunamis, seismic slope instability, and subsidence due to its relatively flat topography, distance from the ocean, and presence of numerous structures. Fault rupture potential is remote due to distance from earthquake faults, and the risk of secondary seismic hazards, such as liquefaction and earthquake-induced landslide, is generally low as Grove Avenue is located outside designated earthquake zones of required investigations and groundwater is estimated at 375 to 475 feet below the ground surface. The primary seismic hazard at the site is strong shaking.

Seismicity

Although the proposed project site is located in seismically active southern California, it is within an existing transportation corridor. The project would be designed to meet the City's design standards to minimize geologic and seismic hazards. No structures would be constructed that would increase the current risk of loss, injury, or death as a result of ground shaking or seismically induced effects. The proposed project would not increase the risk of exposing people or structures to potential adverse effects because of seismic activities or seismic-related ground failure beyond the existing level already present with the Grove Avenue configuration.

2.3.3.4 Avoidance, Minimization, and/or Mitigation Measures

All project components will be designed in accordance with standard engineering practices and Caltrans' Standard Specifications. Because no substantial adverse effects under NEPA or significant impacts under CEQA would occur related to geology, soils, topography and seismicity, no avoidance, minimization, and/or mitigation measures are required.

2.3.4 Paleontology

This section describes the regulatory setting, affected environment, environmental consequences on paleontological resources that would result from the proposed project, and minimization and/or mitigation measures that would reduce any potential impact.

2.3.4.1 Regulatory Setting

Paleontology is a natural science focused on the study of ancient animal and plant life as it is preserved in the geologic record as fossils. Many federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized or funded projects. The following laws and regulations are applicable to this project:

- 16 U.S.C. 431-433 (the "Antiquities Act") prohibits appropriating, excavating, injuring, or destroying any object of antiquity situated on federal land without the permission of the Secretary of the Department of Government having jurisdiction over the land. Fossils are considered "objects of antiquity" by the Bureau of Land Management, the National Park Service, the Forest Service, and other federal agencies..
- 23 U.S.C. 1.9(a) requires that the use of federal-aid funds must be in conformity with federal and state laws..
- 23 U.S.C. 305 authorizes the appropriation and use of federal highway funds for paleontological salvage as necessary by the highway department of any state, in compliance with 16 U.S.C. 431-433 above and state law.

Under California law, paleontological resources are protected by CEQA.

2.3.4.2 Affected Environment

The information from this section was synthesized from the combined *Paleontological Identification Report and Paleontological Evaluation Report* prepared for the project (March 2017).

The Grove Avenue Corridor Project is located in one of the most tectonically active regions of North America. To the northeast of the project corridor, the San Andreas Fault Zone travels up Cajon Pass where it forms the boundary between the Pacific Plate and the North American Plate. The Transverse Ranges are a result of these two plates grinding past each other and “catching” along the bend in the San Andreas Fault. The Pacific Plate is composed of numerous blocks that can move independently.

The Transverse Range Province is an east-west trending series of steep mountain ranges and valleys aligned obliquely to the normal northwest trend of coastal California, hence the name “Transverse.” The province extends offshore to include San Miguel, Santa Rosa, and Santa Cruz islands. Its eastern extension, the San Bernardino Mountains, has been displaced to the south along the San Andreas Fault. Intense north-south compression is squeezing the Transverse Ranges, and as a result, this is one of the most rapidly rising regions of the earth.

The project area is mapped as various types of Quaternary alluvial fan deposits. These deposits are between early Pleistocene and latest Holocene in age (less than 2.6 million years old).

Figure 2.3.4-1 shows the geological composition of the project area. Units Qyf 1, 3, and 5 are late Pleistocene to late Holocene alluvial fan deposits that are less than 126,000 years old and consist of unconsolidated to moderately consolidated silts, sands, and conglomerates eroded from the highlands. Clasts are coarsest adjacent to the highlands and fine away from them. Surfaces are slightly to moderately dissected by more recent erosional activities. All young alluvial fan deposits in the area are very similar in their compositions.

A review of records at the San Bernardino County Museum (SBCM) and in published materials yielded no fossil records known from the deposits within the project area. However, in at least eight localities between 2.5 and 8 miles from the APE, extinct animals have been recovered in the Quaternary older alluvial deposits, including ground sloth, mammoth, horse, bison, and camel. Other localities in similar sediments in San Bernardino and Riverside counties have also produced ground sloths, short-faced bears, dire wolves, and horses.

Only the oldest Young alluvial fan deposit (Qyf1) has the potential for fossils near the surface. Based on other finds in the area, the Pleistocene portion of this unit is assigned moderate sensitivity, while all other units are too young to contain fossils; however, they do overlie older deposits that are fossiliferous, and fossils may be impacted if the depths of the cuts extend more than 5 feet below the original ground surface. Figure 2.33.4-2 displays the paleontological sensitive areas in the proposed project area.

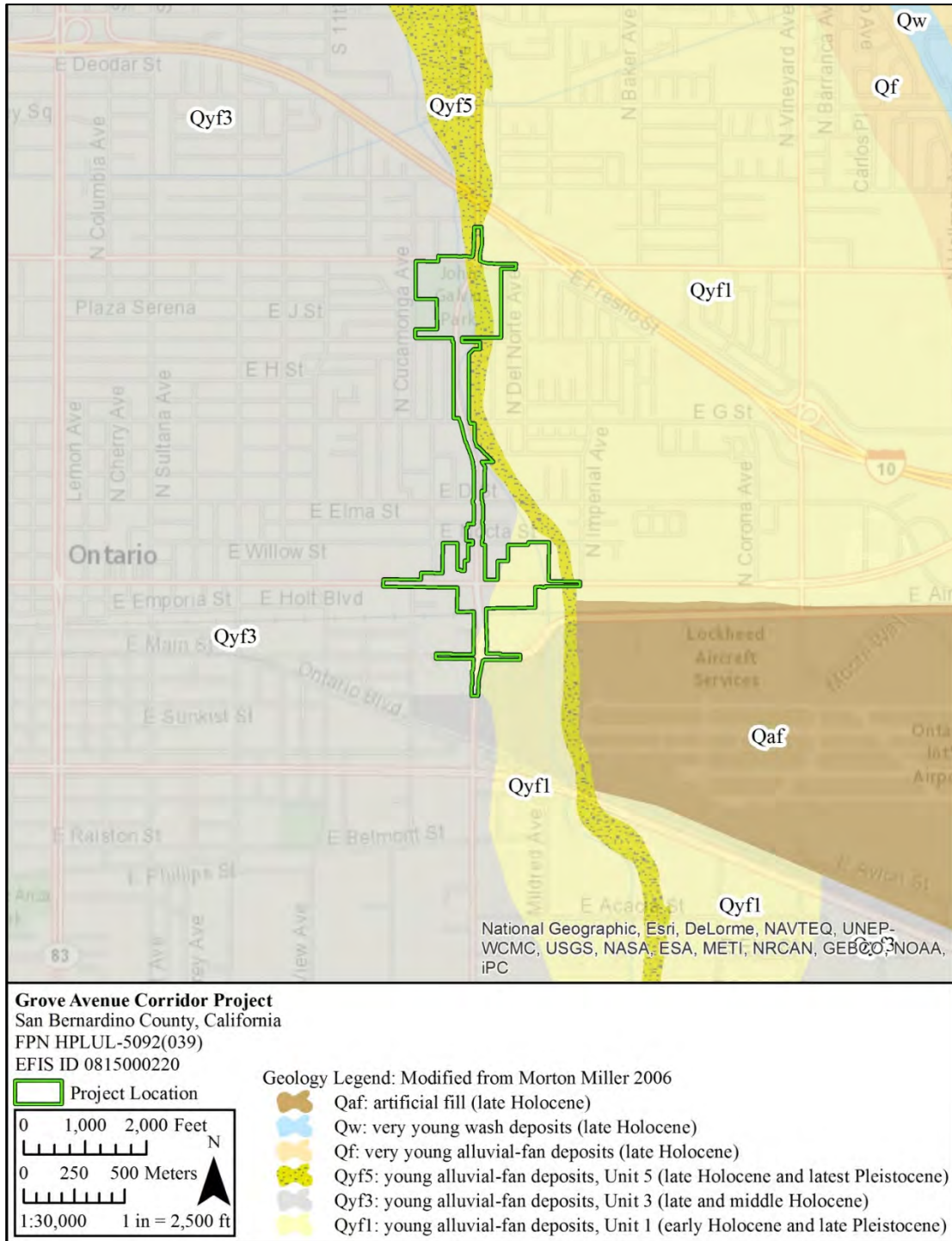


Figure 2.3.4-1. Geology Map

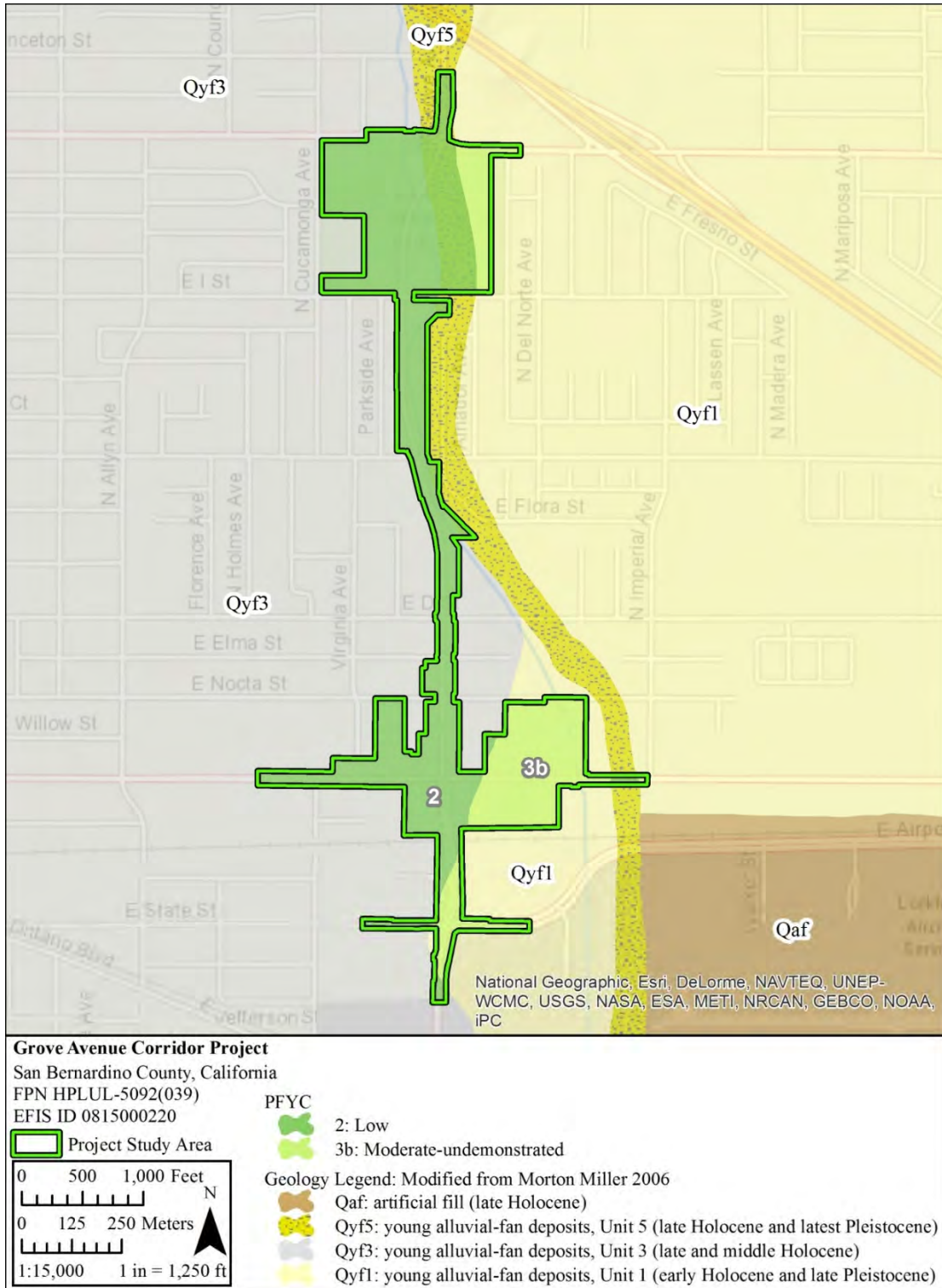


Figure 2.3.4-2. Paleontological Sensitivity Map

2.3.4.3 Environmental Consequences

Paleontological resources are considered significant if they provide new data on fossil animals, distribution, evolution, or other scientifically important information as previously stated. Caltrans uses a tripartite scale to characterize paleontological sensitivity:

- **High Potential:** Rock units that, based on previous studies, contain or are likely to contain significant vertebrate, significant invertebrate, or significant plant fossils. These units include sedimentary formations that contain significant nonrenewable resources anywhere within the geographic extent.
- **Low Potential:** Rock units that are not known to have produced significant fossils in the past but possess a potential to contain fossils or those that yield common fossil invertebrates.
- **No Potential:** Rock units with no potential to contain fossils. This includes most rocks of igneous origin or metamorphosed transformation.

A multilevel ranking system was developed by professional resource managers as a more practical tool, the Potential Fossil Yield Classification (PFYC) system (BLM, 2007). Using the PFYC system, geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts. This ranking is not intended to be applied to specific paleontological localities or small areas within units. Although significant fossil localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher PFYC value; instead, the relative abundance of fossil localities provides the major determinant for the value assignment.

Only the oldest Young alluvial fan deposit (Unit 1) has the potential for fossils near the surface. Based on other finds in the area, the Pleistocene portion of this unit is assigned a PFYC level of 3b, moderate – unknown. All other units are too young to contain fossils and are assigned a PFYC level of 2. However, they do overlie older deposits that are fossiliferous, and fossils may be impacted if the depths of the cuts extend to more than 5 feet below the original ground surface (see Table 2.3.4-1).

Table 2.3.4-1. Paleontological Sensitivity Rankings

PFYC Rankings	5: Very High	4: High	3a: Moderate- Patchy	3b: Moderate Undemonstrated	2: Low	1: Very Low
Rock Units						
Young alluvial fan deposit (Qyf ₅)					X ¹	
Young alluvial fan deposit (Qyf ₃)					X ¹	
Young alluvial fan deposit (Qyf ₁)				X		

No Build Alternative

The No Build Alternative would have no surface or subsurface impacts; therefore, it would not create adverse impacts to potential paleontological resources.

Build Alternative (Proposed Project)

The Build Alternative has the potential to impact significant paleontological resources during construction. Depth of construction would typically be 3 to 5 feet for the widening of Grove Avenue. The segment of ROW where Grove Avenue passes below the UPRR line has the highest potential for encountering fossil resources during ground disturbances. In this area, the roadway is depressed to approximately 20 feet deep through the deepest portion immediately under the UPRR line. Excavations deeper than 5 feet below the original ground surface have the potential to impact fossils in the Quaternary old alluvial deposits because extinct Ice Age animal fossils have previously been recovered at shallow depths in the project vicinity. Paleontological monitoring is needed for all excavations greater than 10 feet deep in sediments mapped as Holocene at the surface and for all excavations greater than 5 feet deep in sediments mapped as Pleistocene at the surface. Drilling with augers smaller than 3 feet in diameter are exempt from monitoring because recovered fossil fragments would not meet significance criteria.

2.3.4.4 Avoidance, Minimization, and/or Mitigation Measures

The following construction specifications would be implemented as a minimization measure to ensure there are no impacts to paleontological resources:

- P-1:** Develop and implement a Paleontological Monitoring Plan (PMP), with monitoring in excavations more than 10 feet deep for sediments mapped as Holocene at the surface and more than 5 feet deep for excavations mapped as Pleistocene at the surface. The PMP will guide and facilitate

the identification and treatment of paleontological resources, if any are found, during project construction to reduce adverse effects on significant resources. The PMP will summarize identified paleontologically sensitive areas within the APE, the organization and responsibilities of the paleontological team, the responsibilities of other parties, and the treatment and communications procedures to be implemented if paleontological resources are encountered during the project.

2.3.5 Hazardous Waste/Materials

This section describes the regulatory setting associated with hazardous waste and materials, the affected environment, the environmental consequences related to hazardous waste and materials that would result from the proposed project, and the minimization and/or mitigation measures that would reduce any potential impact. Information in this section is from the *Initial Site Assessment* (September 2015) prepared for the project.

2.3.5.1 Regulatory Setting

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage, and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health, and land use.

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

- Community Environmental Response Facilitation Act (CERFA) of 1992
- CWA
- Clean Air Act (CAA)
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

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

California regulates hazardous materials, waste, and substances under the authority of the California Health and Safety Code and is also authorized by the federal government to implement RCRA in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency

planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and cleanup of contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material are vital if it is found, disturbed, or generated during project construction.

2.3.5.2 Affected Environment

Information in this section is from the *Initial Site Assessments* (ISA) (September 2015 and November 2020) that were prepared for the project.

The scope of the Initial Site Assessments included a review of reasonably ascertainable environmental regulatory agency databases to identify known or suspected environmental concerns or Recognized Environmental Conditions (RECs) that may be associated with the project. A search of readily available environmental records was obtained from Environmental Data Resources, Inc. (EDR). The purpose of the regulatory database report review was to evaluate to the extent possible whether activities, processes, operations, or actions in the project corridor, adjoining properties, and nearby locations have the potential to adversely impact the environmental condition of the project area, are suspected sources of environmental concern, or are present RECs for the site. Available historical information was reviewed to ascertain the historical uses of the project corridor and the adjoining properties. Review references primarily were Sanborn insurance maps, historic aerial photographs, topographic maps, building department records, and oil exploration maps. Online records maintained by California state agencies for all addresses and parcels associated with the project area were reviewed. In addition, an interview was conducted with Mr. Jay Bautista, Principal Engineer with the City of Ontario in May 2015. The 2015 ISA findings were summarized into the draft environmental document. The record searches, field survey, San Bernardino County Fire Department file review, and interview questionnaire for the City were repeated in August 2020 to obtain updated information on hazardous material users and wastes in the project area. The 2020 ISA findings are summarized in the final environmental document.

The scope of the assessments is interpreted as limited because owner interviews were not conducted for acquisition parcels, onsite reconnaissance was not conducted for acquisition parcels, and no environmental sampling of media of concern (e.g., soil, paint) is conducted as part of the Initial Site Assessments. It was also not within the scope of the assessments to address issues not included in ASTM 1527-13 (e.g., radon, lead in drinking water, naturally occurring hazardous materials). Furthermore, it is not the purpose of the site assessments to determine the degree or extent of contamination, if any, at the project location.

The proposed project is located in Ontario in San Bernardino County, California. The project corridor consists of City ROW along portions of Grove Avenue and Holt Boulevard. Adjacent properties include residential, commercial, industrial, and parkland uses.

Visual reconnaissance of the project area found that all properties adjacent to the project corridor were well maintained and did not appear to be of environmental concern. There was no evidence of storage tanks, drums, hazardous substances or petroleum products, unidentified substance containers, odors, pools of liquid, or any other RECs. Utility poles and overhead transformers are located within the corridor, and these features are considered environmental areas of concern (AOC) that may require further investigation during construction if necessary.

The ISAs identified the following AOCs in City ROW:

Grove Avenue and Holt Boulevard: Utility poles exist along Grove Avenue and Holt Boulevard that may require removal in support of the project. The poles consist of creosote-treated wood and are considered AOCs. If removed during the project, the poles should be managed as treated wood waste (TWW) in accordance with Caltrans' Standard Specification 14-11.14 for the proper handling and disposal of TWW.

Street lighting, traffic signals, utility boxes, meters, and associated electrical components that would be relocated as part of the project may have PCB ballasts; fluorescent or mercury lamps; mercury timers, switches, and sensors; and/or other wastes regulated by the DTSC.

Paint used in traffic lane striping and pavement marking that would be removed as part of the proposed project may contain LBP. Roadway paint and yellow striping on Grove Avenue and Holt Boulevard should be tested for LBP prior to removal to determine proper handling and disposal requirements in accordance with Caltrans' Standard Specification 14-11.12.

Aerially deposited lead (ADL) is generally found within 30 feet of the edge of the roadway pavement and in the top 2 feet of soil. Exposed soils in landscaped medians, parkways, slopes, and unpaved sidewalk/parkway areas that would be disturbed by construction activities may contain ADL.

Grove Avenue: Overhead transformers appear to be mounted on multiple utility poles along Grove Avenue. Historically, pole-mounted transformers have contained polychlorinated biphenyls (PCBs), which would need to be profiled and managed appropriately, if present.

The ISAs identified the following AOC, historic recognized environmental condition (HREC), and REC in association with the acquisition properties:

Residential Structures: Multiple residential structures would be removed in support of the project. Depending on the age of the structures, they may contain asbestos-containing materials (ACM) and lead-based paint (LBP). The presence of these materials would need to be investigated prior to removal of the structures to comply with environmental and worker safety regulatory requirements for ACM and LBP. Residential structures are considered an AOC.

1194 East Holt Boulevard: The vacant lot at 1194 E. Holt Boulevard is listed as a leaking underground storage tank (LUST) Cleanup Site. The cleanup status is shown as “Completed – Case Closed” as of October 2000. The San Bernardino Case Closure Summary reports that eight 10,000-gallon tanks once operated on the property. Petroleum hydrocarbons as gasoline and diesel, as well as benzene, toluene, ethyl benzene, and xylenes (BTEX), were detected in soil at the property. Since the contaminated soil has been removed from the property and no contaminants were detected in the soils after corrective action was completed. The case is closed and there were no reports of migration of contamination into the project footprint. Thus, 1194 E. Holt Boulevard is no longer considered an HREC for the project.

1111 East Holt Boulevard: Illegal disposal of hazardous liquid waste to soil is documented by the San Bernardino County Fire Department for this property. The San Bernardino County Fire Department recommended that contaminated soils be removed from the site. The April 2015 closure report indicates all hazardous materials were removed and the business is no longer in operation. There is no evidence of contamination migrating into the project footprint. Thus, 1111 E. Holt Boulevard is no longer considered an REC.

1228 E. Holt Boulevard: East End Auto Wreckers at 1228 East Holt Boulevard had a Hazardous Waste Generator Inspection report, dated May 13, 1988, that noted contaminated soil was present on the site. The report instructs proper disposal of the contaminated soils, although there are no reports of any corrective actions. There are no records of spills or contaminants migrating into the project footprint. Thus, 1228 E. Holt Boulevard is not considered an REC.

1335 E. Holt Boulevard: The City well site at 1335 East Holt Boulevard had underground storage tanks (USTs) removed in 2006, during which contaminants were detected in the soil. Subsequent inspections noted that there were low concentrations of toluene and no detectable concentrations of other contaminants at this site. There are no records of spills or contaminants migrating into the project footprint. Thus, 1335 E. Holt Boulevard is not considered an REC for the project.

Based on review of the San Bernardino County Fire Department records, there are no records of spills or contaminants migrating offsite from other adjacent parcels, such as 1101, 1253, 1300, 1336, and 1176 East Holt Boulevard. Also, no RECs were identified based on the review of city directories.

On May 14, 2015, an interview was conducted with Mr. Jay Bautista, Principal Engineer with the City of Ontario as part of the 2015 ISA. The interview was conducted to satisfy the Initial Site Assessment requirement for an interview with a local government official. The interview was conducted to obtain information regarding the environmental history and current conditions of the site and to evaluate the potential presence of hazardous substances and petroleum products on the site. The Initial Site Assessment Interview Checklist was used in accordance with the Caltrans Guidance to conduct the interview. Mr. Bautista was not aware of any environmental conditions at the site, including any hazardous substances and petroleum products. As part of the 2020 ISA, the interview questionnaire was sent to the City in August 2020 and the responses from Jaime Maciel-Carrera of the City's Engineering Department and Roberto Perez of the City's Parks Department did not identify any environmental conditions at the site.

2.3.5.3 Environmental Consequences

An evaluation of potential hazardous waste impacts associated with each alternative is presented below.

As previously discussed, AOCs were identified within the project area and may warrant additional investigation or BMPs during construction.

No Build Alternative

The No Build Alternative would have no surface or subsurface impacts; therefore, it would not create adverse impacts associated with hazardous waste or materials.

Build Alternative (Proposed Project)

The Build Alternative may require the removal of utility poles along Grove Avenue and Holt Boulevard. The poles consist of creosote-treated wood and are considered AOCs. If removed, the poles should be managed as TWW in accordance with Caltrans' Standard Specification 14-11.14 for TWW. In addition, several utility poles along Grove Avenue have overhead transformers mounted on them. Historically, pole-mounted transformers have contained PCBs, which need to be profiled and managed appropriately, if present. Street lighting, traffic signals, utility boxes, meters, and associated electrical components may also have PCB ballasts, fluorescent or mercury lamps, mercury timers, switches, and sensors, and/or other wastes that would have to be disposed as hazardous wastes.

Lane markings (i.e., thermoplastics and paints) on the project corridor may contain lead-based paint (LBP) at concentrations that may pose a hazard to workers; therefore, removal and disposal of yellow thermoplastic/paint striping should be addressed in the Standard Special Provisions, and a Lead Compliance Plan (LCP) should be prepared to minimize worker exposure to lead.

Aerially deposited lead (ADL) is generally found within 30 feet of the edge of the roadway pavement and in the top 2 feet of soil. Exposed soils in landscaped medians, parkways, slopes, and unpaved sidewalk/parkway areas that would be disturbed by construction activities may contain ADL. These soils need to be handled and disposed in accordance with the soil management agreement between the California Department of Transportation (Caltrans) and the California Department of Toxic Substances Control (DTSC). Soil testing will be required to determine the presence of ADL-contaminated soils and proper handling, removal, and disposal measures.

The Build Alternative would require the removal of multiple residential structures and, depending on the structures' age, they may contain ACM and LBP. The presence of these materials would need to be investigated prior to removal of the structures to comply with environmental and worker safety regulatory requirements for ACM and LBP.

Based on the 2020 ISA, properties identified for use as temporary construction easements and/or partial acquisitions do not present potential hazardous waste issues.

The proposed project would not create a significant hazard to the public or environment through transport, use, or disposal of hazardous materials because the project is not expected to produce a large amount of hazardous waste, and BMPs and industry standards would be utilized while handling and transporting any project-related hazardous materials. In addition, project activities, especially those that are identified as being near potential hazardous waste concerns, are not located near schools or airstrips. Lastly, there is no potential for the project to interfere with an adopted emergency response or evacuation plan, and there are no wildlands in the project vicinity.

2.3.5.4 Avoidance, Minimization, and/or Mitigation Measures

Since hazardous wastes are not expected to exist on adjacent properties, the following minimization measure is used to address the potential adverse hazardous waste impacts that may be uncovered during construction of the project.

HW-1: If any discolored, odorous or compromised soils are encountered during excavation, they shall be tested and removed and disposed of per regulatory requirements.

2.3.6 Air Quality

This section evaluates potential air quality impacts related to construction and operational activities associated with the project by determining whether the project would:

- Exceed established construction emission thresholds of significance;
- Cause a carbon monoxide (CO) or particulate matter (PM) hot spot;
- Violate any ambient air quality standard, contribute substantially to an existing or projected violation, or expose sensitive receptors to substantial pollution concentrations; or
- Have a significant effect on the environment from a cumulative standpoint.

This section provides information to make a conformity determination on a regional and project-level basis.

2.3.6.1 Regulatory Setting

The FCAA, as amended, is the primary federal law that governs air quality, while the California Clean Air Act (CCAA) is its companion state law. These laws, and related regulations by EPA and the California Air Resources Board (ARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and State ambient air quality standards have been established for six criteria pollutants that have been linked to potential health concerns: CO, nitrogen dioxide (NO₂), ozone (O₃), PM—which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM₁₀) and particles of 2.5 micrometers and smaller (PM_{2.5}), lead (Pb), and sulfur dioxide (SO₂). In addition, State standards exist for visibility reducing particles, sulfates, hydrogen sulfide (H₂S), and vinyl chloride. The NAAQS and State standards are set at levels that protect public health with a margin of safety and are subject to periodic review and revision. Both State and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under NEPA. In addition to this environmental analysis, a parallel “Conformity” requirement under the FCAA also applies.

Conformity

The conformity requirement is based on FCAA Section 176(c), which prohibits USDOT and other federal agencies from funding, authorizing, or approving plans,

programs, or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. "Transportation Conformity" applies to highway and transit projects and takes place on two levels: the regional (or planning and programming) level and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and "maintenance" (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. EPA regulations at 40 CFR 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS and do not apply at all for State standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for CO, NO₂, O₃, PM₁₀, PM_{2.5}, and in some areas (although not in California), SO₂. California has nonattainment or maintenance areas for all of these transportation-related "criteria pollutants" except SO₂, and also has a nonattainment area for Pb; however, Pb is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on emission analysis of RTPs and Federal Transportation Improvement Programs (FTIPs) that include all transportation projects planned for a region over a period of at least 20 years (for the RTP) and 4 years (for the FTIP). RTP and FTIP conformity uses travel demand and emission models to determine whether or not the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the FCAA and the SIP are met. If the conformity analysis is successful, the MPO, FHWA, and Federal Transit Administration (FTA) make the determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the FCAA. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept and scope and the "open-to-traffic" schedule of a proposed transportation project are the same as described in the RTP and FTIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Project-level conformity is achieved by demonstrating that the project comes from a conforming RTP and FTIP; the project has a design concept and scope⁷ that has not changed significantly from those in the RTP and FTIP; project analyses have used the latest planning assumptions and EPA-approved emissions models; and in PM areas, the

⁷ "Design concept" means the type of facility that is proposed, such as a freeway or arterial highway. "Design scope" refers to those aspects of the project that would clearly affect capacity and thus any regional emissions analysis, such as the number of lanes and the length of the project.

project complies with any control measures in the SIP. Furthermore, additional analyses (known as hot-spot analyses) may be required for projects located in CO and PM nonattainment or maintenance areas to examine localized air quality impacts.

2.3.6.2 Affected Environment

Information described in this section comes from the *Air Quality Report* (February 2017) for the project. Detailed analysis methodology, modeling files, and calculation worksheets can be found in the *Air Quality Report* (February 2017).

The project site is located within the South Coast Air Basin (Basin). The topography and climate within the Basin make it an area of high air pollution potential. The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of the perimeter. The general region lies in the semipermanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cool marine layer and inhibits the pollutants in the marine layer from dispersing upward. In addition, light winds during the summer further limit ventilation, and sunlight triggers the photochemical reactions that produce O₃.

Attainment Status

Federal, State, and local agencies have established ambient air quality standards for six criteria pollutants: CO, O₃, PM₁₀, PM_{2.5}, NO₂, SO₂, and Pb, as presented in Table 2.3.6-1. O₃ and PM are generally considered regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as CO, PM, NO₂, SO₂, and Pb are considered local pollutants because they tend to accumulate in the air locally. The Basin air quality status is summarized in Table 2.3.6-2.

Table 2.3.6-1. State and Federal Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State ¹ Standard	Federal ² Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Ozone (O ₃)	1 hour	0.09 ppm ³	--- ⁴	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants. Biogenic VOC may also contribute.	Low-altitude O ₃ is almost entirely formed from reactive organic gases (ROG)/VOC and nitrogen oxides (NO _x) in the presence of sunlight and heat. Common precursor emitters include motor vehicles and other internal combustion engines, solvent evaporation, boilers, furnaces, and industrial processes.	Nonattainment (1-hour) Nonattainment (8-hour)	Nonattainment/ Extreme (8-hour)
	8 hours	0.070 ppm	0.070 ppm (4 th highest in 3 years)				
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. CO also is a minor precursor for photochemical O ₃ . Colorless, odorless.	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.	Attainment	Attainment (Maintenance)
	8 hours	9.0 ppm ¹	9 ppm				
	8 hours (Lake Tahoe)	6 ppm	---				
Respirable Particulate Matter (PM ₁₀) ⁵	24 hours	50 µg/m ³ ⁶	150 µg/m ³ (expected number of days above standard < or equal to 1)	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some toxic air contaminants. Many toxic & other aerosol and solid compounds are part of PM ₁₀ .	Dust- and fume-producing industrial and agricultural operations; combustion smoke & vehicle exhaust; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources.	Nonattainment	Attainment/ Maintenance
	Annual	20 µg/m ³	--- ⁵				
Fine Particulate	24 hours	---	35 µg/m ³	Increases respiratory disease, lung damage,	Combustion including motor vehicles, other mobile	Nonattainment	Nonattainment
	Annual	12 µg/m ³	12.0 µg/m ³				

Table 2.3.6-1. State and Federal Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State¹ Standard	Federal² Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Matter (PM _{2.5}) ⁵	24 hours (conformity process ⁷)	---	65 µg/m ³	cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter – a toxic air contaminant – is in the PM _{2.5} size range. Many toxic & other aerosol and solid compounds are part of PM _{2.5} .	sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical and photochemical reactions involving other pollutants including NO _x , sulfur oxides (SO _x), ammonia, and ROG.		
	Secondary Standard (annual; also for conformity process ⁵)	---	15 µg/m ³ (98 th percentile over 3 years)				

Table 2.3.6-1. State and Federal Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State ¹ Standard	Federal ² Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Nitrogen Dioxide (NO ₂)	1 hour	0.18 ppm	0.100 ppm ⁸	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Contributes to acid rain & nitrate contamination of stormwater. Part of the "NOx" group of O ₃ precursors.	Motor vehicles and other mobile or portable engines, especially diesel; refineries; industrial operations.	Attainment	Maintenance
	Annual	0.030 ppm	0.053 ppm				
Sulfur Dioxide (SO ₂)	1 hour	0.25 ppm	0.075 ppm ⁹ (99 th percentile over 3 years)	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing; some natural sources like active volcanoes. Limited contribution possible from heavy-duty diesel vehicles if ultra-low sulfur fuel not used.	Attainment	Attainment
	3 hours	---	0.5 ppm ¹⁰				
	24 hours	0.04 ppm	0.14 ppm (for certain areas)				
	Annual	---	0.030 ppm (for certain areas)				
Lead (Pb) ¹¹	Monthly	1.5 µg/m ³	---	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also a toxic air contaminant and water pollutant.	Lead-based industrial processes like battery production and smelters. Lead paint, leaded gasoline. Aerially deposited lead from older gasoline use may exist in soils along major roads.	Attainment	Attainment
	Calendar Quarter	---	1.5 µg/m ³ (for certain areas)				
	Rolling 3-month average	---	0.15 µg/m ³ ¹²				
Sulfate	24 hours	25 µg/m ³	---	Premature mortality and respiratory effects. Contributes to acid rain. Some toxic air contaminants attach to sulfate aerosol particles.	Industrial processes, refineries and oil fields, mines, natural sources like volcanic areas, salt-covered dry lakes, and large sulfide rock areas.	Attainment	N/A

Table 2.3.6-1. State and Federal Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State ¹ Standard	Federal ² Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Hydrogen Sulfide (H ₂ S)	1 hour	0.03 ppm	---	Colorless, flammable, poisonous. Respiratory irritant. Neurological damage and premature death. Headache, nausea. Strong odor.	Industrial processes such as refineries and oil fields, asphalt plants, livestock operations, sewage treatment plants, and mines. Some natural sources such as volcanic areas and hot springs.	Unclassified	N/A
Visibility-Reducing Particles (VRP)	8 hours	Visibility of 10 miles or more (Tahoe: 30 miles) at relative humidity less than 70%	---	Reduces visibility. Produces haze. NOTE: Not directly related to the Regional Haze program under the FCAA, which is oriented primarily toward visibility issues in National Parks and other "Class I" areas. However, some issues and measurement methods are similar.	See particulate matter above. May be related more to aerosols than to solid particles.	Unclassified	N/A

Adapted from Sonoma-Marín Narrows Draft EIR and California ARB Air Quality Standards chart (<http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>).

Greenhouse Gases and Climate Change: Greenhouse gases do not have concentration standards for that purpose. Conformity requirements do not apply to greenhouse gases.

¹ State standards are "not to exceed" or "not to be equaled or exceeded" unless stated otherwise.

² Federal standards are "not to exceed more than once a year" or as described above.

³ ppm = parts per million

⁴ Prior to June 2005, the 1-hour O₃ NAAQS was 0.12 ppm. Emission budgets for 1-hour O₃ are still in use in some areas where 8-hour O₃ emission budgets have not been developed, such as the San Francisco Bay Area.

⁵ Annual PM₁₀ NAAQS revoked October 2006; was 50 µg/m³. 24-hour PM_{2.5} NAAQS tightened October 2006; was 65 µg/m³. Annual PM_{2.5} NAAQS tightened from 15 µg/m³ to 12 µg/m³ December 2012 and secondary annual standard set at 15 µg/m³.

⁶ µg/m³ = micrograms per cubic meter

⁷ The 65 µg/m³ PM_{2.5} (24-hour) NAAQS was not revoked when the 35 µg/m³ NAAQS was promulgated in 2006. The 15 µg/m³ annual PM_{2.5} standard was not revoked when the 12 µg/m³ standard was promulgated in 2012. The 0.08 ppm 1997 O₃ standard is revoked FOR CONFORMITY PURPOSES ONLY when area designations for the 2008 0.75 ppm standard become effective for conformity use (July 20, 2013). Conformity requirements apply for all NAAQS, including revoked NAAQS, until emission budgets for newer NAAQS are found adequate, SIP amendments for the newer NAAQS are approved with an emission budget, EPA specifically revokes conformity requirements for an older standard, or the area becomes attainment/unclassified. SIP-approved emission budgets remain in force indefinitely unless explicitly replaced or eliminated by a subsequent

Table 2.3.6-1. State and Federal Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State ¹ Standard	Federal ² Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
<p>approved SIP amendment. During the “Interim” period prior to availability of emission budgets, conformity tests may include some combination of build versus no build, build versus baseline, or compliance with prior emission budgets for the same pollutant.</p> <p>⁸ Final 1-hour NO₂ NAAQS published in the <i>Federal Register</i> on February 9, 2010, effective March 9, 2010. Initial area designation for California (2012) was attainment/unclassifiable throughout. Project-level hot spot analysis requirements do not currently exist. Near-road monitoring starting in 2013 may cause redesignation to nonattainment in some areas after 2016.</p> <p>⁹ EPA finalized a 1-hour SO₂ standard of 75 ppb (parts per billion [thousand million]) in June 2010. Nonattainment areas have not yet been designated as of September 2012.</p> <p>¹⁰ Secondary standard, set to protect public welfare rather than health. Conformity and environmental analysis address both primary and secondary NAAQS.</p> <p>¹¹ ARB has identified vinyl chloride and the PM fraction of diesel exhaust as toxic air contaminants. Diesel exhaust PM is part of PM₁₀ and, in larger proportion, PM_{2.5}. Both ARB and EPA have identified Pb and various organic compounds that are precursors to O₃ and PM_{2.5} as toxic air contaminants. There are no exposure criteria for adverse health effect due to toxic air contaminants, and control requirements may apply at ambient concentrations below any criteria levels specified above for these pollutants or the general categories of pollutants to which they belong.</p> <p>¹² Lead NAAQS are not considered in Transportation Conformity analysis.</p>							

Regional air quality is monitored locally by the South Coast Air Quality Management District (SCAQMD) in conjunction with ARB. These two agencies operate a network of approximately nine air quality monitoring stations throughout the Basin. SCAQMD relies on one or more monitoring stations to document local air pollutant concentration levels. EPA determines regional air quality status based on data collected from permanent monitoring stations. An area is classified as “attainment” if the primary NAAQS have been achieved and “nonattainment” if the NAAQS are not achieved. Within the project area, NO₂ and SO₂, are currently in attainment with federal and State standards. CO and PM₁₀ are currently characterized as a maintenance area, while PM_{2.5}, O₃, and Pb are designated as nonattainment. The Basin air quality status is summarized in Table 2.3.6-2.

Table 2.3.6-2. South Coast Air Basin Attainment Status

Pollutant	Attainment Status	
	Federal Standards	State Standards
Ozone (1-hour)	No Federal Standard	Nonattainment
Ozone (8-hour)	Nonattainment/Extreme	Nonattainment
PM ₁₀	Attainment/Maintenance	Nonattainment
PM _{2.5} (24-hour average)	Nonattainment - Moderate	Nonattainment
PM _{2.5} (annual average)	Nonattainment - Serious	Nonattainment
Carbon Monoxide	Attainment (Maintenance)	Attainment
Nitrogen Dioxide	Maintenance	Attainment
Sulfur Dioxide	Attainment	Attainment
Sulfates	N/A	Attainment
Lead	Attainment	Attainment
Hydrogen Sulfide	N/A	Unclassified
Visibility Reducing Particles	N/A	Unclassified
Vinyl	N/A	Unclassified

Source: ARB, 2013; EPA, 2016.

2.3.6.3 Environmental Consequences

An evaluation of potential air quality impacts associated with each alternative is presented below.

Regional Conformity

The Basin is in nonattainment of NAAQs for O₃ and PM_{2.5}; thus, the project is not exempt from conformity, nor is it exempt from regional conformity. However, the project site is located within an area that has an MPO (i.e., SCAG). The proposed project is listed in the 2012-2035 financially constrained RTP/SCS, which was found

to conform by SCAG on April 4, 2012, and FHWA and FTA made a regional conformity determination finding on July 15, 2013. The proposed project is also included in the SCAG financially constrained 2017 FTIP listed on page 6 of the San Bernardino County Project Listings. The SCAG 2015 FTIP was also determined to conform by FHWA and FTA on December 15, 2014. The design concept and scope of the proposed project are consistent with the project description in the 2012-2035 RTP, the 2015 FTIP, and the “open to traffic” assumptions of SCAG’s regional emission analysis.

The proposed project would not conflict with or obstruct implementation of the SCAQMD 2016 Air Quality Management Plan (AQMP). Construction and operation of the proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Project-Level Conformity

Widening the Grove Avenue corridor would relieve traffic congestion and delay time at local intersections and would improve circulation to accommodate future traffic increases. These project improvements are considered to provide a minimal impact to air quality in the surrounding area. The pollutants of concern when analyzing transportation project-level impacts are CO, PM₁₀, and PM_{2.5} because these pollutants have a tendency to accumulate around intersections with heavy traffic congestion where vehicles are traveling at slower speeds.

Carbon Monoxide Analysis

The project is located in a CO maintenance area; therefore, federal air quality conformity standards must demonstrate that transportation activities associated with the project would not cause new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS. The proposed project is not included in the exempt projects list from Table 2 of 40 CFR 93.126. Therefore, to determine the CO modeling requirements for a new project, the proposed project must utilize the first flow chart provided in the Caltrans’ guidance document, *Transportation Project-Level Carbon Monoxide Protocol (CO Protocol)* (UCD, 1997). The results of the flow chart are provided in the *Air Quality Report* (February 2017); however, the questions relevant to the project and the answers to those questions are as follows:

- Is the project exempt from all emissions analysis? NO. This project is not exempt from all emissions analysis. This proposed project type is not listed in Table 2 of 40 CFR 93.126

- Is the project exempt from regional emissions analysis? NO. This project is not exempt from all regional emissions analysis. This proposed project type is not listed in Table 3 of 40 CFR 93.126.
- Is the project defined as regionally significant? YES. This project is defined as a regionally significant project.
- Is the project located in a federal attainment area? NO. The project alignment is located in the Basin, which is a federal attainment/maintenance area with respect to CO; however, the Basin is classified nonattainment for pollutants O₃ and PM_{2.5}. If a project area is not classified attainment for all transportation-related criteria pollutants, the project is subject to a regional conformity determination.
- Is there a currently conforming RTP and RTIP? YES. The 2012-2035 RTP and 2015 FTIP.
- Is the project included in the regional emissions analysis supporting the currently conforming RTP and TIP? YES. The proposed project is listed in both the SCAG 2012–2035 RTP and the SCAG 2015 FTIP Amendment 4 under project ID number 2002160. The 2012–2035 RTP was approved by FHWA on April 4, 2012. The 2015 FTIP was approved by FHWA on April 8, 2015.
- Has the project design concept and/or scope changed significantly from that in the regional analysis? NO. Neither the project design concept nor scope has changed from that in the regional analysis.

The conclusion from this flow chart of questions and answers is that the project needs to be examined for its local air quality impacts. Based on the answers to the first flow chart, a second flow chart is used to determine the level of local CO impact analysis required for the project. The second flow chart is provided in the *Air Quality Report* (February 2017). The questions applicable to the project in the second flow chart and the answers to those questions are as follows.

- Level 1: Is the project in a CO nonattainment area? NO. As shown previously in Table 2-1, the Basin is classified as an attainment/maintenance area for the federal CO standards.
- Level 1: Was the area redesignated as “attainment” after the 1990 Clean Air Act? YES. The Basin was redesignated to attainment/maintenance from serious nonattainment, effective June 11, 2007.
- Level 1: Has “continued attainment” been verified with the local Air District, if appropriate? YES. The Basin has continually met the federal ambient air quality standards for CO. (Proceed to Level 7)

- Level 7: Does the project worsen air quality? NO. There is zero percent increase in VMT from no-build and build conditions for the proposed project; however, there is a 30 and 51 percent increase from existing to future 2025 and 2045 conditions, respectively. In addition, there are signalized intersections within the project corridor that operate at LOS E or F. Therefore, to satisfy air quality conformity requirements, air quality modeling was used to demonstrate whether any new violations are likely to occur or if existing conditions would worsen as a result of the project.

No Build Alternative

No project improvements are proposed under the No Build Alternative. Therefore, the No Build Alternative was not required to address the flow chart provided in the Caltrans' guidance. However, under the Build Alternative CO hot-spot analysis, emissions generated from the Build Alternative will be compared to no-build conditions to determine project impacts.

Build Alternative (Proposed Project)

For the Build Alternative, there is zero percent increase in VMT from no-build and build conditions; however, there is a 30 and 51 percent increase from existing to future 2025 and 2045 conditions, respectively. In addition, there are signalized intersections within the project corridor that operate at LOS E or F. Therefore, to satisfy air quality conformity requirements, air quality modeling was used to demonstrate whether any new violations are likely to occur or if existing conditions would worsen as a result of the project.

Seven intersections were screened using LOS and traffic data estimates to identify their potential to create a CO hot spot. In general, the project would improve traffic flow and increase average vehicle speeds along Grove Avenue relative to the no-build condition. The project would either improve or have little to no effect on the overall performance of the screened intersections based on VMT volumes. Although one intersection (Grove Avenue/State Street-Airport Drive) would experience a slight (3.5 percent) increase in VMT, the project is anticipated to have a minimal impact on existing air quality.

The CO Protocol recommends performing further analysis at signalized intersections where the LOS is downgraded to E or F as a result of the project. Using this criterion and considering overall peak-hour volumes of traffic through the intersections, the following seven intersections were identified as areas where potential CO hot spots could occur:

- Grove Avenue/4th Street
- Grove Avenue/I Street
- Grove Avenue/G Street
- Grove Avenue/D Street
- Grove Avenue/Holt Boulevard
- Grove Avenue/State Street-Airport Drive
- Grove Avenue/Mission Boulevard

Intersection LOS and traffic delay in the AM and PM peak hour under the No Build Alternative and Build Alternative in 2045 are shown in Table 2.3.6-3.

Table 2.3.6-3. 2045 Intersections LOS and Traffic Delay

	AM Peak Hour		PM Peak Hour	
	Delay (seconds)	LOS	Delay (seconds)	LOS
No Build				
Grove Avenue/4 th Street	51.2	D	117.4	F
Grove Avenue/I Street	8.0	A	7.5	A
Grove Avenue/G Street	11.1	B	20.6	C
Grove Avenue/D Street	18.3	B	14.8	B
Grove Avenue/Holt Boulevard	213.8	F	352.9	F
Grove Avenue/State Street-Airport Drive	88.3	F	83.2	F
Grove Avenue/Mission Boulevard	117.1	F	265.6	F
Build Alternative (Proposed Project)				
Grove Avenue/4 th Street	49.4	D	47.8	D
Grove Avenue/I Street	5.9	A	5.0	A
Grove Avenue/G Street	11.5	B	10.9	B
Grove Avenue/D Street	7.6	A	6.9	A
Grove Avenue/Holt Boulevard	61.3	E	59.5	E
Grove Ave/State Street-Airport Drive	39.2	D	71.8	E
Grove Avenue/Mission Boulevard	95.5	F	233.7	F

Out of the seven intersections that were screened, three intersections were identified as the worst-case scenario and required hot-spot modeling analysis to determine CO concentrations. It is assumed that if these intersections show CO concentrations are below the NAAQS, then all other affected intersections would not cause hot spots.

- Grove Avenue/Holt Boulevard
- Grove Ave/State Street-Airport Drive
- Grove Avenue/Mission Boulevard

The CO hot spot modeling was performed according to the methodology outlined in the CO Protocol. The CO emission factors were calculated with ARB’s EMFAC2011. CO concentrations were calculated using Caltrans’ CALINE4. CO concentrations were estimated using traffic data obtained from the *Traffic Operations Analysis* prepared by Iteris (January 2015). CALINE4 models were created for existing and future no-build and build conditions (2025 and 2045). CALINE4 modeling output results are presented in Appendix A of the *Air Quality Report* prepared for this project.

Maximum 1-hour and 8-hour CO concentrations were estimated at each of the three intersections for existing year (2015) and for the No Build Alternative and Build Alternative during the year of opening 2025 and the horizon year 2045. Modeled CO concentrations were combined with current ambient CO background concentrations (obtained from SCAQMD Web site) and compared to the 1-hour and 8-hour CO NAAQS, as shown in Table 2.3.6-4.

Table 2.3.6-4. Maximum Predicted CO Concentrations with Background

	Existing	2025	2025	2045	2045
		No Build	Build	No Build	Build
Intersections	1-hour CO Concentrations				
	State Standards – 20 ppm				
	Federal Standards – 35 ppm				
Grove Avenue/Holt Boulevard	3.6	3.5	3.4	3.7	3.4
Grove Avenue/State Street-Airport Drive	3.8	3.5	3.5	3.5	3.5
Grove Avenue/Mission Boulevard	3.5	3.4	3.4	3.5	3.5
Intersections	8-hour CO Concentrations				
	Federal Standards – 9 ppm				
Grove Avenue/Holt Boulevard	2.2	2.2	2.1	2.3	2.1
Grove Avenue/State Street-Airport Drive	2.4	2.2	2.2	2.2	2.2
Grove Avenue/Mission Boulevard	2.2	2.1	2.1	2.2	2.2

Results from the CO hot-spot modeling analysis demonstrate that under the No Build Alternative and Build Alternative, CO concentrations are expected to remain generally unchanged and are below the 1-hour and 8-hour NAAQS of 35 parts per million (ppm)

and 9 ppm, respectively. Because improvements from the project are not expected to noticeably change overall traffic volumes, vehicular flow near intersections is improved, which reduces the accumulation of localized concentrations of CO. It is anticipated that the project would not contribute to a violation of CO standards; therefore, local CO project-level transportation conformity requirements would be satisfied. Detailed CO hot-spot modeling files are shown in Appendix B of the *Air Quality Report*; associated emission factor output is also included in Appendix B of the *Air Quality Report*.

Particulate Matter Analysis

The project is located in San Bernardino County, which is designated as nonattainment for PM_{2.5} and a maintenance area for PM₁₀; therefore, the proposed project must undergo transportation conformity requirements for PM₁₀ and PM_{2.5}. The analysis was performed following the guidance provided by Caltrans and EPA's *Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas* (EPA, 2013) to satisfy conformity requirements. To determine if a project would require a PM_{2.5} and PM₁₀ hot-spot analysis, EPA specifies in 40 CFR 93.123(b)(1) that only Projects of Air Quality Concern (POAQC) are required to undergo a PM_{2.5} and PM₁₀ hot-spot analysis.

No Build Alternative

No project improvements are proposed under the No Build Alternative. Therefore, the No Build Alternative was not required to undergo a PM_{2.5} and PM₁₀ hot-spot analysis. However, under the Build Alternative PM_{2.5} and PM₁₀ hot-spot analysis, emissions generated from the Build Alternative will be compared to no-build conditions to determine project impacts.

Build Alternative (Proposed Project)

A discussion of the proposed project compared to projects of air quality concern, as defined by 40 CFR 93.123(b)(1), is provided in the *Air Quality Report* (February 2017).

Upon reviewing the project's traffic data, it was determined that the average daily traffic (ADT) estimated for the future Build Alternative does not classify the project as a POAQC. However, due to the nonattainment status of PM_{2.5} and maintenance status of PM₁₀, the proposed project was required to undergo interagency consultation with SCAG's Transportation Conformity Working Group (TCWG). On April 28, 2015, the TCWG provided concurrence that the project was not a POAQC based on the PM_{2.5} and PM₁₀ review forms that were submitted. The form was resubmitted in June 2020 to obtain concurrence and is shown in Appendix E of the *Air Quality Conformity*

Analysis (July 2020). Also provided in Appendix D of the *Air Quality Conformity Analysis* is the TCWG’s June 23, 2020 confirmation that the proposed project is still not a POAQC and does not require a hot-spot analysis to be performed. The FHWA air quality conformity letter for the 2019 FTIP, TCWG’s June 2020 PM finding, and FHWA concurrence letter are provided in Appendix K.

Traffic volumes at the intersections of Grove Avenue/Holt Boulevard and Grove Avenue/State Street-Airport Drive would exceed the 125,000 average daily trips criteria for a POAQC, as shown in Table 2.3.6-5; however, the total vehicles and truck average annual daily traffic (AADT) would decrease from the Build Alternative at these intersections. The total truck percentages along Grove Avenue from 4th Street to State Street-Airport Drive would not exceed the 8 percent criteria, and the total truck AADT would not exceed the 10,000-vehicle criteria for POAQC. Truck percentages are 4 percent on Grove Avenue between 4th Street and State Street-Airport Drive, as land uses within this area are primarily residential, outdoor recreational use areas, and a few commercial properties. The future traffic volumes along Grove Avenue are shown in Tables 2.3.6-5 and 2.3.6-6.

Table 2.3.6-5. 2025 Average Daily Traffic Volumes

2025 Conditions	AADT	Truck AADT	Diesel Truck Percentage
No Build			
Grove Avenue/4 th Street	86,276	3,710	4
Grove Avenue/I Street	49,892	2,145	4
Grove Avenue/G Street	59,478	2,260	4
Grove Avenue/D Street	57,953	2,202	4
Grove Avenue/Holt Boulevard	120,918	4,595	4
Grove Avenue/State Street-Airport Drive	100,656	3,825	4
Build Alternative			
Grove Avenue/4 th Street	93,030	4,000	4
Grove Avenue/I Street	56,428	2,426	4
Grove Avenue/G Street	62,964	2,393	4
Grove Avenue/D Street	61,003	2,318	4
Grove Avenue/Holt Boulevard	118,957	4,520	4
Grove Avenue/State Street-Airport Drive	104,142	3,957	4

Table 2.3.6-6. 2045 Average Daily Traffic Volumes

2045 Conditions	AADT	Truck AADT	Diesel Truck Percentage
No Build			
Grove Avenue/4 th Street	111,332	4,787	4
Grove Avenue/I Street	64,060	2,755	4
Grove Avenue/G Street	80,830	3,072	4
Grove Avenue/D Street	78,433	2,980	4
Grove Avenue/Holt Boulevard	175,385	6,665	4
Grove Avenue/State Street-Airport Drive	134,643	5,116	4
Build Alternative			
Grove Avenue/4 th Street	103,052	4,431	4
Grove Avenue/I Street	69,507	2,989	4
Grove Avenue/G Street	79,522	3,022	4
Grove Avenue/D Street	77,562	2,947	4
Grove Avenue/Holt Boulevard	168,413	6,400	4
Grove Avenue/State Street-Airport Drive	131,811	5,009	4

Even though the project is not a POAQC, the project area is designated as nonattainment for PM_{2.5} and maintenance for PM₁₀; therefore, further evaluation was performed to assess the project’s influence on the change in PM emissions at a localized level from existing to future no build and build. This emissions trend information will be utilized to predict whether the project would cause or contribute to any new localized PM₁₀ or PM_{2.5} violations, or increase the frequency or severity of any existing violations, or delay timely attainment of the PM₁₀ or PM_{2.5} NAAQS. Caltrans’ CT-EMFAC was used to estimate PM_{2.5} and PM₁₀ emissions generated from operation of the project.

As shown in Table 2.3.6-7, predicted PM emission levels trend lower from existing to the future no-build years 2025 and 2045. These PM emission decreases are attributable to enhanced fuel emission control programs implemented on a federal, State, and local level. The project provides further reductions in PM emissions by enhancing traffic flow and reducing the wait time at signalized intersections minimizing brake use and tire wear under the Build Alternative. It is anticipated that the project would not worsen existing air quality, cause an exceedance, or cause any new violations of the PM_{2.5} and PM₁₀ standards. PM project-level transportation conformity requirements are satisfied. Detailed EMFAC2011 PM hot-spot modeling output results are shown in Appendix B of the *Air Quality Report*.

Table 2.3.6-7. Maximum PM₁₀/PM_{2.5} Emissions (pounds per day)

Pollutant	Existing	2025 No Build	2025 Build	2045 No Build	2045 Build
Grove Avenue/Holt Boulevard	329	163	161	187	149
Grove Avenue/State Street-Airport Drive	297	117	121	119	117
Grove Avenue/Mission Boulevard	396	171	162	169	162

Mobile Source Air Toxics Analysis

FHWA recommends a range of options deemed appropriate for addressing and documenting the mobile source air toxics (MSAT) issue in NEPA documents. These include:

- No analysis required for projects with no potential for meaningful MSAT effects— Applicable for categorically excluded projects under CFR Chapter 23, Section 771.17(c); exempt projects under CFR Chapter 40, Section 93.126; or projects with no meaningful impacts on traffic volumes or vehicle mix.
- Qualitative analysis required for projects with low potential MSAT effects— Projects that serve to improve operations of highway, transit, or freight without adding substantial new capacity or without creating a facility that is likely to meaningfully increase emissions.
- Quantitative analysis for projects that have the potential for meaningful differences in MSAT emissions among project alternatives. To fall into this category, a project should:
 - Create or significantly alter a major intermodal freight facility that has the potential to concentrate high levels of diesel particulate matter (DPM) in a single location, involving a significant number of diesel vehicles for new projects, or accommodating with a significant increase in the number of diesel vehicles for expansion projects; or
 - Create new capacity or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the AADT is projected to be in the range of 140,000 to 150,000 or greater by the design year; and also
 - Proposed to be located in proximity to populated areas.

Upon review of the Build Alternative and the FHWA guidance categories described above, the project is classified as a minor widening project and may have potential

MSAT effects, but it has a low potential for MSAT effects; therefore, a qualitative analysis is appropriate for assessing MSAT impacts from operation of the project.

No Build Alternative

No project improvements are proposed under the No Build Alternative. Therefore, an MSAT analysis was not required for the No Build Alternative.

Build Alternative (Proposed Project)

For the Build Alternative, the amount of MSAT emitted would be proportional to the AADT, assuming that other variables, such as fleet mix, are the same for each alternative. Because the AADT estimated for the No Build Alternative is higher than for the Build Alternative, higher levels of MSAT are not expected from the Build Alternative compared to the No Build Alternative, as previously shown in Tables 2.3.6-5 and 2.3.6-6. In addition, emissions from the Build Alternative would likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by more than 80 percent from 2010 to 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures; however, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions are likely to be lower in the future in virtually all locations.

In sum, under the Build Alternative in the design year, it is expected there would be reduced MSAT emissions in the immediate area of the project, relative to the No Build Alternative, due to the reduced AADT associated with more direct routing and due to EPA's MSAT reduction programs.

CEQ Provisions (Incomplete/Unavailable Information, Project-Specific MSAT Health Impacts)

In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

EPA is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the FCAA and its amendments and have specific statutory obligations with respect to

hazardous air pollutants and MSAT. EPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. They maintain IRIS, which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects" (EPA, <http://www.epa.gov/iris/>). Each report contains assessments of noncancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). Two HEI studies are summarized in Appendix D of FHWA's *Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents*. Among the adverse health effects linked to MSAT compounds at high exposures are cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI, <http://pubs.healtheffects.org/view.php?id=282>) or in the future as vehicle emissions substantially decrease (HEI, <http://pubs.healtheffects.org/view.php?id=306>).

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts – each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70-year) assessments, particularly because unsupported assumptions would have to be made regarding changes in travel patterns and vehicle technology, which affects emissions rates, over that time frame because such information is unavailable.

It is particularly difficult to reliably forecast 70-year lifetime MSAT concentrations and exposure near roadways; to determine the portion of time that people are actually exposed at a specific location; and to establish the extent attributable to a proposed action, especially given that some of the information needed is unavailable.

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSATs because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by HEI (<http://pubs.healtheffects.org/view.php?id=282>).

As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds and, in particular, for DPM. EPA (<http://www.epa.gov/risk/basicinformation.htm#g>) and HEI (<http://pubs.healtheffects.org/getfile.php?u=395>) have not established a basis for quantitative risk assessment of DPM in ambient settings.

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by EPA as provided by the FCAA to determine whether more stringent controls are required to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires EPA to determine an "acceptable" level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld EPA's approach to addressing risk in its two-step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than deemed acceptable.

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, collision rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

Ozone Analysis

The project is located in an area designated as nonattainment for O₃. SCAQMD has established thresholds of significance for O₃ precursors for the operation of transportation projects. In addition, regional plans, programs, and documents that have been federally approved will be utilized in identifying the Basin's proposed activities to reduce O₃ precursor emissions. Additionally, transportation conformity requirements

are satisfied through the inclusion of the project in the conforming regional Interim FTIP.

No Build Alternative

No project improvements are proposed under the No Build Alternative. Therefore, an O₃ analysis was not required for the No Build Alternative.

Build Alternative (Proposed Project)

Operation of the project would have a minimal impact on the Basin with implementation of control measures incorporated from the plans and programs discussed above. Furthermore, the project was incorporated in the conforming Interim 2015 FTIP; therefore, it is anticipated that the project would not worsen existing air quality, or cause an exceedance, or cause any new violations of the O₃ standards. Regional transportation conformity requirements are satisfied through inclusion of the project in the conforming regional Interim 2015 FTIP. The project remains listed in the 2019 FTIP, which was adopted by SCAG in September 2018 and for which FHWA issued a conformity determination in December 2018 (see Appendix K).

Asbestos

No Build Alternative

No project improvements are proposed under the No Build Alternative. Therefore, the No Build Alternative was not required to address naturally occurring asbestos.

Build Alternative (Proposed Project)

San Bernardino County is not among the counties listed as containing serpentine and ultramafic rock (Governor's Office of Planning and Research, October 26, 2000); therefore, the impact from naturally occurring asbestos during construction of the project would be minimal to none.

Short-Term Construction Impacts

No Build Alternative

No project improvements are proposed under the No Build Alternative. Therefore, no construction impacts were analyzed for the No Build Alternative.

Build Alternative (Proposed Project)

Construction is anticipated to begin in 2024 and last approximately 1 year. During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other construction-related activities. Emissions from construction equipment also are expected and would include CO, NO_x, VOCs, directly-emitted PM₁₀ and PM_{2.5}, and

toxic air contaminants such as diesel exhaust particulate matter. Ozone is a regional pollutant that is derived from NO_x and VOCs in the presence of sunlight and heat.

The impacts of construction activities would vary each day as construction progresses. Site preparation and roadway construction typically involves clearing, cut-and-fill activities, grading, removing or improving existing roadways, and paving roadway surfaces. Relocation/modification of utilities and drainage facilities within the proposed ROW would include power poles, underground utilities, and storm drains. Utility relocations are expected to be accomplished without interrupting service. Drainage improvements would include installation of operational BMPs.

Construction-related effects on air quality from most roadway projects would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. These activities could temporarily generate enough PM₁₀, PM_{2.5}, and small amounts of CO, SO₂, NO_x, and VOCs to be of concern.

Construction activities of the project would involve limited excavation, grading, hauling, and various other activities needed to construct the project. These activities would generate short-term increases in PM. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site could deposit mud on local streets, which could be an added source of airborne dust after it dries. PM₁₀ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM₁₀ emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Construction activities for large development projects are estimated by the EPA to add 1.2 tons of fugitive dust per acre of soil disturbed per month of activity. If water or other soil stabilizers are used to control dust, the emissions can be reduced by up to 50 percent. Implementation of Standard Conditions SC-CI-21 and SC-CI-22, which includes an extensive list of air quality control measures, would reduce PM₁₀ emissions during construction. Implementation of minimization measure AQ-1 would further reduce emissions.

In addition to dust-related PM₁₀ emissions, heavy-duty trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO₂, NO_x,

VOCs and some soot particulates (PM₁₀ and PM_{2.5}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions would increase slightly while vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

There are sensitive land uses (residences) along the Grove Avenue Corridor. Dust and odors at some residences very close to the ROW could probably cause occasional annoyance and complaints. However, construction would be short-term in any one area, as each segment and portion of the roadway is under construction at any one time. Thus, equipment emissions related to diesel exhaust are not expected to be a significant adverse impact on nearby sensitive land uses.

SO₂ is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Under California law and ARB regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel (not more than 15 ppm sulfur), so SO₂-related issues due to diesel exhaust will be minimal.

Some phases of construction, particularly asphalt paving, may result in short-term odors in the immediate area of each paving site. Such odors would quickly disperse to below detectable levels as distance from the site increases.

Most of the construction impacts to air quality are short-term in duration and, therefore, will not result in long-term adverse conditions. Implementation of Standard Conditions SC-CI-21 and SC-CI-22, which call for implementation of all applicable measures that are feasible during construction, will reduce any air quality impacts resulting from construction activities. The measures under SC-CI-21 and SC-CI-22 include:

- All disturbed areas, including storage piles that are not being actively used for construction purposes, shall be effectively stabilized of dust emissions using water or chemical stabilizer/ suppressant, or they shall be covered with a tarp, another suitable cover, or vegetative groundcover.
- All onsite unpaved roads and offsite unpaved access roads shall be effectively stabilized of dust emissions using water or a chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions by applying water or by presoaking.
- With the demolition of buildings up to six stories in height, all exterior surfaces of the building shall be wetted during demolition.

- When materials are transported offsite, all material shall be covered or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained.
- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.
- Within urban areas, an owner/operator shall prevent carryout and trackout, or immediately remove carryout and trackout when it extends 50 feet or more from the nearest unpaved surface exit point of the site.
- Any construction site with 150 or more vehicle trips per day shall prevent carryout and trackout.
- Limit traffic speed on unpaved roads to 15 miles per hour (mph) at construction sites with high emissions of fugitive dust. The following measures shall be implemented at large construction sites near sensitive receptors:
 - Install wheel washers for all exiting trucks, or wash off tires of trucks and equipment leaving the site.
 - Install wind breaks at windward side(s) of construction areas.
 - Suspend excavation and grading activities when wind exceeds 20 mph.
 - Limit areas subject to excavation, grading, and other earthwork activity at any one time.
- The construction contractor must comply with SCAQMD Rule 403 (Fugitive Dust), which specifies actions or control measures to prevent, reduce, or mitigate PM emissions generated from construction, demolition, excavation, extraction, and other earth-moving activities.
- Water or dust palliative will be applied to the site and equipment as frequently as necessary to control fugitive dust emissions.
- Soil binder will be spread on any unpaved roads used for construction purposes and all project construction parking areas.
- Trucks will be washed off as they leave the ROW as necessary to control fugitive dust emissions.
- Construction equipment and vehicles shall be properly tuned and maintained. Low-sulfur fuel shall be used in all construction equipment as provided in CCR Title 17, Section 93114.
- Equipment and materials storage sites will be located as far away from residential and park uses as practicable. Keep construction areas clean and orderly.

- Track-out reduction measures, such as gravel pads, will be used at project access points to minimize dust and mud deposits on roads affected by construction traffic.
- All transported loads of soils and wet materials will be covered prior to transport or adequate freeboard will be provided (i.e., space from the top of the material to the top of the truck) to reduce PM₁₀ and deposition of particulates during transportation.
- Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be removed to decrease PM.
- The construction contractor must comply with Caltrans Standard Specifications in Section 14-9. Section 14-9.02 includes specifications relating to compliance with air pollution control rules, regulations, ordinances, and statutes of the local ordinances and air quality management district. Section 14-9.03 includes specifications relating to preventing and alleviating dust by applying water, dust palliative, or both and by covering active and inactive stockpiles.

The limited construction activities would limit ROG emissions during the construction period of the project. Therefore, construction of the project is not expected to exceed the ROG thresholds of significance established by SCAQMD.

Other individual projects in the Basin may be under construction simultaneously with the project. Depending on construction schedules and implementation of other projects in the region, fugitive dust and pollutant emissions generated during construction may result in substantial short-term increases in air pollutants. This would contribute to short-term cumulative air quality impacts; however, implementation of construction Best Available Control Measures (BACMs) during site grading activities would reduce fugitive dust emissions to a level that is considered minor.

Construction Conformity

Construction activities will not last for more than 5 years at one general location, so construction-related emissions do not need to be included in regional and project-level conformity analysis (40 CFR 93.123(c)(5)).

2.3.6.4 Avoidance, Minimization, and/or Mitigation Measures

Caltrans' Standard Specifications pertaining to dust control and dust palliative requirement is required to be part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of the Caltrans' Standard Specifications, Section 7-1.0F "Air Pollution Control" and Section 10 "Dust Control" require the contractor to comply with SCAQMD rules, ordinances, and regulations. SCAQMD Rule 403 (Fugitive Dust) specifies actions or control

measures to prevent, reduce, or mitigate PM emissions generated from construction, demolition, excavation, extraction, and other earth-moving activities. In addition, the following minimization measure will be implemented:

AQ-1: The City shall encourage construction contractors to apply for SCAQMD “SOON” funds. The “SOON” program provides funds to applicable fleets for the purchase of commercially available low-emission heavy-duty engines to achieve near-term reduction of NO_x emissions from in-use off-road diesel vehicles. More information on this program can be found at SCAQMD’s website: <http://www.aqmd.gov/home/programs/business/business-detail?title=off-road-diesel-engines&parent=vehicle-engine-upgrades>.

With implementation of the standard specifications and minimization measure AQ-1, no additional avoidance and/or mitigation measures are required.

Because the project is included in and consistent with the 2012-2035 RTP that conforms to federal and State air quality requirements, the project would not degrade CO ambient air quality and is not a POAQC; the project would not result in substantial air quality impacts from operation of the project; and no mitigation measures are proposed.

2.3.6.5 Climate Change

Neither EPA nor FHWA have issued explicit guidance or methods to conduct project-level GHG analysis. FHWA emphasizes concepts of resilience and sustainability in highway planning, project development, design, operations, and maintenance. Because there have been requirements set forth in California legislation and EOs on climate change, the issue is addressed in Chapter 3, CEQA Evaluation, of this document. The CEQA analysis may be used to inform the NEPA determination for the project.

2.3.7 Noise and Vibration

This section addresses potential noise impacts on nearby noise-sensitive areas along the project corridor resulting from the proposed project. For detailed analysis, please refer to the *Noise Study Report* (NSR) (December 2017).

2.3.7.1 Regulatory Setting

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

California Environmental Quality Act

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless those measures are not feasible. The rest of this section will focus on the NEPA 23 CFR 772 noise analysis; please see Chapter 3 of this document for further information on noise analysis under CEQA.

Pursuant to Caltrans Traffic Noise Analysis Protocol (dated May 2011), Section 7, CEQA and NEPA Considerations, a 12-decibel (dB) increase between existing and design-year with-project conditions is considered a significant impact. If a proposed project is determined to have a significant noise impact under CEQA, then abatement measures must be incorporated into the project unless those measures are not feasible.

National Environmental Policy Act and 23 CFR 772

For highway transportation projects with FHWA involvement (and Caltrans, as assigned), the Federal-Aid Highway Act of 1970 and the implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations include noise abatement criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 A-weighted decibels [dBA]) is lower than the NAC for commercial areas (72 dBA). Table 2.3.7-1 lists the NAC for use in the NEPA 23 CFR 772 analysis.

Table 2.3.7-1. Noise Abatement Criteria

Activity Category	NAC, Hourly A-Weighted Noise Level, $L_{eq}(h)$	Description of Activity Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B ¹	67 (Exterior)	Residential.
C ²	67 (Exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F.
F	No NAC—reporting only	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical, etc.), and warehousing.
G	No NAC—reporting only	Undeveloped lands that are not permitted.
¹¹ Includes undeveloped lands permitted for this activity category.		

Figure 2.3.7-1 lists the noise levels of common activities so that a comparison can be made between the actual and predicted traffic noise levels discussed in this section with common activities.

According to Caltrans' *Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects* (May 2011), a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 dBA or more increase) or when the future noise level with the project approaches or exceeds the NAC. A noise level is considered to approach the NAC if it is within 1 dBA of the NAC.

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet Fly-over at 300m (1000 ft)	110	Rock Band
Gas Lawn Mower at 1 m (3 ft)	100	
Diesel Truck at 15 m (50 ft), at 80 km (50 mph)	90	Food Blender at 1 m (3 ft)
Noisy Urban Area, Daytime	80	Garbage Disposal at 1 m (3 ft)
Gas Lawn Mower, 30 m (100 ft) Commercial Area	70	Vacuum Cleaner at 3 m (10 ft) Normal Speech at 1 m (3 ft)
Heavy Traffic at 90 m (300 ft)	60	Large Business Office Dishwasher Next Room
Quiet Urban Daytime	50	
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	30	Library Bedroom at Night, Concert Hall (Background)
Quiet Rural Nighttime	20	Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Figure 2.3.7-1. Noise Levels of Common Activities

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

Caltrans' Traffic Noise Analysis Protocol sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. Noise abatement must be predicted to reduce noise by at least 5 decibels (dB) at an impacted receptor to be considered feasible from an acoustical perspective. It must also be possible to design and construct the noise abatement measure for it to be considered feasible. Factors that affect the design and constructability of noise abatement include, but are not limited to, safety, barrier height, topography, drainage, access requirements for driveways, presence of local cross streets, underground utilities, other noise sources in the area, and maintenance of the abatement measure. The overall reasonableness of noise abatement is determined by

the following three factors: (1) the noise reduction design goal of 7 dB at one or more impacted receptors; (2) the cost of noise abatement; and (3) the viewpoints of benefited receptors, including property owners and residents of the benefited receptors.

2.3.7.2 Affected Environment

Information in this section is from the NSR (December 2017) and the *Noise Abatement Decision Report* (December 2017).

Developed and undeveloped land uses in the project vicinity were identified through inspection of aerial photography and a detailed field investigation.

Existing land uses in the project area are described below and in further detail starting at 4th Street (the northern terminus of the project area) and continuing south along Grove Avenue to E. State Street/E. Airport Drive (the southern terminus of the project area).

Grove Avenue between 4th Street and I Street: This is the northernmost area in the project corridor and consists of recreational parks on the east and west sides of Grove Avenue.

Grove Avenue between I Street and G Street: This area consists of single-family residences west of Grove Avenue and single-family residences approximately 150 feet east of Grove Avenue.

Grove Avenue between G Street and Nocta Street: This area consists of single- and multi-family residences, west and east of Grove Avenue. There is also a place of worship, the Sovereign Grace Baptist Church, at the southwest corner of Grove Avenue and G Street.

Grove Avenue between Nocta Street and E. State Street/E. Airport Drive: This area consists of several single-family residences (permanent and mobile homes) that are located approximately 100 feet or more from Grove Avenue. There are several hotels along Holt Boulevard. In addition, an outdoor waiting area for the Car Wash El Chavo was identified. Furthermore, there are several parcels of undeveloped land in this area.

The generalized land use data and location of particular noise-sensitive receivers were the basis for the selection of representative analysis sites. A total of 97 receiver locations were modeled to represent existing uses in the project vicinity. Figures 2.3.7-2 through 2.3.7-4 show the locations that were analyzed, as well as receiver and soundwall locations. The following land uses occur along the Grove Avenue Corridor:

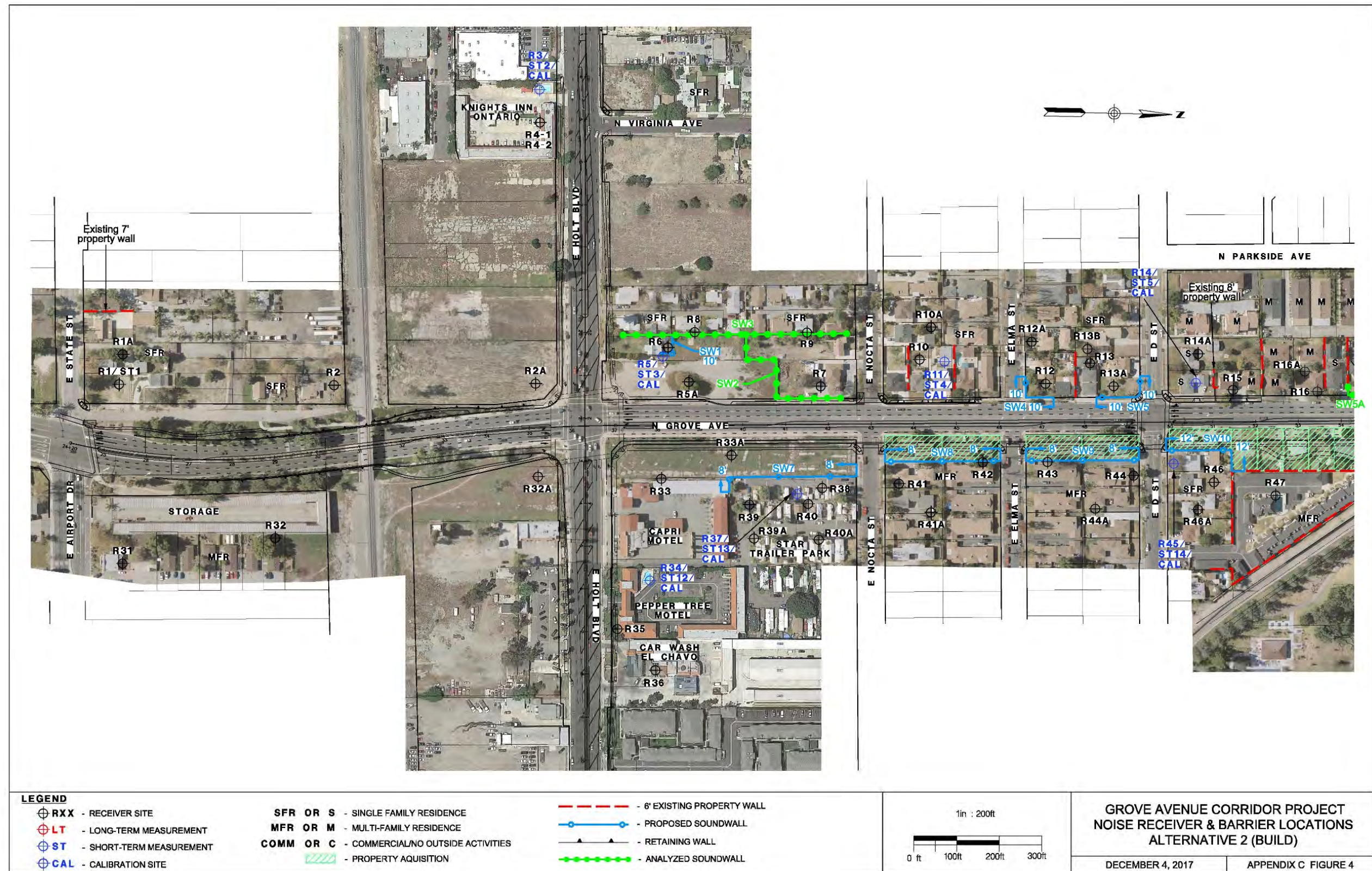


Figure 2.3.7-2. Noise Receiver and Barrier Locations (Build Alternative)

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Figure 2.3.7-3. Noise Receiver and Barrier Locations (Build Alternative)

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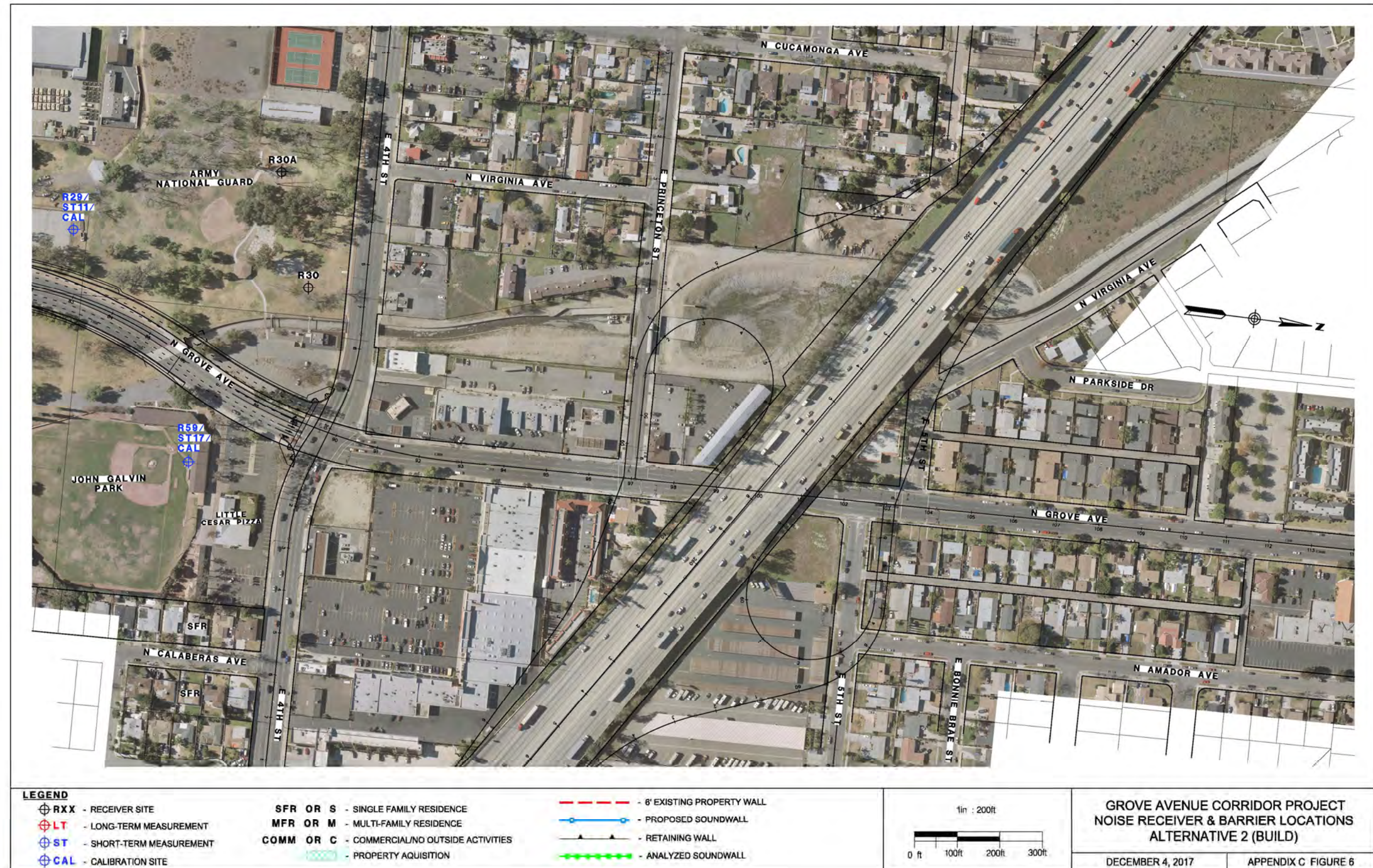


Figure 2.3.7-4. Noise Receiver and Barrier Locations (Build Alternative)

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- Category B – Single-family and multi-family residences
- Category C – Sovereign Grace Baptist Church, walking trail benches, John Galvin Park, and Jay Littleton Ballpark
- Category E – Knights Inn Ontario, Capri Motel, Pepper Tree Motel, and Car Wash El Chavo
- Category G – Undeveloped lands

2.3.7.3 Environmental Consequences

The project is considered a Type I project by 23 CFR 772 because the proposed construction that would widen Grove Avenue would add lanes and shift traffic closer to adjacent receivers.

The following paragraphs explain the steps in predicting traffic noise levels along the project corridor as a result of the proposed project.

Existing Noise Level Measurements

The existing noise environment in the project area is characterized below based on short-term (20-minute) noise level measurements (and traffic counts) completed at 17 locations in May 2015 and at 1 additional location in February 2017, and subsequent modeling of traffic noise levels at 97 representative receiver locations. Table 2.33.7-2 summarizes the results of the short-term noise measurement conducted in the project area.

Table 2.3.7-2. Summary of Short-Term Measurements

Receiver	Address	Land Uses	Start Time	Duration (minutes)	Measured L _{eq}
ST1	1197 E. State Street	Residential	10:20 a.m.	20	61.9
ST2	1120 E. Holt Boulevard	Residential	3:00 p.m.	20	66.6
ST3	1179 E. Holt Boulevard	Residential	10:50 a.m.	20	64.7
ST4	213 N. Grove Avenue	Recreation	11:20 a.m.	20	56.5
ST5	1195 E. D Street	Recreation	1:20 p.m.	20	60.7
ST5A	501 N. Grove Avenue #203	Residential	2:00 p.m.	20	66.9
ST6	533 N. Grove Avenue	Residential	1:00 p.m.	20	59.0
ST7	1168 E. G Street	Residential	12:20 p.m.	20	63.4
ST8	710 N. Parkside Drive	Residential	9:40 a.m.	20	60.2
ST9	804 N. Parkside Drive	Recreation	4:15 p.m.	20	62.0
ST10	1156 E. I Street	Residential	3:20 p.m.	20	67.8

Table 2.3.7-2. Summary of Short-Term Measurements

Receiver	Address	Land Uses	Start Time	Duration (minutes)	Measured L_{eq}
ST11	John Galvin Park	Park	2:20 p.m.	20	58.9
ST12	1241 E. Holt Boulevard	Recreation	11:00 a.m.	20	59.4
ST13	1230 E. Nocta Street	Residential	12:20 p.m.	20	57.9
ST14	1213 E. D Street	Residential	10:40 a.m.	20	61.6
ST15	1210 E. Flora Street	Recreation	4:25 p.m.	20	63.7
ST16	809 N. Alameda Avenue	Residential	11:25 a.m.	20	58.7
ST17	John Galvin Park	Park	2:30 p.m.	20	57.8

Source: Noise Study Report, Grove Avenue Corridor Project (December 2017).

Future Noise-Level Modeling

Traffic noise levels were predicted using the FHWA Traffic Noise Model Version 2.5 (TNM 2.5). Key inputs to the traffic noise model were the locations of roadways, shielding features, existing soundwalls, ground types, and receiver locations. Receivers, defined as single points, were at frequent outdoor use areas such as residences, schools, and recreational areas.

A comparison of existing noise levels to the projected noise levels in 2045 under the No Build Alternative and the Build Alternative is provided. Comparison to existing conditions indicates traffic noise impacts to the receptors; comparison of the build and no-build conditions indicates the direct effect of the project.

Where noise levels met the NAC, soundwalls were evaluated to determine if they were reasonable and feasible. The criteria for determining when an abatement measure is reasonable and feasible are provided above in the Regulatory Setting.

Reasonableness of noise abatement (for each noise barrier found to be acoustically feasible) must then be determined based on the cost allowance calculation procedure identified in the *Caltrans Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects*. A soundwall is considered reasonable if it costs less than the reasonable allowance for that barrier (currently set at a base cost allowance of \$107,000 per benefitted receptor), meets the design goal, and the viewpoints of benefitted receivers have been taken into consideration. The preliminary determination of reasonableness is discussed later in this section.

Thresholds of Significance

An evaluation of potential noise impacts associated with each alternative is presented below.

No Build Alternative

Table 2.3.7-3 shows the results of the traffic noise modeling for the design-year No Build Alternative range from 49 to 74 dBA $L_{eq}(h)$. Noise levels for design-year no-build conditions are expected to increase up to 3 dB over existing noise levels due to projected traffic volume increases over existing conditions. Estimated no-build traffic noise levels were found to approach or exceed the applicable NAC at representative land use locations.

Build Alternative (Proposed Project)

Under the Build Alternative, traffic noise modeling results range from 49 to 75 dBA $L_{eq}(h)$. Noise levels for the design-year 2045 Build Alternative are expected to increase by up to 8 dB over design-year no-build noise levels. Under future design-year 2045 build conditions, most of the receiver locations have traffic noise levels that were found to approach or exceed the applicable NAC. Where possible, noise abatement was considered at these receiver locations. Figures 2.3.7-2 through 2.3.7-4 show the locations that were analyzed, as well as receiver and soundwall locations.

Implementation of Caltrans Standard Special Provisions for vibration would ensure that the project has none to very little potential for ground-borne vibration or ground-borne noise levels during construction or operation of the project. The project is located near the Ontario International Airport but would not change the exposure of residents or other persons in the area to airport noise nor conflict with an airport land use plan; therefore, no airport-associated noise impacts would occur.

Future Noise-Level Modeling

Traffic noise impacts would occur along the various roadways even without project implementation, as shown in Table 2.3.7-4, because traffic noise levels would approach or exceed NAC; however, no noise abatement would be considered without the project.

Short-Term Construction Impacts

No Build Alternative

No project improvements are proposed under the No Build Alternative; therefore, no construction impacts were analyzed for the No Build Alternative.

Table 2.3.7-3. Traffic Noise Impact Analysis

Receiver	Existing Noise Level (dBA)	Predicted Noise Level without Project (dBA)	Predicted Noise Level with Project (dBA)	Noise Impact Requiring Abatement Consideration	Predicted Noise Level with Abatement (dBA)						Reasonable and Feasible
					6-foot Wall	8-foot Wall	10-foot Wall	12-foot Wall	14-foot Wall	16-foot Wall	
R1/ST1	68	70	70	No	--	--	--	--	--	--	--
R1A	62	64	65	No	--	--	--	--	--	--	--
R2	61	62	63	No	--	--	--	--	--	--	--
R2A	72	74	74	No	--	--	--	--	--	--	--
R3/ST2	66	68	68	No	--	--	--	--	--	--	--
R4-1	59	61	61	No	--	--	--	--	--	--	--
R4-2	60	62	62	No	--	--	--	--	--	--	--
R5/ST3	68	70	70	No	--	--	--	--	--	--	--
R5A	70	72	72	No	--	--	--	--	--	--	--
R6	67	68	69	Yes	64	63	62	61	61	61	Yes
R7	67	68	68	Yes	67	65	65	64	64	63	No
R8	65	67	67	Yes	64	64	64	63	63	63	No
R9	60	62	63	No	--	--	--	--	--	--	--
R10	62	63	65	No	--	--	--	--	--	--	--
R10A	55	56	57	No	--	--	--	--	--	--	--
R11/ST4	59	61	62	No	--	--	--	--	--	--	--
R12	69	70	71	Yes	65	64	63	63	63	62	Yes
R12A	62	64	64	No	63	63	62	62	62	62	No
R13	61	62	62	No	60	60	60	60	59	--	No
R13A	71	73	73	Yes	67	65	64	64	63	--	Yes
R13B	59	61	61	No	58	57	56	56	56	--	Yes
R14/ST5	67	68	68	Yes	--	--	--	--	--	--	--
R14A	59	61	61	No	--	--	--	--	--	--	--

Table 2.3.7-3. Traffic Noise Impact Analysis

Receiver	Existing Noise Level (dBA)	Predicted Noise Level without Project (dBA)	Predicted Noise Level with Project (dBA)	Noise Impact Requiring Abatement Consideration	Predicted Noise Level with Abatement (dBA)						Reasonable and Feasible
					6-foot Wall	8-foot Wall	10-foot Wall	12-foot Wall	14-foot Wall	16-foot Wall	
R15	72	73	73	Yes	--	--	--	--	--	--	--
R16	72	74	74	Yes	--	--	--	--	--	--	--
R16A	61	62	62	No	--	--	--	--	--	--	--
R17-1	62	64	64	No	63	60	59	59	59	59	No
R17-2	71	72	72	Yes	72	72	72	70	68	66	No
R17A/ST5A	70	72	72	Yes	72	71	70	68	67	66	No
R18/ST6	61	62	63	No	--	--	--	--	--	--	--
R19	71	73	73	Yes	66	64	62	61	60	60	Yes
R19A	71	73	73	Yes	66	64	63	62	61	61	No
R20/ST7	71	72	72	No	--	--	--	--	--	--	--
R21	47	49	49	No	--	--	--	--	--	--	--
R21A	54	56	56	No	--	--	--	--	--	--	--
R22	72	74	74	Yes	--	--	--	--	--	--	--
R23	61	64	64	No	64	62	61	60	60	--	No
R23A	60	62	62	No	62	62	62	62	61	--	No
R24/ST8	68	70	70	No	--	--	--	--	--	--	--
R24A	68	69	70	Yes	64	61	59	57	56	--	Yes
R25	62	64	64	No	64	61	60	58	57	--	No
R25A	71	72	73	Yes	67	64	62	60	59	--	Yes
R25B	56	57	59	No	57	56	55	55	54	--	No
R25C	57	58	60	No	58	57	56	55	54	--	No
R26/ST9	64	65	66	Yes	66	64	62	60	59	--	No
R27	63	65	69	Yes	67	64	62	61	59	--	Yes

Table 2.3.7-3. Traffic Noise Impact Analysis

Receiver	Existing Noise Level (dBA)	Predicted Noise Level without Project (dBA)	Predicted Noise Level with Project (dBA)	Noise Impact Requiring Abatement Consideration	Predicted Noise Level with Abatement (dBA)						Reasonable and Feasible
					6-foot Wall	8-foot Wall	10-foot Wall	12-foot Wall	14-foot Wall	16-foot Wall	
R27A	58	59	60	No	59	59	58	57	57	--	No
R28/ST10	70	72	74	Yes	71	71	71	71	71	--	No
R28A	62	63	64	No	63	63	63	63	63	--	No
R29/ST11	66	68	69	Yes	--	--	--	--	--	--	--
R30	66	68	68	Yes	--	--	--	--	--	--	--
R30A	61	63	63	No	--	--	--	--	--	--	--
R31	53	54	54	No	--	--	--	--	--	--	--
R32	49	51	51	No	--	--	--	--	--	--	--
R32A	72	73	75	No	--	--	--	--	--	--	--
R33	69	70	72	No	--	--	--	--	--	--	--
R33A	70	71	74	No	--	--	--	--	--	--	--
R34/ST12	67	68	68	No	--	--	--	--	--	--	--
R35	71	72	72	No	--	--	--	--	--	--	--
R36	66	67	68	No	--	--	--	--	--	--	--
R37/ST13	65	67	69	Yes	62	61	60	59	58	58	Yes
R38	66	67	70	Yes	64	62	61	60	59	58	Yes
R39	57	58	61	No	59	58	58	57	57	56	No
R39A	57	58	61	No	57	57	56	56	55	55	No
R40	64	65	67	Yes	62	61	60	60	59	59	Yes
R40A	55	56	58	No	56	56	56	56	56	56	No
R41	58	59	62	No	62	62	62	61	61	--	No
R41A	55	57	61	No	59	59	58	58	58	--	No
R42	64	65	72	Yes	67	62	59	58	57	--	Yes

Table 2.3.7-3. Traffic Noise Impact Analysis

Receiver	Existing Noise Level (dBA)	Predicted Noise Level without Project (dBA)	Predicted Noise Level with Project (dBA)	Noise Impact Requiring Abatement Consideration	Predicted Noise Level with Abatement (dBA)						Reasonable and Feasible
					6-foot Wall	8-foot Wall	10-foot Wall	12-foot Wall	14-foot Wall	16-foot Wall	
R43	64	65	73	Yes	67	62	60	58	57	--	Yes
R44	67	68	72	Yes	69	69	68	68	68	--	No
R44A	53	54	57	No	56	56	56	56	56	--	No
R45/ST14	67	69	72	Yes	70	70	70	70	70	--	No
R46	62	64	69	Yes	64	63	63	62	62	--	No
R46A	56	57	60	No	57	56	56	55	55	--	No
R47	57	58	63	No	--	--	--	--	--	--	--
R48	54	56	58	No	--	--	--	--	--	--	--
R48A	51	52	54	No	--	--	--	--	--	--	--
R49/ST15	67	68	70	No	--	--	--	--	--	--	--
R49A	63	65	66	Yes	61	59	57	57	56	56	Yes
R50	67	68	70	Yes	61	59	58	57	57	56	Yes
R51	62	64	65	No	--	--	--	--	--	--	--
R51A	58	59	61	No	--	--	--	--	--	--	--
R52	66	68	69	No	--	--	--	--	--	--	--
R53/LT1	69	71	73	Yes	69	63	61	60	59	59	No
R53A	66	67	69	Yes	64	61	60	59	58	57	No
R54	64	66	67	Yes	60	59	57	56	55	54	No
R54A	57	59	61	No	56	57	56	56	55	55	No
R55/ST16	64	65	67	Yes	61	59	57	56	54	54	No
R56	58	60	61	No	61	59	57	56	55	54	No
R56A	57	59	60	No	58	59	58	58	58	58	No
R57	61	62	64	No	--	--	--	--	--	--	--

Table 2.3.7-3. Traffic Noise Impact Analysis

Receiver	Existing Noise Level (dBA)	Predicted Noise Level without Project (dBA)	Predicted Noise Level with Project (dBA)	Noise Impact Requiring Abatement Consideration	Predicted Noise Level with Abatement (dBA)						Reasonable and Feasible
					6-foot Wall	8-foot Wall	10-foot Wall	12-foot Wall	14-foot Wall	16-foot Wall	
R57A	60	61	62	No	--	--	--	--	--	--	--
R57B	61	63	64	No	--	--	--	--	--	--	--
R57C	62	63	64	No	--	--	--	--	--	--	--
R58	67	69	70	Yes	--	--	--	--	--	--	--
R59/ST17	62	63	63	No	--	--	--	--	--	--	--

dBA: A-weighted decibels.
 --: Not Evaluated
 1 - Receivers that are noise measurement sites that are not located at an outdoor use area, or those subject to acquisitions, are not listed in this table because they do not represent a future outdoor use area and do not qualify for noise abatement.

Source: Developed from the Noise Study Report, 2017.

Table 2.3.7-4. Predicted Future Traffic Noise and Soundwall Analysis – Alternative 2 (Build Alternative)

Receiver I.D.	Barrier I.D. and Location	Land Use ²	Number of Dwelling Units	Existing Noise Level Leq(h), dBA ¹	I-10 Grove Avenue Project Future Worst Hour Noise Levels - Leq(h), dBA ¹																							
					Design Year No-Build Noise Level Leq(h), dBA ¹	Design Year Build Noise Level Leq(h), dBA ¹	Design Year No-Build Noise Level Minus Existing Conditions, dB	Design Year Build Noise Level Minus No-Build Conditions, dB	Activity Category (NAC)	Impact Type ³	Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)																	
											6 feet			8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R1/ST1 ⁴	No Barrier	UND	--	68	70	70	2	0	G (--)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
R1A		SFR	1	62	64	65	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
R2		SFR	2	61	62	63	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
R2A		UND	--	72	74	74	2	0	G (--)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
R3/ST2		HOT	1	66	68	68	2	0	E (72)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
R4-1		HOT	--	59	61	61	2	0	E (72)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
R4-2		HOT	--	60	62	62	2	0	E (72)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
R5/ST3 ⁴		--	--	--	68	70	70	2	0	--	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
R5A	UND	--	--	70	72	72	2	0	G (--)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
R6	SW1	SFR	1	67	68	69	1	1	B (67)	A/E	64 ^T	5	1	63	6	1	62 ^R	7	1	61	8	1	61	8	1	61	8	1
R7	SW2	SFR	2	67	68	68	1	0	B (67)	A/E	67	1	0	65	3	0	65 ^T	3	0	64	4	0	64	4	0	63	5	2
R8	SW3	SFR	6	65	67	67	2	0	B (67)	A/E	64	3	0	64 ^T	3	0	64	3	0	63	4	0	63	4	0	63	4	0
R9	No Barrier	SFR	4	60	62	63	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
R10		SFR	2	62	63	65	1	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
R10A		SFR	2	55	56	57	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
R11/ST4		SFR	3	59	61	62	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
R12	SW4	SFR	1	69	70	71	1	1	B (67)	A/E	65	6	1	64	7	1	63 ^{R,T}	8	1	63	8	1	63	8	1	62	9	1
R12A		SFR	1	62	64	64	2	0	B (67)	NONE	63	1	0	63	1	0	62	2	0	62	2	0	62	2	0	62	2	0
R13	SW5	SFR	2	61	62	62	1	0	B (67)	NONE	60	2	0	60	2	0	60	2	0	59	3	0	-- ⁵	--	--	--	--	
R13A		SFR	1	71	73	73	2	0	B (67)	A/E	67	6	1	65	8	1	64 ^{R,T}	9	1	64	9	1	63	10	1	-- ⁵	--	
R13B		SFR	1	59	61	61	2	0	B (67)	NONE	58	3	0	57	4	0	56	5	1	56	5	1	56	5	1	-- ⁵	--	

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Table 2.3.7-4. Predicted Future Traffic Noise and Soundwall Analysis – Alternative 2 (Build Alternative)

Receiver I.D.	Barrier I.D. and Location	Land Use ²	Number of Dwelling Units	Existing Noise Level Leq(h), dBA ¹	I-10 Grove Avenue Project Future Worst Hour Noise Levels - L _{eq} (h), dBA ¹																							
					Design Year No-Build Noise Level Leq(h), dBA ¹	Design Year Build Noise Level Leq(h), dBA ¹	Design Year No-Build Noise Level Minus Existing Conditions, dB	Design Year Build Noise Level Minus No-Build Conditions, dB	Activity Category (NAC)	Impact Type ³	Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)																	
											6 feet			8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R14/ST5	No Barrier	SFR	1	67	68	68	1	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R14A		SFR	1	59	61	61	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R15		MFR	2	72	73	73	1	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R16		MFR	2	72	74	74	2	0	B (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
R16A		MFR	1	61	62	62	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
R17-1	SW5A	MFR	2	62	64	64	2	0	B (67)	NONE	63	1	0	60	4	0	59	5	2	59	5	2	59	5	2			
R17-2		MFR	2	71	72	72	1	0	B (67)	A/E	72	0	0	72	0	0	72	0	0	70	2	0	68	4	0			
R17A/ST5A		MFR	2	70	72	72	2	0	B (67)	A/E	72	0	0	71	1	0	70	2	0	68	4	0	67	5	2			
R18/ST6	No Barrier	MFR	8	61	62	63	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
R19	SW5C	MFR	1	71	73	73	2	0	B (67)	A/E	66 ^R	7	1	64 ^{R,T}	9	1	62	11	1	61	12	1	60	13	1			
R19A	SW5B	MFR	1	71	73	73	2	0	B (67)	A/E	66 ^R	7	1	64	9	1	63 ^{R,T}	10	1	62	11	1	61	12	1			
R20 ⁴	No Barrier	--	--	71	72	72	1	0	--	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
R21 ^{Ext}		POW	--	72	74	74	2	0	--	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
R21 ^{Int}		POW	1	47	49	49	2	0	D (52)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
R21A		SFR	1	54	56	56	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
R22	No Barrier ⁶	REC	1	72	74	74	2	0	C (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

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Table 2.3.7-4. Predicted Future Traffic Noise and Soundwall Analysis – Alternative 2 (Build Alternative)

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					Design Year No-Build Noise Level Leq(h), dBA ¹	Design Year Build Noise Level Leq(h), dBA ¹	Design Year No-Build Noise Level Minus Existing Conditions, dB	Design Year Build Noise Level Minus No-Build Conditions, dB	Activity Category (NAC)	Impact Type ³	Noise Prediction with Barrier, Barrier Insertion Loss (I.L.), and Number of Benefitted Receivers (NBR)																	
											6 feet			8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R23 ^W	SW6	SFR	1	61	64	64	3	0	B (67)	NONE	64	0	0	62	2	0	61	3	0	60	4	0	60	4	0	-- ⁵	--	--
R23A		SFR	1	60	62	62	2	0	B (67)	NONE	62	0	0	62	0	0	62	0	0	62	0	0	61	1	0	-- ⁵	--	--
R24/ST8 ⁴		--	--	68	70	70	2	0	--	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R24A		SFR	2	68	69	70	1	1	B (67)	A/E	64	6	2	61 ^{R,T}	9	2	59	11	2	57	13	2	56	14	2	-- ⁵	--	--
R25		SFR	4	62	64	64	2	0	B (67)	NONE	64	0	0	61	3	0	60	4	0	58	6	4	57	7	4	-- ⁵	--	--
R25A		SFR	4	71	72	73	1	1	B (67)	A/E	67	6	4	64 ^{R,T}	9	4	62	11	4	60	13	4	59	14	4	-- ⁵	--	--
R25B		SFR	1	56	57	59	1	2	B (67)	NONE	57	2	0	56	3	0	55	4	0	55	4	0	54	5	1	-- ⁵	--	--
R25C		SFR	1	57	58	60	1	2	B (67)	NONE	58	2	0	57	3	0	56	4	0	55	5	1	54	6	1	-- ⁵	--	--
R26/ST9		SFR	4	64	65	66	1	1	B (67)	A/E	66	0	0	64 ^T	2	0	62	4	0	60 ^R	6	4	59	7	4	-- ⁵	--	--
R27		SFR	5	63	65	69	2	4	B (67)	A/E	67	2	0	64 ^{R,T}	5	5	62	7	5	61	8	5	59	10	5	-- ⁵	--	--
R27A		SFR	1	58	59	60	1	1	B (67)	NONE	59	1	0	59	1	0	58	2	0	57	3	0	57	3	0	-- ⁵	--	--
R28/ST10		SFR	1	70	72	74	2	2	B (67)	A/E	71	3	0	71	3	0	71	3	0	71	3	0	71	3	0	-- ⁵	--	--
R28A		SFR	1	62	63	64	1	1	B (67)	NONE	63	1	0	63	1	0	63	1	0	63	1	0	63	1	0	-- ⁵	--	--
R29/ST11	No Barrier ⁶	REC	1	66	68	69	2	1	C (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R30		REC	1	66	68	68	2	0	C (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R30A		REC	1	61	63	63	2	0	C (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R31	No Barrier	SFR	3	53	54	54	1	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R32		SFR	4	49	51	51	2	0	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R32A		UND	--	72	73	75	1	2	G (--)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R33		--	--	69	70	72	1	2	--	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R33A		UND	--	70	71	74	1	3	G (--)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R34/ST12		HOT	1	67	68	68	1	0	E (72)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R35		--	--	71	72	72	1	0	--	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
R36		COM	1	66	67	68	1	1	E (72)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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											6 feet			8 feet			10 feet			12 feet			14 feet			16 feet		
											Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR	Leq(h)	I.L.	NBR
R37/ST13	SW7	MH	4	65	67	69	2	2	B (67)	A/E	62	7	4	61 ^{R,T}	8	4	60	9	4	59	10	4	58	11	4	58	11	4
R38		MH	4	66	67	70	1	3	B (67)	A/E	64	6	4	62 ^{R,T}	8	4	61	9	4	60	10	4	59	11	4	58	12	4
R39		MH	5	57	58	61	1	3	B (67)	NONE	59	2	0	58	3	0	58	3	0	57	4	0	57	4	0	56	5	5
R39A		MH	4	57	58	61	1	3	B (67)	NONE	57	4	0	57	4	0	56	5	4	56	5	4	55	6	4	55	6	4
R40		MH	4	64	65	67	1	2	B (67)	A/E	62	5	4	61 ^{R,T}	6	4	60	7	4	60	7	4	59	8	4	59	8	4
R40A		MH	3	55	56	58	1	2	B (67)	NONE	56	2	0	56	2	0	56	2	0	56	2	0	56	2	0	56	2	0
R41	SW8	MFR	2	58	59	62	1	3	B (67)	NONE	62	0	0	62	0	0	62	0	0	61	1	0	61	1	0	-- ⁵	--	--
R41A		MFR	3	55	57	61	2	4	B (67)	NONE	59	2	0	59	2	0	58	3	0	58	3	0	58	3	0	-- ⁵	--	--
R42		MFR	3	64	65	72	1	7	B (67)	A/E	67	5	3	62 ^{R,T}	10	3	59	13	3	58	14	3	57	15	3	-- ⁵	--	--
R43	SW9	MFR	3	64	65	73	1	8	B (67)	A/E	67	6	3	62 ^{R,T}	11	3	60	13	3	58	15	3	57	16	3	-- ⁵	--	--
R44		MFR	3	67	68	72	1	4	B (67)	A/E	69	3	0	69 ^T	3	0	68	4	0	68	4	0	68	4	0	-- ⁵	--	--
R44A		MFR	1	53	54	57	1	3	B (67)	NONE	56	1	0	56	1	0	56	1	0	56	1	0	56	1	0	-- ⁵	--	--
R45/ST14	SW10	SFR	1	67	69	72	2	3	B (67)	A/E	70	2	0	70	2	0	70 ^T	2	0	70	2	0	70	2	0	-- ⁵	--	--
R46		SFR	1	62	64	69	2	5	B (67)	A/E	64	5	1	63	6	1	63 ^T	6	1	62 ^R	7	1	62	7	1	-- ⁵	--	--
R46A		SFR	1	56	57	60	1	3	B (67)	NONE	57	3	0	56	4	0	56	4	0	55	5	1	55	5	1	-- ⁵	--	--

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R47	No Barrier	MFR	1	57	58	63	1	5	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R48		SFR	1	54	56	58	2	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R48A		SFR	1	51	52	54	1	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R49/ST15		--	--	67	68	70	1	2	--	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R49A	SW11	SFR	2	63	65	66	2	1	B (67)	A/E	61	5	2	59 ^{R,T}	7	2	57	9	2	57	9	2	56	10	2			
R50		SFR	3	67	68	70	1	2	B (67)	A/E	61 ^T	9	3	59 ^R	11	3	58	12	3	57	13	3	57	13	3			
R51	No Barrier	SFR	6	62	64	65	2	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R51A		SFR	2	58	59	61	1	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R52		SFR	--	66	68	69	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R53/LT1	SW12	SFR	1	69	71	73	2	2	B (67)	A/E	69	4	0	63 ^{R,T}	10	1	61	12	1	60	13	1	59	14	1			
R53A		SFR	4	66	67	69	1	2	B (67)	A/E	64	5	4	61 ^{R,T}	8	4	60	9	4	59	10	4	58	11	4			
R54		SFR	5	64	66	67	2	1	B (67)	A/E	60	7	5	59 ^{R,T}	8	5	57	10	5	56	11	5	55	12	5			
R54A		SFR	1	57	59	61	2	2	B (67)	NONE	56	5	1	57	4	0	56	5	1	56	5	1	55	6	1			
R55/ST16		SFR	5	64	65	67	1	2	B (67)	A/E	61 ^T	6	5	59 ^R	8	5	57	10	5	56	11	5	54	13	5			
R56		SFR	2	58	60	61	2	1	B (67)	NONE	61	0	0	59	2	0	57	4	0	56	5	2	55	6	2			
R56A		SFR	2	57	59	60	2	1	B (67)	NONE	58	2	0	59	1	0	58	2	0	58	2	0	58	2	0			
R57	No Barrier	SFR	1	61	62	64	1	2	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R57A		SFR	1	60	61	62	1	1	B (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R57B	No Barrier ⁶	REC	1	61	63	64	2	1	C (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R57C		REC	1	62	63	64	1	1	C (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R58		REC	1	67	69	70	2	1	C (67)	A/E	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
R59/ST17		REC	1	62	63	63	1	0	C (67)	NONE	--	--	--	--	--	--	--	--	--	--	--	--	--	--				

Notes:

- 1 - Leq(h) are A-weighted, peak hour noise levels in decibels. Noise levels are calculated using PM peak hour traffic volumes, based on the results of long-term measurement site LT1 and the project traffic study.
- 2 - Land Use: SFR - single-family residence; MFR - multi-family residence; UND - undeveloped; SCH - educational center; COM- commercial; REC - recreational; HOT - hotel/motel; POW - place of worship; MH - mobile home.
- 3 - S = Substantial Increase (12 dBA or more); A/E = Approach or exceed NAC.
- 4 - This noise measurement site was chosen for monitoring purposes and was not located at an outdoor use area; however, this site is acoustically representative of nearby outdoor use areas.
- 5 - Per the Highway Design Manual, the maximum height of a noise barrier should not exceed 14 feet in height when located 15 feet or less from the edge of traveled way.

- 6 - Soundwalls were not analyzed at public parks maintained by the City of Ontario.
- W - Includes the benefit of an existing soundwall or property wall.
- T - Minimum height required to block the line-of-sight from the receiver to truck exhaust stacks.
- R - Minimum height required to meet feasibility requirements and design goal.
- STxx - Short-term measurement / model calibration site.
- LTxx - Long-term measurement site.
- Int - Interior noise level determined using a building structure noise reduction of 25 dB, based on visual inspection of building and FHWA *Highway Traffic Noise: Analysis and Abatement Guidance* Table 6.
- - A soundwall was not evaluated for this receiver.

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Build Alternative (Proposed Project)

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Noise associated with construction is controlled by Caltrans Standard Specification Section 14-8.02, “Noise Control.”

No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with Standard Specification 14-8.02, SSP 14-8.02, and applicable local noise standards.

However, construction noise can vary greatly depending on the construction process, type and condition of equipment used, and layout of the construction site. Many of these factors are traditionally left to the contractor's discretion, which makes it difficult to accurately estimate levels of construction noise. Construction noise estimates are approximate because of the lack of specific information available at the time of the assessment. Temporary construction noise impacts would be unavoidable at areas located immediately adjacent to the proposed project alignment.

2.3.7.4 Avoidance, Minimization, and/or Mitigation Measures

Based on the studies completed to date and input from the public, Caltrans intends to incorporate noise abatement in the form of barriers at:

- Soundwall SW-1 would be approximately 73 feet in length and 10 feet in height and would be located within the private property of the single-family residence located at 1179 East Holt Boulevard, along the side and back yard. Calculations based on preliminary design data show that Soundwall SW-1 would reduce noise levels by 7 dBA for 1 receptor and is estimated to cost \$43,900 (updated to \$52,600 in 2020 dollars). However, the residence has since been demolished, and Soundwall SW-1 is no longer necessary.
- Soundwall SW-5C would be approximately 145 feet in length and 8 feet in height and would be located along the property line of the multi-family residence located at 549 Grove Avenue. Calculations based on preliminary design data show that Soundwall SW-5C would reduce noise levels by 9 dBA for 1 receptor and is estimated to cost \$65,200 (updated to \$80,600 in 2020 dollars). Soundwall SW-5C was later removed from further consideration based on completion of the residential viewpoint survey.
- Soundwall SW-6 on the eastern property line between the residences on Parkside Avenue and Grove Avenue, with length and average height of 1,243 and 12 feet, respectively. Calculations based on preliminary design data show that the barriers

would reduce noise levels by up to 9 dBA for 20 residences at a cost of \$722,400 (updated to \$911,800 in 2020 dollars). However, this wall is proposed as an 8-foot-high wall with an estimated cost of \$737,700 in 2020 dollars). Soundwall SW-6 was later removed from further consideration based on completion of the residential viewpoint survey.

- Soundwall SW-7 on the western and southern property lines between the mobile homes at the Star Trailer Park community at 1212 East Nocta Street and Grove Avenue, with length and average height of 332 and 8 feet, respectively. Calculations based on preliminary design data show that the barriers would reduce noise levels by up to 8 dBA for 12 receptors at a cost of \$148,600 (updated to \$182,200 in 2020 dollars) and is within the reasonableness allowance of \$107,000 per benefitted receptor or a total of \$1,284,000.
- Soundwall SW-8 on the western property line between the residences at 250 North Grove Avenue along the east side of Grove Avenue, with length and average height of 270 and 8 feet, respectively. Calculations based on preliminary design data show that the barriers would reduce noise levels by 10 dBA for 3 receptors at a cost of \$125,000 (updated to \$153,700 in 2020 dollars), which is within the reasonableness allowance of \$107,000 per benefitted receptor or a total of \$321,000. Soundwall SW-8 was later removed from further consideration based on completion of the residential viewpoint survey.
- Soundwall SW-9 on the western property line between the residences and Grove Avenue, with length and average height of 264 and 8 feet, respectively. Calculations based on preliminary design data show that the barriers would reduce noise levels by up to 11 dBA for 3 receptors at a cost of \$110,400 (updated to \$138,500 in 2020 dollars), which is within the reasonableness allowance of \$107,000 per benefitted receptor or a total of \$321,000. Soundwall SW-9 was later removed from further consideration based on completion of the residential viewpoint survey.
- Soundwall SW-11 on the western property line between the residences on Flora Street and east of Grove Avenue, with length and average height of 356 and 8 feet, respectively. Calculations based on preliminary design data show that the barriers would reduce noise levels by up to 11 dBA for 5 receptors at a cost of \$159,200 (updated to \$197,900 in 2020 dollars), which is within the reasonableness allowance of \$107,000 per benefitted receptor or a total of \$535,000. Soundwall SW-11 was later removed from further consideration based on completion of the residential viewpoint survey.

- Soundwall SW-12 on the western property lines between the residences on the west side of Alameda Avenue and east of Grove Avenue, with length and average height of 1,042 and 8 feet, respectively. Calculations based on preliminary design data show that the barriers would reduce noise levels by up to 10 dBA for 15 receptors at a cost of \$484,400 (updated to \$597,500 in 2020 dollars), which is within the reasonableness allowance of \$107,000 per benefitted receptor or a total of \$1,605,000. Soundwall SW-12 was later removed from further consideration based on completion of the residential viewpoint survey.

Minimization Measure N-1, which is related to soundwall construction, may change based on input received from the public. If conditions have substantially changed during final design, noise abatement may not be constructed. The final decision on noise abatement will be made upon completion of the project design.

For the Build Alternative, Soundwalls SW-1 through SW-12 (including SW-5A, SW-5B, and SW-5C) were evaluated on private property lines in the proposed project corridor, which was the optimum location for breaking the line of site between Grove Avenue and impacted receiver locations. All 15 soundwalls were evaluated in 2-foot increments ranging in height from 6 to 16 feet for feasibility. The results of the soundwall analysis and residential viewpoint survey are provided below.

Soundwall SW-1

The future build noise level at Receiver R6, representing a single-family residence, is predicted to be 69 dBA $L_{eq}(h)$. This receiver would experience an estimated 1-dB increase from existing to no-build conditions and a 1-dB increase in noise levels from no-build to build conditions; however, because the predicted build noise level in the design year exceeds 67 dBA $L_{eq}(h)$ for NAC Activity Category B, noise abatement was evaluated.

Soundwall SW-1 was evaluated for Receiver R6, representing one single-family residence. This residence has driveway access via E. Holt Boulevard; therefore, Soundwall SW-1 was placed on the eastern and northern property lines between the residence and Grove Avenue. Soundwall SW-1 was found to be feasible and break the line of sight of an 11.5-foot-high truck exhaust stack at a minimum height of 10 feet. The total cost allowance for this soundwall, calculated in accordance with the Caltrans Traffic Noise Analysis Protocol, is \$107,000. The current estimated cost is \$52,600, therefore, the soundwall would be reasonable. However, the building has been demolished, and Soundwall SW-1 is no longer necessary.

Soundwall SW-2

The estimated future build noise level for Receiver R7 is expected to be 68 dBA $L_{eq}(h)$ in the design-year. There is a 1-dB increase from existing to no-build conditions and no estimated increase in noise levels from no-build to build conditions; however, because the predicted noise level in the design-year exceeds 67 dBA $L_{eq}(h)$ for NAC Activity Category B, traffic noise impacts are predicted at this receiver, and noise abatement was evaluated.

Soundwall SW-2 was evaluated for Receiver R7, representing two single-family residences. These residences have driveway access via E. Nocta Street; therefore, Soundwall SW-2 was placed on the eastern and southern property lines between the residences and Grove Avenue. At a maximum height of 16 feet, Soundwall SW-2 provides feasible noise reduction of 5 dB, but it would not achieve the Caltrans acoustical design goal of 7-dB noise reduction for at least one benefited receptor; therefore, the soundwall would not be feasible.

Soundwall SW-3

Build noise levels at Receiver R8 are predicted to be 67 dBA $L_{eq}(h)$. Build noise levels are expected to increase by 2 dB from existing conditions and no increase in noise levels from no-build to build conditions. Predicted noise levels in the design-year meets the 67 dBA $L_{eq}(h)$ for NAC Activity Category B; therefore, noise abatement was evaluated.

Soundwall SW-3 was evaluated for Receiver R8, representing seven single-family residences. Soundwall SW-3 was placed on the eastern property lines between the residential homes and Grove Avenue. Soundwall SW-3 would not provide feasible noise reduction of at least 5 dB at any evaluated height; therefore, the soundwall would not be feasible.

Soundwall SW-4

Noise modeling results indicate that future build noise levels experienced at Receiver R12 are predicted to be 71 dBA $L_{eq}(h)$. No-build noise levels are expected to increase by 1 dB from existing conditions and a 1-dB increase in noise levels from no-build to build conditions. The predicted noise level in the design-year build condition exceeds 67 dBA $L_{eq}(h)$ for NAC Activity Category B; therefore, noise abatement was evaluated.

Soundwall SW-4 was evaluated for Receiver R12, representing a single-family residence. Soundwall SW-4 was placed to the maximum extent of the eastern and southern property lines without restricting driveway access. Soundwall SW-4 was

found to be feasible at a minimum height of 6 feet. To meet the Caltrans acoustical design goal of a 7-dB reduction to break the line of sight of an 11.5-foot-high truck exhaust stack, Soundwall SW-4 is required to be at a minimum height of 10 feet. The total cost allowance for this soundwall, calculated in accordance with the Caltrans Traffic Noise Analysis Protocol, is \$107,000. The current estimated cost is \$89,600; therefore, the soundwall would be reasonable. However, Soundwall SW-4 was found to be infeasible due to nonacoustical factors related to the City of Ontario Development and Subdivision Regulations. These regulations state that the maximum height of a fence on a front property line is 3 feet, and a 6-foot-tall fence may be constructed, provided it is set back 5 feet from the property line and at least 90 percent of the vertical surface above 3 feet is non-view-obstructing.

Soundwall SW-5

The traffic noise modeling results indicate that build noise levels at Receivers R13, R13A, and R13B are predicted to range from 61 dBA to 73 dBA $L_{eq}(h)$. Noise levels from existing to no-build conditions would increase by a maximum of 2 dB, and noise levels from no-build to build conditions would not increase. The predicted noise level at Receiver R13A during the design-year exceeds 67 dBA $L_{eq}(h)$ for NAC Activity Category B; therefore, noise abatement was evaluated.

Soundwall SW-5 was evaluated for Receiver R13A, representing one of the single-family residences. Soundwall SW-5 was placed on the northern and eastern property lines of two residential properties at Receivers R13A and R13B. Soundwall SW-5 was found to be feasible at a minimum height of 6 feet. To meet the Caltrans acoustical design goal of a 7-dB reduction at one or more benefited receptors and to break the line of sight of an 11.5-foot-high truck exhaust stack, Soundwall SW-5 is required to be at a minimum height of 10 feet. The total cost allowance for this soundwall, calculated in accordance with the Caltrans Traffic Noise Analysis Protocol, is \$214,000. The current estimated cost is \$123,000; therefore, the soundwall would be reasonable. However, Soundwall SW-5 was found to be infeasible due to nonacoustical factors related to the City of Ontario Development and Subdivision Regulations. These state that the maximum height of a fence on a front property line is 3 feet, and a 6-foot-tall fence may be constructed, provided it is set back 5 feet from the property line and at least 90 percent of the vertical surface above 3 feet is non-view-obstructing.

Soundwall SW-5A

Noise modeling results indicate that design-year build noise levels at Receivers R17-1, R17-2, and R17A are predicted to range from 64 to 72 dBA $L_{eq}(h)$. Noise levels from existing to no-build conditions are predicted to increase by a maximum of 2 dB, while

noise levels from no-build to build conditions are not expected to increase. The predicted noise levels for the design-year with-project conditions exceed the 67 dBA $L_{eq}(h)$ NAC for Activity Category B at Receivers R17-2 and R17A; therefore, noise abatement must be evaluated.

Soundwall SW-5A was evaluated along the property line of the six multi-family residences represented by Receivers R17-1, R17-2, and R17A and would be located west of Grove Avenue. This soundwall would provide feasible noise reduction for the frequent outdoor human use areas represented by Receivers R17-2 and R17A at minimum heights of 16 and 14 feet, respectively. However, Soundwall SW-5A would not achieve the Caltrans acoustical design goal of at least 7 dB of noise reduction for at least one benefited receptor; therefore, the soundwall would not be feasible.

Soundwall SW-5B

Noise modeling results indicate the future build noise level at Receiver R19A, which represents one multi-family residence, is predicted to be 73 dBA $L_{eq}(h)$. The noise level from existing to no-build conditions is predicted to increase by 2 dB at Receiver R19A; however, there is no difference in predicted noise level between the no-build and build conditions. Because the predicted worst-hour traffic noise level exceeds the 67-dBA $L_{eq}(h)$ NAC for this Activity Category B land use, consideration of noise abatement is required.

Soundwall SW-5B would provide feasible noise reduction for the multi-family residence represented by Receiver R19A. This soundwall would be placed at the eastern property line of the property. Soundwall SW-5B would provide feasible noise reduction and achieve the Caltrans acoustical design goal of at least 7 dB of noise reduction at a minimum height of 6 feet; however, to break the line-of-sight to an 11.5-foot-high truck exhaust stack, the height of Soundwall SW-5B would need to be increased to 10 feet. The total cost allowance for this soundwall, calculated in accordance with the Caltrans Traffic Noise Analysis Protocol, is \$107,000. The current estimated cost is \$122,000. Therefore, the soundwall would be reasonable.

Soundwall SW-5C

The design-year build traffic noise level at Receiver R19 is predicted to be 73 dBA $L_{eq}(h)$. The worst-hour exterior noise level from existing to no-build conditions is predicted to increase by 2 dB, and the noise level from no-build to build conditions is predicted not to increase. Predicted traffic noise levels exceed the 67-dBA $L_{eq}(h)$ NAC at Receiver R19, which is an Activity Category B land use; therefore, noise abatement must be considered.

Soundwall SW-5C would provide feasible noise reduction for the formalized outdoor activity area of the multi-family residence represented by Receiver R19. This soundwall would be located on the eastern property line of the property at Receiver R19. Soundwall SW-5C would provide feasible noise reduction and achieve the Caltrans acoustical design goal of at least 7 dB of noise reduction at a minimum height of 6 feet. However, to break the line-of-sight to an 11.5-foot-high truck exhaust stack, the height of Soundwall SW-5C would need to be increased to 8 feet. The total cost allowance for this soundwall, calculated in accordance with the Caltrans Traffic Noise Analysis Protocol, is \$107,000. The current estimated cost is \$80,600; therefore, the soundwall would be reasonable.

Properties along the soundwall that would receive a 1-dB or more noise reduction were identified for the residential viewpoint survey. Soundwall SW-5C would be located on private property. Per the protocol, 100 percent of the owners of the private property upon which noise abatement is to be placed must support the proposed abatement. If no response is received from a property owner, their vote would be considered a “no” vote. One letter was sent to the property owner, and no response was received back. The property owner did not support the proposed abatement. Therefore, Soundwall SW-5C is no longer considered reasonable from the viewpoint of the benefitted receptors.

Soundwall SW-6

Noise modeling results indicate that design-year build noise levels at Receivers R23 through R28A are predicted to range from 59 dBA to 74 dBA $L_{eq}(h)$. Noise levels from existing to no-build conditions would increase by up to 3 dB, and noise levels from no-build to build conditions would increase by 2 dB. The predicted noise level in the design-year approaches or exceeds 67 dBA $L_{eq}(h)$ for NAC Activity Category B; therefore, noise abatement was evaluated.

Soundwall SW-6 was evaluated for Receivers R23 to R28, representing 25 single-family residences. Soundwall SW-6 was placed on the eastern property lines between the residences and Grove Avenue. Soundwall SW-6 was found to be feasible and break the line of sight of an 11.5-foot-high truck exhaust stack at a minimum height of 8 feet. To meet the Caltrans acoustical design goal of a 7-dB reduction, Soundwall SW-6 is required to be at a minimum height of 12 feet in front of the residences represented by Receivers R26 and R27. It is not possible to provide feasible noise reduction for the single-family residence represented by Receiver R28 at any height analyzed. The total cost allowance for this soundwall, calculated in accordance with the Caltrans Traffic Noise Analysis Protocol, is \$1,840,000. The current estimated cost of a 12-foot-tall

wall is \$911,800; therefore, the soundwall would be reasonable. However, the City is only proposing an 8-foot-high wall at this location to reduce noise levels at adjacent receptors by up to 3 dB, which more than the noise increase due to the project.

Properties along the soundwall that would receive a 1-dB or more noise reduction were identified for the residential viewpoint survey. Soundwall SW-6 would be located on private property. Per the protocol, 100 percent of the owners of the private property upon which noise abatement is to be placed must support the proposed abatement. If no response is received from a property owner, their vote would be considered a “no” vote. Twenty-one (21) letters were sent to the property owners. Soundwall SW-6 received 11 “yes” votes; 1 “no” vote; 8 no responses; and 1 was unclaimed. Because 100 percent of the property owners did not support the proposed abatement, Soundwall SW-6 is no longer considered reasonable from the viewpoint of the benefitted receptors.

Soundwall SW-7

Noise modeling results indicate that design-year build noise levels at Receivers R37 and R40A are predicted to range from 58 dBA to 70 dBA $L_{eq}(h)$. Noise levels from existing to no-build conditions would increase by up to 4 dB, and noise levels from no-build to build conditions would increase by up to 2 dB. Predicted noise levels in the design-year exceed 67 dBA $L_{eq}(h)$ for NAC Activity Category B; therefore, noise abatement was evaluated.

Soundwall SW-7 was evaluated for Receivers R37, R38, and R40, representing 12 mobile homes within the Star Trailer Park community. Soundwall SW-7 was placed on the western and southern property lines between the mobile homes and Grove Avenue. To meet the Caltrans acoustical design goal of a 7-dB reduction and to break the line of sight of an 11.5-foot-high truck exhaust stack, Soundwall SW-7 is required to be at a minimum height of 8 feet. The total cost allowance for this soundwall, calculated in accordance with the Caltrans Traffic Noise Analysis Protocol, is \$1,284,000. The current estimated cost is \$182,200; therefore, the soundwall would be reasonable.

Soundwall SW-7 would be located on private property. Per the protocol, 100 percent of the owners of the private property upon which noise abatement is to be placed must support the proposed abatement. If no response is received from a property owner, their vote would be considered a “no” vote. One letter was sent to the property owner, and a “yes” vote was received back. The property owner supports the proposed abatement. Therefore, Soundwall SW-7 is considered reasonable from the viewpoint of the benefitted receptors.

Soundwall SW-8

Noise modeling results indicate that design-year build noise levels at Receiver R42 are predicted to be 72 dBA $L_{eq}(h)$. No-build noise levels are expected to increase by 1 dB from existing conditions. There is an estimated 7-dB increase in noise levels from no-build to build conditions. The predicted noise level in the design year exceeds 67 dBA $L_{eq}(h)$ for NAC Activity Category B; therefore, noise abatement was evaluated.

Soundwall SW-8 was evaluated for Receiver R42, representing three multi-family residences. The soundwall would also provide some benefit to Receiver R41. Soundwall SW-8 was placed on the western property line between the residences and Grove Avenue. Soundwall SW-8 was found to be feasible at a minimum height of 6 feet. To meet the Caltrans acoustical design goal of a 7-dB reduction, Soundwall SW-8 is required to be at a minimum height of 8 feet. The total cost allowance for this soundwall, calculated in accordance with the Caltrans Traffic Noise Analysis Protocol, is \$321,000. The current estimated cost is \$153,700; therefore, the soundwall would be reasonable.

Properties along the soundwall that would receive a 1-dB or more noise reduction were identified for the residential viewpoint survey. Soundwall SW-8 would be located on private property. Per the protocol, 100 percent of the owners of the private property upon which noise abatement is to be placed must support the proposed abatement. If no response is received from a property owner, their vote would be considered a “no” vote. Two letters were sent to the property owners. Soundwall SW-8 received 1 “yes” vote and 1 “no” vote. Because 100 percent of the property owners did not support the proposed abatement, Soundwall SW-8 is no longer considered reasonable from the viewpoint of the benefitted receptors.

Soundwall SW-9

The traffic noise modeling results indicate that design-year build noise levels at Receivers R43 and R44A are predicted to range from 57 dBA to 73 dBA $L_{eq}(h)$. Noise levels from existing to no-build conditions would increase up to 1 dB, and noise levels from no-build to build conditions would increase up to 8 dB. Predicted noise levels in the design year exceed 67 dBA $L_{eq}(h)$ for NAC Activity Category B; therefore, noise abatement was evaluated.

Soundwall SW-9 was evaluated for Receiver R43, representing three multi-family residences. Soundwall SW-9 was placed on the western property line between the residences and Grove Avenue. Soundwall SW-9 was found to be feasible at a minimum height of 6 feet. To meet the Caltrans acoustical design goal of a 7-dB reduction,

Soundwall SW-9 is required to be at a minimum height of 8 feet. Analysis results indicate that Soundwall SW-9 would not provide feasible noise reduction at impacted Receiver R44, even at the maximum height of 14 feet. The total cost allowance for this soundwall, calculated in accordance with the Caltrans Traffic Noise Analysis Protocol, is \$321,000. The current estimated cost for an 8-foot wall is \$138,500; therefore, the soundwall would be reasonable.

Properties along the soundwall that would receive a 1-dB or more noise reduction were identified for the residential viewpoint survey. Soundwall SW-9 would be located on private property. Per the protocol, 100 percent of the owners of the private property upon which noise abatement is to be placed must support the proposed abatement. If no response is received from a property owner, their vote would be considered a “no” vote. Two letters were sent to the property owners. Soundwall SW-9 received 1 “yes” vote and 1 no response. Because 100 percent of the property owners did not support the proposed abatement, Soundwall SW-9 is no longer considered reasonable from the viewpoint of the benefitted receptors.

Soundwall SW-10

The traffic noise modeling results indicate that design-year build noise levels at Receivers R45 through R46A are predicted to range from 60 dBA to 72 dBA $L_{eq}(h)$. Noise levels from existing to no-build conditions would increase up to 2 dB, and noise levels from no-build to build conditions would increase up to 5 dB. Predicted noise levels in the design year exceed 67 dBA $L_{eq}(h)$ for NAC Activity Category B; therefore, noise abatement was evaluated.

Soundwall SW-10 was evaluated for Receiver R46, representing a single-family residence. Soundwall SW-10 was placed on the western and northern property lines between the residence and Grove Avenue. Although Soundwall SW-10 would provide feasible noise reduction at a minimum height of 6 feet, a height of 12 feet is needed for Soundwall SW-10 to meet the Caltrans acoustical design goal of a 7-dB reduction. The analysis results indicate that Soundwall SW-10 would not provide feasible noise reduction at impacted Receiver R45, even at the maximum height of 14 feet. The total cost allowance for this soundwall, calculated in accordance with the Caltrans Traffic Noise Analysis Protocol, is \$107,000. The current estimated cost is \$165,900; therefore, the soundwall would not be reasonable.

Soundwall SW-11

Noise modeling results indicate that design-year noise levels at Receivers R49A and R50 are predicted to be 61 and 70 dBA $L_{eq}(h)$, respectively. No-build noise levels are

expected to increase by 3 dB from existing to no-build conditions, and there is an estimated 2-dB increase in noise levels from no-build to build conditions. The predicted noise level in the design year exceeds 67 dBA $L_{eq}(h)$ for NAC Activity Category B; therefore, noise abatement was evaluated.

Soundwall SW-11 was evaluated for Receivers R49A and R50, representing five single-family residences. Soundwall SW-11 was placed on the western property line between the residences and Grove Avenue. Soundwall SW-11 was found to be feasible and meet the Caltrans acoustical design goal of a 7-dB reduction at a minimum height of 6 feet. Soundwall SW-11 breaks the line of sight of an 11.5-foot-high truck exhaust stack at a minimum height of 8 feet. The total cost allowance for this soundwall, calculated in accordance with the Caltrans Traffic Noise Analysis Protocol, is \$535,000. The current estimated cost is \$197,900; therefore, the soundwall would be reasonable.

Properties along the soundwall that would receive a 1-dB or more noise reduction were identified for the residential viewpoint survey. Soundwall SW-11 would be located on private property. Per the protocol, 100 percent of the owners of the private property upon which noise abatement is to be placed must support the proposed abatement. If no response is received from a property owner, their vote would be considered a “no” vote. Five letters were sent to the property owners. Soundwall SW-11 received 4 “yes” votes and 1 was unclaimed. Because 100 percent of the property owners did not support the proposed abatement, Soundwall SW-11 is no longer considered reasonable from the viewpoint of the benefitted receptors.

Soundwall SW-12

Noise modeling results indicate that design-year build noise levels at Receivers R53 through R56A are predicted to range from 60 dBA to 73 dBA $L_{eq}(h)$. Noise levels from existing to no-build conditions would increase up to 2 dB, and noise levels from no-build to build conditions would increase up to 2 dB. Predicted noise levels in the design year meet or exceed 67 dBA $L_{eq}(h)$ for NAC Activity Category B; therefore, noise abatement was evaluated.

Soundwall SW-12 was evaluated for Receivers R53, R53A, R54, and R55, representing 15 single-family residences. Soundwall SW-12 was placed on the western property lines between the residences and Grove Avenue. Soundwall SW-12 was found to be feasible and meet the Caltrans acoustical design goal of a 7-dB reduction at a minimum height of 8 feet. The total cost allowance for this soundwall, calculated in accordance

with the Caltrans Traffic Noise Analysis Protocol, is \$1,605,000. The current estimated cost is \$597,500. Therefore, the soundwall would be reasonable.

Properties along the soundwall that would receive a 1-dB or more noise reduction were identified for the residential viewpoint survey. Soundwall SW-12 would be located on private property. Per the protocol, 100 percent of the owners of the private property upon which noise abatement is to be placed must support the proposed abatement. If no response is received from a property owner, their vote would be considered a “no” vote. Eighteen (18) letters were sent to the property owners. Soundwall SW-12 received 11 “yes” votes, 3 no responses; and 4 were unclaimed. Because 100 percent of the property owners did not support the proposed abatement, Soundwall SW-12 is no longer considered reasonable from the viewpoint of the benefitted receptors.

The noise abatement evaluation indicates that feasible soundwalls placed at the modeled locations in the Grove Avenue corridor require heights ranging from 6 to 16 feet. Soundwalls SW-1, SW-4, SW-5, SW-5B, and SW-5C through SW-12 were found to be feasible and meet the Caltrans design criteria at heights ranging from 6 to 16 feet. Soundwalls SW-2, SW-3, and SW-5A do not meet the Caltrans acoustical design goal at any evaluated height. Of the soundwalls that are feasible, Soundwalls SW-1, SW-5C, SW-6, SW-7, SW-8, SW-9, SW-11, and SW-12 were found to be both feasible and reasonable.

The design of the feasible soundwalls presented in the NSR that meet the Caltrans design goal are preliminary and have been conducted at a level appropriate for environmental review and not for the final design of the project. Preliminary information on the physical location, length, and height of soundwalls is provided in the NSR. If pertinent parameters change substantially during the final design, preliminary soundwall designs may be modified or eliminated from the final project. A final decision on the construction of noise abatement will be made upon completion of the project design.

The following noise abatement minimization measure would apply to the project:

- N-1:** Based on the studies completed to date and input from the public, Caltrans and the City will incorporate noise abatement in the form of soundwalls that meet the criteria for reasonableness and feasibility. The recommended soundwalls would reduce the traffic noise by at least 5 dB at the impacted receivers, would meet the design goal by providing a 7-dB reduction for at least one receiver, and would cost less than the

reasonable cost allowance. If conditions have substantially changed during final design, noise abatement may change or may not be necessary, depending on the results of the updated noise analysis using final design information. The final decision of the noise abatement will be made upon completion of the project design and the public involvement process.

After circulation of the draft environmental document, soundwall surveys were conducted with all property owners and residents of benefited receptors located with the footprint of the Build Alternative. Where 100 percent of the responding benefited receptors did not support the soundwall, the soundwall will not be constructed.

However, if conditions substantially change at the time of final design, a noise analysis and/or soundwall surveys may be conducted again, and the final decision on noise abatement will be reconsidered as part of the project design.

Construction Noise Abatement

There are many measures that can be taken to minimize noise intrusion without placing unreasonable constraints on the construction process or substantially increasing costs. The following are possible control measures that can be implemented under standard condition SC-CI-23 to minimize noise disturbances at sensitive areas during construction:

- All equipment shall have sound-control devices no less effective than those provided on the original equipment. Each internal combustion engine used for any purpose on the job or related to the job shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the jobsite without an appropriate muffler.
- Construction methods or equipment that will provide the lowest level of noise impact (e.g., avoid impact pile driving near residences and consider alternative methods that are also suitable for the soil condition) shall be used.
- Idling equipment shall be turned off.
- Truck loading, unloading, and hauling operations shall be restricted so that noise and vibration are kept to a minimum through residential neighborhoods to the greatest possible extent.
- Construction activities shall be coordinated to build recommended permanent soundwalls during the first phase of construction to protect sensitive receivers from

subsequent construction noise, dust, light, glare, and other impacts, to the extent feasible.

- Temporary noise barriers shall be used and relocated, as needed, to protect sensitive receivers against excessive noise from construction activities involving large equipment and by small items such as compressors, generators, pneumatic tools, and jackhammers. Noise barriers can be made of heavy plywood, moveable insulated sound blankets, or other best available control techniques.
- Newer equipment with improved noise muffling shall be used, and all equipment items shall have the manufacturers' recommended noise abatement measures (e.g., mufflers, engine covers, and engine vibration isolators) intact and operational. Newer equipment will generally be quieter in operation than older equipment. All construction equipment shall be inspected at periodic intervals to ensure proper maintenance and presence of noise-control devices (e.g., mufflers and shrouding).
- Construction activities shall be minimized in residential areas during evening, nighttime, weekend, and holiday periods. Noise impacts are typically minimized when construction activities are performed during daytime hours; however, nighttime construction may be desirable (e.g., in commercial areas where businesses may be disrupted during daytime hours) or necessary to avoid major traffic disruption. Coordination with the City shall occur before construction can be performed in noise-sensitive areas.
- Construction laydown or staging areas shall be selected in industrially zoned districts. If industrially zoned areas are not available, commercially zoned areas may be used, or locations that are at least 100 feet from any noise-sensitive land use (e.g., residences).
- Contractor shall prepare a Noise and Vibration Monitoring and Mitigation Plan by a qualified Acoustical Engineer and submit it for approval. The Plan must outline noise and vibration monitoring procedures at predetermined noise- and vibration-sensitive sites, as well as historic properties. The Plan also must include calculated noise and vibration levels for various construction phases and mitigation measures that may be needed to meet the project specifications. The Contractor shall not start any construction work or operate any noise-generating construction equipment at the construction site before approval of the Plan. The Plan must be updated every 3 months or sooner if there are any changes to the construction activities.

Certain construction activities could cause intermittent localized concern from vibration in the project area. Processes such as earth moving with bulldozers, the use of vibratory compaction rollers, impact pile driving, demolitions, or pavement braking may cause construction-related vibration impacts such as human annoyance or, in some

cases, building damage. There are cases where it may be necessary to use this type of equipment near residential buildings. The following are procedures that can be used to minimize the potential impacts from construction vibration:

- Restrict the hours of vibration-intensive equipment or activities, such as vibratory rollers, so that impacts to residents are minimal (e.g., weekdays during daytime hours only when as many residents as possible are away from home).
- The owner of a building close enough to a construction vibration source that damage to that structure due to vibration is possible would be entitled to a preconstruction building inspection to document the preconstruction condition of that structure.
- Conduct vibration monitoring during vibration-intensive activities.

A combination of the mitigation techniques for equipment vibration control, as well as administrative measures, when properly implemented, can be selected to provide the most effective means to minimize the effects of construction activity. Application of these measures as standard condition SC-CI-24 will reduce the construction impacts; however, temporary increases in vibration may occur at some locations.

Based on the studies completed to date and input from the public, Caltrans and the City intend to incorporate noise abatement in the form of a barrier at the western and southern property lines of the Star Trailer Park community. The proposed Soundwall SW-7 would be placed between the mobile homes and Grove Avenue, with a length of 332 feet and an average height of 8 feet. Calculations based on preliminary design data show that the barrier will reduce noise levels by 8 dBA for 12 residences at a current cost of \$182,200. If conditions have substantially changed during final design, noise abatement may not be constructed. The final decision on noise abatement will be made upon completion of the project design.

2.3.8 Energy

Energy is consumed during construction and operation of transportation projects. This section provides an assessment of the potential impacts of the proposed project on transportation-related energy consumption in the study corridor. The analysis considers direct (operational) and indirect (construction and maintenance) energy requirements.

2.3.8.1 Regulatory Setting

NEPA (42 U.S.C. Part 4332) requires the identification of all potentially significant impacts to the environment, including energy impacts.

CEQA Guidelines Section 15126.2(b) and Appendix F, Energy Conservation, require analysis of a project's energy use to determine if the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy or wasteful use of energy resources.

2.3.8.2 Affected Environment

The California Energy Commission (CEC) is California's primary energy policy and planning agency. SCAG's responsibilities include tracking and forecasting energy use in southern California. An Energy Working Group, as part of SCAG's Energy Planning Program, assists in developing energy policies consistent with the adopted plans, such as the RTP and the RCP and Guide. Over the past 50 years, energy supplies in southern California have sufficiently served the rapid growth in population and development (SCAG, 2008).

Energy resources for transportation include petroleum, natural gas, liquefied petroleum gas electricity, hydrogen, and biofuel. Transportation is the single largest contributor to California's GHG emissions, producing approximately 39 percent of the state's total emissions in 2009. In addition, Californians consumed more than 18 billion gallons of gasoline and diesel fuel in 2010, resulting in the estimated emission of more than 200 million metric tons of GHG equivalence. California has long been regulating the criteria pollutants from automobiles. The State adopted stringent tailpipe emission standards as early as 1996 and in 1971 adopted nitrogen oxides (NO_x) standards, both the first such standards in the nation. The California Smog Check Program, which assured the effectiveness of vehicle emission control systems, went into effect in 1984. In 1992, California began the first phase of reformulated clean-burning gasoline, and in 1993, the State enacted new standards for cleaner diesel fuel. However, reducing GHG emissions is a new, more difficult challenge for a state so heavily dependent on automobiles.

Currently, California’s gas and diesel markets are characterized by increasing demands, tight supplies, and volatile supplies. California imports more than 50 percent of its crude oil and more than 15 percent of its refined products. Demand for gasoline and diesel is projected to increase in California by 1 to 2 percent each year as a growing population registers more vehicles and drives more miles. California is the third largest consumer of transportation fuels in the world (behind the United States as a whole and China); almost 16 billion gallons of gasoline and more than 4 billion gallons of diesel fuels are consumed each year. California would like to improve efficiency of the transportation fuel; however, federal law has prohibited states from setting the minimum number of miles per gallon (mpg) that new cars and light trucks must achieve. In 2003, the CEC and ARB reviewed the technical and economic aspects of a major reduction in the petroleum dependence of California’s transportation sector. Based on this research, in 2005, Governor Schwarzenegger appealed to the United States House of Representatives “to establish new fuel economy standards that double the fuel efficiency of new cars, light trucks and SUVs.” In June 2007, the United States Senate voted to raise the fuel efficiency standards for cars to 35 mpg by 2020. The proposed 35-mpg standard pales in comparison with Japan’s current standard of 45 mpg and Europe’s more than 50 mpg standard by 2012.

California’s population is estimated to exceed 44 million by 2020, which would result in substantial increases in transportation fuel demand for the State. Table 2.3.8-1 indicates a projected 149 million-barrel increase in transportation fuel demand from 2005 by the year 2020.

Table 2.3.8-1. California Transportation Fuel Demand

Year	Demand Level Range (Million Barrels per Year)	Daily Energy Consumption (Billions BTU)
2005	553	8,787
2010	580-617	9,804
2015	608-661	10,504
2020	638-702	11,155

Values derived from Figure 7-5 in 2007 IEPR (CEC, 2007).

Source: CEC, 2007.

The CEC-proposed energy needs are measured in petroleum and equivalent British Thermal Units (BTU). A BTU is the quantity of heat required to raise the temperature of water 1 degree Fahrenheit (°F) at sea level. Other units of energy can be converted into equivalent BTU units, and BTU is used as the basis for comparing energy consumption associated with different resources. Table 2.3.8-2 shows comparisons of types of energy and their equivalent BTU units.

Table 2.3.8-2. Energy Value (BTU) of Various Energy Sources

Energy Source	Measurement Unit	Equivalent BTU ^a
Electricals	Kilowatt-hour	3,412
Natural Gas	Cubic Feet	1,034
Petroleum (Crude Oil)	Barrel (42 Gallons)	5,800,000
Gasoline	Gallon	125,000

^a One BTU is the quantity of energy necessary to raise the temperature of one pound of water by 1 °F

Source: CEC, 2007.

Transportation sector energy consumption reflects the types and numbers of vehicles, the extent of their use (i.e., VMT), and their fuel economy (i.e., mpg). Implementation of the proposed project would allow capacity in the project corridor, thereby facilitating improved efficiency in energy use. Changes in VMT would affect traffic fuel and energy consumption. VMT and vehicle hours traveled (VHT) are also important in determining the demand for infrastructure improvements. Urban growth patterns have caused California’s VMT to increase at a rate of more than 3 percent per year between 1975 and 2004. In 2005, SCAG data showed automobile VMT in California at 372 million, which is equivalent to 2.14 trillion BTUs or approximately 369,000 barrels of oil.

Existing traffic conditions on Grove Avenue and in the surrounding area are discussed in Section 2.2.10, Traffic and Transportation/Pedestrian and Bicycle Facilities, which define associated energy consumption by vehicles. Existing pavement is in good condition, and there are 27.5- to 31.5-foot-high LED streetlights along the corridor.

2.3.8.3 Environmental Consequences

Based on CEQA Guidelines, Appendix F, energy impacts would be considered significant if implementation of the proposed project would result in:

- Wasteful, inefficient, and unnecessary usage of energy; or
- Placing a significant demand on regional energy supply or requirement for substantial additional capacity.

Energy consumption includes direct and indirect energy use. Direct use is the energy consumed in the actual propulsion of the vehicles traveling within the project corridor. Indirect use includes the energy consumed for project construction and maintenance activities. The impact of the proposed project in context of the countywide travel is too small to demonstrate energy impacts quantitatively; therefore, a qualitative energy analysis was conducted.

No Build Alternative

Under the No Build Alternative, fuel consumption by motor vehicle traffic would change as vehicle traffic volumes, driving speed, and the vehicle type changes year by year. Fuel efficiency would decrease due to projected future growth as more vehicles would be traveling with reduced average speeds on an increasingly congested roadway. There would be no construction activities except for regular maintenance operations.

Build Alternative (Proposed Project)

The proposed project would not affect traffic volume or traffic mix, and it would not affect the diesel truck percentage along the project corridor. The project traffic study indicates that currently the project corridor traffic is not significantly affected by the delays at the intersections (see Table 2.33.8-3); however, traffic flow would continue deteriorating in the future with the No Build Alternative. The proposed addition of a new traffic lane on each side of Grove Avenue, within the proposed limits, would relieve traffic congestion along the project corridor. Furthermore, as a result of the project, LOS at intersections would improve, and delay due to traffic congestions at the project intersections would be greatly reduced. The effects would translate into more efficient energy consumption for the proposed Build Alternative compared to the No Build Alternative.

**Table 2.3.8-3. Comparison of Traffic LOS
for Existing and Future Build Years 2025 and 2045**

Grove Avenue Segments and Intersections	Peak Hour LOS (AM/PM)		
	Existing	2025	2045
No Build			
Grove Avenue/4 th Street	D/C	D/E	D/F
Grove Avenue/I Street	A/A	A/A	A/A
Grove Avenue/G Street	A/A	A/A	B/C
Grove Avenue/D Street	A/A	A/A	B/B
Grove Avenue/Holt Boulevard	C/C	F/F	F/F
Grove Avenue/State Street-Airport Drive	C/C	C/C	F/F
Build Alternative			
Grove Avenue/4 th Street	--	D/D	D/D
Grove Avenue/I Street	--	A/A	A/A
Grove Avenue/G Street	--	A/A	B/B
Grove Avenue/D Street	--	A/A	A/A
Grove Avenue/Holt Boulevard	--	D/D	E/E
Grove Avenue/State Street-Airport Drive	--	C/C	D/E
Improved LOS is shown in bold .			

Source: Iteris, 2015.

Maintenance of the Build Alternative can potentially generate indirect energy impacts within the proposed project corridor; however, operation of the Build Alternative would translate into more efficient energy consumption and higher energy savings for the project corridor. These high energy savings from operation of the Build Alternative would offset the potential indirect energy impacts generated from maintenance of the improved facility.

Furthermore, it should be noted that while the No Build Alternative does not require immediate consumption of energy for construction activities, it may use larger quantities of energy in the future as traffic worsens; as such, savings in operational energy requirements would more than offset construction energy requirements, and thus, in the long term, result in a new savings in energy usage.

When balancing energy used during construction and operation against energy saved by relieving congestion and other transportation efficiencies, the project would not have substantial energy impacts nor result in wasteful, inefficient, or unnecessary consumption use of energy or wasteful use of energy resources.

The proposed project is listed in both the SCAG 2012–2035 RTP and the SCAG 2015 FTIP Amendment 4 under project ID number 2002160. The 2012–2035 RTP was approved by FHWA on April 4, 2012. The 2015 FTIP was approved by FHWA on April 8, 2015. The project remains listed in the 2019 FTIP, which was adopted by SCAG in September 2018 and for which FHWA issued a conformity determination in December 2018. Thus, it would not obstruct or conflict with a state or local plan for renewable energy or energy efficiency.

2.3.8.4 Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are required; however, as discussed in Section 3.6.1.6, GHG Reduction Strategies, several measures will be included in the proposed project to reduce GHG emissions. A few of these GHG measures will also aid in reducing energy consumption for the Build Alternative. These measures include the following:

1. **Use of Reclaimed Water:** Use of reclaimed water helps conserve energy, which reduces GHG emissions from electricity production.
2. **Lighting:** Use of energy-efficient lighting, such as light-emitting diode (LED) traffic signals.

3. **Idling Restrictions:** Turning off the engines of trucks and construction equipment when not in use will assist in conserving energy during construction.

In addition to the measures listed above, the following measure will also be included to further conserve energy usage from the proposed project:

- The solicitation for construction bids shall include language requiring the use of energy and fuel-efficient fleets and zero-emission technologies for vehicles where possible.

2.4 Biological Environment

The analysis of potential impacts of the Grove Avenue Corridor Project on the biological environment is based on the *Natural Environment Study (Minimal Impacts)* (September 2016) prepared for this project.

2.4.1 Natural Communities

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

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act (FESA) are discussed below in Section 2.4.5, Threatened and Endangered Species. Wetlands and other waters are also discussed below in Section 2.4.2, Wetlands and Other Waters.

2.4.1.1 Affected Environment *Biological Study Area*

The Biological Study Area (BSA) for the project is located along an approximately 116.27-acre study area along Grove Avenue in Ontario. The BSA consists of Caltrans ROW, anticipated TCEs, proposed construction staging areas (CSAs), and areas within a 50-foot-wide buffer immediately adjacent to the ROW and CSAs. The BSA includes all areas anticipated to be disturbed during construction of the proposed project.

The BSA consists of entirely developed land. Vegetation within the BSA is limited to non-native ornamental landscaping for existing roads, homes, and parks, in addition to non-native ruderal (weedy) elements within vacant lots. Surveyed trees within the BSA that overlap with the parkway are, at a minimum, 10 feet tall; therefore, these trees qualify as parkway trees under the City's Municipal Code Sections 10-2 *et seq.* A total of 484 trees occur within the BSA. All trees with a minimum trunk diameter of 4 inches were surveyed within the BSA permanent impact area. All trees were noted for their species, size (trunk diameter at breast height in inches), crown radius (in feet), and general health and vigor.

Natural Communities of Special Concern

As identified in the California Natural Diversity Database (CNDDDB) and summarized in Table 2.4.1-1, no sensitive natural communities, one special-status plant species, and three special-status animal species have been reported within 1.0 mile of the BSA between the years 1905 and 2001. Based on the current developed condition and lack of suitable habitat within the BSA, regional species of concern are not likely to occur within the BSA.

Table 2.4.1-1. Regional Species of Concern

Scientific Name	Common Name	Status	Species Present/ Absent
Plants			
<i>Uneatekelia cuneata var. puberula</i>	Mesa Horkelia	--/-- CRPR 1B.1	Absent
Wildlife			
<i>Rhaphiomidas terminates abdominalis</i>	Delhi Sands Flower-loving Fly	FE/--	Absent
<i>Anniella pulchra</i>	Silvery Legless Lizard	--/SSC	Absent
<i>Antrozous pallidus</i>	Pallid bat	--/SSC	Absent
<p>FE: Federally Endangered CRPR 1B.1: California Rare Plant Rank listing designates plants that are rare, with most of them endemic to California, that present populations throughout their range, are seriously threatened in California (more than 80 percent of occurrences threatened/high degree and immediacy of threat). SSC: Species of Special Concern These designations are to be considered during the State and federal environmental review process, as applicable (e.g., CEQA [PRC Section 21000 <i>et seq.</i>] and NEPA [50 CFR 402.12]).</p>			

Habitat Connectivity

Habitat connectivity is established when there is a wildlife movement corridor that connects two blocks of native habitat. A wildlife corridor between such habitats functions to allow genetic interchange between populations. Movement corridors allow dispersal of young and allow animals to flee one patch of habitat in the event of a fire or other large-scale disturbance. Viable connections between habitat areas act as a linkage between those habitats contained in each connected habitat, effectively expanding the usable areas for wildlife that use both the habitats and the corridors connecting them. Wildlife movement connections between these features are generally limited by urbanization.

With that being considered, it should be mentioned that there are some wildlife species that are well adapted to urban environments and will thrive among residential and

commercial developments. Most of the species that are commonly observed in urban environments do not have specific movement corridor requirements, instead using nonspecific movement patterns across these urban areas.

The BSA is situated within a transportation corridor and highly urbanized area that provides no connectivity of habitat in the region.

2.4.1.2 Environmental Consequences

The City has not established significance thresholds for use in evaluating the proposed project's natural community impacts; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used. The guidelines suggest that a project-related significant impact would occur if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or United States Fish and Wildlife Service (USFWS).
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

An evaluation of potential impacts to natural communities associated with each alternative is presented below.

No Build Alternative

The No Build Alternative does not propose any construction or other disturbance in the BSA; therefore, this alternative would not result in permanent impacts to natural communities.

Build Alternative (Proposed Project)

Project implementation would result in no impacts to sensitive habitats or natural communities.

The project would result in permanent unavoidable impacts to approximately 174 trees. Permanent impacts were determined if at least 50 percent of the tree occurred within

the permanent impact area. This number includes tree trimming, as well as tree removals.

No special-status plants or wildlife have potential to occur within the BSA due to lack of suitable habitat.

Implementation of the Build Alternative would not conflict with the provisions of any habitat conservation plan or local biological resource protection ordinances.

Given the high level of existing development within the BSA and minimal opportunity for regional wildlife movement, no permanent impacts to wildlife movement are anticipated to result.

2.4.1.3 Avoidance, Minimization, and/or Mitigation Measures

Although avoidance, minimization, or compensatory mitigation is not required, the following minimization measure is proposed to reduce impacts:

NC-1: The project shall preserve as many mature trees as practicable. Although there is no City or County ordinance for tree removal, the project's landscape plan will incorporate a tree replacement plan with a replacement ratio of 2:1 – for every mature tree removed, two trees will be planted to be consistent with Measure VA-2. Mature trees (larger than 20 feet high) that are to be removed shall be replaced with two 24-inch box trees. Design plans shall indicate locations of existing mature trees (larger than 20 feet high) to be preserved in place. Tree replacement shall meet all Caltrans and City standards and policies, and near John Galvin Park, the replacement tree species will incorporate species that have been identified as those of the original planting of John Galvin Park in the 1930s.

2.4.2 Wetlands and Other Waters

2.4.2.1 Regulatory Setting

Clean Water Act: Section 404

Wetlands and other waters are protected under several laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the CWA (33 U.S.C. 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over nontidal water bodies extend to the ordinary high water mark (OHWM), in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by USACE with oversight by EPA.

USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with EPA's Section 404(b)(1) Guidelines (40 CFR Part 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by EPA in conjunction with USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less

adverse effects. The Guidelines state that USACE may not issue a permit if there is an LEDPA to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, EO 11990 states that a federal agency, such as FHWA and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

At the State level, wetlands and waters are regulated primarily by the SWRCB, the RWQCBs, and CDFW. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the CFG Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by WDRs and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see Section 2.3.2, Water Quality and Stormwater Runoff, for more details

California Fish and Game Code: Section 1602

CFG Code Section 1602 requires any person, state, or local government agency, or public utility proposing a project that may affect a river, stream, or lake to notify CDFW before beginning the project. If activities will result in the diversion or obstruction of the natural flow of a stream; substantially alter its bed, channel, or bank; impact riparian

vegetation; or adversely affect existing fish and wildlife resources, then a Streambed Alteration Agreement is required.

A Streambed Alteration Agreement lists the CDFW conditions of approval relative to the project, and it serves as an agreement between an applicant and CDFW for a term of not more than 5 years for the performance of activities subject to this section. A CDFW Streambed Alteration Notification is required for all activities potentially affecting streambeds and/or their associated riparian habitats. Subsequently, implementation of the project may require a 1602 Streambed Alteration Agreement if these areas are determined to be jurisdictional by CDFW. A Streambed Alteration Agreement will be required for potential impacts to drainages within the study area.

2.4.2.2 Affected Environment

This section discusses wetlands and other waters and summarizes the *Jurisdictional Delineation Letter Report* completed in September 2016 and the *Natural Environment Study (Minimal Impacts)* completed in September 2016. While a Jurisdictional Determination has not been obtained from USACE, Veronica (Chan) Li of USACE responded to the Notice of Preparation (NOP) for the project and indicated that the Cucamonga Channel is a USACE-built facility, and Section 404 and 408 Permits may be required.

A delineation of jurisdictional waters and wetlands within the BSA was conducted in accordance with regulation set forth in 33 CFR Part 328 and the USACE guidance documents as referenced in the *Jurisdictional Delineation Letter Report* (September 2016) and *Natural Environment Study (Minimal Impacts)* (September 2016).

Jurisdictional Delineation Methodology

Prior to conducting the field delineation for potential jurisdictional Waters of the U.S. (including wetlands), all available biological reports, historical land use of the property, local and regional climactic data, and areas with topographical configurations and vegetative signatures occurring within the survey area that may suggest the potential or presence of jurisdictional Waters of the U.S. at the time of the field survey were reviewed. The National Hydrography Dataset (USGS, 2015), National Wetlands Inventory (NWI) Interactive Wetlands Mapper (USFWS, 2015), NRCS (2015a, 2015b), Office of Water Programs, Water Quality Planning Tool (CSUS, 2015), and SBCFCD System Facilities (SBCFCD, 2014) were consulted.

A field survey and formal jurisdictional delineation of potentially regulated waters of the U.S. and State, including wetlands, within the project study area were conducted

on March 26, 2015. All acquired field data were obtained by recording the presence, including extents, types, and boundaries, of potential jurisdictional waters using a handheld global positioning system (GPS) unit. Geographic Information System (GIS) post-processing of the data was conducted for further analysis.

The survey and field reconnaissance determined that the study area did not have potential for the presence of wetlands as defined in 33 CFR 328.3[b], 40 CFR 230.3[t] and USACE guidance documents.

The formal field delineation for field indicators of all potential nonwetland waters of the U.S. and the identification of the jurisdictional lateral extent of the ordinary high water mark (OHWM) utilized all relevant guidance, methodologies, and procedural documents. OHWM indicators were used to delineate the lateral jurisdictional extent of potential nonwetland waters of the U.S.

The formal field delineation for field indicators of all potential nonwetland waters of the U.S. yielded approximately 1.76 acres of jurisdictional waters of the U.S. and State in the form of a concrete-lined ephemeral channel for the West Cucamonga Channel, which is a previously permitted and serviceable facility owned and operated by SBCFCD (Table 2.4.2-1).

Table 2.4.2-1. Potential Waters of the U.S. and State occurring within the Study Area

Geomorphic Feature	Type of Habitat	Regulatory Authority	USACE Jurisdiction		
			Non-wetland Waters (acres)	Non-wetland Waters (linear feet)	Wetland Waters Acres (linear feet)
West Cucamonga Channel	Riverine; Intermittent Stream Bed, Temporarily Flooded, Artificial Substrate, Fresh	USACE, CDFW, and RWQCB	1.76	2,031	0.00 (0)
Total			1.76	2,031	0.00 (0)

The West Cucamonga Channel is still representative of riverine features that present a hydrologic regime and have the potential to support aquatic-dependent life and/or aquatic functions in semi-arid environments, albeit related to downstream receiving waters (namely the Prado Flood Control Basin and the Santa Ana River). Therefore, the West Cucamonga Channel is a valuable cement-lined channel with regard to flood

control protection. As an abiotic feature that presents no hydroperiod or biological activity, it can be considered to provide low ecological functions. However, the West Cucamonga Channel conveys stormwater into the Prado Flood Control Basin and, in turn, the Santa Ana River. The Prado Flood Control Basin, as a receiving waterbody, supports extensive and important aquatic habitats.

2.4.2.3 Environmental Consequences

The City has not established significance thresholds for use in evaluating the proposed project's wetland impacts; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used. The guidelines suggest that a project-related significant impact would occur if the project would:

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (e.g., marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means.

An evaluation of potential impacts to wetlands associated with each alternative is presented below.

Permanent Impacts

No Build Alternative

The No Build Alternative does not propose any construction or other disturbance in the BSA; therefore, this alternative would not result in permanent impacts to wetlands or other jurisdictional waters.

Build Alternative (Proposed Project)

The Build Alternative would result in no permanent impacts to wetlands or nonwetland waters of the U.S. While the No Build Alternative would have no impact on wetlands and other waters, the Build Alternative would be considered the LEDPA because it would have no permanent impacts to wetlands but still meet the project purpose and need.

Temporary/Construction Impacts

No Build Alternative

The No Build Alternative does not propose any construction or other disturbance in the BSA; therefore, this alternative would not result in temporary impacts to wetlands or other jurisdictional waters.

Build Alternative (Proposed Project)

The Build Alternative would result in approximately 0.46 acre (795 linear feet) of temporary impacts to nonwetland waters of the U.S. as a result of improvements to existing, enclosed box culverts for Grove Avenue (Table 2.4.2-2). Temporary impacts would not result in the permanent loss of jurisdictional acreage or permanent loss of function or value of these areas. The affected jurisdictional features would be restored to their approximate original contours and conditions.

Table 2.4.2-2. Impacts to Nonwetland Waters of the U.S.

Geomorphic Feature Number	Impact Acres (Linear Feet)	
	Temporary	Permanent
West Cucamonga Channel	0.46 (795)	0.00 (0)

2.4.2.4 Avoidance, Minimization, and/or Mitigation Measures

The project has been designed to avoid and minimize impacts to waters of the U.S. and State as practicable. Complete avoidance is not possible due to the need to widen Grove Avenue at the existing West Cucamonga Channel crossing locations. The project would minimize impacts by maintaining the existing drainage course and channel width through culverts. The project would implement BMPs to prevent stormwater runoff, sedimentation, and pollutants from entering the channel during construction. Temporary impact areas would be restored to preconstruction contours and conditions.

The project proposes no permanent impacts to waters of the U.S. or waters of the State. No permanent fill would be placed within the channel (concrete would be removed and replaced resulting in no net import of fill), channel elevation would not be altered, and drainage functions would be conserved and returned to pre-project conditions. The effects of shading the channel would be negligible because it is an abiotic feature and resources are not present that could be adversely affected by shading; therefore, compensatory mitigation is not required.

During construction, the following minimization measure will be implemented to avoid and minimize potential project impacts:

- WET-1:** Construction activities within the West Cucamonga Channel and Princeton Basin will be designed and conducted to maintain downstream flow conditions. All construction activities will be effectively isolated from water flows to the greatest extent feasible. This

may be accomplished by working in the dry season or dewatering the work area in the wet season. When work in standing or flowing water is required, structures for isolating the in-water work area and/or diverting the water flow must not be removed until all disturbed areas are cleaned and stabilized. The diverted water flow must not be contaminated by construction activities. Structures used to isolate the in-water work area and/or diverting the water flow (e.g., coffer dam, geotextile silt curtain) must not be removed until all disturbed areas are stabilized.

2.4.2.5 Wetlands Only Practicable Alternative Finding

EO 11990 states that Caltrans cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm.

Because the project purpose and need is centered on improving operational deficiencies on Grove Avenue, an alternative site or road that does not cross or run near the West Cucamonga Creek would not meet any of the project objectives. The project also proposes widening an existing roadway. With the West Cucamonga Creek running alongside Grove Avenue and crossing the road at two locations, widening of the roadway would require improvements to existing, enclosed box culverts of the creek at Grove Avenue. There is no other practicable alternative to the project that would not impact the creek. The widening has been confined to the east side of the road to avoid impacts to both sides of the roadway, effectively limiting impacts to the creek to one side.

Implementation of minimization measure WET-1 would minimize disturbance of water flows and maintain downstream flow conditions in West Cucamonga Creek. In addition, structures used to isolate the in-water work area and/or for diverting the water flow (e.g., coffer dam, geotextile silt curtain) would not be removed until all disturbed areas are cleaned and stabilized.

Based on the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use.

2.4.3 Plant Species

2.4.3.1 Regulatory Setting

USFWS and CDFW have regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the FESA and/or the California Endangered Species Act (CESA). Please see Section 2.44.5, Threatened and Endangered Species, for detailed information about these species.

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

The regulatory requirements for FESA can be found at 16 U.S.C., Section 1531, *et seq.* See also 50 CFR Part 402. The regulatory requirements for CESA can be found at CFG Code, Section 2050, *et seq.* Caltrans projects are also subject to the Native Plant Protection Act, found at CFG Code, Section 1900-1913, and CEQA, CA PRC, Sections 2100-21177.

2.4.3.2 Affected Environment

The analysis of potential for the Grove Avenue Corridor Project to result in adverse impacts on special-status plant species is described in the *Natural Environment Study (Minimal Impacts)* (September 2016).

In developing the *Natural Environment Study (Minimal Impacts)*, the BSA was surveyed by biologists in June 2013 and March 2015 to determine the extent of plant communities and assess the presence of suitable habitat for sensitive plant species. Plant identifications were made in the field or in the lab through comparison with voucher specimens or photographs. Data from the field maps were digitized into GIS using ArcGIS 9.2. In addition to conducting biological surveys, a review of existing literature and biological databases was conducted to identify the existence or potential occurrence of special-status species plants and vegetation communities in or within the vicinity of the BSA. Primary databases consulted included the CNDDDB information (version 5), which is administered by CDFW, and CNPS’ On-line Inventory of Rare and Endangered Plants of California (Version 8-02, CNPS Inventory [2016]). Additionally, USFWS’s Information, Planning, and Conservation (IPaC) System was used to generate a list of species to be considered in the effects analysis for the project.

The general biological surveys confirmed that the entirety of the BSA is developed. Vegetation within the BSA is limited to non-native ornamental landscaping for existing roads, homes, and parks, in addition to non-native ruderal (weedy) elements within vacant lots.

According to the CNDDDB, two special-status plant species have been reported within 1.0 mile of the BSA between 1905 and 1917. Based on the current developed condition and lack of suitable habitat within the BSA, regional species of concern are not likely to occur within the BSA (Table 2.4.3-1).

Table 2.4.3-1. Special-Status Plant Species

Scientific Name/ Common Name	Status	General Habitat Description	Species Present/ Absent	Rationale
<i>Dodecahema leptoceras</i> Slender-horned Spineflower	FE/SE CRPR 1B.1	Distribution: Riverside Los Angeles, and San Bernardino counties. Habitat: Chaparral, cismontane woodland, coastal scrub on alluvial fans.	Absent	No suitable habitat occurs within the BSA. Most recent report to the CNDDDB of this species within 1 mile of the BSA was 1905.
<i>Uneatekelia cuneata</i> <i>var. puberula</i> Mesa Horkelia	--/-- CRPR 1B.1	Distribution: Coastal southern California from San Luis Obispo County south. Habitat: Sandy or gravelly soils in maritime chaparral, cismontane woodland, or coastal scrub.	Absent	No suitable habitat occurs within the BSA. Most recent report to the CNDDDB of this species within 1 mile of the BSA was in 1917.
FE: Federally Endangered SE: State Endangered CRPR 1B.1: California Rare Plant Rank listing designates plants that are rare, with most of them endemic to California, that present populations throughout their range, are seriously threatened in California (more than 80 percent of occurrences threatened/high degree and immediacy of threat). These designations are to be considered during the State and federal environmental review process, as applicable (e.g., CEQA [PRC Section 21000 <i>et seq.</i>] and NEPA [50 CFR 402.12]).				

2.4.3.3 Environmental Consequences

Permanent Impacts

No Build Alternative

The No Build Alternative does not propose any construction or other disturbance in the BSA; therefore, this alternative would not result in permanent impacts to special-status plant species.

Build Alternative (Proposed Project)

Botanical surveys conducted in June 2013 and March 2015 confirmed that the entirety of the BSA is developed and has been determined as not suitable for special-status plant species. None of the two special-status plant species were observed during the surveys; therefore, no permanent impacts to these special-status plants would occur as a result of the project. The project would have no effect on these special-status plant species, which includes the slender-horned spineflower that is listed on the USFWS Species List as Endangered. See Appendix H of the USFWS Species List.

Temporary/Construction Impacts

No Build Alternative

The No Build Alternative does not propose any construction or other disturbance in the BSA; therefore, this alternative would not result in temporary impacts to special-status plant species.

Build Alternative (Proposed Project)

None of the two special-status plant species were observed during the surveys; therefore, no temporary impacts to these special-status plants would occur as a result of the project.

2.4.3.4 Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are warranted because no special-status plant species occur in the BSA.

2.4.4 Animal Species

2.4.4.1 Regulatory Setting

Many State and federal laws regulate impacts to wildlife. USFWS, National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), and CDFW are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under FESA or CESA. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.4.4.5, Threatened and Endangered Species. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries candidate species.

Federal laws and regulations relevant to wildlife include the following:

- NEPA
- Migratory Bird Treaty Act (MBTA)
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- CEQA
- Sections 1600–1603 of the CFG Code
- Sections 4150 and 4152 of the CFG Code

2.4.4.2 Affected Environment

The BSA is situated within a transportation corridor and highly urbanized area. According to the CNDDDB (CDFW, 2015), three special-status animal species have been reported within 1.0 mile of the BSA between the dates of 1951 and 1997. Based on the current developed condition and lack of suitable habitat within the BSA, special-status wildlife species are not likely to occur within the BSA (Table 2.4.4-1).

Although not specifically listed in Table 2.4.4-1, the project site contains trees, shrubs, and other vegetation that provide suitable nesting habitat for common birds, including raptors, protected under the MBTA and CFG Code.

Table 2.4.4-1. Special-Status Wildlife Species

Scientific Name/ Common Name	Status	General Habitat Description	Species Present/ Absent	Rationale
Invertebrates				
<i>Rhaphiomidas terminates abdominalis</i> Delhi Sands Flower-loving Fly	FE/--	Distribution: Endemic to the Colton Dunes of southwestern San Bernardino and northwestern Riverside counties. Habitat: Sandy substrates (Delhi soil series) with sparse cover (less than 50 percent, usually 10 to 20 percent) of perennial shrubs and other vegetation. Three indicator plant species are usually present in occupied habitat: California buckwheat, telegraph weed, and croton; only a few individuals of telegraph weed occur in the BSA.	Absent	No suitable habitat occurs within the BSA. The soils within the BSA are not associated with this species. Most recent report to the CNDDDB of this species within 1 mile of the BSA was in 2001. The Ontario Recovery Unit occurs approximately 3 miles east of the BSA (USFWS, 1997).
Reptiles				
<i>Anniella pulchra</i> Silvery Legless Lizard	--/SSC	Distribution: Occurs from the Bay Area south through the Coast and Peninsular Ranges to northern Baja California. Occurrences scattered through the San Joaquin Valley and southern Sierra Nevada. Habitats: Loose soil, particularly in sand dunes or otherwise sandy soil. Generally found in leaf litter, under rocks, logs, or driftwood in oak woodland, chaparral, and desert scrub.	Absent	No suitable habitat occurs within the BSA. Most recent report to the CNDDDB of this species within 1 mile of the BSA was 1993.
Mammals				
<i>Antrozous pallidus</i> Pallid bat	--/SSC	Distribution: Mexico and extreme southwestern U.S. north through Oregon, Washington, and western Canada. Habitats: Deserts and canyons with daytime roosts in buildings, crevices; less often in caves, mines, hollow trees, and other shelters.	Absent	No suitable habitat occurs within the BSA. The existing railroad bridge overcrossing in the southern portion of the BSA does not provide suitable roosting habitat. Most recent report to the CNDDDB of this species within 1 mile of the BSA was in 1951.
<p>FE: Federally Endangered SSC: Species of Special Concern These designations are to be considered during the State and federal environmental review process, as applicable (e.g., CEQA [PRC Section 21000 <i>et seq.</i>] and NEPA [50 CFR 402.12]).</p>				

2.4.4.3 Environmental Consequences

The City has not established significance thresholds for use in evaluating the proposed project's impacts to animal species; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used. The guidelines suggest that a project-related significant impact would occur if the project would:

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

An evaluation of potential impacts to animal species associated with each alternative is presented below.

Permanent Impacts

No Build Alternative

The No Build Alternative does not propose any construction or other disturbance in the BSA; therefore, this alternative would not result in permanent impacts to special-status animal species.

Build Alternative (Proposed Project)

The June 2013 and March 2015 general biological surveys confirmed that the entirety of the BSA is developed and is not suitable for special-status wildlife species. As such, project implementation would result in no impacts on special-status wildlife species. The project would have no effect on these special status wildlife species, which includes the Delhi Sands flower-loving fly that is listed on the USFWS Species List as Endangered. See Appendix H of the USFWS Species List.

Raptors and migratory birds potentially using shrubs within the BSA could be affected by their removal and/or proximity to construction activities. Construction of the proposed project could result in the removal or trimming of trees during the general bird nesting season (i.e., February 15 through August 31); therefore, it could result in impacts to nesting birds in violation of the MBTA and CFG Code. Direct impacts could occur as a result of removal of vegetation supporting an active nest. Impacts would be considered significant. Implementation of Mitigation Measure AS-1 would reduce potentially significant impacts on nesting birds and raptors to less than significant levels.

Temporary/Construction Impacts

No Build Alternative

The No Build Alternative does not propose any construction or other disturbance in the BSA; therefore, this alternative would not result in temporary impacts to special-status animal species.

Build Alternative (Proposed Project)

None of the three special-status animal species were observed during the surveys; therefore, no temporary impacts to these special-status animals would occur as a result of the project.

Raptors and migratory birds potentially using shrubs within the BSA could be affected by their removal and/or proximity to construction activities. Temporary effects include increased noise and vibration that may result in an alteration in bird behavior and the potential to abandon nests and/or alter nesting locations. In addition, increased dust on vegetation from construction may alter bird behavior for preferred nest sites.

2.4.4.4 Avoidance, Minimization, and/or Mitigation Measures

The following mitigation measure will be implemented prior to construction to avoid and reduce potential impacts related to special-status animal species:

Mitigation Measure AS-1: To avoid effects to nesting birds, the Project Engineer will require the contractor to conduct vegetation removal or tree-trimming activities outside of the nesting bird season (i.e., February 15 through August 31).

If vegetation clearing is necessary during the nesting season, the Project Engineer will require the contractor to have a qualified biologist conduct a preconstruction survey within 150 feet of construction areas no more than 10 days prior to construction at the location to identify the location of nests, if any. A qualified biologist is one that has previously surveyed for nesting bird species within Southern California.

Should nesting birds be found, an exclusionary buffer will be established by the qualified biologist around each nest site. The buffer will be clearly marked in the field by construction personnel under guidance of the contractor's qualified biologist, and construction or

clearing will not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active.

The qualified biologist will monitor the nests on a weekly basis to ensure that construction activities do not disturb or disrupt nesting activities.

If the qualified biologist determines that construction activities are disturbing or disrupting nesting activities, then the biologist will notify the Project Engineer, who has the authority to stop or modify construction to reduce the noise and/or disturbance to the nests. Responses may include, but are not limited to, increasing the size of the exclusionary buffer, curtailing nearby work activities, turning off vehicle engines and other equipment wherever possible to reduce noise, installing a protective noise barrier between the nest and the construction activities, and/or working in other areas until the young have fledged.

2.4.5 Threatened and Endangered Species

2.4.5.1 Regulatory Setting

The primary federal law protecting threatened and endangered species is the FESA: 16 U.S.C., Section 1531, *et seq.* See also 50 CFR Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as FHWA (and Caltrans, as assigned), are required to consult with USFWS and NOAA Fisheries to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take Statement or a Letter of Concurrence. Section 3 of FESA defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct.”

California has enacted a similar law at the state level, the CESA, CFG Code, Section 2050, *et seq.* CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. CDFW is the agency responsible for implementing CESA. Section 2080 of the CFG Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the CFG Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFW. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of FESA, CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the CFG Code.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

2.4.5.2 Affected Environment

The analysis of the project's potential effects on threatened and endangered species is based on the *Natural Environment Study (Minimal Impacts)* (September 2016). The findings of the *Natural Environment Study (Minimal Impacts)* related to threatened and endangered species are summarized in this section.

Prior to performing field surveys for threatened and endangered species, existing documentation relevant to the BSA was reviewed. The most recent records of the CNDDDB (CDFW, 2015) and the CNPS' Electronic Inventory of Rare and Endangered Vascular Plants of California were reviewed for the United States Geological Survey (USGS) quadrangles containing these resources surrounding the BSA. Two special-status plant species and three special-status animal species have been reported within 1.0 mile of the BSA between the dates of 1905 and 2001 (Tables 2.44.3-1 and 2.44.4-1). Based on the current developed conditions and lack of suitable habitat within the BSA, threatened or endangered species are not likely to occur within the BSA.

2.4.5.3 Environmental Consequences

Permanent Impacts

No Build Alternative

The No Build Alternative does not propose any construction or other disturbance in the BSA; therefore, this alternative would not result in permanent impacts to threatened or endangered species.

Build Alternative (Proposed Project)

There are no designated or proposed critical habitats in the BSA for any species listed by USFWS and NOAA Fisheries that would be affected by the project. The June 2013 and March 2015 general biological surveys confirmed that the entirety of the BSA is developed and has been determined as not suitable for threatened or endangered species. As such, no threatened or endangered species have potential to occur within the BSA due to lack of suitable habitat. Project implementation would result in no permanent impacts on threatened or endangered species. Therefore, the project would have no effect on threatened and endangered species listed on the USFWS species list (see Appendix H).

Temporary Impacts

No Build Alternative

The No Build Alternative does not propose any construction or other disturbance in the BSA; therefore, this alternative would not result in temporary effects to threatened or endangered species.

Build Alternative (Proposed Project)

Because the BSA is in an urbanized setting, any potential indirect effects/impacts of construction would be no greater than they would be under existing conditions. As such, no temporary effects to threatened or endangered species would occur as a result of the Build Alternative.

2.4.5.4 Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are required because no threatened or endangered species have the potential to occur in the project area.

2.4.6 Invasive Species

2.4.6.1 Regulatory Setting

On February 3, 1999, President William J. Clinton signed EO 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” FHWA guidance issued August 10, 1999, directs the use of the State’s invasive species list, maintained by the California Invasive Plant Council (Cal-IPC) to define the invasive plants that must be considered as part of NEPA analysis for a proposed project.

2.4.6.2 Affected Environment

This section discusses invasive species with the potential to occur within the BSA as discussed in the *Natural Environment Study (Minimal Impacts)* (September 2016). The *Natural Environment Study (Minimal Impacts)* determined that the study area is dominated by non-native species, most of which are non-native plants that occur within portions of the Grove Avenue corridor, adjacent developments, and basin bottoms. Ornamental vegetation is also present for aesthetic reasons.

Highway corridors provide opportunities for the movement of invasive species through the landscape. Invasive species can move on vehicles and in the loads they carry. Invasive plants can be moved from site to site during spraying and mowing operations. Weed seed can be inadvertently introduced into the corridor on equipment during construction and through the use of mulch, imported soil or gravel, and sod. In erosion control, landscape, or wildflower projects, some invasive plant species might be planted deliberately. Transportation corridor ROWs provide ample opportunity for weeds in adjacent lands to spread along corridors that span, on a national scale, millions of miles along highways.

The Cal-IPC Invasive Plant Inventory is based on information submitted by members, land managers, botanists, and researchers throughout California, as well as published sources. The inventory highlights nonnative plants that are serious problems in wildlands (i.e., natural areas that support native ecosystems, including national, State, and local parks; ecological reserves; wildlife areas; national forests; and Bureau of Land Management lands). The Invasive Plant Inventory categorizes plants as High, Moderate, or Limited based on the species’ negative ecological impact in California. Plants categorized as “High” have severe ecological impacts. Plants categorized as “Moderate” have substantial and apparent, but not severe, ecological impacts. Plants

categorized as “Limited” are invasive, but their ecological impacts are minor on a statewide level.

2.4.6.3 Environmental Consequences

No Build Alternative

The No Build Alternative does not propose any construction or other disturbance in the BSA; therefore, this alternative would not result in long-term impacts related to the introduction or spread of invasive species to or from the BSA and would not cause permanent direct or indirect adverse impacts regarding invasive species.

Build Alternative (Proposed Project)

Implementation of the Build Alternative would have the potential to spread invasive species by the entering and exiting of construction equipment contaminated by invasives, the inclusion of invasive species in seed mixtures and mulch, and the improper removal and disposal of invasive species so that seed is spread along the highway. The plant palette used for revegetation would not include invasive species; therefore, the Build Alternative for the proposed project would not have a substantial effect on invasive species. With implementation of Avoidance Measure IS-1, temporary invasive species impacts are not anticipated.

2.4.6.4 Avoidance, Minimization, and/or Mitigation Measures

The following avoidance measure will avoid potential temporary and permanent impacts related to invasive species:

IS-1: In compliance with the Executive Order on Invasive Species (EO 13112), and guidance from FHWA, the landscaping and erosion control included in the project will not use species listed as invasive. In areas of particular sensitivity (i.e., near or adjacent to drainages), extra precautions will be taken if invasive species are found in or next to the construction areas. This includes the inspection and cleaning of construction equipment and eradication strategies, as required by the City of Ontario Biological Monitor, to be implemented should an invasion occur. Any cleaning of equipment or site watering will be conducted in adherence to any applicable drought conditions and related regulations. A City of Ontario biologist or landscape Architect will approve any seed lists (for planting).

2.5 Cumulative Impacts

2.5.1 Regulatory Setting

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

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

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

2.5.2 Environmental Consequences

This section discusses potential impacts to various resources that could occur as a result of the Grove Avenue Corridor Project.

Cumulative Impacts

Land Use

Cumulative projects and planned growth in Ontario will lead to changes in land use and an increase in development intensity of the area. With this growth, there would be pressure for urbanized areas to expand to vacant lands and agricultural lands next to existing urban development. Historically, this has happened in the Ontario area, but future development would be managed to be consistent with adopted general plans.

The proposed project, which is widening an existing road, would provide support to the existing and planned developments. Therefore, the project would not cumulatively contribute to considerable cumulative land use impacts.

Farmlands

No farmlands occur within or immediately adjacent to the proposed improvements along the Grove Avenue corridor; therefore, there would be no cumulative effect to farmlands as a result of this project.

Growth

Given the existing level of growth to Ontario and the continuing traffic congestion in the project area, construction of the proposed project is judged unlikely to have a substantial effect on residential or commercial growth in the area. The project would not contribute to growth or expansion but would instead alleviate existing and future traffic congestion.

Parks and Recreational Facilities

The Build Alternative is not expected to have an adverse cumulative impact on parks when considered with any transportation, commercial, industrial, or residential projects because the overall parkland acquisition area would only minimally reduce the overall size of Grove Memorial Park and John Galvin Park and would not inhibit existing recreational facilities within the parks.

Community Character and Cohesion

As previously discussed in Section 2.2.6.1, the Build Alternative would result in the acquisition and removal of several residential properties requiring the displacement of residents. Some of the other projects considered in the cumulative impacts analysis, identified in Table 2.2.1-1, are also expected to result in the acquisition and removal of residential properties and the displacement of residents in the surrounding area. Although there would likely be some residential displacements throughout Ontario connected to the various projects, due to the dispersed locations of the projects and their associated displacements, there would not be an overall cumulative effect to one distinct neighborhood or localized community. Efforts would be made to relocate the displaced residents within the same general neighborhood or local vicinity as the affected property.

Relocation

The Build Alternative is not expected to have an adverse cumulative impact on relocations when considered with any transportation, commercial, industrial, or

residential projects because adequate replacement properties are available within close proximity.

Environmental Justice

Construction cumulative impacts on community disruption could occur if multiple projects in the same locality are scheduled to undergo construction at the same time. The City, through community outreach described earlier, would continue to work closely with the cities and communities within the project area to identify such potential consequences and adjust construction schedules to avoid construction, to the extent practicable, of multiple projects occurring simultaneously within the same locality.

Because implementation of the Build Alternative would not cause disproportionately high and adverse effects on minority or low-income populations, no permanent cumulative impacts are anticipated.

Utilities and Emergency Services

Utilities and emergency services are actively planned for and developed based on service needs of the area in which they are provided. Related transportation and public infrastructure project impacts would be beneficial because they normally improve circulation in their respective project areas. Emergency services would benefit from improved access and circulation. The Build Alternative is not expected to have an adverse cumulative impact on utilities when considered with any transportation, commercial, industrial, or residential projects.

Traffic

Implementation of the proposed project, together with the other transportation projects located within the cumulative projects study area, would accommodate future traffic demand during peak periods resulting in the reduction of traffic congestion conditions at various segments and interchanges. Other cumulative transportation projects would also provide alternative transportation modes and pedestrian connectivity, resulting in additional beneficial congestion impacts. The impacts to circulation and access systems are beneficial on a cumulative basis.

Visual/Aesthetics

Visual impacts during construction would be typical of roadway construction projects, including construction fencing, construction equipment, material stockpiles, and vegetation removal, which would collectively temporarily disturb the park's existing landscape aesthetic. Temporarily disturbed areas would be returned to pre-project

conditions once construction is completed; therefore, the minor visual changes associated with the Build Alternative would not be considered a cumulative effect.

Cultural Resources

The proposed project is not expected to affect any cultural resources in the project area; therefore, the project would not have an adverse cumulative impact on cultural resources.

Groundwater

The geographic context for the analysis of cumulative impacts associated with groundwater is the area underlain by the Chino Basin groundwater basin within the project corridor. The proposed project is not located within an identified recharge area. Construction activities, such as pile driving and dewatering, that would encounter groundwater could potentially occur and may reduce the storage capacity of groundwater. The displaced volume, however, would not be substantial relative to the volume of the basin. Likewise, the volume of water used during construction for dust control and other uses would be nominal; therefore, construction activities would not substantially deplete groundwater supplies nor interfere substantially with groundwater recharge. Thus, there would be no potential impacts to groundwater recharge in the area of the proposed project. Although implementation of the project would not have a cumulatively considerable contribution to the adverse effects on groundwater recharge in the basin, the overall development associated with transportation infrastructure projects that may be planned within the basin could directly and/or indirectly result in the loss of groundwater volume and recharge areas. This loss would be mitigated by groundwater recharge programs that have already been designed and implemented within the basin areas to ensure that groundwater will continue to be a viable water supply in the future. In addition, all of the projects would be required to implement BMP techniques to the MEP. BMP techniques, such as infiltration basins, augment groundwater by retaining stormwater runoff, which subsequently infiltrates into the groundwater regime.

Due to the volume of traffic and the nature of materials that are transported on roadways, sources of groundwater contamination would be associated with hazardous and nonhazardous materials that are transported through the area that could result in accidental spills, leaks, toxic releases, fire, or explosion. The transport of hazardous materials is regulated by the CHP. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations, which reduce the potential for a spill to impact water quality. The Office of Emergency Services also provides emergency response services involving

hazardous material incidents. The United States Federal Aviation Administration's Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials, as described in Title 49 of the CFR and implemented by Title 13 of the CCR. Appropriate documentation for all hazardous waste that is transported would be provided as required for compliance with existing hazardous materials regulations codified in Titles 8, 22, and 26 of the CCR, and their enabling legislation set forth in Chapter 6.95 of the California Health and Safety Code. Compliance with all applicable federal and State laws related to the transportation of hazardous materials would reduce the likelihood and severity of accidents during transit. Furthermore, any spill (i.e., hazardous and nonhazardous) would generate an immediate, local response to report, contain, and mitigate the incident.

Pollutants associated with roadway runoff that are considered treatable by BMP techniques include sediment, metals (i.e., total and dissolved fractions of zinc, Pb, and copper), nitrogen (e.g., ammonia), phosphorus, and general metals. Stormwater runoff from the project ROW would be conveyed to BMP facilities; therefore, roadway runoff conveyed to BMPs would be treated to the MEP and not create any groundwater quality impacts.

Furthermore, the City conducts roadway activities (i.e., sweeping operations and litter and debris removal) on a regular basis to correct situations that could cause water pollution; therefore, implementation of these nonstructural source control BMPs would reduce the discharge of potential pollutants to the stormwater drainage system and watercourses and not create any groundwater quality impacts.

Therefore, there would be no groundwater impacts associated with the Grove Avenue Corridor Project, and the proposed project would not have a cumulatively considerable contribution to the cumulative effects related to groundwater.

Water Quality

The geographic context for the analysis of cumulative impacts associated with water quality is the area covered by the HSA within the proposed project corridor. Development of the proposed project, in combination with all other development that would occur in the watershed area, would involve construction activities, increases in stormwater runoff from new impervious surface area, and possibly reduction in groundwater recharge areas. Construction of new development throughout the watershed area could result in the erosion of soil, thereby cumulatively degrading water quality. In addition, the increase in impervious surface area resulting from future development may also adversely affect water quality by increasing the amount of

stormwater runoff, transportation-related pollutants, and associated roadway runoff chemical pollutants entering the storm drain system. New development, however, would have to comply with existing regulations regarding construction practices that minimize risks of erosion and runoff. Among the various regulations are the applicable provisions of the County of San Bernardino MS4 NPDES Permit; municipal codes related to control of stormwater quality for transportation projects; municipal grading permits; and other NPDES permits. This would minimize degradation of water quality at individual project construction sites. Consequently, cumulative water quality impacts would be minimized during the construction and operational phases. Compliance with applicable SWRCB and Santa Ana RWQCB regulations would ensure that water quality is maintained to the MEP for potential development projects within the watershed areas. Therefore, there would be no water quality impacts associated with implementation of the project. The proposed project would not have a considerable contribution to the cumulative effects related to water quality.

Geology/Soils/Seismic/Topography

The project area generally has a low to negligible potential for geologic hazards such as landslides, expansive soil, collapsible soil, tsunamis, seismic slope instability, and subsidence. The proposed project would not increase the risk of exposing people or structures to potential adverse effects because of seismic activities or seismic-related ground failure beyond the existing level already present with the Grove Avenue configuration. Therefore, the proposed project is not expected to contribute to the cumulative effects related to geology, soils, seismic hazards, or topography.

Paleontology

While the Build Alternative does have the potential to affect paleontological resources during construction, the potential for such impacts is moderate undemonstrated to low. Appropriate monitoring in certain areas of the project would reduce the potential for any impacts to paleontological resources; therefore, there would be no cumulative effects related to paleontological resources.

Hazardous Waste/Materials

The proposed project would not create a significant hazard to the public or environment through transport, use, or disposal of hazardous materials because the project is not expected to produce a large amount of hazardous waste, and BMPs and industry standards would be utilized while handling and transporting any project-related hazardous materials; therefore, the project is not expected to contribute to the cumulative effects to hazardous wastes or materials.

Air Quality

Other individual projects in the Basin may be under construction simultaneously with the project. Depending on construction schedules and implementation of other projects in the region, fugitive dust and pollutant emissions generated during construction may result in substantial short-term increases in air pollutants. This would contribute to short-term cumulative air quality impacts; however, implementation of construction BACMs during site grading activities would reduce fugitive dust emissions to a level that is considered minor.

Noise

Under no-build conditions for the design year (2045), noise levels are expected to increase up to 2 dBA (all project noise levels include traffic projections from other regional projects). Under build conditions for the design year, traffic noise modeling results indicate that noise levels are expected to increase by up to 8 dB over design-year no-build noise levels. Increases in noise levels are due to the addition of two lanes (one in each direction) within the Grove Avenue corridor. The additional lanes would shift traffic closer to representative receivers within the proposed project area. Under future design-year 2045 build conditions, most of the receiver locations have traffic noise levels that were found to approach or exceed the applicable NAC. Where possible, noise abatement was considered at these receiver locations.

No exceedances of the applicable NAC were identified at any of the existing or planned commercial uses located within the project study area. Field monitoring confirmed that none of the existing commercial properties with outdoor areas of frequent human use within 500 feet of Grove Avenue would benefit from lower noise levels. As a result, consideration of noise abatement was not warranted for the commercial land uses located within the study area.

Energy

Maintenance of the Build Alternative can potentially generate indirect energy impacts within the proposed project corridor; however, operation of the Build Alternative would translate into more efficient energy consumption and higher energy savings for the project corridor. These high energy savings from operation of the Build Alternative would offset the potential indirect energy impacts generated from maintenance of the improved facility. Thus, the project is not expected to contribute to the cumulative effects to energy impacts.

Natural Communities

Project implementation would result in no impacts to sensitive habitats or natural communities. The project would result in permanent unavoidable impacts to

approximately 174 trees. Permanent impacts were determined if at least 50 percent of the tree occurred within the permanent impact area, which is not the case. This number includes tree trimming, as well as tree removals. No special-status plants or wildlife have potential to occur within the BSA due to lack of suitable habitat. Implementation of the Build Alternative would not conflict with the provisions of any habitat conservation plan or local biological resource protection ordinances. Given the high level of existing development within the BSA and minimal opportunity for regional wildlife movement, no permanent impacts to wildlife movement are anticipated to result. Given that the project impacts to natural communities are so small, it is doubtful that it would contribute to the cumulative effects to natural communities in the project area.

Wetlands and Other Waters

The Build Alternative would result in no permanent impacts to wetlands or nonwetland waters of the U.S. The Build Alternative would result in approximately 0.46 acre (795 linear feet) of temporary impacts to nonwetland waters of the U.S. as a result of improvements to existing, enclosed box culverts for Grove Avenue. Temporary impacts would not result in the permanent loss of jurisdictional acreage or permanent loss of function or value of these areas. The affected jurisdictional features would be restored to their approximate original contours and conditions. Thus, the proposed project would not contribute to cumulative impacts to wetlands and other waters.

Plant Species

Botanical surveys conducted in June 2013 and March 2015 confirmed that the entirety of the BSA is developed and has been determined as not suitable for special-status plant species; therefore, no cumulative impacts to special-status plants would occur as a result of the project.

Animal Species

The June 2013 and March 2015 general biological surveys confirmed that the entirety of the BSA is developed and is not suitable for special-status wildlife species. As such, project implementation would result in no impacts on special-status wildlife species. Raptors and migratory birds potentially using shrubs within the BSA could be affected by their removal and/or proximity to construction activities. Construction of the proposed project could result in the removal or trimming of trees during the general bird nesting season (i.e., February 15 through August 31); therefore, it could result in impacts to nesting birds in violation of the MBTA and CFG Code. Direct impacts could occur as a result of removal of vegetation supporting an active nest. If other projects in

the area also removed shrubs and trees during nesting season, then the proposed project could have a cumulative effect on animal species.

Threatened and Endangered Species

The June 2013 and March 2015 general biological surveys confirmed that the entirety of the BSA is developed and has been determined as not suitable for threatened or endangered species. As such, no threatened or endangered species have potential to occur within the BSA due to lack of suitable habitat. Project implementation would result in no permanent impacts on threatened or endangered species; therefore, the project would have no effect on plant and animal species listed on the USFWS species list and has no potential to provide a cumulative effect on threatened or endangered species. See Appendix H of the USFWS Species List.

Invasive Species

Implementation of the Build Alternative would have the potential to spread invasive species by the entering and exiting of construction equipment contaminated by invasives, the inclusion of invasive species in seed mixtures and mulch, and the improper removal and disposal of invasive species so that seed is spread along the highway. Therefore, this project has the potential to contribute to a cumulative effect to invasive species.

2.5.3 Avoidance, Minimization, and/or Mitigation Measures

Avoidance, minimization, and/or mitigation measures identified in each topical section in this document would serve to minimize cumulative impacts to the extent feasible.

Chapter 3 California Environmental Quality Act (CEQA) Evaluation

3.1 Determining Significance under the California Environmental Quality Act

The Grove Avenue Corridor Project (proposed project or project) is subject to federal, as well as City and State environmental review requirements because the City proposes the use of federal funds from FHWA and/or the project requires an approval from FHWA. Project documentation, therefore, has been prepared in compliance with CEQA and NEPA. The City is the project proponent and the lead agency under CEQA. FHWA's responsibility for environmental review, consultation, and any other action required in accordance with NEPA and other applicable federal laws for this project is being, or have been, carried-out by Caltrans pursuant to 23 U.S.C. 327 and the MOU dated December 23, 2016, and executed by FHWA and Caltrans.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an EIS, or a lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) *as a whole* has the potential to “significantly affect the quality of the human environment.” The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated, and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require Caltrans to identify each “significant effect on the environment” resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of mandatory findings of significance, which also require preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of the Build Alternative (preferred alternative or proposed project) and CEQA significance.

3.2 CEQA Environmental Checklist

This checklist identifies physical and biological factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects will indicate that there are no impacts to a particular resource. A NO IMPACT answer in the last column reflects this determination. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include design elements of the project and standardized measures that are applied to all or most Caltrans projects, such as BMPs and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered an integral part of the project and have been considered prior to any significance determinations documented below; see Chapters 1 and 2 for a detailed discussion of these features. The annotations to this checklist are summaries of information contained in Chapter 2 to provide the reader with the rationale for significance determinations; for a more detailed discussion of the nature and extent of impacts, please see Chapter 2. This checklist incorporates by reference the information contained in Chapters 1 and 2.

3.2.1 Aesthetics

The City has not established significance thresholds for use in evaluating the proposed project’s visual impacts; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Except as provided in Public Resources Code Section 21099, would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Except as provided in Public Resources Code Section 21099, would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CEQA Significance Determinations for Aesthetics

a) No Impact

The proposed project would not result in impacts to scenic vistas and would not provide new sources of glare. The evaluation of this resource is provided in Section 2.2.11.3, Environmental Consequences.

b, c, d) Less than Significant Impact

The project would be located in an urbanized area. The proposed project would require removal of mature trees at John Galvin Park, as well as parkway trees along Grove Avenue. The removal of trees could, in the short term, increase light trespass from streetlights along the widened road into adjacent neighborhoods. It is anticipated that this effect would be reduced over time as the newly planted trees in the new parkway strips grow; however, it would be many years before the new trees reach the stature to achieve the previously existing character along Grove Avenue. Given the number of trees in the project area (484 trees within the BSA) to the number that are being removed/replanted (174 trees to be removed and replaced at a 2:1 ratio or 348 replacement trees), an increase in the number of trees in the BSA would occur with the project.

In addition, the new, widened corridor is not anticipated to create any new sources of glare because no glass or mirrored surfaces are proposed. The existing roadway is already lit with 41 streetlights (excluding traffic signal lights or lights on traffic signal poles that would remain in place), of which 34 would be removed and replaced with 76

new streetlights, for a total of 83 streetlights along the corridor. Streetlight poles would be located near the curb, with arms extending out and lights directed downward into travel lanes as part of the new configuration. Distance (i.e., width of sidewalks and parkways and yard setbacks) and obstructions (i.e., parkway trees and property walls) would reduce lighting levels at the adjacent residences. Also, while the increased number of vehicles on the widened roadway would add to vehicle headlights that may pose nighttime glare to adjacent properties, there are existing property walls and proposed soundwalls that would block light trespass into the adjacent residential uses. Thus, impacts would be less than significant.

Overall, the new widened roadway is not anticipated to change the overall visual character or quality of the corridor. While the widened pavement section would detract from existing views, the addition of planted medians, preserving as much of the existing trees in the corridor as feasible, and the addition of new street tree plantings would have the overall effect of maintaining the existing character and quality.

3.2.2 Agriculture and Forest Resources

The City has not established significance thresholds for use in evaluating the proposed project’s impact to agricultural and forest resources; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations for Agriculture and Forest Resources

a, b, c, d, e) No Impact

The proposed project would not result in impacts to agricultural or forest resources because none are in the project footprint.

3.2.3 Air Quality

The City has not established significance thresholds for use in evaluating the proposed project’s air quality impacts; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.				
Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations for Air Quality

a, d) No Impact

The evaluation of this resource is provided in Section 2.3.6, Air Quality. The proposed project would not conflict with or obstruct implementation of the SCAQMD 2016 AQMP because it is consistent with the 2012-2035 and 2016-2040 RTP/SCS and the 2015 RTIP and 2019 FTIP.

The project is intended to alleviate existing and anticipated congestion along Grove Avenue, and Section 2.2.10 states that the average delays are forecast to significantly improve with implementation of the Build Alternative (proposed project). As discussed in Section 2.3.6, there would be no increase in VMT from no-build and build conditions. Thus, the associated vehicle emissions are expected to decrease due to decreased congestion and improved traffic flows. Table 2.3.6-4 in Section 2.3.6 also shows that the project would result in decreased 1-hour and 8-hour CO concentrations and would not exceed state and federal standards for CO. As shown in Table 2.3.6-7, predicted PM emission levels are also projected to trend lower from existing to the future years 2025 and 2045 under the No Build and Build Alternatives. As such, operation of the proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Results from the CO hot-spot modeling analysis demonstrate that under the Build Alternative, CO concentrations are expected to remain generally unchanged and are below the 1-hour and 8-hour NAAQS of 35 ppm and 9 ppm, respectively. The project would not contribute to a violation of CO standards; therefore, local CO project-level transportation conformity requirements would be satisfied. In addition, predicted PM emission levels trend lower from existing to the future no-build years 2025 and 2045. The project provides further reductions in PM emissions by enhancing traffic flow and reducing the wait time at signalized intersections, minimizing brake use and tire wear under the Build Alternative. It is anticipated that the project would not worsen existing air quality, cause an exceedance, or cause any new violations of the PM_{2.5} and PM₁₀ standards. PM project-level transportation conformity requirements are satisfied.

Furthermore, the project was incorporated in the conforming Interim 2015 FTIP; therefore, it is anticipated that the project would not worsen existing air quality, or cause an exceedance, or cause any new violations of the O₃ standards.

Operation of the project would not be a significant source of offensive odors. Any odors generated from the corridor after implementation of the project would be similar in nature to odors that would be generated from the corridor in the absence of the project. A site visit determined that there were no unusual or objectionable odors detected from nearby onsite or offsite land uses; therefore, the project is not anticipated to cause or substantially contribute to odor impacts. In addition, the City prepared a Health Risk Assessment (Appendix F) in accordance with CEQA guidelines.

b, c) Less Than Significant Impact

The proposed project would result in temporary air quality impacts during construction, with estimated pollutant emissions provided in Table 3.2-1 (also see Section 2.3.6, Air Quality). During construction, the project would generate pollutants, such as hydrocarbons (ROG), NO_x, CO, and suspended PM. Construction activities of the project would include limited excavation, grading, hauling, and various other activities needed to construct the project.

Project construction emissions were estimated with the *Road Construction Emissions Model* (Version 9.0, Sacramento Metropolitan Air Quality Management District, May 2018). The results are presented below in Table 3.2-1.

Table 3.2-1. Construction Emissions Estimates

Parameter	ROG	CO	NO _x	PM ₁₀	PM _{2.5}	SO _x	CO _{2e}
Peak Day Construction Emissions (lbs/day)	4.7	44.7	45.7	16.9	4.9	0.1	9,910
Total Construction Emissions (tons/year)	0.43	4.33	4.16	1.86	0.51	0.01	929
SCAQMD Mass Daily Thresholds (lbs/day)	75	550	100	150	55	150	NA
Project Exceeds Threshold?	No	No	No	No	No	No	NA
SCAQMD Localized Significance Threshold	NA	1,232	170	6	5	NA	NA
Project Exceeds Threshold?	NA	No	No	Yes	No	NA	NA
Notes: lbs – pounds; ROG – reactive organic compounds; CO – carbon monoxide; NO _x – nitrogen oxides; PM ₁₀ – particulate matter less than 10 microns; PM _{2.5} – particular matter less than 2.5 microns; SO _x – sulfur oxides; CO _{2e} – carbon dioxide equivalent. LSTs are for Source-Receptor Area (SRA) 33 for a source-receptor distance of 25 meters.							

As shown in Table 3.2-1, the project’s daily emissions during construction would not exceed SCAQMD’s Mass Daily Thresholds; therefore, they are not regionally

significant. Except for PM₁₀ emissions, the project’s daily emissions during construction would also not exceed the relevant Localized Significance Thresholds (LST). Project PM₁₀ emissions, however, would substantially exceed its LST. Dust and odors at some residences very close to the ROW could cause occasional annoyance and complaints; however, implementation of Standard Conditions SC-CI-21 and SC-CI-22, which includes an extensive list of air quality control measures, would reduce PM₁₀ emissions during construction. Implementation of minimization measure AQ-1 would further reduce emissions. Impacts would be temporary and considered less than significant.

Other individual projects in the Basin may be under construction simultaneously with the project. Depending on construction schedules and implementation of other projects in the region, fugitive dust and pollutant emissions generated during construction may result in substantial short-term increases in air pollutants. This would contribute to short-term cumulative air quality impacts; however, implementation of construction BACMs during site grading activities would reduce fugitive dust emissions to a level that is considered minor. In addition, the City prepared a Health Risk Assessment (Appendix F) in accordance with CEQA guidelines.

3.2.4 Biological Resources

The City has not established significance thresholds for use in evaluating the proposed project’s impact to biological resources; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations for Biological Resources

a) Less Than Significant Impact with Mitigation Incorporated

The removal and/or trimming of trees and shrubs along the corridor could result in impacts to nesting birds in violation of the MBTA and CFG Code. Implementation of Mitigation Measure AS-1 would reduce potentially significant impacts on nesting birds and raptors to less than significant levels because this measure includes guidelines on vegetation clearing, survey dates, and buffers. General biological surveys confirmed that the entire BSA is composed of developed land. No sensitive habitats, natural communities, special-status plant species, or special-status wildlife species have potential to occur within the BSA due to lack of suitable habitat.

b, d, f) No Impact

The Jurisdictional Delineation Letter Report for the project identifies 1.76 acres of jurisdictional waters of the U.S. and State in the West Cucamonga Channel. The channel is concrete-lined and abiotic, and it does not support riparian vegetation. As such, the channel is not considered as wetland. No impacts to wetlands, riparian habitat, or other sensitive natural community would occur with the project.

No regional habitats and natural communities of special concern are known to occur on or within 1 mile of the BSA. Also, there is no habitat conservation plan or natural community conservation plan that is applicable to Grove Avenue or the surrounding area. Thus, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

The proposed project would not interfere substantially with the movement of any wildlife species because the project does not have any wildlife corridors in its project footprint.

Two special-status plant species have been reported within 1 mile of the BSA between 1905 and 1917. Based on the current developed condition and lack of suitable habitat within the BSA, regional species of concern are not likely to occur within the BSA; thus, the proposed project would not result in impacts to special-status plant species.

c, e) Less Than Significant Impact

The proposed project would result in temporary impacts to approximately 0.46 acre of nonwetland Waters of the U.S. The proposed project would not impact wetlands. The affected jurisdictional features would be restored to their approximate original contours and conditions and would not result in permanent loss of jurisdictional acreage, functionality, or value.

The City of Ontario, California Municipal Code, Volume II, Title 10 (Parks and Recreation), Chapter 2 (Parkway Trees), Sections 10-2 *et seq.* provides provisions for the protection of “Parkway Trees.” Section 10-2.03(e) states “Parkway” shall mean that portion of any public street ROW between the ROW boundary line and the curb line, and also the area enclosed within the curb lines of a median divider. Section 10-2.03(g) states “Tree” shall mean plant materials having a single upright woody stem or trunk, maturing at a height in excess of 10 feet. The City keeps a list of parkway trees. Pursuant to Section 10-2.06, the City requires approval and removal permits for

parkway trees to be removed. To remove a parkway tree, it must meet criteria set forth by the City. The project would result in permanent unavoidable impacts to approximately 174 trees, of which 122 are parkway trees. This number includes tree trimming, as well as tree removals. As dictated by the municipal code, no person shall remove or relocate any parkway tree without prior authorization from the Public Works Agency of the City. Tree removal by the project would require approval from the City, and replacement trees would be provided at a 2:1 ratio (or 348 replacement trees). Thus, no conflict with the City’s parkway tree policy would occur, and impacts would be less than significant.

3.2.5 Cultural Resources

The City has not established significance thresholds for use in evaluating the proposed project’s impact to cultural resources; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations for Cultural Resources

a, b, c) No Impact

The proposed project would not result in impacts to any cultural resources because no NRHP-eligible archaeological resources were identified during the survey for the current project, the literature and records search did not reveal any known archaeological sites within a 1-mile radius, and the NAHC sacred lands file search did not reveal any results. Additionally, as a result of the cultural studies completed for this project, the APE contains one historic property that was determined eligible for listing in the NRHP and two additional historical resources for the purposes of CEQA only, as defined by CEQA Section 21084.1. Although Jay Littleton Ballpark is a historic

property eligible for listing in the NRHP, the project improvements do not infringe on the physical aspects of any portion of the ballpark, and potential indirect effects to the ballpark would be minimal. The Fountain Winery and Cucamonga Valley Wine Company and Distillery are local historical resources, but the project would not require acquisition of any of these resources, and there are no project improvements proposed that would physically impact or alter these buildings or properties. As a result, the project would not affect the qualities of historical and architectural significance that qualify these buildings as local historical resources. No historic properties would be affected as a result of the proposed project’s construction or operation.

Lastly, the project is not expected to disturb any human remains. See Minimization Measures CR-1 and CR-2 in Section 2.2.12.4, Avoidance, Minimization, and/or Mitigation Measures, and CI-1 in Section 3.3.1 for the minimization of impacts due to any inadvertent discoveries. Standard Conditions SC-CI-6 and SC-CI-7 would also be implemented.

3.2.6 Energy

The City has not established significance thresholds for use in evaluating the proposed project’s impact to energy; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CEQA Significance Determinations for Energy

a, b) Less than Significant Impact

As discussed in Section 2.3.8.2 , transportation fuel demand in California is expected to increase over time. However, the increase in the number of travel lanes on Grove Avenue would result in reductions in traffic congestion at the project intersections and the improvement of LOS, even with projected increases in the number of vehicles on

Grove Avenue. Also, a slight decrease in VMT from the no-build to build conditions in 2025 and 2045 would occur with the project. This would translate into more efficient energy consumption and higher energy savings for vehicles traveling on Grove Avenue. Construction and future maintenance activities for the project would require energy sources, but this demand would be short-term and minimal. The project would also comply with idling restrictions during construction, use reclaimed water for irrigation and energy-efficient lighting for streetlights, and use energy and fuel-efficient fleets and zero-emission technologies for vehicles during construction, where possible. The energy savings from operation of the Build Alternative would offset the potential energy impacts generated from construction of the project and maintenance of the improved facility. Thus, energy use during construction, operation, and maintenance of the project would not be wasteful, inefficient, or unnecessary, and no conflict with a renewable energy or energy efficiency plan would occur. Impacts related to energy would be less than significant.

3.2.7 Geology and Soils

The City has not established significance thresholds for use in evaluating the proposed project’s geology-related impacts; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CEQA Significance Determinations for Geology and Soils

a i, ii, iii, iv, b c, d, e) No Impact

The site is not located in an Alquist-Priolo Fault Special Studies Zone, nor is it within 1,000 feet of any unzoned fault. It is also located outside designated earthquake zones of required investigations. Thus, fault rupture potential is remote, and the potential for liquefaction and earthquake-induced landslide is low. As with all of southern California, ground-shaking hazards may occur due to earthquake events in the region. With groundwater estimated at 375 to 475 feet below the ground surface, liquefaction hazards are unlikely. The project area is relatively flat, and no hazards related to landslides are expected. The preliminary geotechnical report states that liquefaction and scour potential are not a concern; hydrocollapse is unlikely; corrosion potential is low; and seismic design criteria and geotechnical recommendations are provided.

The project would increase impervious surfaces and reduce the potential for long-term erosion. Temporary constructed-related erosion would be minimized by the implementation of BMPs outlined in the SWPPP for the project. No septic tanks are needed or proposed by the project.

The project would be designed and constructed to meet the City’s engineering design standards to minimize geologic and seismic hazards. Thus, the proposed project would not expose people or structures to substantial adverse effects of seismic activities or seismic-related ground failure beyond the existing level already present with the Grove Avenue configuration. The evaluation of this resource is provided in Section 2.3.3.3, Environmental Consequences.

f) Less Than Significant Impact

While the area is highly disturbed due to the original construction of Grove Avenue and existing adjacent developments and infrastructure, undisturbed native soils (i.e., Holocene and Pleistocene alluvial deposits) that underlie the project area have the potential to contain fossils. Grading and excavation are planned to be approximately 3 to 5 feet deep and confined to previously disturbed sediments, but retaining walls and soundwalls could require excavations up to 20 feet deep. Excavations deeper than 5 feet have the potential to encounter fossils in the Pleistocene portions of alluvial fan deposits. Thus, the proposed project has the potential to impact paleontological resources from excavation during construction. In accordance with the PMP for the project, to ensure that there would be no potential impacts to paleontological resources, monitoring would occur for all excavations greater than 10 feet deep in sediments mapped as Holocene at the surface and for all excavations greater than 5 feet deep in sediments mapped as Pleistocene at the surface, as part of construction specifications. Impacts would be less than significant.

3.2.8 Greenhouse Gas Emissions

The City has not established significance thresholds for use in evaluating the proposed project’s GHG emissions; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CEQA Significance Determinations for Greenhouse Gas Emissions

Additional discussion of GHG is provided in Section 3.6, Climate Change.

a, b) Less Than Significant Impact

GHG emissions associated with construction equipment would be a direct effect during construction of the Grove Avenue Corridor Project. The proposed project is a roadway widening project, and the roadway itself would not directly generate GHG emissions. Rather, GHG emissions associated with vehicles traveling along the Grove Avenue corridor would be considered an indirect effect of the proposed project.

As analyzed in Section 3.2.3, Air Quality, and shown in Table 3.2-1 above, construction of the project would result in an estimated 929 tons of CO₂e; however, it is anticipated that any increase in GHG emissions due to construction would be offset by the improvement in operational GHG emissions. In both 2025 and 2045, the estimated GHG emissions from vehicles using the project under the Build Alternative (proposed project) would be lower than the estimated GHG emissions under the No Build Alternative (see Table 3.2-2). Based on the project-related reduction in annual GHG emissions in 2025, the GHG emitted during construction would be recaptured in approximately 8 years. Based on the project-related reduction in annual GHG emissions in 2045, the GHG emitted during construction would be recaptured in less than 1 year.

Table 3.2-2. Greenhouse Gases Emissions

Year	Greenhouse Gas Emissions (tpy of CO ₂ e)		
	No Build Alternative	Build Alternative	Change
Existing	3,686	NA	NA
2025	5,281	5,167	-114
2045	8,235	7,266	-969
Notes: CO ₂ e – carbon dioxide equivalents; tpy – tons per year			

Therefore, GHG impacts associated with the proposed project would be less than significant. No mitigation is required.

The proposed project consists of widening Grove Avenue to alleviate existing and anticipated future congestion along Grove Avenue between 4th Street and Airport Drive and improve traffic operations along the corridor. With it being anticipated that any increase in GHG emissions due to construction would be offset by the improvement in

operational GHG emissions, the proposed project is in alignment with the goals and policies of SCAG, SCAQMD and San Bernardino County by reducing GHG emissions overall. The proposed project directly relates to Measure Trans-9 Roadway Management of the City of Ontario’s Community Climate Action Plan. This measure’s goal is to implement traffic and roadway management strategies to improve mobility and efficiency and reduced associated emissions. The proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Impacts associated with the proposed project are less than significant, and no mitigation is required.

3.2.9 Hazards and Hazardous Materials

The City has not established significance thresholds for use in evaluating the proposed project’s hazardous materials-related impacts; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations for Hazards and Hazardous Materials

a, c, e, f, g) No Impact

The proposed project would not create a significant hazard to the public or environment through transport, use, or disposal of hazardous materials because the Build Alternative involves improvements to an existing roadway only, and the transport, use, or storage of toxic materials or chemicals is not a proposed component of the project. Because Grove Avenue is a designated truck route, the widened roadway and projected increase in traffic volumes may lead to more trucks carrying hazardous materials or hazardous wastes using Grove Avenue. The transport of hazardous materials or wastes is regulated by Hazardous Materials Transportation Act (49 U.S.C. Chapter 51), Hazardous Materials Regulations (49 CFR 171-177), California Vehicle Code (Section 32000.5), California Health and Safety Code (Section 25167.1 *et seq.*), and the City’s Traffic Regulations (Chapter 6 of the Ontario Municipal Code). Compliance with these regulations by truck drivers and haulers would prevent the creation of hazards associated with the transport of hazardous materials and wastes on Grove Avenue.

The project is located within 0.25 mile of Del Norte Elementary School and within 2 miles of Ontario International Airport, but associated roadway improvements would not result in the emissions of hazardous materials nor result in a safety hazard for people residing or working in the project area. The Airport Land Use Compatibility Plan (ALUCP) shows Grove Avenue within the Airport Influence Area but outside the

designated Safety Zones, except for the southern end (south of Airport Drive) where land use restrictions have been established and aviation easements are required. The project does not propose a new land use, and roads are normally compatible with the designated Safety Zone. The entire project segment is within areas with allowable height limits ranging from 70 to 150 feet above the ground level. The proposed roadway improvements would largely be at-grade, except for retaining walls and soundwalls (6 to 12 feet high) and streetlights that would be 31.5 feet high and, thus, would not conflict with the ALUCP. No airport hazards would be created by the project. Also, the project would not change the exposure of residents or other persons in the area to airport noise.

While the proposed project may involve the handling of hazardous substances during construction, including fuel and degreasers for construction vehicles and equipment, and paints used for new lane striping, appropriate BMPs and industry standards would be utilized to protect workers and residents from potential impacts.

There is no risk associated with wildland fires because there are no wildlands in the project vicinity.

Lastly, there is no potential for the project to interfere with an adopted emergency response or evacuation plan because a TMP would be prepared to ensure appropriate emergency route planning and coordination during the construction period.

b, d) Less Than Significant Impact

Construction and maintenance of the proposed project would utilize hazardous materials but the transport, use, handling, storage, and disposal of hazardous materials would be conducted in compliance with pertinent national, state, and local hazardous materials regulations. These include the transport of hazardous materials in accordance with the Hazardous Materials Transportation Act and California Vehicle Code; storage, handling, and disposal of hazardous waste in compliance with the California Hazardous Waste Control Act; protection of high-pressure and high-voltage utility lines and pipelines per the California Code of Regulations; and lead abatement and asbestos-containing material removal and disposal per SCAQMD Rules and the California Code of Regulations, among others. These regulations establish procedures and practices that would reduce the potential for accidental release of hazardous materials and minimize the adverse effects of accidental releases.

Construction of the proposed project has the potential to encounter hazardous materials at several locations. The removal of utility poles would be managed as treated wood

waste (TWW), while the pole-mounted overhead transformers, street lighting, traffic signals, utility boxes, meters, and associated electrical components may contain polychlorinated biphenyls (PCBs) and other hazardous substances, which need to be profiled and managed appropriately. Lane markings (i.e., thermoplastics and paints) on the project corridor may contain lead-based paint (LBP) at concentrations that may pose a hazard to workers. Exposed soils in landscaped medians, parkways, slopes, and unpaved sidewalk/parkway areas that would be disturbed by construction activities may contain ADL. The proposed project would also require removal of multiple residential structures and, depending on the structures' age, they may contain asbestos-containing material (ACM) and lead-based paint (LBP); however, BMPs and industry standards would ensure that no significant hazards would be released to the public, some of which are detailed in Standard Conditions SC-CI-18 through SC-CI-20 and Minimization Measure HW-1.

Properties identified for temporary construction easements and partial acquisitions are not considered RECs for the project. As part of the ROW acquisition process, structures on property to be acquired would be tested for ACM and LBP. Implementation of Standard Conditions SC-CI-18 through SC-CI-20 and Minimization Measure HW-1 would minimize potential impacts to a less than significant level.

3.2.10 Hydrology and Water Quality

The City has not established significance thresholds for use in evaluating the proposed project's impacts on hydrology and floodplains; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations for Hydrology and Water Quality

a, b, c, d, e) No Impact

Construction of the project would include the implementation of BMPs to reduce pollutants in the stormwater runoff, including eroded soils and sediment. In the long-term, the increased number of vehicles on the roadway would generate the same pollutants that may be entrained by stormwater. Implementation of Minimization Measure WQ-3 would incorporate source control BMPs and BMP techniques (i.e., drainage swales, bioretention, and/or infiltration basins/trenches) as part of the project to reduce pollutant runoff into the West Cucamonga Channel. Also, the West Cucamonga Channel is not listed as an impaired water body per Section 303(d) of the CWA. In addition, the project would not include kitchen, toilet, or bathroom facilities nor generate wastewater that may violate the WDRs of wastewater treatment plants serving the area. Thus, it would not violate any water quality standards or WDRs.

No groundwater wells are proposed with the project, and irrigation water would be derived from reclaimed water sources. Also, the project area is urbanized and does not serve as a groundwater recharge area. Proposed excavations would not be deep enough to affect groundwater, which is estimated at 375 to 475 feet below the ground surface. Thus, the project would not substantially deplete groundwater resources or interfere with groundwater recharge, and no impact on local groundwater resources would occur with the project.

The limits of the 100-year floodplain in the project area are confined to the West Cucamonga Channel. Although the Build Alternative would geometrically encroach on the West Cucamonga Channel's floodplain at the culvert crossings, it would not alter the floodplain because the culvert crossings would only be extended to accommodate the roadway widening by a maximum of approximately 37 feet. Even with the increase in impervious areas due to the project, the 100-year flood event would still be contained in the channel under the proposed conditions. The encroachment to the channel has been minimized, and the proposed roadway surface would be above the water surface elevation in the channel. Thus, the limits of the 100-year floodplain would not change. Also, water in the channel would not lead to the interruption or termination of a transportation facility in the event of a 100-year rain event. No effects to the floodplain or risks to incompatible developments would occur. Also, no impedance or redirection of flood flows in the channel would occur.

No natural or beneficial uses for this floodplain have been identified in the Santa Ana RWQCB's Basin Plan for the Santa Ana River Basin. As such, West Cucamonga Channel's only use is for drainage conveyance. The evaluation of this resource is provided in Section 2.3.1.3, Environmental Consequences. Thus, no conflict with the Basin Plan for the Santa Ana River Basin would occur.

Construction of the Build Alternative would add 2.57 acres of additional impervious surface area, as estimated in the Final Water Quality Management Plan for the project. The additional impervious surface area would not alter the existing drainage patterns because stormwater runoff would continue to be conveyed to the concrete-lined West Cucamonga Channel that runs through and serves the project area. Localized changes in drainage patterns would not change the direction of flows in the West Cucamonga Channel and downstream channels. Also, source control BMPs and BMP techniques (i.e., drainage swales, bioretention, and/or infiltration basins/trenches) would be implemented through Minimization Measure WQ-3 and would reduce pollutants and runoff volumes and rates in compliance with the County MS4 Permit. The project would not result in runoff that would exceed the existing stormwater drainage system

capacity of the West Cucamonga Channel because stormwater volume from a 100-year rain event would still be contained within the channel. Thus, no change to the potential release of pollutants into the channel from flood waters would occur.

The proposed project would geometrically encroach on the West Cucamonga Channel's floodplain at the culvert crossings. The proposed encroachment would not alter the floodplain because the culvert crossings would only be extended to accommodate the roadway widening by a maximum of approximately 37 feet. Furthermore, the 100-year flood event would still be contained in the existing channel under the proposed conditions. Existing drainage patterns would not be altered. In addition, several minimization measures, HYD-1 through HYD-5, would be incorporated into the design and construction phases to avoid potential floodplain and water quality impacts.

The proposed project would add 2.57 acres of additional impervious surface area, resulting in a potential increase in stormwater runoff and water quality impacts. With incorporation of temporary construction site BMPs, source control BMPs, and BMP techniques (i.e., drainage swales, bioretention, and/or infiltration basins/trenches), no significant impacts are expected with implementation of the proposed project. In addition, Minimization Measures WQ-1 through WQ-3 and Standard Conditions SC-CI-8 through SC-CI-10 would be implemented to minimize potential water quality and hydrological impacts.

Lastly, the project area is underlain by the Chino Groundwater Basin, which is an adjudicated basin where groundwater pumping is monitored and regulated by the Chino Basin Watermaster. This groundwater basin is a very low priority basin under the Sustainable Groundwater Management Act, and no sustainable groundwater management plan is required. Because no impacts to groundwater resources are expected with the project, no conflict with a sustainable groundwater management plan would occur.

3.2.11 Land Use and Planning

The City has not established significance thresholds for use in evaluating the proposed project's consistency with related plans and policies; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CEQA Significance Determinations for Land Use and Planning

a) No Impact

The proposed project would not physically divide an established community because the roadway already exists, and the project would provide improved accessibility for motorists, pedestrians, and bicyclists. In addition, there would be improved sidewalks, crosswalks, lighting, and landscaping. Overall, the proposed project is generally consistent with area local plans, including policies and goals for improving traffic operations and mobility.

b) Less Than Significant Impact

Overall, there is a less than significant impact associated with the proposed project’s consistency with existing plans and policies. The project is consistent with the Ontario General Plan and Master Plan of Streets and Highways. The project is also consistent with SCAG’s RTP/SCS. The proposed project would not conflict with habitat conservation plans because there are none that apply to the project area, and the project is generally consistent with area local plans, including policies and goals for improving traffic operations and mobility. However, the proposed project would require permanent removal of 0.06 acre of open space parkland and removal of approximately 174 trees, which would be inconsistent with SCAG’s 2008 RCP policies focused on protection of open space. While the RCP was adopted to serve as a vision for promoting economic prosperity, natural resource sustainability, and quality of life in the region, some of its policies indirectly serve to avoid or mitigate environmental effects associated with the loss of open space and natural lands. However, the project would not affect natural lands and has been designed to preserve as many mature trees as practicable. In addition, the project’s landscape plan would incorporate a tree replacement plan with a replacement ratio of 2:1 — for every mature tree removed, two

trees would be planted. This would bring the project in line with SCAG 2008 policies regarding protection of open space.

3.2.12 Mineral Resources

The City has not established significance thresholds for use in evaluating the proposed project’s impact to mineral resources; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations for Mineral Resources

a, b) No Impact

The proposed project would not result in impacts to mineral resources because none have been identified in the project area.

3.2.13 Noise

The City has not established significance thresholds for use in evaluating the proposed project’s noise and vibration impacts; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used. Additionally, per Caltrans Traffic Noise Analysis Protocol, Section 7, CEQA and NEPA Considerations, a 12-dB increase between existing and design-year with-project conditions is considered a significant impact.

Would the project result in:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of a project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations for Noise

a) Less Than Significant Impact

In California, a substantial noise increase is considered to occur when the project’s predicted worst-hour design-year noise level exceeds the existing worst-hour noise level by 12 dB or more. The evaluation of this resource is provided in Section 2.33.7, Noise and Vibration. Noise levels in the future design-year Build conditions are predicted to increase by a maximum of 8 dB at one receiver location over the existing noise conditions. Noise levels in the design-year Build conditions would increase from existing conditions; however, this increase in noise level is not considered to be substantial.

In the future design-year 2045 build conditions, most of the receiver locations have traffic noise levels that were found to approach or exceed the applicable NAC. Fifteen (15) soundwalls to provide noise abatement for affected receptors were evaluated on private property lines in the proposed project corridor, which was the optimum location for breaking the line of sight between Grove Avenue and impacted receiver locations. Of the 15 soundwalls evaluated, 8 (SW-1, SW-5C, SW-6, SW-7, SW-8, SW-9, SW-11, and SW-12) were found to be feasible and reasonable. However, only one soundwall (SW-7) was considered reasonable from the viewpoint of the benefitted receptors. Receptors (24 single-family and multi-family residences) where soundwalls were

found to be unreasonable and/or infeasible would experience an increase in noise levels approaching or exceeding the applicable NAC, but a soundwall would not reduce noise levels by 7 dB or more and/or the cost of the soundwall would exceed the set cost per benefited receptor. Because increases in noise levels would be less than 12 dB, the impact on the 24 residences would not be substantial or significant.

Implementation of Minimization Measure N-1 would minimize noise impacts to more than 92 benefited receptors. Because some of the soundwalls would not be constructed (due to objections from the property owners and other factors), the increase in noise levels over existing and future design-year 2045 build conditions would be an unavoidable impact from the operation of the project, but this increase would not be more than 12 dB. Thus, long-term impacts would be less than significant.

During construction of the project, noise from construction activities may intermittently and temporarily dominate the noise environment in the immediate area of construction. Construction equipment is expected to generate noise levels ranging from 70 to 90 dBA at a distance of 50 feet, and noise produced by construction equipment would be attenuated over distance at a rate of approximately 6 dB per doubling of distance. To minimize the construction-generated noise, abatement measures in standard Specification 14-8.02, “Noise Control” and SSP 14-8.02 must be followed:

- Do not exceed 86 dBA at 50 feet from the job site activities from 9:00 p.m. to 6:00 a.m.
- Equip an internal combustion engine with the manufacturer-recommended muffler.
- Do not operate an internal combustion engine on the job site without the appropriate muffler.

No significant noise impacts from construction are anticipated because construction would be conducted in accordance with Standard Specification 14-8.02, SSP 14-8.02, and applicable local noise standards. In addition, the temporary and intermittent construction noise would cease to exist upon completion of the construction project.

b) No Impact

BMPs and industry standards would ensure that the project would have no to very little potential for groundborne vibration or noise levels during construction or operation of the project. These standards are further discussed in Section 2.3.7, Noise and Vibration.

c) No Impact

The project is within 2 miles of the Ontario International Airport, and the southern section of the project segment (south of G Street) is within the 60-65 dB CNEL and 65-70 dB CNEL noise impact zones of the airport. The project would not directly increase the number of vehicles on Grove Avenue, nor would it change the exposure of residents or other persons in the area to airport noise. Therefore, no impacts would occur.

3.2.14 Population and Housing

The City has not established significance thresholds for use in evaluating the proposed project’s potential for growth inducement; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CEQA Significance Determinations for Population and Housing

a) No Impact

The proposed project would not induce substantial growth directly or indirectly. Widening of the Grove Avenue corridor would alleviate current congestion issues and would not contribute to growth. The evaluation of this resource is provided in Section 2.2.6.1, Community Character and Cohesion.

b) Less Than Significant Impact

The proposed project would require the acquisition and displacement of 8 single-family housing units and 4 parcels with 10 multi-family housing units. It is estimated that approximately 47 residents would be displaced as a result. As part of the relocation analysis, adequate resources for comparable decent, safe, and sanitary relocation sites can be found for all affected residents within the replacement area of the cities of

Ontario, Upland, Rancho Cucamonga, and Montclair. There would not be a need to construct replacement housing for those affected by the proposed project.

3.2.15 Public Services

The City has not established significance thresholds for use in evaluating the proposed project’s impact to public services; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations for Public Services

a) No Impact

The proposed project would not result in impacts to public services. The improvements associated with the proposed project would have beneficial effects for law enforcement protection and emergency service access and response times.

3.2.16 Recreation

The City has not established significance thresholds for use in evaluating the proposed project’s impact to recreational resources; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CEQA Significance Determinations for Recreation

a) No Impact

The project would result in small acquisitions of the existing Grove Memorial and John Galvin parks, but the widening of Grove Avenue would not result in an increase in use of the parks. The project would not result in any impacts to the level of use at the existing parks.

b) Less Than Significant Impact

The proposed project would require the acquisition of approximately 0.005 acre of Grove Memorial Park and 0.05 acre of John Galvin Park to accommodate the roadway improvements. As discussed in detail in Appendix A, Section 4(f) Evaluation, the permanent acquisitions would be limited to unused landscaped and mulch-covered areas at Grove Memorial Park and John Galvin Park; therefore, they would not adversely affect the recreational activities, features, or attributes of either park.

3.2.17 Transportation

The City has not established significance thresholds for use in evaluating the proposed project’s transportation-related impacts; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle lanes and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Would the project conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(2)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
cc) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
dd) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations for Transportation

a, b, c, d) No Impact

Implementation of the proposed project would result in no effect for each of the traffic- and transportation-related significance thresholds. The proposed project would not conflict with any applicable plan, ordinance, or policy focused on the performance of the circulation system. The roadway improvements associated with the Build Alternative would improve traffic operations along Grove Avenue and would be compatible with local and regional congestion management plans and transportation-related plans, policies, or programs. While the Grove Avenue/Holt Boulevard, Grove Avenue/State Street-Airport Drive, and Grove Avenue/Mission Boulevard intersections are forecast to continue to operate at LOS E or F in horizon year 2045 build conditions, the average delays are forecast to significantly improve with implementation of the Build Alternative compared to the No Build Alternative.

The proposed roadway improvements would be designed to meet all applicable roadway design and safety standards. Because the project would result in a slight decrease in VMT from the no-build to build conditions in 2025 and 2045, no conflict with CEQA Guidelines Section 15064.3 (b) would occur.

Because no arterial roadways would be permanently closed, there are no permanent impacts to access or circulation, and no indirect impacts are anticipated with implementation of the Build Alternative. A TMP would be implemented during

construction to ensure appropriate coordination with emergency response providers regarding construction activities. Emergency access through the project corridor would be maintained during project construction. Standard Conditions SC-CI-1 through SC-CI-3 and SC-CI-5 would also be implemented.

Grove Avenue is designated as a Bicycle Corridor by the City of Ontario Multipurpose Trails and Bikeway Corridor Plan. The project would include a new Class III bikeway along Grove Avenue in conformance with SBCTA’s Non-Motorized Transportation Plan 2014. The Build Alternative would be designed to retain and improve the existing pedestrian sidewalk on the west side of Grove Avenue between I Street and G Street. The Build Alternative would improve pedestrian connectivity by constructing a new sidewalk that seamlessly connects with an existing walkway in Grove Memorial Park. Additionally, pedestrian sidewalks along the project area would include a landscaped median between traffic and pedestrians to enhance safety. There would also be a design element that provides a pedestrian connection across the West Cucamonga Channel to an existing trail leading to James Galanis Park. All pedestrian sidewalk changes would be ADA compliant. As such, no adverse effects with respect to nonmotorized and pedestrian features would occur as a result of implementation of the Build Alternative.

3.2.18 Tribal Cultural Resources

The City has not established significance thresholds for use in evaluating the proposed project’s consistency with related plans and policies; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations for Tribal Cultural Resources

a, b) No Impact

A sacred lands records search was requested for this project from the NAHC on March 27, 2015. The NAHC responded on April 22, 2015, that a search of the sacred lands file failed to indicate the presence of Native American cultural resources in the immediate project area. The NAHC requested that four Native American tribes or individuals be contacted for further information regarding the general project vicinity.

The following is a summary of the tribes contacted and their responses to the request for consultation:

- Gabrieleno/Tongva Band of Mission Indians – Archaeological monitoring should be conducted in case of subsurface archaeological material.
- Gabrielino/Tongva Nation – Letter sent May 13, 2015; e-mail sent June 5, 2015; and a follow-up phone call made June 12, 2015. On June 12, 2015, consultation was deferred to Mr. Sam Dunlap, who provides all cultural resource consultation comments for the Gabrielino/Tongva Tribe. See below for Mr. Dunlap’s response.
- Gabrieliño Band of Mission Indians – No responses received to any of the three attempts at contact.
- Gabrielino/Tongva Nation Los Angeles – Mr. Sam Dunlap, Cultural Resources Director of the Gabrielino/Tongva Nation Los Angeles, responded by e-mail and recommended implementing Native American monitoring oversight during

construction and to be informed of any unanticipated discovery of prehistoric cultural material.

- San Manuel Band of Mission Indians – A comment was received noting that the ethnography section contained no discussion of the Serrano. Another comment was received to revise the report asking that the tribal territory match the description developed by the tribe, that nearby villages be mentioned, and that mention of the Vanyume be removed.
- Serrano Nation – Requested to be notified if any cultural resources are observed during construction activities and to be contacted immediately if any human remains are encountered.

While no tribal cultural resources were identified during the AB 52 process, Minimization Measures CR-1, CR-2, and CI-1 were identified to reduce any potential impacts to tribal cultural resources that may be encountered during construction.

Please see Chapter 4, Comments and Coordination, for more details on the AB 52 consultation results.

3.2.19 Utilities and Service Systems

The City has not established significance thresholds for use in evaluating the proposed project’s impact to utilities; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations for Utilities and Service Systems

a, b, c, d, e) No Impact

The demolition of existing structures along Grove Avenue would result in the elimination of water demand and wastewater generation from existing land uses. Existing water and sewer lines serving these uses would be abandoned or relocated, and new water lines may be constructed for irrigation of landscaped parkways and medians; however, reclaimed water would be utilized and no new water supplies are needed. The proposed project would not result in an increase in demand for existing water and sewer utilities or require the construction of new water or sewer facilities to serve the project. Existing storm drainage facilities would be relocated, and drainage improvements would include installation of operational BMPs to reduce pollutant runoff and runoff volumes. Standard Condition SC-CI-4 would also be implemented. The impacts of these utility line relocations and improvements have been considered in this EIR/EA.

Short-term construction-related solid waste disposal would be made in accordance with existing regulations, such as the Ontario Integrated Solid Waste Management Ordinance, CalGreen Code, and applicable hazardous waste disposal regulations for TWW, ACM, LBP, and hazardous materials used for building construction. Construction and demolition wastes would also be accommodated by area landfills, such as the Mid-Valley Sanitary Landfill (accepts 7,500 tons per day and has 67.52

million cubic yards of remaining capacity) and San Timoteo Sanitary Landfill (accepts 2,000 tons per day and has 11.2 million cubic yards of remaining capacity).

The proposed improvements under the Build Alternative would result in the relocation of some major electrical and water utilities, but they would not adversely affect the long-term operations of these utilities.

3.2.20 Wildfire

The City has not established significance thresholds for use in evaluating the proposed project’s impact related to wildfire; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA Significance Determinations for Wildfire

a, b, c, d) No Impact

Grove Avenue is located in an urbanized area of the city and is not located near a Very High Fire Hazard Severity Zone. Therefore, the project would not be exposed to wildfire hazards. The project area is relatively flat and would have no effect on

emergency response or evacuation in wildfire hazard areas that are located outside the city. No impacts related to wildfire would occur.

3.2.21 Mandatory Findings of Significance

The City has not established significance thresholds for use in evaluating the proposed project’s consistency with related plans and policies; therefore, the thresholds presented in Appendix G of the CEQA Guidelines are used.

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

CEQA Significance Determinations for Mandatory Findings of Significance

a, b) Less Than Significant Impact

While the project would require the removal and/or trimming of trees and shrubs along the corridor, which could result in impacts to nesting birds in violation of the MBTA and CFG Code, the project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish

or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

As discussed in Section 2.5, Cumulative Impacts, the project does not have impacts that are individually limited but cumulatively considerable. In several cases, the project would improve conditions, thus creating beneficial cumulative impacts.

c) Less Than Significant Impact with Mitigation Incorporated

During project construction, there is a possibility to encounter hazardous materials. TWW and transformers containing PCBs may be encountered. During demolition of buildings, ACM and LBP could be present. These potentially significant conditions would be reduced to less than significant with Standard Conditions SC-CI-18 through SC-CI-20 and Minimization Measure HW-1.

3.3 Mitigation Measures for Significant Impacts under CEQA

Impacts are avoided or minimized through implementation of standard conditions, minimization measures and mitigation measures (identified at the end of each topic in Chapter 2). Implementation of the standard conditions is assumed prior to making the determination if an impact is significant because these are regulatory requirements or practices that Caltrans routinely applies to all projects. Other mitigation measures would reduce impacts identified as significant. Mitigation measures are listed below with a cross reference to the section where the mitigation measures can be found. In addition, all of the measures and standard conditions are listed in Appendix D. No mitigation measures would apply to the No Build Alternative because no improvements would be made.

Mitigation Measures:

Animal Species

AS-1: To avoid effects to nesting birds, the Project Engineer will require the contractor to conduct vegetation removal or tree-trimming activities outside of the nesting bird season (i.e., February 15 through August 31).

If vegetation clearing is necessary during the nesting season, the Project Engineer will require the contractor to have a qualified biologist conduct a preconstruction survey within 150 feet of construction areas no more

than 10 days prior to construction at the location to identify the location of nests, if any. A qualified biologist is one that has previously surveyed for nesting bird species within southern California.

Should nesting birds be found, an exclusionary buffer will be established by the qualified biologist around each nest site. The buffer will be clearly marked in the field by construction personnel under guidance of the contractor's qualified biologist, and construction or clearing will not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active.

The qualified biologist will monitor the nests on a weekly basis to ensure that construction activities do not disturb or disrupt nesting activities.

If the qualified biologist determines that construction activities are disturbing or disrupting nesting activities, then the biologist will notify the Project Engineer, who has the authority to stop or modify construction to reduce the noise and/or disturbance to the nests. Responses may include, but are not limited to, increasing the size of the exclusionary buffer, curtailing nearby work activities, turning off vehicle engines and other equipment wherever possible to reduce noise, installing a protective noise barrier between the nest and the construction activities, and/or working in other areas until the young have fledged. (Section 2.4.4)

3.3.1 Avoidance and Minimization Measures

Standard conditions and minimization measures would reduce construction-related impacts to various resources described in the previous sections. These include:

Avoidance and Minimization Measures

Consistency with State, Federal, and Local Plans and Programs

LU-3: The remnant parking lot on the west side of John Galvin Park will be reconfigured to maintain as many parking spots at this location as possible. (Section 2.2.6)

VA-2: Where it is not feasible to save the existing trees, new tree and vegetation plantings shall be included in the final design of the roadway.

Replacement trees shall be two 24-inch boxed trees for each tree removed by the project. All areas disturbed by the project shall be fitted with new landscaping, including trees, groundcovers, accent plants, and turf grass (in park areas adjacent to existing remaining turf). (Section 2.2.11)

NC-1: The project shall preserve as many mature trees as practicable. Although there is no City or County ordinance for tree removal, the project's landscape plan will incorporate a tree replacement plan with a replacement ratio of 2:1 – for every mature tree removed, two trees will be planted to be consistent with Measure VA-2. Mature trees (larger than 20 feet high) that are to be removed shall be replaced with two 24-inch box trees. Design plans shall indicate locations of existing mature trees (larger than 20 feet high) to be preserved in place. Tree replacement shall meet all Caltrans and City standards and policies, and near John Galvin Park, the replacement tree species will incorporate species that have been identified as those of the original planting of John Galvin Park in the 1930s. (Section 2.4.1)

Noise and Vibration

N-1: Based on the studies completed to date and input from the public, Caltrans and the City will incorporate noise abatement in the form of soundwalls that meet the criteria for reasonableness and feasibility. The recommended soundwalls would reduce the traffic noise by at least 5 dB at the impacted receivers, would meet the design goal by providing a 7-dB reduction for at least one receiver, and would cost less than the reasonable cost allowance. If conditions have substantially changed during final design, noise abatement may change or may not be necessary, depending on the results of the updated noise analysis using final design information. The final decision of the noise abatement will be made upon completion of the project design and the public involvement process.

After circulation of the draft environmental document, soundwall surveys were conducted with all property owners and residents of benefited receptors located within the footprint of the Build Alternative. Where 100 percent of the responding benefited receptors did not support the soundwall, the soundwall will not be constructed.

However, if conditions substantially change at the time of final design, a noise analysis and/or soundwall surveys may be conducted again, and the final decision on noise abatement will be reconsidered as part of the project design. (Section 2.3.7)

Parks and Recreation

- LU-1:** Turf grass and rock curbs will be replaced in TCE areas within Grove Memorial Park to match pre-project conditions in consultation with the property owner (City) during and at completion of construction. (Section 2.2.3)
- LU-2:** Turf grass and rock curbs will be replaced in TCE areas within John Galvin Park to match pre-project conditions in consultation with the property owner (City) during and at completion of construction. (Section 2.2.3)
- LU-3:** The remnant parking lot on the west side of John Galvin Park will be reconfigured to maintain as many parking spots at this location as possible. (Section 2.2.3)

Utilities/Emergency Services

- UT-1:** During final design, the Project Engineer will prepare utility relocation plans in consultation with the affected utility providers/owners for those utility facilities that will need to be relocated, removed, or protected in place. (Section 2.2.9)
- UT-2:** During final design, the Project Engineer will prepare utility relocation plans in consultation with the affected utility providers/owners for those utility facilities that will need to be relocated, removed, or protected in place. If relocation is necessary, the final design will focus on relocating utilities within the State ROW or other existing public ROWs and/or easements. If relocation outside of existing or the additional public ROWs and/or easements required for the project is necessary, the final design will focus on relocating those facilities in adjacent public ROWs and in a manner so as to not result in significant community, land use, or natural resource impacts. (Section 2.2.9)

- UT-3:** Close coordination with utility service providers and implementation of a public outreach program will be conducted, as needed, to minimize impacts to surrounding communities. (Section 2.2.9)
- UES-1:** Prior to and during any construction activities, the City will coordinate with emergency service providers to ensure that all providers are aware of temporary road closures and detours. (Section 2.2.9)
- UES-2:** Emergency service phone numbers (i.e., fire, emergency medical, police) will be posted in visible locations in all active construction areas. (Section 2.2.9)
- UES-3:** To avoid conflicts during construction, the project's Resident Engineer will notify all emergency and other essential service providers no less than 2 weeks prior to the start of construction. Agencies to be notified include:
- City of Ontario Police Department
 - City of Ontario Fire Department
 - San Bernardino County Sherriff's Department
 - San Bernardino County Fire Department (Section 2.2.9)

Community Character and Cohesion

- COM-1:** Where acquisition and relocation are unavoidable, provisions of the Uniform Act and the 1987 Amendments, as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs adopted by USDOT (March 2, 1989) and where applicable, the California Public Park Preservation Act of 1971, will be followed. An appraisal of the affected property will be obtained, and an offer for the full appraisal will be made. (Section 2.2.6)
- COM-2:** Outreach activities targeted to low-income residents will be conducted during the planning, design, and construction phases of the Build Alternative. (Section 2.2.6)

Traffic and Transportation/Pedestrian and Bicycle Facilities

- T-1:** Final TMP – A TMP (July 2015) was prepared during development of the preliminary engineering for the project. During final design, a Final

TMP will be prepared. At a minimum, the Final TMP will include the detailing of any projected temporary street closures or expected traffic delays due to project construction activities. The Final TMP will include a public awareness program that will use an appropriate combination of the HAR, local media, newsletters, and/or flyers. The following elements will be major components of the Final TMP: Public Awareness Campaign, particularly related to the scheduling of work; COZEEP; Utilization of portable CMSs; and notification to be sent to local cities and emergency responders, if applicable. (Section 2.2.10)

- T-2:** During project construction, the Project Engineer will ensure that the measures in the Final TMP are properly implemented by the contractor. (Section 2.2.10)
- T-3:** During final design and construction, the Project Engineer will work with affected property owners to identify means to avoid and minimize parking impacts, including space management, such as restriping of parking areas and identifying parking replacement options. (Section 2.2.10)
- T-4:** All pedestrian facilities will be designed to meet or exceed requirements of the ADA and current safety standards. Access to pedestrians and bicyclists shall be maintained to the extent practicable during the construction period. (Section 2.2.10)
- T-5:** Prior to and during construction, the Project Engineer will coordinate with Omnitrans, the Ontario-Montclair School District, and other affected transit providers to request and comply with applicable procedures for any required temporary bus stop relocations or other disruptions to transit service during construction, if necessary. (Section 2.2.10)
- T-6:** During final design and prior to and during construction, the Project Engineer will coordinate with the design and construction team for the I-10/Grove Avenue Interchange Project to ensure the Grove Avenue Corridor Project and the I-10/Grove Avenue Interchange Project are designed compatibly. (Section 2.2.10)

Visual/Aesthetics

- VA-1:** The existing trees, particularly within the park area, provide scale, shade, and visual relief to the extent of roadway paving. Preserving existing trees to the extent feasible will help maintain the existing visual character of the roadway. (Section 2.2.11)
- VA-2:** Where it is not feasible to save the existing trees, new tree and vegetation plantings shall be included in the final design of the roadway. Replacement trees shall be two 24-inch boxed trees for each tree removed by the project. All areas disturbed by the project shall be fitted with new landscaping, including trees, groundcovers, accent plants, and turf grass (in park areas adjacent to existing remaining turf). (Section 2.2.11)
- VA-3:** To support the replacement of plantings, the project shall include a permanent irrigation system to all new plantings. Materials used or irrigation shall be as per City of Ontario standards. (Section 2.2.11)
- VA-4:** Decorative paving shall be employed for medians, islands, and parkway strips that are too narrow to plant. Paving color and texture/pattern shall match City of Ontario standards. (Section 2.2.11)

Cultural Resources

- CR-1:** If cultural resources are discovered at the job site, all work activities shall stop within a 60-foot radius of the discovery, the discovery area shall be protected, and the Resident Engineer shall be notified. Cultural resources shall not be moved or taken from the job site until Caltrans investigates and determines the significance of the find. Work activities shall not resume within the discovery area until Caltrans provides written notification authorizing work activities to resume. (Section 2.2.12)
- CR-2:** **Human Remains.** If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities will cease in any area or nearby area suspected to overlie remains, and the County Coroner will be contacted. Pursuant to PRC Section 5097.98, if the remains are thought to be Native American, the Coroner will notify the NAHC, who will designate the MLD. At this time, the Caltrans District 8 Environmental Branch Chief, Andrew

Walters (909) 383-2647, will be contacted so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable. (Section 2.2.12)

- CI-1: Inadvertent Discoveries:** Should subsurface archaeological resources be discovered, a qualified archaeologist shall be contacted to assess the significance of the find according to CEQA Guidelines Section 15064.5. If any find is determined to be significant, the archaeologist shall determine, in consultation with Caltrans, the City, and any local Native American groups expressing interest for prehistoric resources, appropriate avoidance measures or other appropriate mitigation. Per CEQA Guidelines Section 15126.4(b)(3), preservation in place shall be the preferred means to avoid impacts to archaeological resources qualifying as historical resources. Methods of avoidance may include, but shall not be limited to, rerouting or redesign, cancellation, or identification of protection measures such as capping or fencing. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures, such as data recovery or other appropriate measures, in consultation with Caltrans, the City, and any local Native American representatives expressing interest for prehistoric archaeological resources. If an archaeological site does not qualify as a historical resource but meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site shall be treated in accordance with the provisions of Section 21083.2.

Hydrology and Floodplain

- HYD-1:** Provide positive drainage during construction and refrain from filling designated floodplains. Construction site surface runoff will be channeled into existing drainage facilities so as to not cause water flow on neighboring properties. Offsite flows will be managed in a manner that will mimic the existing drainage network and will not inundate the roadway surface of any of the existing drainage systems. (Section 2.3.1)
- HYD-2:** Implement standard BMPs as identified in the City of Ontario's Water Quality Management Plan, including temporary construction site BMPs

to address site soil stabilization and reduce deposition of sediments to receiving waters. (Section 2.3.1)

HYD-3: Include erosion control and water quality protection during construction at the West Cucamonga Channel. BMPs will be designed and implemented to reduce the discharge of pollutants to the MEP. Typical measures that may be implemented include preservation of existing vegetation, use of soil binders or hydroseeding, and installation of silt fences or fiber rolls. (Section 2.3.1)

HYD-4: Contractor shall develop a contingency plan for unforeseen discovery of underground contaminants in the SWPPP. (Section 2.3.1)

HYD-5: Limit construction activities between October and May to those actions that can adequately withstand high flows and entrainment of construction materials. The Contractor shall prepare an REAP and discuss high flows mitigation. (Section 2.3.1)

Water Quality and Stormwater Runoff

WQ-1: Implement Temporary Construction BMPs. The project will be required to conform to the requirements of the NPDES Permit for Construction Activities, Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ, NPDES No. CAS000002. (Section 2.3.2)

WQ-2: Prepare and Implement an SWPPP. The Contractor will be required to develop an acceptable SWPPP. The SWPPP shall contain BMPs that have demonstrated effectiveness at reducing stormwater pollution. The SWPPP shall address all construction-related activities, equipment, and materials that have the potential to affect water quality. All Construction Site BMPs will be installed, maintained, and inspected to control and minimize the impacts of construction-related pollutants. The SWPPP shall include BMPs to control pollutants, sediment from erosion, stormwater runoff, and other construction-related impacts. In addition, the SWPPP shall include implementation of specific stormwater effluent monitoring requirements based on the project's risk level to ensure that the implemented BMPs are effective in preventing discharges from exceeding any of the water quality standards. (Section 2.3.2)

WQ-3: **Incorporate Design Principles into Final Roadway Design.** Design Principles are permanent measures to minimize pollution discharges by retaining source materials and stabilizing soils. The three objectives associated with Design Principle BMPs include maximizing vegetated surfaces; preventing downstream erosion; and stabilizing soil areas. These design objectives will be applied to the entire project. (Section 2.3.2)

Paleontology

P-1: Develop and implement a PMP, with monitoring in excavations more than 10 feet deep for sediments mapped as Holocene at the surface and more than 5 feet deep for excavations mapped as Pleistocene at the surface. The PMP will guide and facilitate the identification and treatment of paleontological resources, if any are found, during project construction to reduce adverse effects on significant resources. The PMP will summarize identified paleontologically sensitive areas within the APE, the organization and responsibilities of the paleontological team, the responsibilities of other parties, and the treatment and communications procedures to be implemented if paleontological resources are encountered during the project. (Section 2.3.4)

Hazardous Waste/Materials

HW-1: If any discolored, odorous, or compromised soils are encountered during excavation, they shall be tested and removed and disposed of per regulatory requirements. (Section 2.3.5)

Air Quality

AQ-1: The City shall encourage construction contractors to apply for SCAQMD “SOON” funds. The “SOON” program provides funds to applicable fleets for the purchase of commercially available low-emission heavy-duty engines to achieve near-term reduction of NO_x emissions from in-use off-road diesel vehicles. More information on this program can be found at SCAQMD’s website: <http://www.aqmd.gov/home/programs/business/business-detail?title=off-road-diesel-engines&parent=vehicle-engine-upgrades>. (Section 2.3.6)

Natural Communities

NC-1: The project shall preserve as many mature trees as practicable. Although there is no City or County ordinance for tree removal, the project’s

landscape plan will incorporate a tree replacement plan with a replacement ratio of 2:1 – for every mature tree removed, two trees will be planted to be consistent with Measure VA-2. Mature trees (larger than 20 feet high) that are to be removed shall be replaced with two 24-inch box trees. Design plans shall indicate locations of existing mature trees (larger than 20 feet high) to be preserved in place. Tree replacement shall meet all Caltrans and City standards and policies, and near John Galvin Park, the replacement tree species will incorporate species that have been identified as those of the original planting of John Galvin Park in the 1930s. (Section 2.4.1)

Wetlands and Other Waters

WET-1: Construction activities within the West Cucamonga Channel and Princeton Basin will be designed and conducted to maintain downstream flow conditions. All construction activities will be effectively isolated from water flows to the greatest extent feasible. This may be accomplished by working in the dry season or dewatering the work area in the wet season. When work in standing or flowing water is required, structures for isolating the in-water work area and/or diverting the water flow must not be removed until all disturbed areas are cleaned and stabilized. The diverted water flow must not be contaminated by construction activities. Structures used to isolate the in-water work area and/or diverting the water flow (e.g., coffer dam, geotextile silt curtain) must not be removed until all disturbed areas are stabilized. (Section 2.4.2)

Invasive Species

IS-1: In compliance with the Executive Order on Invasive Species (EO 13112), and guidance from FHWA, the landscaping and erosion control included in the project will not use species listed as invasive. In areas of particular sensitivity (i.e., near or adjacent to drainages), extra precautions will be taken if invasive species are found in or next to the construction areas. This includes the inspection and cleaning of construction equipment and eradication strategies, as required by the City of Ontario Biological Monitor, to be implemented should an invasion occur. Any cleaning of equipment or site watering will be conducted in adherence to any applicable drought conditions and related

regulations. A City of Ontario biologist or landscape Architect will approve any seed lists (for planting).

Standard Conditions

Community Character and Cohesion

- SC-CI-1:** To the extent practicable, street closures required during construction shall be scheduled to occur during nighttime hours. This requirement will be addressed in the TMP to be prepared during the final design phase of project development.
- SC-CI-2:** To the extent practicable, the contractor shall avoid blocking or limiting access to businesses during construction during normal business hours. Businesses will be contacted and advised of nearby construction activities before their start.
- SC-CI-3:** Caltrans shall notify emergency service providers, such as fire, police, and ambulance services, in advance of construction of the timing, location, and duration of construction activities and the locations of detours and lane closures.

Utilities and Emergency Services

- SC-CI-4:** In accordance with the requirements in the CCR, prior to the initiation of construction, the contractor shall coordinate and notify the operators of underground or overhead utility and service lines prior to any excavation activities. This coordination will avoid damage to existing utility lines and will limit disruption to existing utility services to the existing developments near the proposed alignments.

Traffic and Transportation/Pedestrian and Bicycle Facilities

- SC-CI-5:** Caltrans shall require the contractor to provide motorist alert and awareness information during construction, as appropriate for the conditions, to include the following options: CMSs, stationary ground-mounted signs, traffic radio announcements, and the Caltrans Highway Information Network.

Cultural Resources

- SC-CI-6:** In accordance with Caltrans standard specifications, if cultural materials are discovered during construction, all earth-moving activities within and around the immediate discovery area will be diverted until a

qualified archaeologist can assess the nature and significance of the find. If human remains are discovered, Section 7050.5 of the State Health and Safety Code states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the county coroner shall be contacted. Pursuant to Section 5097.98 of the PRC, if the remains are thought to be Native American, the coroner will notify the Resident Engineer and the NAHC, who will then notify the MLD. At this time, the Resident Engineer will contact the District 8 Environmental Branch so that staff may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of Section 5097.98 of the PRC are to be followed as applicable.

- SC-CI-7:** It is Caltrans' policy to avoid cultural resources whenever possible. Further investigation may be needed if resources cannot be avoided by the project. Additional survey(s) will be required if the project changes to include areas not previously surveyed.

Water Quality and Stormwater Runoff

- SC-CI-8:** The project shall conform to and submit a Water Quality Management Plan to the City. In addition, the project shall conform to the requirements of the NPDES Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009- DWQ, NPDES No. CAS000002, as amended by 2010-0014-DWQ and 2012-0006-DWQ), also referred to as the Construction General Permit.

- SC-CI-9:** The contractor shall develop an acceptable SWPPP containing proven BMPs to minimize stormwater pollution that has the potential to affect water quality. All construction site BMPs will follow the latest edition of the Storm Water Quality Handbooks and the Construction Site Best Management Practices Manual. In addition, the SWPPP shall include implementation of specific stormwater effluent monitoring requirements based on the project's risk level to ensure water quality standards are met.

- SC-CI-10:** During construction, when dewatering is required, the contractor shall fully conform to the requirements specified in Order No. R8-2015-0004 (CAG 998001), General Waste Discharge Requirements for Discharges

to Surface Water which Pose an Insignificant (*De Minimis*) Threat to Water Quality, from the RWQCB.

- SC-CI-11:** The contractor shall comply with all requirements of the Section 404 Permit issued by USACE for the discharge of dredged or fill material into waters of the U.S.
- SC-CI-12:** The contractor shall comply with all requirements of the Section 401 Certification issued by the RWQCB to ensure that all discharges comply with applicable federal and State effluent limitations and water quality standards.
- SC-CI-13:** The contractor shall comply with all requirements of the Streambed Alteration Agreement per Section 1602 of the CFG Code.

Paleontology

A PMP will be prepared prior to project construction. The plan will include the following mitigation measures:

- SC-CI-14:** Specifications for paleontological mitigation shall be included in the construction contract special provisions section for this project to advise the construction contractor of the requirement to cooperate with the salvage of paleontological resources, particularly fossil remains and associated locality data.
- SC-CI-15:** A principal paleontologist that meets the qualifications in Chapter 8 – Paleontology of the Caltrans Standard Environmental Reference shall prepare a detailed Paleontological Mitigation Plan before the start of construction. The paleontologist must have a Master of Science/Arts (M.S./M.A.) or Doctor of Philosophy (Ph.D.) degree in paleontology or geology and will be familiar with paleontological salvage or mitigation procedures and techniques. The Paleontological Mitigation Plan shall be certified by a California Professional Geologist.
- SC-CI-16:** If unanticipated fossils are discovered in an area of the project site not being actively monitored, the remains shall not be disturbed. The Resident Engineer shall direct that all work within a 60-foot radius of the discovery be stopped and that the area be protected. The Resident Engineer, in consultation with the paleontologist, will investigate and modify the dimensions of the protected area, if necessary.

Paleontological resources will not be removed from the project site without authorization. Work will not resume within the specified radius of the discovery until authorized by the Resident Engineer.

- SC-CI-17:** The construction contractor shall attend a preconstruction meeting with the Paleontological Salvage Team and the Resident Engineer to establish procedures for cooperation in the event fossil remains are encountered and to provide for worker safety during monitoring and salvage activities. The Principal Paleontologist and the Caltrans paleontology coordinator will be present at pregrading meetings to consult with grading and excavation contractors.

Hazardous Waste/Materials

- SC-CI-18:** Appropriately manage, per regulatory compliance requirements, environmental AOCs including TWW, PCB in transformers and other equipment, LBP in yellow thermoplastic/paint striping, and ADL-contaminated soils on unpaved areas if encountered prior to or during construction.

- SC-CI-19:** As part of the ROW acquisition process, property to be acquired will be tested for ACM and LBP. If ACM and LBP are found, the contractor will remove these materials per California Occupational Safety and Health Administration standards. Removal and/or disturbance of ACM must be conducted by a California Occupational Safety and Health Administration-registered and State-licensed asbestos removal contractor. At no time shall the identified asbestos-containing construction materials be drilled, cut, sanded, scraped, or otherwise disturbed by untrained personnel. Construction activities involving the potential for impacting asbestos-containing construction materials shall be conducted in accordance with the requirements of Title 8 of the CCR, Section 1529. Written notification shall be made to the California Occupational Safety and Health Administration at least 24 hours prior to the initiation of any construction activities that involve asbestos-related work of at least 100 square or linear feet.

- SC-CI-20:** Any compromised soils, if present, will be removed and disposed of per regulatory requirements.

Air Quality

SC-CI-21: The contractor shall implement all applicable measures that are feasible during construction. Examples of air quality control measures include:

- All disturbed areas, including storage piles that are not being actively used for construction purposes, shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant, or they shall be covered with a tarp, another suitable cover, or vegetative groundcover.
- All onsite unpaved roads and offsite unpaved access roads shall be effectively stabilized of dust emissions using water or a chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions by applying water or by presoaking.
- With the demolition of buildings up to six stories in height, all exterior surfaces of the building shall be wetted during demolition.
- When materials are transported offsite, all material shall be covered or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained.
- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.
- Within urban areas, an owner/operator shall prevent carryout and trackout, or immediately remove carryout and trackout when it extends 50 feet or more from the nearest unpaved surface exit point of the site.
- Any construction site with 150 or more vehicle trips per day shall prevent carryout and trackout.
- Limit traffic speed on unpaved roads to 15 miles per hour (mph) at construction sites with high emissions of fugitive dust. The

following measures shall be implemented at large construction sites near sensitive receptors:

- Install wheel washers for all exiting trucks, or wash off tires of trucks and equipment leaving the site.
- Install wind breaks at windward side(s) of construction areas.
- Suspend excavation and grading activities when wind exceeds 20 mph.
- Limit areas subject to excavation, grading, and other earthwork activity at any one time.

SC-CI-22: The contractor shall comply with the following Caltrans' Standard Specifications and SCAQMD rules, ordinances, and regulations:

- The construction contractor must comply with SCAQMD Rule 403 (Fugitive Dust), which specifies actions or control measures to prevent, reduce, or mitigate PM emissions generated from construction, demolition, excavation, extraction, and other earth-moving activities.
- Water or dust palliative will be applied to the site and equipment as frequently as necessary to control fugitive dust emissions.
- Soil binder will be spread on any unpaved roads used for construction purposes and all project construction parking areas.
- Trucks will be washed off as they leave the ROW as necessary to control fugitive dust emissions.
- Construction equipment and vehicles shall be properly tuned and maintained. Low-sulfur fuel shall be used in all construction equipment as provided in CCR Title 17, Section 93114.
- Equipment and materials storage sites will be located as far away from residential and park uses as practicable. Keep construction areas clean and orderly.
- Track-out reduction measures, such as gravel pads, will be used at project access points to minimize dust and mud deposits on roads affected by construction traffic.
- All transported loads of soils and wet materials will be covered prior to transport or adequate freeboard will be provided (i.e., space from the top of the material to the top of the truck) to reduce PM₁₀ and deposition of particulates during transportation.

- Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be removed to decrease PM.
- The construction contractor must comply with Caltrans Standard Specifications in Section 14-9.
- Section 14-9.02 includes specifications relating to compliance with air pollution control rules, regulations, ordinances, and statutes of the local ordinances and air quality management district.
- Section 14-9.03 includes specifications relating to preventing and alleviating dust by applying water, dust palliative, or both and by covering active and inactive stockpiles.

Noise and Vibration

SC-CI-23: The contractor shall be required to adhere to the following equipment noise-control measures:

- Each internal combustion engine used for any purpose on the job or related to the job shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the job site without an appropriate muffler.
- Construction methods or equipment that will provide the lowest level of noise and ground vibration impact (e.g., avoid impact pile driving near residences and consider alternative methods that are also suitable for the soil condition) shall be used.
- Idling equipment shall be turned off.
- Construction activities shall be coordinated to build recommended permanent soundwalls during the first phase of construction to protect sensitive receivers from subsequent construction noise, dust, light, glare, and other impacts, to the extent feasible.
- Temporary noise barriers shall be used and relocated, as needed, to protect sensitive receptors against excessive noise from construction activities involving large equipment and by small items such as compressors, generators, pneumatic tools, and jackhammers. Noise barriers can be made of heavy plywood, moveable insulated sound blankets, or other best available control techniques.
- Newer equipment with improved noise muffling shall be used, and all equipment items shall have the manufacturers' recommended noise abatement measures (e.g., mufflers, engine covers, and engine vibration isolators) intact and operational. Newer equipment will

generally be quieter in operation than older equipment. All construction equipment shall be inspected at periodic intervals to ensure proper maintenance and presence of noise-control devices (e.g., mufflers and shrouding).

- Construction activities shall be minimized to the extent possible in residential areas during evening, nighttime, weekend, and holiday periods. Noise impacts are typically minimized when construction activities are performed during daytime hours. However, nighttime construction may be desirable (e.g., in commercial areas where businesses may be disrupted during daytime hours) or necessary to avoid major traffic disruption. Coordination with the City or County shall occur before construction can be performed in noise-sensitive areas between 9:00 p.m. and 6:00 a.m.

SC-CI-24: The contractor shall be required to adhere to the following vibration control measures:

- Restrict the hours of vibration-intensive equipment or activities such as vibratory rollers so that impacts to residents are minimal (e.g., weekdays during daytime hours only when as many residents as possible are away from home).
- The owner of a building close enough to a construction vibration source that could cause damage to that structure could be entitled to a preconstruction building inspection to document the preconstruction condition of that structure.
- Conduct vibration monitoring during vibration-intensive activities.

SC-CI-25: The contractor shall be required to adhere to the following administrative noise control measures:

- Once details of the construction activities become available, the contractor shall work with local authorities to develop an acceptable approach to minimize interference with the business and residential communities, traffic disruptions, and the total duration of the construction.
- Good public relations shall be maintained with the community to minimize objections to unavoidable construction impacts. Frequent activity updates of all construction activities shall be provided. A

construction noise monitoring program to track sound levels and limit the impacts shall be implemented.

- In case of construction noise complaints by the public, the Resident Engineer shall coordinate with the construction manager, and the specific noise-producing activity may be changed, altered, or temporarily suspended, if necessary.

Energy

SC-CI-26: The contractor shall identify specific measures that reduce the amount of refuse generated by construction of the proposed project, consistent with the waste reduction requirements established by the California Integrated Waste Management Act of 1989.

Invasive Species

SC-CI-27: In compliance with the Executive Order on Invasive Species (EO 13112) and subsequent guidance from FHWA, the City of Ontario shall not use species listed as invasive as part of landscaping erosion control measures. In areas of particular sensitivity, extra precautions shall be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur. To adhere to this requirement, any landscape designs shall be submitted to the City of Ontario for review and concurrence by a qualified biologist during the project design phase. The review shall verify that no noxious weeds/invasive exotic plant species are in the proposed landscaping plan. If the plan contains noxious weeds/invasive species, the reviewing biologist shall coordinate suitable substitutes.

3.4 Project Alternatives and Significant Irreversible Environmental Changes

3.4.1 Alternatives to the Proposed Project

CEQA Guidelines Section 15126.6 states that an EIR shall describe and evaluate a range of reasonable alternatives to the project, including the “no project” alternative and alternative locations for the project. The No Build Alternative discussed in Section 1.3.1.3 is the “no project” alternative, which represents the continuation of existing conditions, and its impacts are discussed in Chapter 2 under each environmental issue. The No Build Alternative would generally not result in environmental changes and

would be considered environmentally superior because no direct change to the existing environment would occur; however, it would not meet the project purpose and need and would have greater impacts related to traffic.

Due to the objectives of the project, as based on its purpose and need to improve operational deficiencies on Grove Avenue, an alternative site would not meet any of the project objectives and has been dismissed from consideration. Also, other alternatives to the project are constrained by the existing alignment of Grove Avenue. Consideration of reversible lanes in the design of the project was rejected because reversible lanes would not be feasible due to the short segment (1.24 miles) proposed for widening; the presence of seven intersections at even shorter segments within the corridor; and the lack of a highly defined directional traffic flow during the AM or PM peak hours. In addition, the City's General Plan shows Grove Avenue as a six-lane Principal Arterial without reversible lanes

During the initial design of this project, three alternatives were developed: widening Grove Avenue on both sides, widening Grove Avenue to the east, and widening Grove Avenue to the west. Because widening Grove Avenue on both sides would lead to a displacement of existing land uses on both sides of the street, this alternative was rejected early. Instead, widening to the east or the west was further considered, with both alternatives including three through lanes in each direction along Grove Avenue, while avoiding impacts to the historic Jay Littleton Ballpark.

The alternative that would generally widen Grove Avenue to the east (i.e., widen Grove Avenue from 4th Street to I Street to the west [to avoid impacts to the historic Jay Littleton Ballpark]; widen Grove Avenue to the east between I Street and Holt Boulevard; and widen Grove Avenue on both sides between Holt Boulevard and State Street/Airport Drive) was subsequently chosen as the Build Alternative.

The rejected alternative, which would generally widen Grove Avenue to the west, would have had the same six lanes as the Build Alternative. Specifically, under this rejected alternative, Grove Avenue would be widened to the west north of the UPRR until north of G Street. North of G Street to 4th Street, the alignment would match that of the Build Alternative and would widen Grove Avenue to the east from G Street to I Street and to the west from I Street to 4th Street. With the same proposed six-lane configuration, impacts related to traffic, noise, and air quality would generally be the same as the Build Alternative.

On the other hand, the ROW impacts of widening Grove Avenue to the west would affect 17 residential parcels, 2 vacant parcels, 1 building at Sovereign Grace Baptist Church, and areas at Grove Memorial Park and John Galvin Park, as identified in Section 1.3.4.1. Due to the more extensive ROW requirements and associated property displacements and park impacts, this alternative was eliminated from further consideration. As such, this alternative cannot be considered an environmentally superior alternative to the proposed project.

Therefore, while the No Build Alternative will not result in environmental impacts, traffic conditions on Grove Avenue would deteriorate over time, leading to increased congestion and associated vehicle pollutant and GHG emissions. The impacts of the Build Alternative would be avoided by the No Build Alternative on all other issue areas. However, the Build Alternative (proposed project) would meet the project's purpose and need and would be environmentally superior compared to the other rejected alternatives.

3.4.2 Significant Irreversible Environmental Changes

CEQA Guidelines Section 15126.2(c) states significant irreversible environmental changes to nonrenewable resources which would be caused by the proposed project, should it be implemented, must be addressed. Construction of the Build Alternative would involve a modest irreversible commitment to the use of fossil fuels, labor, public capital, and construction materials (e.g., cement, aggregate). In addition to the costs of construction and ROW for the Build Alternative, there would be increased ongoing costs for facility maintenance, including pavement, roadside litter/sweeping, signs and markers, electrical, and stormwater control. Savings in travel time and improved transportation efficiency would offset this use of materials, labor, resources, and funds.

Generally, a project would result in potentially significant irreversible environmental changes if:

- The primary and secondary impact would generally commit future generations to similar uses;
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project;
- The project would involve a large commitment of nonrenewable resources; and
- The proposed consumption of resources is not justified.

Significant irreversible environmental changes are not anticipated for the following resources: aesthetics, agriculture and forest resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, growth, population and housing, public services, farmlands, community impacts, utilities and services, recreation, or transportation and traffic.

Primary impacts would result from the consumption of nonrenewable resources during construction and operation of the proposed project. Nonrenewable resources, such as sand, gravel, and steel, and renewable resources, such as lumber, would be consumed during project construction. Energy, fossil fuels, oils, and natural gas would be irreversibly committed during construction. These same resources are used for vehicles and heating/cooling equipment during operations. The continued use of these resources associated with project operations represents a long-term obligation.

The commitment of these resources to the Build Alternative is based on the concept that residents, workers, travelers, and others in the immediate area, region, and state would benefit from the improved quality of the roadway facility. These benefits include improved accessibility, travel time, and safety. The benefit of the Build Alternative is expected to outweigh the commitment of resources to the project.

3.5 Wildfire

SB 1241 required the Office of Planning and Research, the Natural Resources Agency, and the California Department of Forestry and Fire Protection to develop amendments to the “CEQA Checklist” for the inclusion of questions related to fire hazard impacts for projects located on lands classified as very high fire hazard severity zones. The 2018 updates to the CEQA Guidelines expanded this to include projects “near” these very high fire hazard severity zones.

As discussed in Section 3.2.20 above, Grove Avenue is located in an urbanized area of the City of Ontario and is not located near a Very High Fire Hazard Severity Zone, as identified by the California Department of Forestry and Fire Protection. Therefore, the project would not be exposed to wildfire hazards. The project area is relatively flat and does not serve as a route to designated Very High Fire Hazard Severity Zones in the region. The project would have no effect on emergency response to or evacuation in wildfire hazard areas that are located outside the city. No impacts related to wildfire risks or post-fire flooding/landslides would occur. No avoidance, minimization and/or mitigation measures are needed.

3.6 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to GHG emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity, including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), and various hydrofluorocarbons (HFCs). CO₂ is the most abundant GHG; while it is a naturally occurring component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO₂.

Two terms are typically used when discussing how we address the impacts of climate change: “greenhouse gas mitigation” and “adaptation.” Greenhouse gas mitigation covers the activities and policies aimed at reducing GHG emissions to limit or “mitigate” the impacts of climate change. Adaptation, on the other hand, is concerned with planning for and responding to impacts resulting from climate change, such as adjusting transportation design standards to withstand more intense storms and higher sea levels. This analysis will include a discussion of both.

3.6.1.1 Regulatory Setting

This section outlines federal and State efforts to comprehensively reduce GHG emissions from transportation sources.

Federal

To date, no national standards have been established for nationwide mobile-source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

NEPA (42 U.S.C. Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

FHWA recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (FHWA, 2019). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—“the triple bottom line of sustainability (FHWA, n.d.). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 U.S.C. Section 6201) and Corporate Average Fuel Economy (CAFE) Standards. This act establishes fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the CAFE program based on each manufacturer’s average fuel economy for the portion of its vehicles produced for sale in the United States.

Energy Policy Act of 2005 (109th Congress H.R.6) (2005–2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian Energy Policy and Programs within the Department of Energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

EPA, in conjunction with the National Highway Traffic Safety Administration (NHTSA), is responsible for setting GHG emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States. Fuel efficiency standards directly influence GHG emissions.

State

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs) including, but not limited to, the following:

EO S-3-05 (June 1, 2005): The goal of this EO is to reduce California’s GHG emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of AB 32 in 2006 and SB 32 in 2016.

AB 32, Chapter 488, 2006: Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.” The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California’s transportation fuels is to be reduced by at least 10 percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG reduction goals.

SB 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires ARB to set regional emissions reduction targets for passenger vehicles. The MPO for each region must then develop an SCS that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.

SB 391, Chapter 585, 2009, California Transportation Plan: This bill requires the State’s long-range transportation plan to meet California’s climate change goals under AB 32.

EO B-16-12 (March 2012) orders State entities under the direction of the Governor, including ARB, CEC, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

EO B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of

reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all State agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO₂e).⁸ Finally, it requires the California Natural Resources Agency (Resources Agency) to update the State’s climate adaptation strategy, *Safeguarding California*, every 3 years, and to ensure that its provisions are fully implemented.

SB 32 Chapter 249, 2016, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

SB 1386, Chapter 545, 2016, declared “it to be the policy of the state that the protection and management of natural and working lands ... is an important strategy in meeting the state’s greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands.”

AB 134, Chapter 254, 2017, allocates GHG Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.

SB 743, Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles traveled, to promote the state’s goals of reducing GHG emissions and traffic-related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.

SB 150, Chapter 150, 2017, Regional Transportation Plans: This bill requires ARB to prepare a report that assesses progress made by each MPO in meeting their established regional GHG emission reduction targets.

⁸ GHGs differ in how much heat each trap in the atmosphere (global warming potential, or GWP). CO₂ is the most important GHG, so amounts of other gases are expressed relative to CO₂, using a metric called “carbon dioxide equivalent” (CO₂e). The global warming potential of CO₂ is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO₂.

EO B-55-18 (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing GHG emissions.

EO N-19-19 (September 2019) advances California’s climate goals in part by directing the California State Transportation Agency to leverage annual transportation spending to reverse the trend of increased fuel consumption and reduce GHG emissions from the transportation sector. It orders a focus on transportation investments near housing, managing congestion, and encouraging alternatives to driving. This EO also directs ARB to encourage automakers to produce more clean vehicles, formulate ways to help Californians purchase them, and propose strategies to increase demand for zero-emission vehicles.

3.6.1.2 Environmental Setting

The proposed project is in an urban area of the City of Ontario in San Bernardino County with a well-developed road and street network. The project area is mainly residential, with some commercial and institutional buildings. Traffic congestion during peak hours is not uncommon in the project area. The RTP/SCS by SCAG guides transportation and housing development in the project area. The Ontario Community Climate Action Plan addresses GHGs in the project area.

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. EPA is responsible for documenting GHG emissions nationwide, and ARB does so for the state, as required by H&SC Section 39607.4.

National GHG Inventory

EPA prepares a national GHG inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of GHGs in the United States, reporting emissions of CO₂, CH₄, N₂O, HFCs, perfluorocarbons, SF₆, and nitrogen trifluoride. It also accounts for emissions of CO₂ that are removed from the atmosphere by “sinks,” such as forests, vegetation, and soils that uptake and store CO₂ (carbon sequestration). The 1990–2016 inventory found that of 6,511 MMTCO₂e GHG emissions in 2016, 81 percent consist of CO₂, 10 percent are CH₄, and 6 percent are N₂O; the balance consists of fluorinated gases (EPA, 2018a). In 2016, GHG

emissions from the transportation sector accounted for nearly 28.5 percent of United States GHG emissions. Figure 3.6-1 shows the 2016 United States GHG emissions.

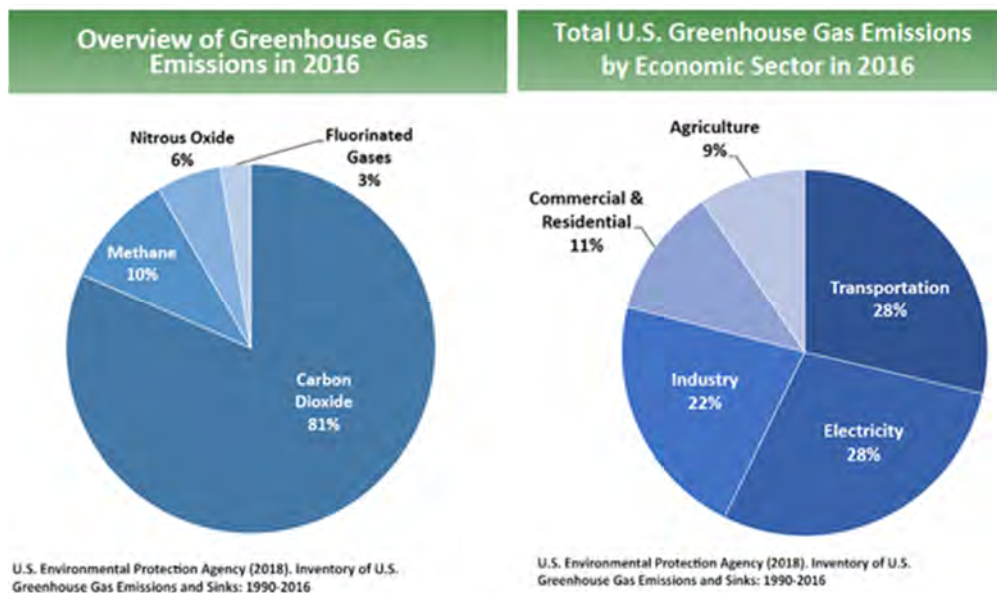


Figure 3.6-1. U.S. 2016 Greenhouse Gas Emissions

State GHG Inventory

ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state’s progress in meeting its GHG reduction goals. The 2019 edition of the GHG emissions inventory found total California emissions of 424.1 MMTCO₂e for 2017, with the transportation sector responsible for 41 percent of total GHGs (Figure 3.6-2). It also found that overall statewide GHG emissions declined from 2000 to 2017 despite growth in population and state economic output (ARB, 2019a) (Figure 3.6-3).

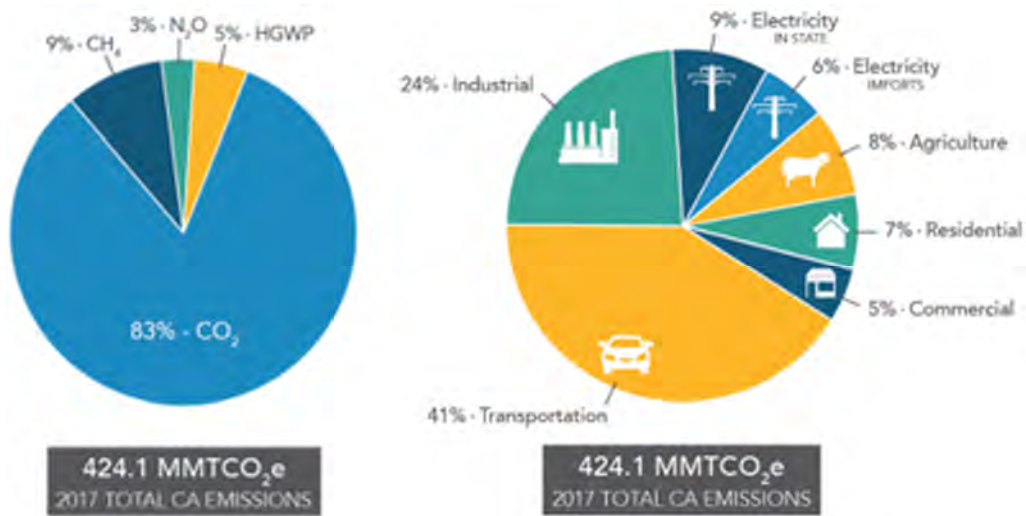
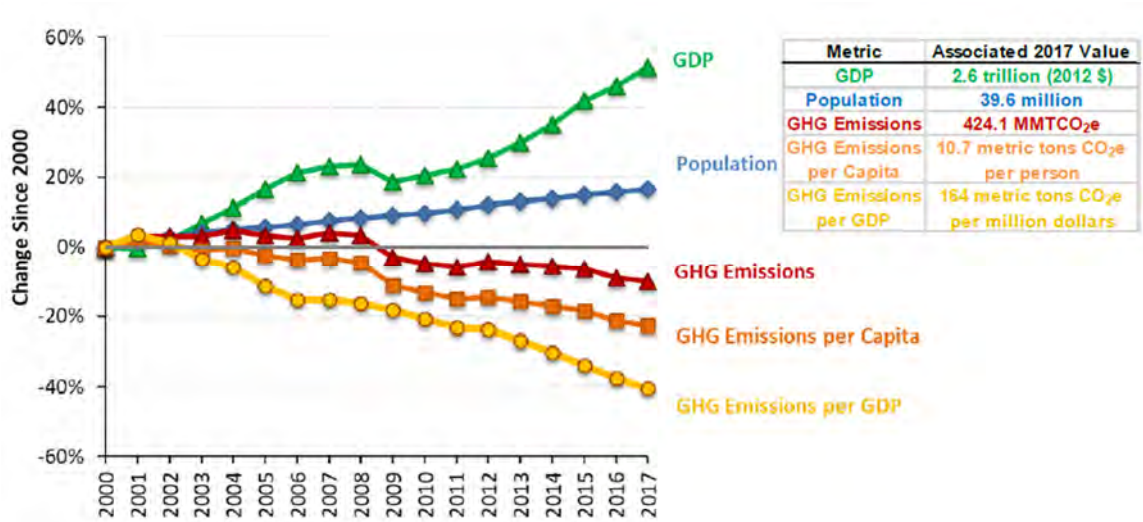


Figure 3.6-2. California 2017 Greenhouse Gas Emissions



(Source: ARB, 2019b)

Figure 3.6-3. Change in California GDP, Population, and GHG Emissions since 2000

AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020 and to update it every 5 years. ARB adopted the first scoping plan in 2008. The second updated plan, California’s 2017 Climate Change Scoping Plan, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

Regional Plans

ARB sets regional targets for California’s 18 MPOs to use in their RTP/SCS to plan future projects that will cumulatively achieve GHG reduction goals. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed project is included in the RTP/SCS for the SCAG region. The regional reduction target for this SCAG is 8 percent from October 2018 to 2020 and 19 percent from October 2018 to 2035 (ARB, 2019c).

Local Plans

The City of Ontario is committed to reducing GHG emissions in accordance with the Ontario General Plan and the Community Climate Action Plan. The City of Ontario General Plan Environmental Resources Element addresses air quality concerns, including GHG emissions. The Community Climate Action Plan sets a GHG emissions reduction goal of 30 percent below BAU 2020 levels.

Table 3.6-1 lists the plans and relevant policies or goals in SCAG’s RTP/SCS, the Ontario General Plan, and the Ontario Community Climate Action Plan.

Table 3.6-1. Regional and Local Greenhouse Gas Reduction Plans

Title	GHG Reduction Policies or Strategies
SCAG’s 2016—2040 RTP/SCS	<p>Goals:</p> <ul style="list-style-type: none"> • Preserve and ensure a sustainable regional transportation system • Protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking) • Actively encourage and create incentives for energy efficiency, where possible • Encourage land use and growth patterns that facilitate transit and active transportation. GHG reductions <p>Strategies:</p> <ul style="list-style-type: none"> • Focus new growth around transit • Plan for growth around livable corridors • Support local sustainability planning • Manage congestion • Expand existing modes of transportation • Improve active transportation systems • Promote mobility innovations
SCAG’s SoCal Connect (Draft 2020—2045 RTP/SCS)	<p>Strategies:</p> <ul style="list-style-type: none"> • Focus growth near destinations and mobility options • Implement sustainability policies • Promote a green region that would meet increasingly aggressive GHG reduction goals.

Table 3.6-1. Regional and Local Greenhouse Gas Reduction Plans

Title	GHG Reduction Policies or Strategies
Ontario General Plan (The Ontario Plan)	Environmental Resources Element Policies: <ul style="list-style-type: none"> • Land Use • GHG Emissions Reductions • Transportation Mobility Element Policies: <ul style="list-style-type: none"> • Roadway Design and Maintenance • Roadway Improvements. • Complete Streets
Ontario Community Climate Action Plan	Reduce GHG emissions generated from community activities that is consistent with statewide Scoping Plan GHG reduction efforts through On-road Transportation Measures: <ul style="list-style-type: none"> • Expanded Public Transportation Infrastructure • Roadway Management • Signal Synchronization • Bicycle and Pedestrian Infrastructure Plan • Smart Growth and Infill • Transit-Oriented Development • Idling Ordinance • Climate Change Awareness • Shade Tree Planting

3.6.1.3 Project Analysis

GHG emissions for transportation projects can be divided into those produced during operations and those produced during construction. The primary GHGs produced by the transportation sector are CO₂, CH₄, N₂O, and HFCs. CO₂ emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH₄ and N₂O are emitted during fuel combustion. In addition, a small amount of HFC emissions are included in the transportation sector.

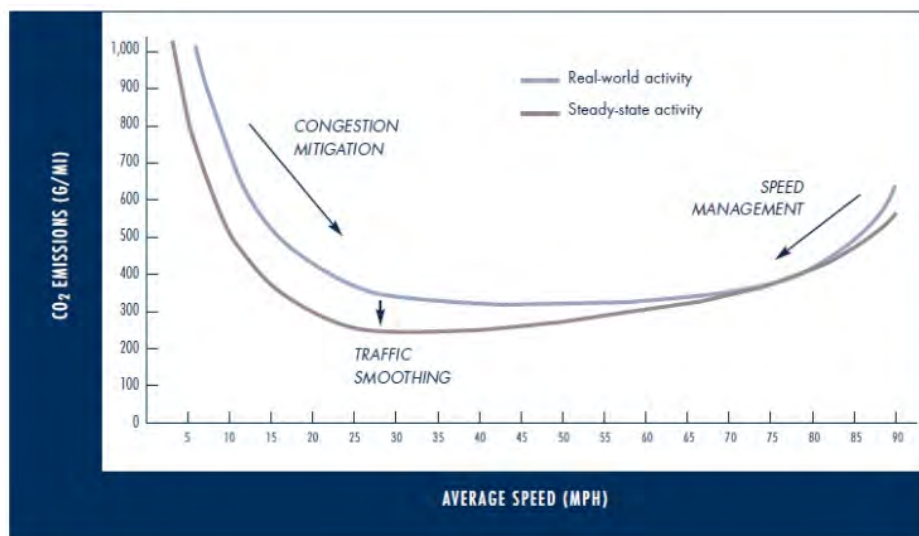
The CEQA Guidelines generally address GHG emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code, § 21083[b][2]). As the California Supreme Court explained, “because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself.” (Cleveland National Forest Foundation v. San Diego Assn. of Governments [2017] 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project’s incremental effect is “cumulatively considerable” (CEQA Guidelines Sections 15064[h][1] and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

Operational Emissions

CO₂ accounts for 95 percent of transportation GHG emissions in the United States. The largest sources of transportation-related GHG emissions are passenger cars and light-duty trucks, including sport utility vehicles, pickup trucks, and minivans. These sources account for more than half of the emissions from the sector. The remainder of GHG emissions comes from other modes of transportation, including freight trucks, commercial aircraft, ships, boats, and trains, as well as pipelines and lubricants. Because CO₂ emissions represent the greatest percentage of GHG emissions, it has been selected as a proxy within the following analysis for potential climate change impacts generally expected to occur.

The highest levels of CO₂ from mobile sources, such as automobiles, occur at stop-and-go speeds (0–25 miles per hour [mph]) and speeds over 55 mph; the most severe emissions occur from 0–25 mph (see Figure 3.6-4). To the extent that a project relieves congestion by enhancing operations and improving travel times in high-congestion travel corridors, GHG emissions, particularly CO₂, may be reduced.



(Source: Barth and Boriboonsomsin, 2010)

Figure 3.6-4. Possible Use of Traffic Operation Strategies in Reducing On-Road CO₂ Emissions

Four primary strategies can reduce GHG emissions from transportation sources: (1) improving the transportation system and operational efficiencies, (2) reducing travel activity, (3) transitioning to lower GHG-emitting fuels, and (4) improving vehicle technologies/efficiency. To be most effective, all four strategies should be pursued concurrently.

The proposed project is located within the jurisdiction of SCAG and is listed in both the SCAG 2012–2035 RTP and the SCAG 2015 FTIP Amendment 4 under project ID number 2002160. The 2012–2035 RTP was approved by FHWA on April 4, 2012. The 2015 FTIP was approved by FHWA on April 8, 2015. The project is still listed in the 2016–2040 RTP/SCS and the 2015 RTIP. The project remains listed in the 2019 FTIP, which was adopted by SCAG in September 2018. Thus, the Build Alternative is consistent with the SCAG RTP/SCS. The Build Alternative would improve the regional transportation system, help decrease congestion, improve safety, and maximize the productivity of the transportation system. The project would support land use and growth patterns that facilitate transit and nonmotorized transportation, further contributing to a more sustainable community and region.

The purpose of the proposed project is to alleviate existing and anticipated future congestion along Grove Avenue between 4th Street and Airport Drive; improve traffic operations and mobility to and from Ontario International Airport, existing and future cargo hub facilities near Grove Avenue and Holt Boulevard, and other planned uses; and to provide continuity along Grove Avenue.

To the extent that a project relieves congestion by enhancing operations and improving travel times in high-congestion travel corridors, GHG emissions, particularly CO₂, may be reduced.

Quantitative Analysis

A quantitative analysis estimating CO₂ emissions for existing, No Build Alternative, and Build Alternative was performed using Caltrans' CT-EMFAC and is provided in Table 3.6-2. Inputs used to estimate CO₂ emissions were peak and off-peak total VMT, vehicle mix, and VMT distribution by speed.

Table 3.6-2. Maximum CO₂ Emissions¹

Pollutant	Existing	No Build 2025	Build 2025	No Build 2045	Build 2045
CO ₂ emissions	3,686	5,281	5,167	8,235	7,266
Note: ¹ CO ₂ emissions are measured in tons.					

Source: Air Quality Report, Grove Avenue Corridor Project, February 2017.

CO₂ emissions are expected to increase from existing conditions to 2045 conditions due to increases in total VMT; however, as shown in Table 3.6-3, in future 2025 conditions, VMT slightly decreases from no-build to build conditions, resulting in a slight decrease of CO₂ emissions. Likewise, in 2045 conditions, the total VMT is expected to decrease from no-build to build conditions; therefore, a substantial increase of CO₂ emissions would not occur. Currently, there are no federal or State standards set for CO₂ emissions; therefore, the estimated emissions shown in Table 3.6-3 are only useful for a comparison between alternatives. The numbers are not necessarily an accurate reflection of what the true CO₂ emissions would be because CO₂ emissions are dependent on other factors that are not part of the model, such as the fuel mix (EMFAC model emission rates are only for direct engine-out CO₂ emissions, not full fuel cycle; fuel cycle emission rates can vary dramatically depending on the amount of additives such as ethanol and the source of the fuel components), rate of acceleration, and the aerodynamics and efficiency of the vehicles.

Table 3.6-3. VMT Percentage Differences

Intersection	VMT % Differences			
	Existing and 2025 No Build	Existing and 2045 No Build	2025 No Build and Build Alternatives	2045 No Build and Build Alternatives
Grove Avenue/Holt Boulevard	50	118	-1.6	-4.0
Grove Ave/State Street-Airport Drive	29	73	3.5	-2.1
Grove Avenue/Mission Boulevard	35	84	-5.5	-5.2

Source: Air Quality Report, Grove Avenue Corridor Project, February 2017.

While CT-EMFAC has a rigorous scientific foundation and has been vetted through multiple stakeholder reviews, its GHG emission rates are based on tailpipe emission

test data.⁹ Moreover, the model does not account for factors such as the rate of acceleration and vehicle aerodynamics, which influence the amount of emissions generated by a vehicle. GHG emissions quantified using CT-EMFAC are therefore estimates and may not reflect actual physical emissions. Though CT-EMFAC is currently the best available tool for calculating GHG emissions from mobile sources, it is important to note that the GHG results are only useful for a comparison among alternatives.

Construction Emissions

Construction GHG emissions would result from material processing, onsite construction equipment, and traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

All construction contracts include Caltrans Standard Specifications Section 7-1.02A and 7 1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

3.6.1.4 CEQA Conclusion

While the project would result in a slight increase in GHG emissions during construction, it is anticipated that the proposed project would not result in an increase

⁹ This analysis does not currently account for the effects of the U.S. NHTSA and EPA SAFE (Safer Affordable Fuel-Efficient) Vehicles Rule. Part One revoking California's authority to set its own GHG emissions standards was published on September 27, 2019, and effective November 26, 2019. The SAFE Vehicles Rule Part 2 would amend existing CAFE and tailpipe CO₂ emissions standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026. The proposal would retain the model year 2020 standards for both programs through model year 2026. Although ARB has not yet provided adjustment factors for GHG emissions to be utilized in light of the SAFE Rule, modeling these estimates with EMFAC2017 or CT-EMFAC2017 remains the most precise means of estimating future GHG emissions.

in operational GHG emissions in comparison to no-build conditions for each respective year. No specific GHG thresholds have been established for transportation projects. In the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, SCAQMD and its GHG CEQA Significance Stakeholder Working Group threshold of 10,000 MTCO_{2e} was used to make a significance determination regarding the project's direct impact and its contribution on the cumulative scale to climate change, and to provide a comparison of the order of magnitude of project-generated emissions. The CT-EMFAC model was used to estimate CO₂ emissions for the existing and future no-build and build conditions. The increases in CO_{2e} emissions between existing conditions and project years 2025 and 2045 are attributable to increases in daily traffic volumes; however, GHG emissions are lower in the build conditions than for the no-build conditions for future opening and design years. Furthermore, CO_{2e} emissions for all project years, existing, no build, and build, are far below SCAQMD and its GHG CEQA Significance Stakeholder Working Group threshold of 10,000 MTCO_{2e}; therefore, operation of the project does not cause a significant impact to global climate change.

In addition, the City prepared a Health Risk Assessment (Appendix F) in accordance with CEQA guidelines.

Consistency with Air Quality Management Plan

Consistency with the AQMP is typically determined by whether the project would increase the frequency or severity of existing air quality violations, contribute to new violations, or delay the timely attainment of air quality standards or interim reductions as specified in the AQMPs.

Based on the air quality emissions modeling contained in this report, with the implementation of Standard Conditions SC-CI-21 and SC-CI-22 and Minimization Measure AQ-1, the air pollutant and GHG emissions associated with the proposed project would be below the applicable thresholds of significance. Thus, it is expected that there would be no significant short-term construction impacts nor long-term operational impacts on climate change due to the proposed project.

3.6.1.5 GHG Reduction Strategies

Statewide Efforts

Major sectors of the California economy, including transportation, will need to reduce emissions to meet the 2030 and 2050 GHG emissions targets. Former Governor Edmund G. Brown promoted GHG reduction goals that involved (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to

50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farms and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, Safeguarding California (Figure 3.6-5).

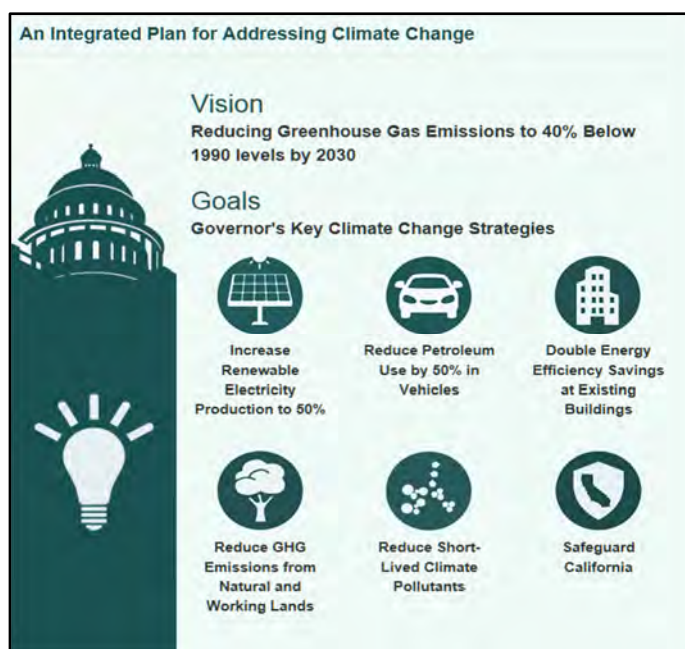


Figure 3.6-5. California Climate Strategy

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that we build on our past successes in reducing criteria and toxic air pollutants from transportation and goods movement activities. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of VMT. A key state goal for reducing GHG emissions is to reduce today's petroleum use in cars and trucks by up to 50 percent by 2030 (State of California, 2019).

In addition, SB 1386 (Wolk, 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove CO₂ from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

Caltrans Activities

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

California Transportation Plan (CTP 2040)

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. In 2016, Caltrans completed the CTP 2040, which establishes a new model for developing ground transportation systems, consistent with CO₂ reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California will be working to improve transit and reduce long-run repair and maintenance costs of roadways and developing a comprehensive assessment of climate-related transportation demand management and new technologies rather than continuing to expand capacity on existing roadways.

SB 391 (Liu 2009) requires the CTP to meet California's climate change goals under AB 32. Accordingly, the CTP 2040 identifies the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the state's transportation needs. While MPOs have primary responsibility for identifying land use patterns to help reduce GHG emissions, CTP 2040 identifies additional strategies in Pricing, Transportation Alternatives, Mode Shift, and Operational Efficiency.

Caltrans Strategic Management Plan

The Strategic Management Plan, released in 2015, creates a performance-based framework to preserve the environment and reduce GHG emissions, among other goals. Specific performance targets in the plan that will help reduce GHG emissions include:

- Increasing percentage of non-auto mode share
- Reducing VMT
- Reducing Caltrans' internal operational (buildings, facilities, and fuel) GHG emissions

Funding and Technical Assistance Programs

In addition to developing plans and performance targets to reduce GHG emissions, Caltrans also administers several sustainable transportation planning grants. These

grants encourage local and regional multimodal transportation, housing, and land use planning that furthers the region's RTP/SCS; contribute to the State's GHG reduction targets and advance transportation-related GHG emission reduction project types/strategies; and support other climate adaptation goals (e.g., Safeguarding California).

Caltrans Policy Directives and Other Initiatives

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) is intended to establish a Caltrans policy that will ensure coordinated efforts to incorporate climate change into Caltrans decisions and activities. Caltrans Activities to Address Climate Change (April 2013) provides a comprehensive overview of Caltrans' statewide activities to reduce GHG emissions resulting from agency operations.

City of Ontario Activities

The City is committed to reducing GHG emissions in accordance with the City's own plans.

City of Ontario General Plan

The City of Ontario General Plan Environmental Resources Element addresses air quality concerns including GHG emissions. The City is working to develop strategies to minimize the City's future impacts associated with accumulation of GHGs. The California Global Warming Solutions Act of 2006 requires a cumulative reduction of GHG emissions by City operations and on a project-by-project basis.

Two policies, in particular, are associated with reducing GHG emissions. ER4-1 is a policy associated with land use. This policy intends to reduce GHG emissions through compact, mixed-use, and transit-oriented development and development that improves the regional jobs-housing balance. ER4-3 is a policy associated with GHG emissions reductions. The policy states that the City will reduce GHG emissions in accordance with regional, State, and federal regulations.

City of Ontario Community Climate Action Plan

The City committed to the development of a Community Climate Action Plan with the GHG emissions reduction goal of 30 percent below BAU 2020 levels. This goal is roughly equivalent to the Scoping Plan adopted by the State in 2008 that recommends a target of 15 percent below current emissions levels. The primary purpose of the Community Climate Action Plan is to design a feasible strategy to reduce GHG emissions generated from community activities that is consistent with statewide Scoping Plan GHG reduction efforts.

Approximately 64 percent of the reductions needed to achieve the City's GHG reduction goal are achieved through State- and County-level programs, and 36 percent is achieved through City-level programs. The largest GHG reductions are identified in the areas of building energy, agriculture, and transportation.

Several on-road transportation measures have been identified to assist in reducing GHG emissions associated with transportation activities. The proposed project directly relates to Measure Trans-9 Roadway Management. The goal of this measure is to implement traffic and roadway management strategies to improve mobility and efficiency and reduced associated emissions. The goal is to reduce community vehicle fuel consumption by 2 percent.

Project-Level GHG Reduction Strategies

The following measures will also be included in the project to reduce the GHG emissions and potential climate change impacts from the project:

1. **Use of Reclaimed Water:** Currently, 30 percent of the electricity used in California is used for the treatment and delivery of water. Use of reclaimed water helps conserve this energy, which reduces GHG emissions from electricity production.
2. **Landscaping:** Reduces surface warming and, through photosynthesis, decreases CO₂.
3. **Portland Cement:** Use of lighter colored surfaces, such as Portland cement, helps to reduce the albedo effect (i.e., measure of how much light a surface reflects) and cool the surface. Adding fly ash reduces the GHG emissions associated with cement production; it also can make the pavement stronger.
4. **Lighting:** Use of energy-efficient lighting, such as LED traffic signals.
5. **Idling Restrictions:** For trucks and equipment.

3.6.1.6 Adaptation

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; and storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn

facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

Federal Efforts

Under NEPA assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance. The U.S. Global Change Research Program (USGCRP) delivers a report to Congress and the president every 4 years, in accordance with the Global Change Research Act of 1990 (15 U.S.C. chapter 56A § 2921 *et seq.*). The Fourth National Climate Assessment, published in 2018, presents the foundational science and the “human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways.” Chapter 12, “Transportation,” presents a key discussion of vulnerability assessments. It notes that “asset owners and operators have increasingly conducted more focused studies of particular assets that consider multiple climate hazards and scenarios in the context of asset-specific information, such as design lifetime” (USGCRP, 2018).

The USDOT Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation to “integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely and that transportation infrastructure, services and operations remain effective in current and future climate conditions” (USDOT, 2011).

FHWA Order 5520 (Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events, December 15, 2014) established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that fosters resilience to climate effects and sustainability at the federal, State, and local levels (FHWA, 2019).

State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. Change Assessment (2018) is the state’s effort to “translate the state of climate science

into useful information for action” in a variety of sectors at both statewide and local scales. It adopts the following key terms used widely in climate change analysis and policy documents:

- *Adaptation* to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
- *Adaptive capacity* is the “combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities.”
- *Exposure* is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.
- *Resilience* is the “capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience.” Adaptation actions contribute to increasing resilience, which is a desired outcome or state of being.
- *Sensitivity* is the level to which a species, natural system, or community, government, etc., would be affected by changing climate conditions.
- *Vulnerability* is the “susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt.” Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factor(s). These factors include, but are not limited to,, ethnicity, class, sexual orientation and identification, national origin, and income inequality. Vulnerability is often defined as the combination of sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

Several key state policies have guided climate change adaptation efforts to date. Recent state publications produced in response to these policies draw on these definitions.

EO S-13-08, issued by then-governor Arnold Schwarzenegger in November 2008, focused on sea-level rise and resulted in the *California Climate Adaptation Strategy* (2009), updated in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan). The Safeguarding California Plan offers policy principles and recommendations and continues to be revised and augmented with sector-specific adaptation strategies, ongoing actions, and next steps for agencies.

EO S-13-08 also led to the publication of a series of sea-level rise assessment reports and associated guidance and policies. These reports formed the foundation of an interim *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance) in 2010, with instructions for how state agencies could incorporate “sea-level rise (SLR) projections into planning and decision making for projects in California” in a consistent way across agencies. The guidance was revised and augmented in 2013. *Rising Seas in California – An Update on Sea-Level Rise Science* was published in 2017 and its updated projections of sea-level rise and new understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018.

EO B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change other than sea-level rise also threaten California’s infrastructure. At the direction of EO B-30-15, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies* in 2017, to encourage a uniform and systematic approach. Representatives of Caltrans participated in the multi-agency, multidisciplinary technical advisory group that developed this guidance on how to integrate climate change into planning and investment.

AB 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group, which in 2018 released its report, *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts.

Caltrans Adaptation Efforts

Caltrans Vulnerability Assessments

Caltrans is conducting climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects including precipitation, temperature, wildfire, storm surge, and SLR. The approach to the vulnerability assessments was tailored to the practices of a transportation agency, and involves the following concepts and actions:

- *Exposure* – Identify Caltrans assets exposed to damage or reduced service life from expected future conditions.

- *Consequence* – Determine what might occur to system assets in terms of loss of use or costs of repair.
- *Prioritization* – Develop a method for making capital programming decisions to address identified risks, including considerations of system use and/or timing of expected exposure.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments will guide analysis of at-risk assets and development of adaptation plans to reduce the likelihood of damage to the State Highway System, allowing Caltrans to both reduce the costs of storm damage and to provide and maintain transportation that meets the needs of all Californians.

Project Adaptation Analysis

Caltrans District 8 completed a climate change vulnerability assessment to better understand the vulnerability of their portion of the State Highway System. While the project area is not specifically listed as vulnerability priority areas, the area will experience effects of climate change.

Temperature, precipitation, and wildfire are three climate stressors that will affect the project area in the future. Both the absolute minimum air temperature and the change in average maximum temperature over 7 consecutive days (a required measure for pavement design) will increase by up to 7.9 degrees Fahrenheit by 2055. Precipitation depth in 100-year storm events in the project area could change up to 4.9 percent by 2055. Wildfire concern levels along SR-71 and SR-91 in the project area are rated “medium” for 2025, 2055, and 2085.

Local and regional plans include strategies to combat climate change; these plans are listed above in Table 3.6-1.

Climate-change risk analysis involves uncertainties as to the timing and intensity of potential risks.

Sea Level Rise

The proposed project is outside the coastal zone and not in an area subject to SLR. Accordingly, direct impacts to the Grove Avenue Corridor due to projected SLR are not expected.

Floodplains

Based on the *Floodplain Evaluation Report* (September 2015) and *Water Quality Technical Report* (June 2016) and as discussed in Section 2.3.1, Hydrology and Floodplains, FEMA's FIRM shows the project is fully encompassed by the 500-year flood plain (Zone X-shaded; 0.2 percent annual chance flood), and the West Cucamonga Channel resides in Zone A (1 percent annual chance flood). Appendix I contains the FIRM for the site and surrounding area.

The roadway widening associated with the Build Alternative would geometrically encroach on the West Cucamonga Channel's floodplain at the culvert crossings; it is not anticipated that the proposed work would alter the floodplain. The culvert crossings would only be extended to accommodate the roadway widening by a maximum of approximately 37 feet. Other than the culvert extensions, there would be no modifications to the existing channel, and the 100-year flood event would still be contained in the channel under the proposed conditions.

Because the proposed work is located on an existing roadway, a new roadway alignment is not a feasible alternative to floodplain encroachment. The only variable to the impacts of the culvert extensions is the degree of encroachment; therefore, during the final design and construction phases, disturbance to the floodplain shall be minimized where possible. The project would not result in a significant encroachment to the 100-year floodplain.

The proposed project would be designed to minimize impacts, where possible, by limiting the grading and structural encroachments at designated floodplain and floodway areas. The project would also implement various measures to minimize impacts to the floodplain, including providing positive drainage (HYD-1), compliance with the City of Ontario's Water Quality Management Plan (HYD-2), implementing erosion control and water quality protection during construction at the West Cucamonga Channel (HYD-3), developing a contingency plan for unforeseen discovery of underground contaminants in the SWPPP (HYD-4), and limiting construction activities between October and May to those actions that can adequately withstand high flows and entrainment of construction materials (HYD-5).

Wildfire

Based on CalFire's Fire Hazard Severity Zone map, the Grove Avenue Corridor Project area is not located near a Very High Fire Hazard Severity Zone (see Section 3.5, Wildfire). Therefore, the project would not be exposed to wildfire hazards and would not increase the area's vulnerability to wildfires due to climate change.

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Chapter 4 Comments and Coordination

4.1 Early Coordination and Consultation

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including PDT meetings and interagency coordination meetings. This chapter summarizes the results of Caltrans and City efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

4.1.1 Notice of Preparation

To fulfill CEQA requirements, an NOP of an EIR was written and circulated to announce the commencement of the EIR process for the Grove Avenue Corridor Project. The NOP is included as Figure 4-1.

Submission of the NOP to the State Clearinghouse (SCH) officially initiated the scoping period, which began on November 5, 2014, and ended 30 calendar days later on December 4, 2014. After receiving the NOP, the SCH identified the project as SCH #2014101071 and distributed copies of the NOP to State agencies with a potential interest in the proposed project.

Fifteen (15) copies of the NOP were provided to the SCH. The following agencies and departments received a copy of the NOP via the SCH:

- ARB
- Caltrans (District 8)
- Department of Conservation, Fish and Wildlife Inland Deserts Region
- NAHC
- Office of Historic Preservation
- Department of Parks and Recreation
- Public Utilities Commission
- Santa Ana RWQCB
- SWRCB (Water Quality)
- DTSC
- SCAQMD

City of Ontario
Planning Department
303 East "B" Street
Ontario, California
Phone: (909) 395-2036
Fax: (909) 395-2420



California Environmental Quality Act
Notice of Preparation

TO: Property Owners, Responsible Agencies & Interested Parties
FROM: City of Ontario, Planning Department, 303 East "B" Street, Ontario, CA 91764
SUBJECT: NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE GROVE AVENUE CORRIDOR WIDENING PROJECT

NOTICE IS HEREBY GIVEN that the City of Ontario will be the Lead Agency and will prepare an Environmental Impact Report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the Environmental Impact Report prepared by our agency when considering your permit or other approval for the project.

The Project description, location and the probable environmental effects are contained in the attached materials.

The proposed project is, is not, considered a project of statewide, regional or area-wide significance. The proposed project will, will not, affect highways or other facilities under the jurisdiction of the State Department of Transportation. A scoping meeting will, will not, be held on:

November 20, 2014 at 5pm at the Ontario Senior Center located at 225 East "B" Street, Ontario, CA 91764.

Your response must be sent at the earliest possible date, but no later than December 4, 2014. Please send your response to Richard Ayala, Senior Planner at the address shown above or at rayala@ci.ontario.ca.us. We will need the name for a contact person in your agency.

Project Title: Grove Avenue Corridor Widening Project

Project Location: The project site is generally located along Grove Avenue from north of 4th Street to Airport Drive in the City of Ontario, County of San Bernardino. Please refer to Figures 1 and 2.

Project Description: The proposed Grove Avenue Corridor Widening Project consists of widening Grove Avenue from four to six lanes from north of 4th Street to Airport Drive.

Environmental Issues: Based on an initial analysis of the Project, the following environmental topics will be analyzed further within the forthcoming Environmental Impact Report:

- Aesthetics;
- Air Quality, including potential Greenhouse Gas Emissions and Global Climate Change impacts;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Hazards/Hazardous Materials;
- Hydrology/Water Quality;
- Land Use;
- Noise;
- Population and Housing;
- Public Services and Utilities;
- Recreation; and
- Transportation and Circulation.


Figure 4-1. Notice of Preparation (Page 1 of 3)

Project Sponsor:

City of Ontario
303 East "B" Street
Ontario, CA 91764-4105
Contact: Richard Ayala
Phone: (909) 395-2036

Consulting firm retained to prepare draft Environmental Impact Report:

Parsons
3200 East Guasti Road, Suite 200
Ontario, CA 91761
Contact: Ernie Figueroa
Phone: (909) 218-3560

Signature:  _____ Date: 10/30/14
Name (print or type): RICHARD AYALA Title: SENIOR PARTNER

Reference: California Code of Regulations, Title 14 (CEQA Guidelines) Sections 15082(a), 15103, 15375.

Figure 4-1. Notice of Preparation (Page 2 of 3)



Figure 1
Project Location Map



Figure 2
Project Vicinity Map

Figure 4-1. Notice of Preparation (Page 3 of 3)

In addition, the NOP was mailed to 26 local, State, and federal agencies with potential interest in or jurisdiction of the proposed project. This mailer to agencies included a Notice of Initiation of Studies (NOIS) for the Grove Avenue Corridor Project.

4.1.2 Public Mailers and Newspaper Advertisement

On November 5, 2014, the City sent 1,100 public notices to all property owners within 300 feet of the project corridor. The public notice included summary information about the project, a project location map, information on the scoping meeting, and contact information for more information. The purpose of the public notice was to inform the public of the initiation of studies, announce the public scoping meeting, and announce the opportunity to comment on the proposed project. The one-page notice was printed double-sided, with an English version on the front side and a Spanish version on the back side. In addition, each mailer included a double-sided print with English and Spanish versions of the public notice for the Grove Avenue Corridor Project.

In addition, a newspaper notice was published for the project in the *Inland Valley Daily Bulletin* on November 7, 2014.

4.1.3 Scoping Meeting

During the 30-day scoping period, one public scoping meeting was held at the Ontario Senior Center to encourage public participation in the environmental process. The meeting was held November 20, 2014, from 5:00 to 6:00 p.m. for agency representatives and from 6:00 to 8:00 p.m. for the general public. The scoping meeting was held concurrently with a public hearing for the I-10/Grove Avenue Interchange Project.

The public scoping meeting was conducted in open-house format with aerial maps and informational boards on display. The informational boards included content related to the project purpose; proposed alternatives; potential impacts; environmental process; and conceptual project schedule. In addition, a comment station was set up so meeting participants could submit comments at the meeting. A PowerPoint presentation of all of the boards was translated into Spanish and played on loop for Spanish-speaking attendees. Staff members from the City, Caltrans, and Parsons were on hand to answer questions and facilitate the meeting.

Details regarding the number and affiliation of participants that attended the scoping meeting are provided in Table 4-1. If no affiliation was listed on the sign-in sheet, then the meeting attendee was counted as “resident.”

Table 4-1. Number and Affiliation of Participants at Scoping Meeting

Affiliation	November 20, 2014 Scoping Meeting Attendees
Resident	29
Community-Based Organization	1
Business Owner	4
Public Agency	1
Total	35

Source: Parsons, 2014.

A *Scoping Summary Report* (February 2015) was prepared for the proposed project. The purpose of the scoping process under CEQA is to examine a proposed project early in the environmental analysis/review process to identify the range of issues pertinent to the proposed project and feasible alternatives or mitigation measures to avoid the potentially significant adverse environmental effects of those alternatives. The scoping process stresses early consultation with resource agencies, other State and local agencies, Tribal governments, and any federal agency whose approval or funding of the proposed project would be required for completion of the project, as well as interested members of the general public.

Under NEPA, the lead agency is required to conduct an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action (Section 1501. 7, 40 CFR). The scoping process is used to identify the range of alternatives to be addressed in the environmental document.

4.1.3.1 Public Scoping Comment Period Summary

A total of 24 comments were received during the scoping period. Fifteen (15) comment cards were completed and submitted at the scoping meeting. In addition, 2 letters were received from residents or property owners and 7 letters were received from notified agencies.

The following list summarizes the most common issues that property owners and residents identified during the scoping period. Most comments addressed more than one topic.

- Request to be added to project notification list for future updates – **6 comments**
- Noise impacts – **4 comments**
- Air quality impacts – **3 comments**
- Property value – **3 comments**

- Support for both projects – **2 comments**
- Requested poster slides in Spanish – **2 comments**
- Community impacts – **2 comments**
- Business impacts – **2 comments**
- ROW acquisition – **2 comments**
- Suggestions for design variations – **2 comments**
- Concerns over road closures and circulation during construction – **1 comment**
- Oppose both projects – **1 comment**
- Flood control facility impacts – **1 comment**

Finally, comments received from local, State, and federal agencies are summarized in Table 4-2.

Table 4-2. Summary of Agency Comments Received during the Scoping Period

Agency	Comment
CDFW	<ul style="list-style-type: none"> • Requested that the environmental document contain sufficient biological resource analysis, quantification of impacts, cumulative impact analysis, and mitigation measures. • Confirmed that a Lake or Streambed Alteration Agreement would be necessary to construct the project. • Noted that special-status species surveys and an incidental take permit may be required.
NAHC	<ul style="list-style-type: none"> • Requested that a records search, Sacred Lands File check, and coordination with Native American groups be conducted. • Requested that mitigation measures for cultural resources be included in the environmental document. • Noted that an archaeological inventory survey may be required.
SCAQMD	<ul style="list-style-type: none"> • Provided guidance for air quality analysis and suggested quantification of construction and operational emissions. • Suggested use of SCAQMD regional and localized significance thresholds. • Recommended conducting a mobile source health risk assessment and analysis of all toxic air contaminant impacts.
Ontario-Montclair School District	<ul style="list-style-type: none"> • Provided a list of schools in the project vicinity. • Suggested specific content to be included in the project's TMP.
San Bernardino County Department of Public Works	<ul style="list-style-type: none"> • Requested that the environmental document examine hydrology and water quality impacts. • Requested the opportunity to review the draft environmental document and design plans when available.
City of Rancho Cucamonga	<ul style="list-style-type: none"> • Provided no comments, but requested to be included in future project-related correspondence.

Table 4-2. Summary of Agency Comments Received during the Scoping Period

Agency	Comment
USACE	<ul style="list-style-type: none"> Confirmed that a Section 404 permit would be necessary to construct the project. Indicated that the proposed project may also require a Section 408 permit and other real estate approvals issued through the USACE Asset Management Division.
EPA	<ul style="list-style-type: none"> On April 28, 2015, the TCWG, which includes EPA personnel, provided concurrence that the project was not a POAQC based on the PM_{2.5} and PM₁₀ review forms that were submitted. The form was resubmitted to the TCWG in June 2020 to obtain concurrence, as shown in Appendix e of the <i>Air Quality Conformity Analysis</i> (July 2020). Also provided in Appendix D of the <i>Air Quality Conformity Analysis</i> is the TCWG's June 2020 confirmation that the proposed project in not a POAQC and does not require a hot-spot analysis to be performed.

The comments received during the scoping period were shared with the PDT and were considered during the development of alternatives and evaluation of environmental impacts.

4.2 Native American Consultation and Coordination

On March 9, 2015, the NAHC was requested to review its sacred land records. The NAHC responded on April 22, 2015, stating that the search of the sacred land file failed to indicate the presence of Native American cultural resources in the immediate project area. However, six Native American Tribes, groups, and individuals were still contacted to solicit any concerns regarding cultural resources within the project vicinity. Table 4-3 shows all individuals who were contacted regarding consultation, title, organization, and responses to the project.

Table 4-3. Native American Consultation

Name	Title	Organization	Response
Anthony Morales	Chairperson	Gabrieleno/Tongva San Gabriel Band of Mission Indians	Requested that archaeological monitoring should be conducted to capture any subsurface archaeological material.
Sandonne Goad/ Sam Dunlap	Chairperson/ Cultural Resources Director	Gabrielino/Tongva Nation	Consultation deferred to Mr. Sam Dunlap. Mr. Dunlap recommended archaeological monitoring and oversight during construction. He requested to be informed of any unanticipated discovery of prehistoric cultural material and have the option of implementing a Native American monitoring component.

Table 4-3. Native American Consultation

Name	Title	Organization	Response
Andrew Sales	Chairperson	Gabrieliño Band of Mission Indians	No response.
Daniel F. McCarthy	Cultural Resources Management	San Manuel Band of Mission Indians	Mr. McCarthy requested a copy of the record of findings and a copy of a draft cultural resources report.
Goldie Walker		Serrano Nation	Ms. Goldie Walker requested to be notified if any cultural resources are observed during construction activities related to the project; she emphasized she would like to be contacted no matter how small the artifact. She also requested to be contacted immediately if any human remains are encountered.

4.3 Draft EIR/EA Public Comment Period

The Draft EIR/EA was circulated for public review, beginning on August 19, 2019, and ending on October 2, 2019.

4.3.1 Notice of Availability

To fulfill CEQA requirements, a Notice of Availability (NOA) of the Draft EIR/EA was prepared and circulated to announce the start of the public comment period for the Grove Avenue Corridor Project. The NOA is included as Figure 4-2.

The NOA and Notice of Completion (NOC) were filed with the San Bernardino County Clerk of the Board on August 16, 2019, for posting until September 28, 2019.

The NOC, along with 15 copies of the NOA, Executive Summary, SCH Summary Form, and CDs with the Draft EIR/EA, was submitted to the SCH for posting on the CEQANet database and distribution to State agencies. The following State agencies and departments received a copy of the NOA and Draft EIR/EA via the SCH:

- California Resources Agency
- Department of Conservation
- CDFW, Region 6
- Department of Parks and Recreation
- Department of Water Resources
- Department of Aeronautics
- CHP





 PUBLIC NOTICE Grove Avenue Corridor Project 	
Notice of Availability of the Draft Environmental Impact Report/Environmental Assessment and Announcement of Public Meeting	
WHAT'S BEING PLANNED	<p>The City of Ontario (City) in cooperation with the California Department of Transportation (Caltrans), is proposing the Grove Avenue Corridor Project to improve traffic operations and mobility to and from the Ontario International Airport (ONT), and provide consistency of access and mobility along Grove Avenue between the I-10 freeway and Holt Boulevard. The project proposes to widen Grove Avenue from four to six lanes between 4th Street and State Street/Airport Drive in accordance with the City of Ontario Master Plan of Streets and Highways.</p>
WHY THIS AD?	<p>The City of Ontario and Caltrans have studied the effects this project may have on the environment. Our studies show it will not significantly affect the quality of the environment. The report that explains why is called an Environmental Impact Report/Environmental Assessment. This notice is to inform you of the preparation of the proposed Draft Environmental Impact Report/Environmental Assessment and of its availability for you to provide input and attend a public meeting.</p> <p>A Public Meeting will be held to give you an opportunity to talk about the environmental impacts of this project with City staff before the final alternative is selected. Written comments will become part of the public record and will be considered in the Final EIR/EA.</p>
WHAT'S AVAILABLE?	<p>The Draft EIR/EA is available for review at the following locations:</p> <ul style="list-style-type: none"> • City of Ontario Planning Department, 303 East "B" Street, Ontario, CA 91764 • Ovitt Family Community Library, 215 East C Street, Ontario, CA 91764 • South Ontario Library/Colony High Branch Library, 3850 E Riverside Drive, Ontario, CA 91761 • Caltrans District 8 Office, 464 W 4th Street, San Bernardino, CA 92401 (Available for review on weekdays from 8 am to 4 pm). Please ask the guards at the security desk in the lobby to contact Aaron Burton upon arrival. • To view electronic copies of the document, go to: www.ontarioca.gov/planning
WHERE YOU COME IN	<p>Do you have any comments about processing the project with the EIR/EA? Do you disagree with the findings of Draft EIR/EA? Would you care to make any other comments on the project? Please submit your comments via email to rayala@ontarioca.gov or in writing, no later than October 2, 2019 to:</p> <p>Mr. Richard Ayala, Senior Planner Attn: Grove Avenue Corridor Project Planning Department City of Ontario 303 East "B" Street Ontario, CA 91764-4105</p> <p>The City will be accepting comments from August 19 to October 2, 2019. Following the public and agency review and comment period, if there are no major comments, and the project is given environmental approval and funding is obtained, the City will proceed with the project's design.</p>
WHEN AND WHERE	<p>The Public Meeting will be held at the Ontario Senior Center located at 225 East "B" Street, Ontario, California 91764 on September 19, 2019, between 5:00 p.m. and 8:00 p.m. You are invited to attend any time between the hours of 5:00 p.m. and 8:00 p.m.</p>
CONTACT	<p>Individuals who require special accommodation (American Sign Language interpreter, accessible seating, documentation in alternative formats, etc.) are requested to contact the City of Ontario, Attention: Richard Ayala, Senior Planner, Planning Department, 303 East "B" Street, Ontario, CA 91764 at least 7 days prior to scheduled meeting date. TDD users may use the California Relay Service 1-800-735-2929 (TTY to Voice), 1-800-735-2922 (Voice to TTY), 1-800-854-7784 (From or to Speech to Speech), or dial 711. For more information about the Draft EIR/EA or any project issue, call Richard Ayala at (909) 395-2421. Thank you for your interest in this project.</p>
EA 0815000220	



Figure 4-2a: Notice of Availability (English)

 Aviso Público Proyecto del Corredor de la Avenida Grove 	
Anuncio de la Disponibilidad del Anteproyecto de Informe de Impacto Ambiental/Evaluación Ambiental y Anuncio de Reunión Pública	
<p>¿QUÉ SE PLANIFICA?</p>	<p>La Ciudad de Ontario (Ciudad) en cooperación con el Departamento de Transportación del Estado de California (Caltrans), propone el Proyecto del Corredor de la Avenida Grove para mejorar las operaciones de tráfico y movilidad de ida y vuelta al Aeropuerto Internacional de Ontario (ONT), y así facilitar accesibilidad y movilidad por la Avenida Grove entre la Carretera Interestatal 10 y el Boulevard Holt. El proyecto propone ampliar la Avenida Grove de cuatro a seis carriles entre la Calle 4ta y la Calle State/Airport Drive según el Plan Maestro de Calles y Carreteras de la Ciudad de Ontario.</p>
<p>¿POR QUÉ ESTE AVISO?</p>	<p>La Ciudad de Ontario y Caltrans han estudiado los impactos que este proyecto pudiera causar al medio ambiente. Nuestro análisis demuestra que el proyecto no tendrá impacto significativo a la calidad del medio ambiente. El informe que explica el porqué, se llama un Anteproyecto de Informe de Impacto Ambiental/ Evaluación Ambiental (EIR/EA, por sus siglas en inglés). Este aviso público sirve para notificarle de la preparación y disponibilidad del Anteproyecto de Informe de Impacto Ambiental/Evaluación Ambiental propuesto, para que tenga la oportunidad de dar a conocer su opinión y asistir una reunión pública.</p> <p>Se tendrá una reunión pública para darle una oportunidad de hablar sobre los impactos medioambientales del proyecto con personal de la Ciudad antes que el alternativo preferido sea adoptado. Comentarios escritos pasarán a formar parte del registro público y serán considerados en la Versión Final EIR/EA.</p>
<p>¿QUÉ ESTA DISPONIBLE?</p>	<p>El Anteproyecto EIR/EA está disponible para revisión en las siguientes ubicaciones:</p> <ul style="list-style-type: none"> • City of Ontario Planning Department, 303 East "B" Street, Ontario, CA 91764 • Ovitt Family Community Library, 215 East C Street, Ontario, CA 91764 • South Ontario Library/Colony High Branch Library, 3850 E Riverside Drive, Ontario, CA 91761 • Caltrans District 8 Office, 464 W 4th Street, San Bernardino, CA 92401 (Disponible para revisión entre semana entre las 8 am a las 4 pm). Al llegar, favor de preguntar a los guardias en el mostrador de seguridad en el vestibulo que llamen a Aaron Burton. • Para obtener copias electrónicas del documento, visite: www.ontario.ca.gov/planning
<p>¿CÓMO PARTICIPAR?</p>	<p>¿Tiene algún comentario sobre el procesamiento del proyecto con el EIR/EA? ¿No está de acuerdo con los hallazgos del Anteproyecto EIR/EA? ¿Le gustaría hacer algún otro comentario sobre el proyecto? Favor de enviar sus comentarios por correo electrónico a rayala@ontario.ca.gov o por correo, a más tardar el 2 de octubre del 2019, a:</p> <p>Mr. Richard Ayala, Senior Planner Attn: Grove Avenue Corridor Project Planning Department City of Ontario 303 East "B" Street Ontario, CA 91764-4105</p> <p>La Ciudad aceptará comentarios del 19 de agosto al 2 de octubre del 2019. Después del periodo de revisión y comentarios del público y de la agencia, la Ciudad procederá con el diseño final sólo si no hay comentarios significativos, si el proyecto recibe aprobación ambiental, y se obtiene financiación.</p>
<p>¿CUÁNDO Y DÓNDE?</p>	<p>La reunión pública se llevará a cabo en el Ontario Senior Center ubicada en 225 East "B" Street, Ontario, California 91764 el 19 de septiembre del 2019 entre las 5:00 p.m. a las 8:00 p.m. Está invitado a asistir en cualquier momento entre las 5:00 p.m. a las 8:00 p.m.</p>
<p>CONTACTAR</p>	<p>Individuos que requieren acomodación especial (Intérprete de lenguaje de señas americano, asientos accesibles, documentación en formatos alternativos, etc.) deben comunicarse con la Ciudad de Ontario, Atención: Richard Ayala, Senior Planner, Planning Department, 303 East "B" Street, Ontario, CA 91764 al menos 7 días antes de la fecha programada para la reunión pública. Usuarios de dispositivo de telecomunicaciones para sordos (TDD por sus siglas en inglés) pueden usar el Servicio de Retransmisión de California llamando al 1-800-735-2929 (Máquina de escribir de teléfono o teletipo a voz - TTY, por sus siglas en inglés), o 1-800-735-2922 (de voz a TTY), 1-800-854-7784 (de/a voz a voz - STS por sus siglas en inglés), o marque 711. Para más información acerca del Anteproyecto EIR/EA o cualquier otro asunto que tiene que ver con el proyecto, llame a Richard Ayala al número (909) 395-2421. Gracias por su interés en este proyecto.</p> <p style="text-align: right;">EA 0815000220</p>

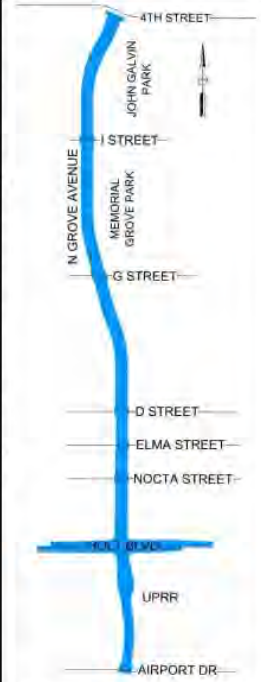


Figure 4-2b: Notice of Availability (Spanish)

- Caltrans, District 8
- ARB: Transportation Projects
- Department of Resources, Recycling and Recovery
- SWRCB: Division of Drinking Water
- RWQCB, Region 8
- DTSC
- NAHC
- Public Utilities Commission

4.3.2 Public Mailers and Newspaper Advertisement

The NOA was published in the *Inland Valley Daily Bulletin* on August 19, 2019, which was the start of the public comment period.

Copies of the NOA in both English and Spanish were distributed to 58 responsible and trustee agencies, public agencies, and parties known to have an interest in the project. The English and Spanish NOA was also mailed out to 17 scoping meeting attendees and property owners of the 624 parcels within 300 feet of the project alignment. In addition, a notification letter was sent to 12 federal, State, and local officials, along with a copy of the Executive Summary of the Draft EIR/EA. The distribution list is provided in Appendix L.

Hard copies of the Draft EIR/EA were also made available for public review at Caltrans' District 8 office, the City of Ontario City Clerk office and Planning Counter, the South Ontario Library, and the Ovitt Family Community Library. Pdf files of the Draft EIR/EA were also uploaded to the City's website for online review and downloading: www.ontarioca.gov/planning.

4.3.3 Public Meeting

During the 45-day public comment period, one public meeting was held at the Ontario Senior Center to encourage public participation in the environmental process. A public meeting/open house was held on September 19, 2019, at the Ontario Senior Center from 5:00 to 8:00 p.m. A PowerPoint presentation and display boards of the project, project acquisition, proposed soundwalls, the environmental review process, and opportunities for comment and input were provided at the meeting, along with hard copies of the NOA and Draft EIR/EA. Staff from the City of Ontario and consultants from Parsons and Bender-Rosenthal were at the meeting to respond to questions from the attendees. Approximately 20 people attended the meeting, with 12 of them signing in. Issues discussed at the public meeting included:

- Real estate acquisition process
- Valuation and relocation processes
- No interest in living adjacent to a six-lane roadway
- Support of the project
- Full acquisition versus partial acquisition for individual properties
- Appropriate compensation
- Need for Health Risk Assessment that looks at future years
- If analysis included projections
- Existing and future noise levels
- Soundwalls along their properties
- Construction schedule, next steps
- Width of partial acquisition
- Trouble getting out of driveway into the busy street
- Distance of new sidewalk to residences
- Accidents along Grove Avenue
- Reduction in speed limit
- Blocking of driveways during construction
- Where soundwalls would be or would not be provided
- Negotiation process for new driveway and soundwall
- Safety of kids crossing Grove Avenue and G Street to get to school
- Upgrade of Grove Avenue like other new streets in the City
- Installation of streetlight beside residence
- Funding sources
- Construction of Grove Interchange and Grove Corridor

4.3.3.1 Public Comment Summary

Four comment cards were received at the public meeting/open house from the following attendees:

- Norberto Corona
- Maria Hernandez
- Ray Mendoza
- Ernestine Mendoza

At the end of the public comment period, eight additional comment letters were received from the following agencies, organizations, and individuals on the Draft EIR/EA:

- Lijin Sun, SCAQMD
- Alexandra McCleary, San Manuel Band of Mission Indians
- Craig Misso, Ontario-Montclair School District
- Carolyn Mulvihill, EPA
- Lidia Rodriguez
- Jerry Hale
- AJ Gerber/Michael Perry, San Bernardino County Department of Public Works
- Scott Morgan, SCH

A summary of the comments received during the public comment period for the Draft EIR/EA is provided in Table 4-4.

Table 4-4. Summary of Comments Received during the Public Comment Period

Commenting Agency/Person	Comment
Norberto Corona	<ul style="list-style-type: none"> • Requested noise table from Draft EIR/EA for noise levels and soundwall proposed at R50
Maria Hernandez	<ul style="list-style-type: none"> • Wider street with a traffic light to turn left for safety, with an arrow at Grove Avenue and G Street
Ray Mendoza	<ul style="list-style-type: none"> • Access to park and soundwall, speed limit, tree removal, impact on property values, construction schedule, and lighting levels
Ernestine Mendoza	<ul style="list-style-type: none"> • Frequent accidents and need for school kids crossing at G Street and Grove Avenue • High noise levels • Change in area flooding
SCAQMD	<ul style="list-style-type: none"> • Proximity to existing residential uses and exceedance of Localized Significance Threshold for PM₁₀ • Quantification of PM₁₀ emissions after mitigation • Mitigation measures to incorporate into the project, such as use of zero-emission or near-zero emission heavy-duty haul trucks, limit number of daily truck trips, use of Level 3 Diesel particulate filters, use of Tier 4 off-road diesel-powered equipment, maintenance of equipment, and application for SOON funds • Provide written responses, conclusory statements, feasibility of recommended mitigation measures
San Manuel Band of Mission Indians	<ul style="list-style-type: none"> • Project is located outside Serrano ancestral territory
Ontario-Montclair School District	<ul style="list-style-type: none"> • Use of comment letter does not indicate or suggest District is involved in project or CEQA compliance • Project schedule and road closures/detours that could issue bus stops
EPA	<ul style="list-style-type: none"> • Cumulative impacts from construction emissions • Implement all feasible mitigation to minimize emissions

Table 4-4. Summary of Comments Received during the Public Comment Period

Commenting Agency/Person	Comment
Lidia Rodriguez	<ul style="list-style-type: none"> • Safety of children crossing Grove Avenue at I, G, and D streets • Impacts on Veterans Memorial and James Galanis Parks • Reduction of speed limit • Increase in noise and air pollution from trucks • 10 other more direct traffic corridors to the airport • Safe entry and exit from driveways on Grove Avenue
Jerry Hale	<ul style="list-style-type: none"> • More traffic will be more dangerous for children crossing G and D Streets • Cars speeding and more accidents • Higher noise levels but only certain houses get a soundwall • Driveway on Grove Avenue will be dangerous • Loss of front and backyard and driveway, retain fence and gate, room for parking in driveway • Affected residents have not been taken into consideration
San Bernardino County Department of Public Works	<ul style="list-style-type: none"> • Alteration of storm drains in the area will require approval from the City and any required mitigation • Project is within 500-year floodplain — Zone X-shaded • Enforce FEMA regulations for floodplain construction • Encroachment on District ROW or facilities will require permits • Requires consideration of reversible lanes
SCH	<ul style="list-style-type: none"> • Project compliance with review requirements under CEQA

These comments have been responded to in writing and can be found in Appendix J of this Final EIR/EA. Where necessary, changes to the text of the Draft EIR/EA were made in response to the comments. As indicated earlier, a vertical line in the margin indicates a change made since circulation of the draft environmental document.

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Chapter 5 List of Preparers

The following Caltrans staff and consultants contributed to preparation of the draft and final environmental documents.

5.1 Caltrans Staff

Aaron Burton, Senior Environmental Planner

5.2 Consultant Staff

Group Delta

Glenn Burks, Director of Environmental Services. Bachelor of Science, Chemical Engineering, University of California, San Diego; Ph.D. Environmental Engineering, University of California, Los Angeles; Professional Chemical Engineer. 21 years of experience in Process Engineering; Phase II Soil Investigations; Environmental Compliance; Remedial Investigation, Remedial Design and Implementation including Green and Sustainable Remediation. Contribution: Oversight and author of the Site Investigation and the Aerially Deposited Lead Investigation.

Jack Packwood, Senior Project Manager. Bachelor of Science, Environmental Science, University of California, Riverside; Master of Science, Environmental Science, California State University, Fullerton. 12 years of experience in construction compliance, site assessment, remediation, water quality, stormwater, and waste management. Contribution: Project Manager for the Aerially Deposited Lead Study and Site Investigation.

Cogstone

Sherri Gust, Qualified Principal Paleontologist. Bachelor of Science, University of California Davis; Master of Science, Anatomy (Evolutionary Morphology), University of Southern California, Los Angeles. 35 years of experience in California paleontology. Contribution: Author of Archaeological Survey Report, contributing author of the Paleontological Identification Report/Paleontological Evaluation Report.

John Harris, Paleontology Practice Leader. Ph.D., Geology with paleontology emphasis, University of Bristol. 40 years of experience. Contribution:

Contributing author of the Paleontological Identification Report/
Paleontological Evaluation Report.

Kim Scott, Principal Paleontologist. Master of Science, Biology with paleontology emphasis, California State University, San Bernardino. 20 years of experience in California paleontology. Contribution: Contributing author of the Paleontological Identification Report/Paleontological Evaluation Report.

Helix Environmental Planning

Karl Osmundson, Principal Biologist/Biology Group Manager

Joshua Zinn, Ecologist and Regulatory Specialist

Entech Consulting Group

Zack Dennis, Environmental Scientist. G.D.E., Metallurgy, University of the Witwatersrand, Johannesburg, South Africa, 2004; Bachelor of Science, Chemistry, Harvey Mudd College. 16 years of experience performing TNM 2.5 noise modeling, noise monitoring and writing NSRs. Contribution: Co-author of NSR.

Michelle A. Jones, Principal Engineer. Bachelor of Science, Civil Engineering, University of Washington. 23 years of experience performing and managing the development of NSRs. Contribution: Co-author of NSR.

Parsons

Josephine Alido, AICP, Principal Planner. Bachelor of Science, Architecture, University of the Philippines and Masters in Planning, University of Southern California. 28 years of experience in CEQA documentation and processing. Contribution: Revised environmental document per City and Caltrans comments.

Joza M. Burnam, Senior Planner. Bachelor of Science, Environmental Sciences, University of California, Riverside. 9 years of air quality and noise experience. Contribution: Coordinated, assisted in preparation of, and reviewed NSR and Air Quality Study; contributing author of the draft environmental document; and review of the environmental document.

Monica Corpuz, Associate Planner. Master of Arts, Anthropology-Public Archaeology, California State University, Northridge. 3 years of environmental planning experience. Contribution: Author of Section 4(f) Report; coordinated, assisted

in preparation of, and reviewed HPSR and HRER; reviewed ASR, Paleontological Identification Report/Paleontological Evaluation Report; contributing author of the draft environmental document; and review of the environmental document.

Sidra Fatima, Associate Environmental Planner. Bachelor of Science, Urban and Regional Planning; Minor in Geographic Information Systems, California State Polytechnic University, Pomona. 2 years of planning experience. Contribution: Researched census data, created exhibits and assisted in preparation of Community Impact Assessment; contributing author of Section 4(f); contributing author of the draft environmental document; and review of the environmental document.

Ernie Figueroa, Principal Project Manager. Juris Doctorate, University of La Verne. 25 years of experience in project management and CEQA/NEPA document preparation oversight. Contribution: Peer review and quality assurance/quality control of the environmental document.

Melissa Gomez P.E., Project Engineer. Bachelor of Science, Structural Engineering, University of California San Diego; MEng Civil & Environmental Engineering, Cornell University. 6 years of engineering experience. Contribution: Author of Noise Abatement Decision Report and Cost Estimates.

Emily Hoyt, Associate Planner. Bachelor of Arts, Urban Studies, Loyola Marymount University. 4 years of environmental planning experience. Contribution: Coordinated and assisted in preparation of the Community Impact Assessment, response to comments, and review of the environmental document.

Teak Kim. Bachelor of Science, Civil Engineering, Keimyung University, South Korea; Master of Science and PhD, Civil & Environmental Engineering, University of Louisville, Kentucky. 23 years of experience performing TNM 2.5 noise modeling, noise monitoring and writing NSRs. Contribution: Co-author of NSR.

Greg King, Senior Project Planner. Bachelor of Arts, History, University of California, Santa Barbara; Master of Arts, Public Historical Studies, University of California, Santa Barbara. 35 years of environmental planning experience. Contribution: Reviewed HPSR and contributed evaluations of properties for the HRER.

Liz Koos, Lead Technical Editor. 28 years of editing experience. Contribution: Technical Editor.

Jeffrey Lormand, Registered Landscape Architect (CA Number 3576). Masters in Landscape Architecture, University of Arizona. 10 years of visual impact assessment experience. Contribution: Review of the Visual Impact Assessment report.

Robert Malone, AICP, Project Planner. Bachelor of Science Management, Clemson University; Master of Regional Planning, University of Massachusetts, Amherst. 16 years of environmental planning experience. Contribution: Contributing author of the draft environmental document and review of the environmental document.

Eve Moir, Associate Planner. Bachelor of Arts, Political Science and Master of Urban Regional Planning, California State Polytechnic University, Pomona. More than 1 year of environmental planning experience. Contribution: Assisted in preparation of and reviewed Community Impact Assessment, HPSR, HRER; contributing author of Section 4(f); assisted with environmental document distribution production and review of the environmental document.

Arianne Preite, Principal Scientist. Master of Science, Environmental Science, Bachelor of Science, Biological Science, California State University, Fullerton. 16 years of environmental planning/biology experience. Contribution: Quality assurance/quality control review of Jurisdictional Delineation, Natural Environment Study, and biology section.

James Santos, Senior Planner. Bachelor of Arts, Urban Economics and Bachelor of Arts, English, University of Toronto. 10 years of experience in environmental and transportation planning. Contribution: Draft environmental document preparation and quality assurance/quality control.

Angela Schnapp, Principal Planner. Master of Science, Environmental Engineering and Bachelor of Science, Nuclear Engineering, University of Illinois Urbana-Champaign. 18 years of experience in environmental and transportation planning. Contribution: Draft environmental document preparation and quality assurance/quality control.

Veronica Seyde, Project Scientist. Certified Professional in Erosion and Sediment Control, Certified Professional in Storm Water Quality, Qualified SWPPP Developer. Master of Science, Environmental Studies, California State University, Fullerton. More than 25 years of experience in water quality sciences. Contribution: Preparer of sections of the Water Quality Technical Report.

Vincent Tong, Associate Planner. Bachelor of Science, Environmental Engineering, University of California, San Diego; Master of Urban and Regional Planning, University of California, Irvine. 1 year of environmental planning experience. Contribution: Assisted in preparation of Community Impact Report; contributing author of the draft environmental document.

Daniel Wagner, Professional Engineer, Senior Engineer. Bachelor of Science, Civil Engineering, San Diego State University. 9 years of roadway design, drainage design, and project management experience. Contribution: Engineering support, Section 4(f), and water quality.

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Chapter 6 Distribution List

Federal Agencies

Karin Cleary-Rose
United States Department of the
Interior
Fish and Wildlife Service
Ecological Services
777 East Tahquitz Canyon Way
Suite 208
Palm Springs, CA 92262

Kaveh Sadeghzadeh, Director
Public Affairs Division
Natural Resources Conservation
Service
USDA Natural Resources
Conservation Service
Attn: Legislative and Public Affairs
Division
1400 Independence Avenue, SW
Room 6121-S
Washington, D.C. 20250

Veronica Li, Senior Project Manager
Transportation and Special Projects
Branch
Los Angeles District Regulatory
Division
U.S. Army Corps of Engineers
915 Wilshire Boulevard, Suite 930
Los Angeles, CA 90017

Alexis Strauss,
Environmental Review Office
Communities and Ecosystems Division
United States Environmental
Protection Agency
Region 9
75 Hawthorne Street
San Francisco, CA 94105

State Agencies

Aaron Burton
Branch Chief
Caltrans District 8
464 West Fourth Street
6th Floor, MS 829
San Bernardino, CA 92401-1400

Tay Dam
Senior Transportation Engineer,
District 8, 12 (State Program)
FHWA
650 Capital Mall, Suite 4-100
Sacramento, CA 95814

Katy Sanchez
Associate Government Program
Analyst
California Native American Heritage
Commission
1550 Harbor Boulevard, Room 100
West Sacramento, CA 95691

Jeff Brandt
Senior Environmental Scientist
California Department of Fish and
Wildlife
Inland Deserts Region
3602 Inland Empire Boulevard
Suite C220
Ontario, CA 91764

Gary Watts
District Superintendent
California Department of Parks and
Recreation
17801 Lake Perris Drive
Perris, CA 92571

Director,
Policy and Planning Division
Public Utilities Commission
Policy and Planning Division
San Francisco Office
505 Van Ness Avenue
San Francisco, CA 94102

Ed Krusey
Southern Division Lieutenant
California Highway Patrol
411 N. Central Avenue
Glendale, CA 91203

John Lowrie, Acting Assistant Director
Land Resource Protection
California Department of
Conservation, Division of Land
Resource Protection
801 K Street, MS 18-01
Sacramento, CA 95814

Julianne Polanco
State Historic Preservation Officer
Office of State Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816

Regional Agencies

Daniel Garcia
Program Supervisor
South Coast Air Quality Management
District
21865 Copley Drive
Diamond Bar, CA 91765-4178

Art Yoon, Senior Regional Planner
Southern California Association of
Governments
818 W. Seventh Street, 12th Floor
Los Angeles, CA 90017

Mazin Kasey, Deputy Director,
Transportation
County of San Bernardino,
Department of Public Works
825 East Third Street
San Bernardino, CA 92415-0835

Kevin Blakeslee, Director
San Bernardino County
Department of Public Works
825 E. Third Street
San Bernardino, CA 92415

Ray Wolfe
Executive Director
SBCTA/SBCOG
1170 W. 3rd Street, 2nd Floor
San Bernardino, CA 92410-1715

Wanda Cross
Chief of Regional Planning Programs
Regional Water Quality Control Board
Region 8
3737 Main Street, Suite 500
Riverside, CA 92501

Terri Rahhal, Director
County of San Bernardino,
Land Use Services
385 North Arrowhead Avenue
San Bernardino, CA 92415-0182

David Doublet, Deputy Director,
Flood Control District
County of San Bernardino,
Department of Public Works
825 East Third Street
San Bernardino, CA 92415-0835

Local Agencies and Organizations

Candyce Burnett, Planning Director,
Construction and Development
Department
City of Rancho Cucamonga
10500 Civic Center Drive
Rancho Cucamonga, CA 91730

Michael Diaz, Planning Manager
Community Development Department
City of Montclair
5111 Benito Street
Montclair, CA 91763

James Q. Hammond, Ed.D.
Superintendent
Ontario-Montclair School District
950 West D Street
Ontario, CA 91762

Jason Welday, PE, TE
Engineering Services Director
City of Rancho Cucamonga
10500 Civic Center Drive
Rancho Cucamonga, CA 91729

Phil Hillman, Chief Business Official
Ontario-Montclair School District
950 West D Street
Ontario, CA 91762

Harold Sullins
Assistant Superintendent
Upland Unified School District
390 North Euclid Avenue
Upland, CA 91786

Petrina Delman
Ontario Heritage Society
1007 N. Euclid Avenue
Ontario, CA 91762

Michael Polland
Development Services Director
City of Upland
460 North Euclid Avenue
Upland, CA 91786

Janet Temkin, Superintendent
Cucamonga School District
8776 Archibald Avenue
Rancho Cucamonga, CA 91730

Mathew Holton, Superintendent
Chaffey Joint Union High School
District
211 West Fifth Street
Ontario, CA 91762

General Public

Mayra Gomez
932 E. Princeton Street
Ontario, CA 91764

Bruce Wee
1245 E. 4th Street
Ontario, CA 91764

Terry Moore
1205 East D Street
Ontario, CA 91764

John Hernandez
4732 Clair Street
Ontario, CA 91762

Josefina Rodriguez
719 North Alameda Avenue
Ontario, CA 91764

Roberto Rosas
510 North Grove Avenue
Ontario, CA 91764

Elaine Naranjo
849 East Princeton Street
Ontario, CA 91764

Raul Naranjo
849 East Princeton Street
Ontario, CA 91764

Alex Duran
1062 East Princeton Street
Ontario, CA 91764

Petrina Delman
1007 North Euclid Avenue
Ontario, CA 91762

Dr. Shay Salehrbai
1440 East 4th Street
Ontario, CA 91764

Moises Redol
416 North Grove Avenue
Ontario, CA 91764

Danny Villanueva
203 North Grove Avenue
Ontario, CA 91764

David F. Stobaugh
701 Fifth Avenue, Suite 6550
Seattle, Washington 98104

Margaret Vermillion
1355 North Council Avenue
Ontario, CA 91764

Richard Martinez
755 North Alameda Avenue
Ontario, CA 91764

Paramjit Sohi
1155 North Grove Avenue
Ontario, CA 91764

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Appendix A Section 4(f) Evaluation

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 United States Code (U.S.C.) 327.

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Acronyms and Abbreviations

APE	Area of Potential Effects
ASR	Archaeological Survey Report
Caltrans	California Department of Transportation
CFR	<i>Code of Federal Regulations</i>
City	City of Ontario
DOI	U.S. Department of the Interior
EA	Environmental Assessment
EIR	Environmental Impact Report
FTA	Federal Transit Administration
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
HPSR	Historic Property Survey Report
HRER	Historical Resources Evaluation Report
I-10	Interstate 10
LOS	Level of Service
LWCF	Land and Water Conservation Fund
NRHP	National Register of Historic Places
PA	Programmatic Agreement
ROW	right-of-way
SHPO	State Historic Preservation Officer
TCE	temporary construction easement
U.S.C.	United States Code
USDOT	United States Department of Transportation

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Chapter 1 Introduction

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code (U.S.C.) 303, declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreational lands, wildlife and waterfowl refuges, and historic sites.”

Section 4(f) specifies that the Secretary [of Transportation] may approve a transportation project . . . requiring the use of publicly owned land of a public park, recreational area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the federal, State, or local officials having jurisdiction over the park, refuge, or site) only if:

- There is no prudent and feasible alternative to using that land; and
- The project includes all possible planning to minimize harm to the park, recreational area, wildlife and waterfowl refuge, or historic site resulting from the use.

Section 4(f) requires consultation with the United States Department of the Interior (DOI) and, as appropriate, the United States Department of Agriculture, and the Department of Housing and Urban Development in developing transportation projects that use lands protected by Section 4(f). If historic sites are involved, then coordination with the State Historic Preservation Officer (SHPO) is also needed.

The proposed project is a transportation project that may receive federal funding and/or discretionary approvals through the U.S. Department of Transportation (USDOT) (i.e., Federal Highway Administration [FHWA]); therefore, documentation of compliance with Section 4(f) is required.

The FHWA Section 4(f) Checklist, Attachment B – Park, Recreational Facilities, Wildlife Refuges, and Historic Properties Evaluated Relative to the Requirements of Section 4(f), revised September 2003, represents their recommended “best practices” for compliance with Section 4(f) requirements. Attachment B of the Section 4(f) Checklist indicates that all archaeological and historical sites within the Section 106 Area of Potential Effects (APE) and all public parks, recreational facilities, and wildlife refuges within approximately 0.5 mile of any of the project alternatives should be

included in the evaluation. The entire FHWA Section 4(f) Checklist is provided as Appendix A.¹

This Section 4(f) analysis provides an overview of parks, recreational facilities, wildlife refuges, and historic properties found within 0.5 mile of the proposed project in accordance with the requirements of Section 4(f).

To determine whether Section 4(f) applies to a federal transportation project, two prerequisites are considered: (1) the project must involve a resource that is protected under the provisions of Section 4(f), and (2) there must be a use of that resource. Resources subject to Section 4(f) consideration include publicly owned lands that are considered part of a public park; or a recreational area of national, state, or local significance, whether publicly or privately owned.

1.1 Project Description

One No Build Alternative and one Build Alternative are being considered for the Grove Avenue Corridor Project. The Build Alternative proposes local street improvements along Grove Avenue and improvements at the Grove Avenue/Holt Boulevard intersection. The Build Alternative is bound on the north by 4th Street and on the south by State Street/Airport Drive.

1.2 Purpose and Need

1.2.1 Purpose of Project

The purpose of the proposed Grove Avenue Corridor Project is to accomplish the following objectives:

- To alleviate existing and anticipated future congestion along Grove Avenue between 4th Street and Airport Drive;
- To improve traffic operations and mobility to and from Ontario International Airport, existing and future cargo hub facilities near Grove Avenue and Holt Boulevard, and other planned uses; and
- To provide route continuity along Grove Avenue to conform with the City of Ontario General Plan Circulation Element, which identifies Grove Avenue as a six-lane principal arterial.

¹ Federal Highway Administration. 1997 (revised September 2003). Section 4(f) Checklist.

1.2.2 Need for the Project

Improvements to Grove Avenue are needed to accommodate recent and projected growth in passenger and goods/trucks movement associated with Ontario International Airport and changes in land use since Grove Avenue was originally constructed.

Based on traffic projections and the existing and planned land uses in the vicinity, the existing Grove Avenue facility is forecast to operate at unsatisfactory level of service (LOS) at three intersections within the project limits by 2045 without improvements.

1.3 Project Alternatives

The Grove Avenue Corridor Project considers one No Build Alternative and one Build Alternative to address existing and future projected traffic demands. A summary of the proposed project alternatives is provided below.

1.3.1 No Build Alternative

The No Build Alternative proposes no improvements within the project area. Grove Avenue would maintain the existing four through lanes, and the existing configuration at the Grove Avenue/Holt Boulevard intersection would be maintained.

1.3.2 Build Alternative

The Build Alternative includes widening Grove Avenue from four lanes to six lanes between 4th Street and State Street/Airport Drive in accordance with the City of Ontario Master Plan. South of 4th Street, Grove Avenue would be widened to the west to avoid impacts to the historic Jay Littleton Ballpark. Between I Street and Holt Boulevard, Grove Avenue would be widened to the east, and between Holt Boulevard and State Street/Airport Drive, Grove Avenue would be widened on both sides.

In addition, Holt Boulevard would be widened at the Grove Avenue intersection from two through lanes, two through-right lanes, and one left-turn lane to four through lanes, two through-right lanes, and two left-turn lanes.

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Chapter 2 Regulatory Setting

2.1 Overview

This evaluation identifies the Section 4(f) resources in the Grove Avenue Corridor Project study area, describes the nature and extent of the potential effects on these properties, evaluates alternatives that would avoid the use of Section 4(f) resources, and describes measures to minimize harm to the affected resources.

2.2 Determining Section 4(f) Resources

There are two steps in determining whether Section 4(f) applies to a project:

1. The project must involve a resource that is protected by the provisions of Section 4(f).
2. There must be a “use” of that resource.

Protected resources include:

- Public parks
- Recreational areas of national, state, or local significance
- Wildlife or waterfowl refuges
- Historic sites of national, state, or local significance

2.3 Section 4(f) Use

As defined in 23 *Code of Federal Regulations* (CFR) 774.17, a “use” of a protected resource occurs when any of the following conditions are met:

- **Direct Use:** Land is permanently incorporated into a transportation facility.
- **Temporary Use:** There is a temporary occupancy of land that is adverse in terms of the statute’s preservation purpose as determined by the criteria in 23 CFR 774.13(d).
- **Constructive Use:** There is a constructive use of a Section 4(f) property as determined by the criteria in 23 CFR 774.15.

2.3.1 Direct Use

A direct use of a Section 4(f) resource takes place when part or all of the property designated for protection under Section 4(f) is permanently incorporated into a

transportation project (23 CFR Section 774.17). This may occur as a result of partial or full acquisition of a fee simple interest, permanent easements, or temporary easements that exceed the regulatory limits noted below (23 CFR Section 771.135).

2.3.2 Temporary Use

A temporary use of a Section 4(f) property occurs when there is temporary occupancy of a protected property for construction-related activities and when that temporary occupancy is considered adverse in terms of the preservationist purposes of the Section 4(f) statute.

If the following five conditions set forth in 23 CFR Section 774.13(d) can be satisfied, the temporary occupancy of the resource is not considered a use within the meaning of Section 4(f)::

1. The duration of the occupancy must be temporary (i.e., shorter than the period of construction) and does not involve a change in ownership of the property.
2. The scope of the work must be minor, with only minimal changes to the protected resource.
3. There are no anticipated permanent adverse physical impacts on the protected resource and no temporary or permanent interference with the activities or purpose of the resource.
4. The land being used must be fully restored to a condition that at least equals the condition that existed prior to the proposed project.
5. There must be documented agreement by the appropriate officials having jurisdiction over the Section 4(f) resource regarding the above conditions.

2.3.3 Constructive Use

A constructive use of a Section 4(f) resource happens when a transportation project does not permanently incorporate land from the resource in the transportation facility, but the proximity of the project to the Section 4(f) property results in adverse proximity impacts (i.e., noise, vibration, visual, access, and/or ecological impacts) so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired (23 CFR Section 774.15). Substantial impairment occurs only if the protected activities, features, or attributes of the Section 4(f) property are substantially diminished by the indirect adverse impacts of the project (23 CFR Section 774.15(a)). This determination is made through the following process:

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

2.4 *De Minimis* Impacts

2.4.1 Determining *De Minimis* Impacts to Section 4(f) Resources

A *de minimis* impact to a Section 4(f) resource is a nominal impact that would not be adverse to the activities, features, or attributes of the Section 4(f) resource. A *de minimis* impact finding can be made for some direct uses and temporary uses; however, a *de minimis* impact finding cannot be made for constructive uses.

Under FHWA regulations (23 CFR Section 774.13(d)), temporary occupancy, including temporary construction easements (TCEs), and other temporary project activities are typically considered *de minimis* impacts if they do not exceed the five thresholds discussed above in Section 2.3.2.

Under Section 4(f), *de minimis* impacts to historic resources would be either no impact to the property or a finding of “no adverse effect” under 36 CFR Part 800. For other Section 4(f) protected resources, including publicly owned parks, recreational areas, and wildlife and waterfowl refuges, *de minimis* impacts would be defined as those impacts that do not adversely affect the activities, features, or attributes of the Section 4(f) resource.

The *de minimis* impact finding is based on the level of impact, including any avoidance, minimization, and mitigation or enhancement measures that are included in the project to address the Section 4(f) use. *De minimis* impact findings are expressly conditioned upon the implementation of measures that are relied on to reduce the impact to a *de minimis* level.

As discussed below in Sections 2.4.2 through 2.4.4, to reach a *de minimis* impact finding for properties where a use would occur, the official(s) with jurisdiction over the Section 4(f) resource must provide written concurrence to the California Department of Transportation (Caltrans) that the project would not adversely affect the activities, features, or attributes that qualify the property for protection under Section 4(f). In addition, the public must be afforded the opportunity to review and comment on the effects of the project on the identified Section 4(f) resource(s).

2.4.2 Coordination and Concurrence on *De Minimis* Findings

As discussed above, the regulations require coordination with officials that have jurisdiction over park and historic resources that may be used by the project prior to the approval of Section 4(f) impact findings. Regulations require written concurrence from these officials prior to:

- Making *de minimis* impact findings
- Applying an exception for temporary occupancies
- Applying an exception for transportation enhancement and mitigation activities

For parks, recreational areas, and wildlife and waterfowl refuges, the officials with jurisdiction over the property must be informed of the intent to make a *de minimis* impact determination, after which an opportunity for public review and comment must be provided. Information on coordination with each jurisdiction is provided in detail in Chapter 4.0.

2.4.3 Public Meeting to Disclose Section 4(f) *De Minimis* Finding

After initial formal consultation is conducted with the official representing each potentially impacted resource, a meeting must be held to provide the public with an opportunity to review and comment on the draft environmental document. To facilitate public disclosure, notice of the public meeting must be circulated informing agencies and the general public of the time and place of the meeting, project description, and the proposed *de minimis* findings. During the public meeting and circulation of the draft environmental document, the public must be afforded the opportunity to review the environmental document, as well as to comment on the effects of the project on Section 4(f) resources along the project corridor.

2.4.4 Caltrans *De Minimis* Impact Finding for the Grove Avenue Corridor Project

When seeking a *de minimis* impact determination for a use of Section 4(f) resources, local agencies must work with Caltrans to complete the analysis. Caltrans is responsible for making the *de minimis* impact finding.

After considering any comments received from the public during circulation, and whether the official concurs in writing that the project will not adversely affect the Section 4(f) activities, features, or attributes, then Caltrans finalizes the *de minimis* impact determination on behalf of FHWA. Final Section 4(f) concurrence will be achieved prior to approval of the Finding of No Significant Impact (FONSI).

2.5 Section 6(f) Resources

In addition to resources protected under Section 4(f), this project is also required to analyze potential impacts to properties protected or enhanced with Land and Water Conservation Fund (LWCF) grants. Section 6(f)(3) of the LWCF Act (16 U.S.C. Section 4601-4) contains provisions to protect federal investments in park and recreational resources and the quality of those resources. State and local governments often obtain grants through the LWCF Act to acquire or make improvements to parks and recreational areas. Section 6(f) of the LWCF Act prohibits the conversion of property acquired or developed with LWCF grants to a nonrecreational purpose without the approval of the DOI's National Park Service. Section 6(f) further directs DOI to assure that replacement lands of equal value, location, and usefulness are provided as conditions to such conversions. Consequently, where conversion of Section 6(f) lands are proposed for roadway and highway projects, replacements will be necessary.

To determine whether LWCF funds were involved in the acquisition or improvement of Section 4(f) resources, State Parks staff and database records of all LWCF-funded parks within San Bernardino County were consulted in April 2015 to determine properties pursuant to Section 6(f).² This research revealed that no LWCF funds were utilized for improvements at any sites within 0.5 mile of the proposed project; therefore, there would be no effect on LWCF-funded parks or recreational resources.

2.6 Measures to Minimize Harm

As discussed above, there are no prudent and feasible alternatives that would avoid all Section 4(f) resources. The next step is to identify all reasonable measures to minimize harm or mitigate adverse impacts and effects. 23 CFR 774.3(c) provides the following direction:

- (c) If the analysis ... concludes that there is no feasible and prudent avoidance alternative, then the Administration may approve only the alternative that:*
- (1) Causes the least overall harm in light of the statute's preservation purpose. The least overall harm is determined by balancing the following factors:*
 - i. The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property);*

² Provided by Cristelle Taillon of California State Parks Grand and Local Services. The report is dated April 1, 2015.

- ii. The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection;*
- iii. The relative significance of each Section 4(f) property;*

This section describes how the project alternatives, and other potential minimization measures, could avoid one or more of the Section 4(f) resources, reduce the impacts to one or more Section 4(f) resources, or potentially mitigate impacts to Section 4(f) resources. This section also evaluates whether these measures would be reasonable.

As outlined in 23 CFR 774.17, *all possible planning*, in evaluating the reasonableness of measures to minimize harm, FHWA and Federal Transit Administration (FTA) consider the preservation principles of the Section 4(f) statute, along with:

- (i) The views of the officials with jurisdiction over the Section 4(f) property,*
- (ii) Whether the cost of the measures is a reasonable public expenditure in light of the adverse impacts of the project on the Section 4(f) property and the benefits of the measure to the property, and*
- (iii) Any impacts or benefits of the measures to communities or environmental resources outside the Section 4(f).*

Based on this analysis, some of the project alternatives and other measures that could minimize harm to Section 4(f) resources are not reasonable; however, because the project is currently in the conceptual design phase, it is not possible to draw conclusions about the reasonableness of all potential measures to minimize harm. Therefore, this Section 4(f) Evaluation carries all reasonable and potentially reasonable measures forward for consideration. These measures will be further considered as the project sponsors identify a locally preferred alternative and move into preliminary engineering and final design. In all cases, measures to minimize harm to Section 4(f) resources will be considered in coordination with the relevant consulting parties for historic resources, and with jurisdictions for City of Ontario (City) park resources along the project corridor.

Chapter 3 List and Description of Section 4(f) Properties

3.1 Identification of Section 4(f) Properties

As noted above, resources subject to Section 4(f) consideration include publicly owned lands such as public parks; recreational areas of national, state, or local significance; wildlife and waterfowl refuges; and historic sites of national, state, or local significance.

Resources in the project study area were identified if they were:

- Existing publicly owned recreational and park resources, including local, regional, and State resources;
- Publicly owned wildlife and water fowl refuges and conservation areas;
- Existing public bicycle, pedestrian, and equestrian trails; or
- National Register of Historic Places (NRHP) listed or eligible historic sites.

Research was conducted to identify publicly owned parks, recreational areas, wildlife and waterfowl refuges, and land from a historic site within 0.5 mile of the project alternatives.

Based on this research, there are 12 properties within 0.5 mile of the project corridor that qualify as Section 4(f) resources, including 5 parks, 6 schools with publicly accessible facilities, 1 historic property, and no archaeological sites. As stated previously, no Section 6(f) resources exist within the project study area.

A summary of the number of identified resources is provided in Table 1. A map of public parks and public schools with recreational facilities is provided as Figure 1.

Table 1. Summary of Properties Subject to Section 4(f) Consideration

Type of Property	Geographic Location to Project	Number of Properties Identified
Public Parks	Within 0.5 mile	5
Public Schools with Recreational Areas	Within 0.5 mile	6
Trails	Within 0.5 mile	0
Wildlife and Waterfowl Refuges	Within 0.5 mile	0
NRHP-eligible historic sites	Within 0.5 mile	1
NRHP-eligible archaeological sites	Within 0.5 mile	0

Source: Parsons, 2015.

3.2 Public Parks and Recreational Facilities

Eleven (11) publicly owned lands that contain parks and recreational areas are within 0.5 mile of the project corridor, as shown in Figure 1. Of these 11 properties, 6 are public schools with outdoor playgrounds and other recreational facilities, which are assumed to be open to the general public. The remaining 5 properties are outdoor parks. Tables 2 and 3 provide a summary of all 11 properties by type (i.e., school and park), including information on location, ownership, facilities available at each property, and whether the property is subject to Section 4(f) protection.

Table 2. School Facilities within the Study Area

Property Name	Location	Current Ownership	Facilities	Subject to Section 4(f) Protection?
Lincoln Elementary School	440 N. Allyn Avenue Ontario, CA 91764	Ontario Montclair School District	Playground; basketball courts; soccer field; large multiple use area	Yes
Mariposa Elementary School	1605 E. D Street Ontario, CA 91764	Ontario Montclair School District	Multiuse playground; blacktop play area; swing set; multiuse turf area; baseball backstop; basketball courts	Yes
Ray Wiltsey Middle School	1450 E. G Street Ontario, CA 91764	Ontario Montclair School District	Basketball courts; tennis courts; large multiuse turf area; baseball backstop; soccer field	Yes
Del Norte Elementary School	850 N. Del Norte Avenue Ontario, CA 91764	Ontario Montclair School District	Basketball courts; multiuse turf area; soccer field; swings; playground; baseball backstop	Yes
Vineyard Elementary School	1500 E. 6 th Street Ontario, CA 91764	Ontario Montclair School District	Basketball courts; tennis courts; multiuse turf area; baseball backstop; playground; swings	Yes
Berlyn Elementary School	1320 N. Berlyn Avenue Ontario, CA 91764	Ontario Montclair School District	Multiuse playground; blacktop play area; swing set; large multiuse turf area; baseball backstops; basketball courts	Yes

Source: Parsons, 2015.

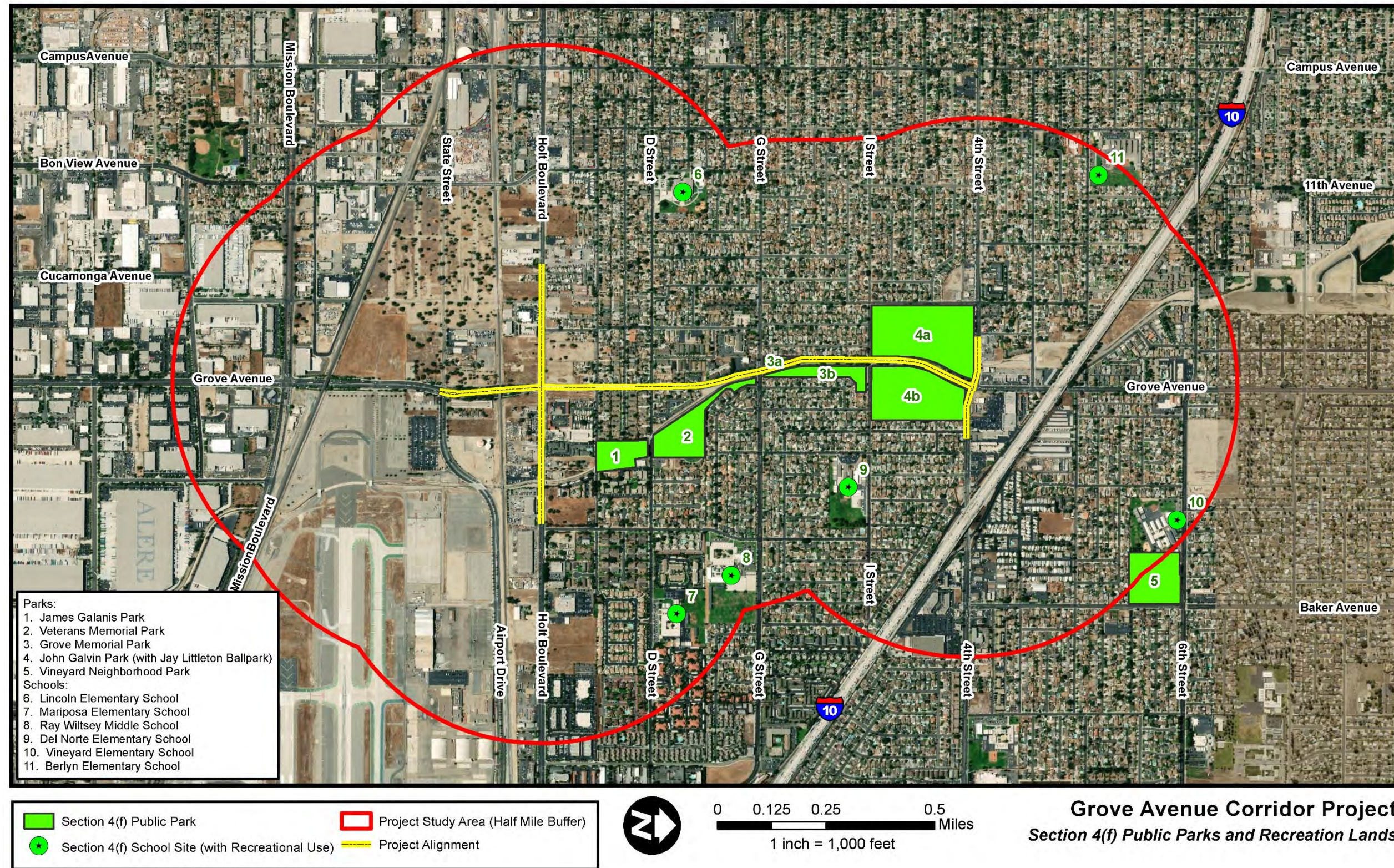


Figure 1. Section 4(f) Public Parks and Recreation Lands

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Table 3. Parks and Recreational Resources within the Study Area

Property Name	Location	Current Ownership	Facilities	Subject to Section 4(f) Protection?
James Galanis Park	1259 E. D Street Ontario, CA 91764	City of Ontario	5.10 acres; turf area – multiuse	Yes
Veterans Memorial Park	1259 E. D Street Ontario, CA 91764	City of Ontario	8.90 acres; community center; restrooms; tot lot; basketball courts; picnic tables; barbecues; soccer, football, softball fields; pedestrian/bike paths; drinking fountains	Yes
Grove Memorial Park	800 Block of Grove Avenue Ontario, CA 91764	City of Ontario	<u>Western Portion</u> : 0.48 acre; two benches; horseshoe-shaped walking path <u>Eastern Portion</u> : 3.84 acres; standard curb for pedestrians	Yes
John Galvin Park	900 Block of Grove Avenue Ontario, CA 91764	City of Ontario	<u>Western Portion</u> : 19.71 acres; baseball field; tennis courts; playgrounds; horseshoe pits; picnic shelters and BBQs <u>Eastern Portion</u> : 15.23 acres; Jay Littleton Ballpark; two additional baseball fields; picnic shelters and BBQs; basketball courts	Yes
Vineyard Neighborhood Park	1530 E. 6 th Street Ontario, CA 91764	City of Ontario	9.60 acres; pool; restrooms; tot lot; basketball courts; picnic tables; barbecues; turf area/multiuse; benches; drinking fountains	Yes

Source: Parsons, 2015.

3.3 Historic and Archaeological Sites

Many efforts have been undertaken to identify historic properties, including a Historical Resources Evaluation Report (HRER) and an Archaeological Survey Report (ASR) to support the findings of the project's Historic Property Survey Report (HPSR). These studies included cultural resource records and literature searches, Native American consultation, a reconnaissance survey and intensive pedestrian (Phase I) surveys of the project APE, archival research, and consultation with historical societies and local government agencies.

As part of these studies, 85 parcels containing buildings, groups of buildings, and structures were identified within the APE; of these, only 8 parcels contained historic-period resources that required evaluation. These included 8 historic architectural properties and no historic archaeological sites. The remaining parcels within the APE were either vacant, contained buildings constructed after 1964, or contained buildings exempt from evaluation in accordance with Attachment 4 of the Section 106 Programmatic Agreement (PA) among FHWA, the Advisory Council on Historic Preservation, the SHPO, and Caltrans regarding compliance with Section 106 of the National Historic Preservation Act. Properties listed in or determined eligible for listing in the NRHP are provided in Table 4. Locally significant properties determined to not be eligible for the NRHP are provided in Table 5.

Table 4. Properties Listed in or Determined Eligible for Listing in the National Register of Historic Places

Property Name	Address/Location	Listed in the National Register of Historic Places?	Details
Jay Littleton Ballpark	John Galvin Park	No	Found eligible as a result of the HRER completed for this project

Source: Parsons, 2015; National Register, 2015.

Table 5. Locally Significant Properties Determined to Not be Eligible for the National Register of Historic Places*

Property Name	Address/Location	Community	Section 4(f) Resource?
1130 E. Holt Boulevard	1130 E. Holt Boulevard	Ontario	No
1101 E Holt Boulevard	1101 E Holt Boulevard	Ontario	No
*Eligibility for listing in the National Register is determined on an individual basis. These properties have been evaluated in detail on Department of Parks and Recreation Historical Resources Inventory Forms (Series DPR 523) in Appendix A of the HRER (2015).			

Source: Parsons, 2015; National Register, 2015.

As a result of this study, the project APE is known to contain one historic property listed in or eligible for the NRHP. The project cultural studies found that Jay Littleton Ballpark appears eligible for listing in the NRHP under National Register Criterion A and C, with a period of significance from 1937 to 1955.

No historic archaeological sites were found eligible for listing in the NRHP. Three historic archaeological resources are present within the project APE and were determined by qualified archaeologists to meet Property Type 1 as defined in PA Attachment 4 (Properties Exempt from Evaluation).

Based on current design plans for the project, no adverse effects to any of these resources are anticipated. All historic properties identified along the project corridor are outside of the direct impact footprint and would not be affected by the Build Alternative. No indirect effects are anticipated. With no historic properties being affected, there would be no constructive use of historic properties. Therefore, no further analysis of historic and archaeological Section 4(f) resources would be required.

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Chapter 4 Impacts on Section 4(f) Properties

This section describes which Section 4(f) resources may be affected if the proposed project is implemented.

Although not discussed in detail in this chapter, every Section 4(f) resource within the study area was analyzed for potential direct and indirect impacts under both alternatives. Of the five public parks and recreational facilities discussed in Chapter 3, potential impacts are discussed in this evaluation for the two properties where impacts are anticipated under the Build Alternative.

A summary of potential effects is provided in Table 6. Later in this chapter, additional analysis follows for each resource with the potential to be impacted by the Build Alternative. In each instance, an assessment has been made as to whether any permanent or temporary occupation of the property would occur, and whether the proximity of the project would cause any access, visual, air quality, noise, vibration, biological, or water quality effects that would substantially impair the features or attributes that qualify the resource for protection under Section 4(f).

Table 6. Section 4(f) Impact Summary for Build Alternative

Property Name	Direct Use?	Temporary Use?	Constructive Use?	Comments
Grove Memorial Park	Yes	Yes	No	0.005-acre direct use; 0.52-acre temporary use
John Galvin Park	Yes	Yes	No	0.05-acre direct use; 0.68-acre temporary use

Source: Parsons, 2015.

The analysis of potential effects on Section 4(f) resources that follows includes discussion of how the proposed project would affect each Section 4(f) resource and whether the effects would result in a use of the resource.

4.1 Potential Section 4(f) Uses by the No Build Alternative

There would be no uses of park, recreational, or historic resources subject to Section 4(f) provisions with the No Build Alternative.

4.2 Potential Section 4(f) Uses by the Build Alternative

The following sections describe each resource where a potential *use* may occur, provide aerial photos with proposed project improvements for each property, and describe the potential Section 4(f) *uses* for the Build Alternative.

In summary, the Build Alternative would require direct use and temporary use of two Section 4(f) resources. No direct use, temporary use, or constructive use of Section 4(f) resources would be required for the No Build Alternative.

4.3 Grove Memorial Park

4.3.1 Description of Grove Memorial Park

The 4.32-acre Grove Memorial Park, which is owned by the City, is located on the west and east sides of Grove Avenue, generally located between G Street and I Street in Ontario. Representative site photographs are provided in Appendix B.

Western Portion: The 0.48-acre western portion of Grove Memorial Park is located at the northwest corner of Grove Avenue and G Street. Amenities at this section of the park include two benches, a horseshoe-shaped walking path, dense tree coverage, and drought-tolerant shrub cover. The existing walking path connects to the sidewalk along G Street, because currently there is no sidewalk along the western portion of Grove Avenue between G Street and I Street. There is no dedicated parking for Grove Memorial Park.

Eastern Portion: The 3.84-acre eastern portion of Grove Memorial Park is located along the eastern edge of Grove Avenue between G Street and I Street. Within this section of the park, there are no recreational amenities, such as benches, playgrounds, and/or ball fields. As such, recreational use of this park is generally limited to users walking and jogging along the sidewalk. Although it is identified as a park by the City, the eastern portion of Grove Memorial Park resembles a parkway, landscaped with mature trees and turf grass, and a standard sidewalk along the length of the park. There is no dedicated parking for this section of the park.

There are many other parks near Grove Memorial Park, including John Galvin Park and Veterans Memorial Park, which are both less than 0.25 mile away. Compared to Grove Memorial Park, these other parks in close vicinity provide a much wider range of recreational amenities, including baseball fields, basketball courts, playgrounds,

BBQs, and picnic shelters. Therefore, the primary use of this section of John Galvin Park is to commute (jog/walk) from one park to the other.

In 2015, consistent with the City of Ontario General Plan Circulation Element, which identifies Grove Avenue as a six-lane principal arterial, the City adopted a roadway easement along Grove Avenue to accommodate the ultimate six-lane facility and clarify the edge of the existing Grove Memorial Park. The current park boundary is delineated in Figure 2. Information related to the easement is provided in Appendix C.

4.3.2 Project Effects at Grove Memorial Park

No Build Alternative

Because there are no project activities proposed under the No Build Alternative, no impacts to Grove Memorial Park would result from this alternative.

Build Alternative

Direct Use

The Build Alternative would require acquisition of 0.005 acre (218 square feet) of Grove Memorial Park on both sides of Grove Avenue, which represents approximately 0.1 percent of the park's pre-project acreage.

At the western portion of Grove Memorial Park, acquisition would be necessary to accommodate a modified curb return and a connection with the proposed new sidewalk, which would connect this side of the park with John Galvin Park just 0.2 mile to the north. As such, the proposed project would help increase usage of this section of the park and would provide improved pedestrian connectivity between Grove Memorial Park and John Galvin Park.

At the eastern portion of Grove Memorial Park, partial acquisition would be necessary to extend the covered portion of the existing West Cucamonga Creek concrete channel. Given that this park has no active use areas, this minor proposed direct use is not anticipated to impair recreational values of the park.

The direct use areas described above would not adversely affect any of the recreational activities, features, or attributes within the park. Although the acquisition area would minimally reduce the overall size of the park, it would not inhibit existing recreational activities within the park. In fact, given that this park is primarily used by walkers and joggers, improving pedestrian connectivity along the western side of Grove Avenue through this park would help to increase its utility for neighborhood residents.

Temporary Use

Under the Build Alternative, a 0.52-acre TCE would be required at Grove Memorial Park to allow for construction of curb returns, new sidewalks on both sides of Grove Avenue, and to extend the covered portion of the existing West Cucamonga Creek concrete channel, as shown in Figure 2. Although this TCE would temporarily reduce the overall park area during construction, it would not affect existing recreational activities, features, or attributes in the park. Pedestrian connectivity along Grove Avenue through Grove Memorial Park would be maintained at all times during project construction. Construction of the proposed project would not result in a temporary use of the park because recreational activities within this park would not be impeded.

Constructive Use

The Build Alternative would not result in a constructive use of Grove Memorial Park. An indirect impact would be considered a constructive use under Section 4(f) if the impact were so severe that the public did not have access to the park and/or recreational activities occurring within the park were severely affected by the project's impacts. Potential indirect impacts related to the Build Alternative are discussed below.

Accessibility

Vehicular and pedestrian access to Grove Memorial Park would be maintained at all times during construction and operation of the Build Alternative. No designated parking exists for Grove Memorial Park; therefore, no impacts to parking for Grove Memorial Park would result from the Build Alternative.

No sidewalk currently exists along the southbound side of Grove Avenue between I Street and G Street, just north of the western portion of Grove Memorial Park. As illustrated in Figure 2, a new sidewalk along the southbound side of Grove Avenue would be constructed under the Build Alternative, which would provide improved access to the park once the project is constructed.

Visual

Visual impacts during construction would be typical of roadway construction projects, including construction fencing, construction equipment, material stockpiles, and vegetation removal, which would collectively temporarily disturb the park's existing landscape aesthetic. Temporarily disturbed areas would be returned to pre-project conditions once construction is completed; therefore, the minor visual changes associated with the Build Alternative would not be considered a Section 4(f) constructive use.

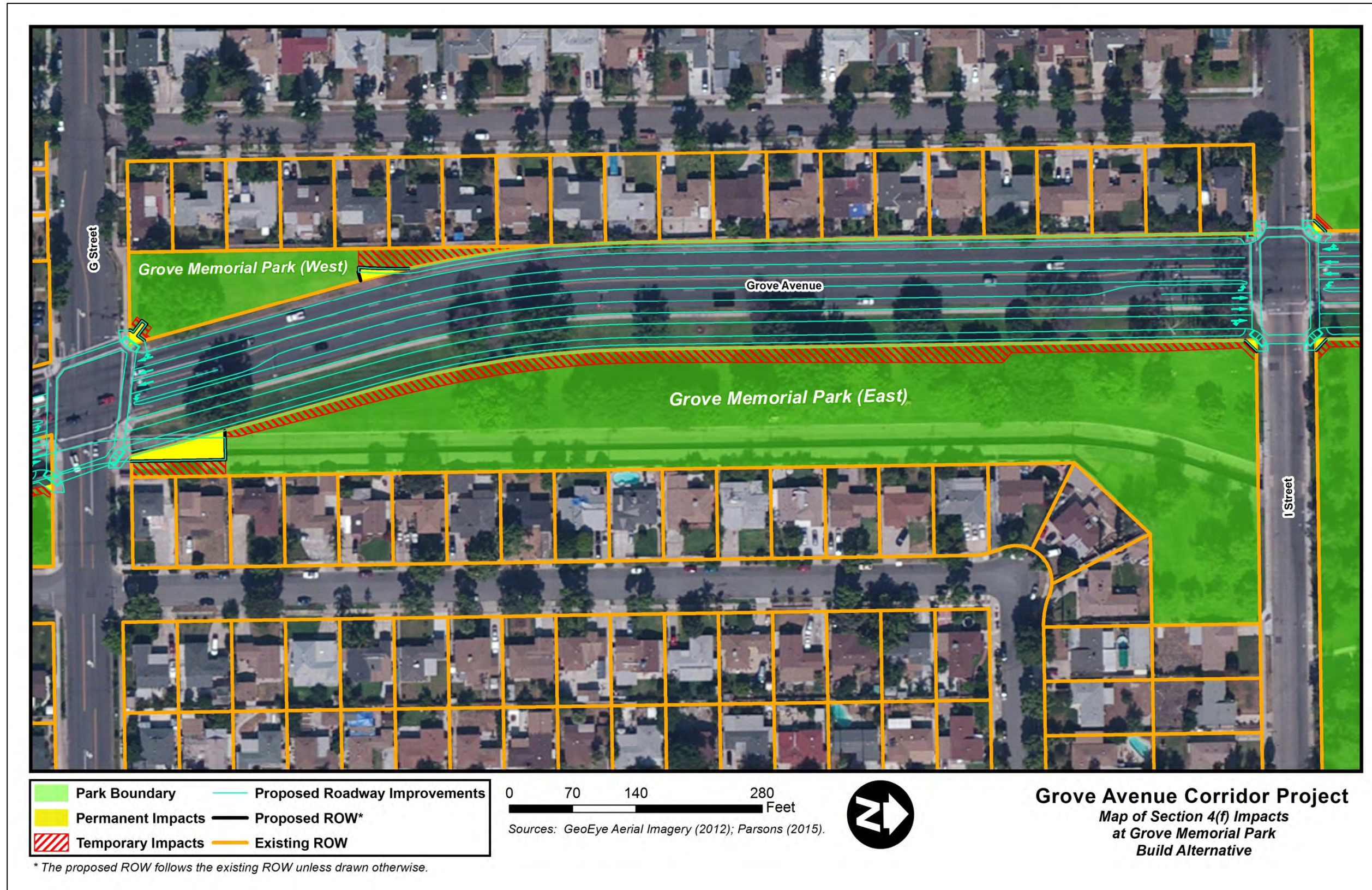


Figure 2. Build Alternative Impacts at Grove Memorial Park

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Air Quality and Noise

Indirect air quality and noise impacts as a result of the Build Alternative are not expected to result in a constructive use of Grove Memorial Park. As discussed in the project's *Air Quality Study* (February 2017) and *Noise Study Report* (December 2017), the park is currently subject to indirect air quality and noise impacts due to its proximity to the existing Interstate 10 (I-10) mainline and Grove Avenue, and due to the park's location in a built-out suburban environment. The incremental increase in noise and air quality impacts during construction and once the proposed project is in operation would not inhibit existing recreational functions in the park that are already subject to noise and air quality. The proposed project would not result in a Section 4(f) constructive use of the park due to indirect noise and air quality impacts.

Vibration

Vibration impacts as a result of the Build Alternative would not result in a constructive use of Grove Memorial Park. Vibration generated by construction equipment can result in varying degrees of ground vibration, depending on the equipment. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance from the piece of construction equipment. These impacts would be short term and would not inhibit recreational use of the site during construction. During operation of the Build Alternative, ground-borne vibration impacts are not anticipated beyond the impacts currently experienced as a result of vehicles traveling through the study area. Therefore, there would be no vibration impacts at Grove Memorial Park that would result in a Section 4(f) constructive use.

Vegetation and Wildlife

Grove Memorial Park is located in a built-out suburban area; there are no wildlife corridors or substantial vegetation communities adjacent to the park that would be indirectly impacted by the project; therefore, there would be no vegetation or wildlife impacts at the park resulting in a Section 4(f) constructive use.

Water Quality

Construction of the Build Alternative has the potential to affect water quality. Potential pollutant sources from the building phase of this alternative include construction activities and materials expected at the project site, such as vehicle fluids; concrete and masonry products; landscaping and other products; and contaminated soils. Similarly, operation of this alternative has the potential to affect water quality. Potential pollutant sources associated with operation of this alternative include motor vehicles, highway maintenance, illegal dumping, spills, and landscaping care; however, with

minimization measures, short- and long-term water quality impacts associated with the Build Alternative would not substantially impair the activities, features, and/or attributes that qualify the park for protection under Section 4(f).

4.3.3 Applicability of Section 4(f)

The Build Alternative would result in direct and temporary use of Grove Memorial Park. No constructive use of this resource is anticipated under the Build Alternative.

The Build Alternative would require direct use of 0.005 acre (218 square feet) of Grove Memorial Park in the form of permanent acquisition, which represents 0.1 percent of the park's pre-project acreage. According to the FHWA guidance provided in the Environmental Review Toolkit for Section 4(f) Evaluations, to be considered a *de minimis* impact, the amount of land to be acquired from any Section 4(f) site must not exceed 10 percent of the site. Given that this direct use is below the threshold set forth in the statute, the proposed 0.005-acre acquisition at Grove Memorial Park is eligible to be considered as a *de minimis* impact. In addition, the area to be acquired is primarily unused landscaped and mulch-covered space, which does not contribute to the walking path or park benches that qualify Grove Memorial Park as a resource under Section 4(f). Given that the five conditions set forth in 23 CFR Section 774.13(d) are satisfied, and the proposed acquisition would not adversely affect the activities, features, or attributes of Grove Memorial Park. Thus, under Section 4(f), the direct use is considered *de minimis*.

In addition, the Build Alternative would result in temporary use of 0.52 acre of Grove Memorial Park; however, work would be minor in scope, and there are no anticipated permanent adverse physical effects or other interference with the activities or purpose of the resource. Temporarily disturbed areas would be fully restored to pre-project conditions once temporary impacts are complete. Therefore, under Section 4(f), this temporary use is considered *de minimis*.

4.3.4 Documentation of Consultation

Since the scoping period, staff members from the City of Ontario Public Works, Planning, and Parks Departments have coordinated internally with the City Manager regarding potential project impacts and potential avoidance and minimization measures to be implemented during construction at Grove Memorial Park. Meetings and further correspondence between City departments continued to occur throughout development of the Draft and Final Environmental Impact Report (EIR)/Environmental Assessment (EA).

Formal consultation with the City of Ontario Planning Director to confirm the *de minimis* finding occurred before and after public review of the Draft EIR/EA. Concurrence on the *de minimis* finding and that the temporary occupancy and permanent transportation use of a portion of this park would not adversely affect the activities, features, or attributes of the park has been obtained from the City of Ontario Planning Director, as the official with jurisdiction over Grove Memorial Park, and has been added to Appendix C.

4.4 John Galvin Park

4.4.1 Description of John Galvin Park

The 34.94-acre John Galvin Park, which is owned by the City, is located on both sides of Grove Avenue, generally between 4th Street and I Street in Ontario. Representative site photographs are provided in Appendix B.

Western Portion: The 19.71-acre western portion of John Galvin Park is located west of Grove Avenue between 4th Street and I Street. Amenities at this section of the park include a volleyball court, baseball field, tennis courts, playgrounds, and an area with BBQs, tables, and shelters. An Army National Guard post and a City water purification facility are also located within the park. The City recently built a dog park in John Galvin Park near the corner of I Street and Cucamonga Avenue, which includes a new lot for parking.

The western portion of John Galvin Park is accessible to pedestrians from 4th Street, Cucamonga Avenue, I Street, and Grove Avenue. Existing vehicular parking and access for the western section of John Galvin Park is located at the southwest corner of 4th Street and Grove Avenue. In addition, a smaller parking lot is located at the southeast corner of 4th Street and Cucamonga Avenue, which primarily serves the three tennis courts in this section of the park. Automobile parking is also widely available along surface streets adjacent to the western portion of John Galvin Park, including along I Street and Cucamonga Avenue.

Eastern Portion: The 15.23-acre eastern portion of John Galvin Park is located along the eastern edge of Grove Avenue between 4th Street and I Street. Within this section of the park, there are two baseball stadiums, one smaller baseball field, two basketball courts, several playgrounds, a concession stand, picnic shelters with BBQs, and restrooms. This eastern portion of John Galvin Park is generally landscaped with turf grass and scattered mature trees.

The eastern portion of John Galvin Park is accessible to pedestrians from sidewalks and crosswalks along 4th Street, I Street, and Grove Avenue. Existing vehicular parking for the eastern portion of John Galvin Park is located at the southeast corner of 4th Street and Grove Avenue. Parking is also available throughout the interior of the park. This parking can be accessed from Grove Avenue and I Street.

There are many other parks in the vicinity within a short walk, including Grove Memorial Park and Veterans Memorial Park, which are both less than 0.25 mile from John Galvin Park. Despite the presence of other parks in the vicinity, the eastern portion of John Galvin Park is important for providing large spaces and facilities for groups, and large-scale baseball facilities for local and regional users. To a lesser extent, the western section of John Galvin Park is significant compared to other regional parks for its tennis courts and meandering walking paths, with less utility for use by large groups or organized sports leagues.

In 2015, consistent with the City of Ontario General Plan Circulation Element, which identifies Grove Avenue as a six-lane principal arterial, the City adopted a roadway easement along Grove Avenue to accommodate the ultimate six-lane facility and clarify the edge of the existing John Galvin Park. The current park boundary is delineated in Figures 3 and 4. As stated previously, information related to the easement is provided in Appendix C.

4.4.2 Project Effects at John Galvin Park

No Build Alternative

Because there are no project activities proposed under the No Build Alternative, no impacts to John Galvin Park would result from this alternative.

Build Alternative

Direct Use

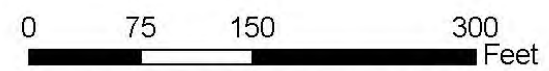
The Build Alternative would require acquisition of a total of 0.05 acre (2,304 square feet) of John Galvin Park on both sides of Grove Avenue, which represents 0.14 percent of the park's pre-project acreage.

At the western portion of John Galvin Park, partial acquisition would be necessary to accommodate two curb returns and to accommodate widening of the 4th Street Culvert, as shown in Figure 3.



	Permanent Impacts		Proposed ROW*
	Temporary Impacts		Proposed Roadway Improvements
	Existing ROW		Park Boundary

* The proposed ROW follows the existing ROW unless drawn otherwise.



Sources: GeoEye Aerial Imagery (2012); Parsons (2015).



**Grove Avenue Corridor
Widening Project**
Map of Section 4(f) Impacts
at John Galvin Park
Build Alternative

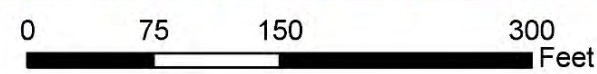
Figure 3. Build Alternative Impacts at John Galvin Park – West

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	Permanent Impacts		Proposed ROW*
	Temporary Impacts		Proposed Roadway Improvements
	Existing ROW		Park Boundary

* The proposed ROW follows the existing ROW unless drawn otherwise.



Sources: GeoEye Aerial Imagery (2019); Parsons (2015).



**Grove Avenue Corridor
Widening Project**
Map of Section 4(f) Impacts
at John Galvin Park
Build Alternative

Figure 4. Build Alternative Impacts at John Galvin Park – East

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In addition, the project proposes permanent removal of approximately 40 parking spaces that are currently available for users of the western portion of John Galvin Park in the Grove Avenue and 4th Street parking lot, as shown in Figure 4. During field surveys, only 2 to 3 parking spaces were observed to have been used during each of three visits to the site. Although these parking spaces are within the Grove Avenue right-of-way (ROW) and not technically within the John Galvin Park boundaries, the impacted parking spaces are currently accessible to park users and are perceived as belonging to the park. As part of the project, the remnant parking lot would be reconfigured to maintain as many parking spots at this location as possible. As discussed in Section 4.4.1, a secondary parking lot and ample on-street parking are available in the immediate vicinity of the western portion of John Galvin Park. In addition, many users of this portion of the park are local residents who generally walk to the park, as observed during field studies at the site. Finally, given that the western section of John Galvin Park does not have facilities for organized sports or other large events, it is highly unlikely that the proposed permanent removal of parking spaces would impair usage of this section of the park.

At the eastern portion of John Galvin Park, partial acquisition would be necessary to accommodate two curb returns. The direct use area at this location would be acquired for project ROW and would be converted to transportation uses.

Existing trees and vegetation would be removed during project construction. Turf areas would be replanted to the extent feasible. Existing mature trees (larger than 20 feet high) that are to be removed by proposed improvements at John Galvin Park would be mitigated at a 2:1 ratio to the extent feasible.

No permanent impacts to parking at the eastern portion of John Galvin Park are proposed. Access to the parking lot and the total number of parking spaces available would remain the same after project construction.

As discussed above, the direct use areas in the western and eastern portions of John Galvin Park would not adversely affect any of the recreational activities, features, or attributes of the park. Although the acquisition areas would minimally reduce the overall size of the park and number of parking spaces, these direct uses would not inhibit existing recreational activities within either portion of the park or substantially affect access to the park. Sufficient parking would remain for existing and future use of the western and eastern portions of John Galvin Park.

Temporary Use

Under the Build Alternative, a 0.68-acre TCE would be required at John Galvin Park to allow construction of curb returns and sidewalks, as shown in Figures 3 and 4. Although the temporary TCEs would temporarily reduce the overall park area available to users during construction, the proposed TCEs would not affect existing recreational activities, features, or attributes in the park. The areas proposed as TCEs are landscaped areas at the edge of the western and eastern sections of John Galvin Park and, as such, are not used for recreational purposes. Furthermore, pedestrian access along Grove Avenue through John Galvin Park would be maintained at all times during project construction. Therefore, construction of the proposed project, including the proposed TCEs at this park, would not result in a temporary use of the park itself because use of the park can continue throughout project construction.

As discussed above, the parking lot on the west side of John Galvin Park would be closed for approximately 1 month so that it can be reconfigured, resulting in a temporary reduction of 10 spaces in this parking lot beyond those that would be permanently impacted as discussed in the direct use section above. No impacts to parking for the east side of John Galvin Park are anticipated.

Due to the road realignment and widening, the sidewalks along northbound and southbound Grove Avenue through John Galvin Park would be reconstructed to follow the proposed road. Pedestrian connectivity would be maintained at all times through the park during project construction.

Constructive Use

The Build Alternative would not result in a constructive use of John Galvin Park. An indirect impact would be considered a constructive use under Section 4(f) if the impact were so severe that the public did not have access to the park and/or recreational activities occurring within the park were severely affected by the project's impacts. Potential indirect impacts related to the Build Alternative are discussed below.

Accessibility

Access to John Galvin Park would be maintained at all times during construction and operation of the Build Alternative. As discussed previously, although the Build Alternative would result in the permanent reduction of parking spots on the western portion of John Galvin Park, sufficient alternate parking spaces are available to adequately meet existing demand for this portion of the park.

Visual

Visual impacts during construction would be typical of roadway construction projects, including construction fencing, construction equipment, material stockpiles, and vegetation removal, which would collectively temporarily disturb the park's existing landscape aesthetic. Temporarily disturbed areas would be returned to pre-project conditions once construction is completed; therefore, the minor visual changes associated with the Build Alternative would not be considered a Section 4(f) constructive use.

Air Quality and Noise

Indirect air quality and noise impacts as a result of the Build Alternative are not expected to result in a constructive use of John Galvin Park. As discussed in the project's *Air Quality Study* (February 2017) and *Noise Study Report* (December 2017), the park is currently subject to indirect air quality and noise impacts due to its proximity to the existing I-10 mainline and Grove Avenue, and due to the park's location in a built-out suburban environment. The incremental increase in noise and air quality impacts during construction and once the proposed project is in operation would not inhibit existing recreational functions in the park that are already subject to noise and air quality. The proposed project would not result in a Section 4(f) constructive use of the park due to indirect noise and air quality impacts.

Vibration

Vibration impacts as a result of the Build Alternative would not result in a constructive use of John Galvin Park. Vibration generated by construction equipment can result in varying degrees of ground vibration, depending on the equipment. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance from the piece of construction equipment. These impacts would be short term and would not inhibit recreational use of the site during construction. During operation of the Build Alternative, ground-borne vibration impacts are not anticipated beyond the impacts currently experienced as a result of vehicles traveling through the study area. Therefore, there would be no vibration impacts at John Galvin Park that would result in a Section 4(f) constructive use.

Vegetation and Wildlife

John Galvin Park is located in a built-out suburban area; there are no wildlife corridors or substantial vegetation communities adjacent to the park that would be indirectly impacted by the project; therefore, there would be no vegetation or wildlife impacts at the park resulting in a Section 4(f) constructive use.

Water Quality

Construction of the Build Alternative has the potential to affect water quality. Potential pollutant sources from the building phase of this alternative include construction activities and materials expected at the project site, such as vehicle fluids; concrete and masonry products; landscaping and other products; and contaminated soils. Similarly, operation of this alternative has the potential to affect water quality. Potential pollutant sources associated with operation of this alternative include motor vehicles, highway maintenance, illegal dumping, spills, and landscaping care; however, with minimization measures, short- and long-term water quality impacts associated with the Build Alternative would not substantially impair the activities, features, and/or attributes that qualify the park for protection under Section 4(f).

4.4.3 Applicability of Section 4(f)

The Build Alternative would result in direct and temporary use of John Galvin Park. No constructive use of this resource is anticipated under the Build Alternative.

The Build Alternative would require direct use of 0.05 acre (2,304 square feet) of John Galvin Park in the form of permanent acquisition, which represents 0.14 percent of the park's pre-project acreage. According to the FHWA guidance provided in the Environmental Review Toolkit for Section 4(f) Evaluations, to be considered a *de minimis* impact the amount of land to be acquired from any Section 4(f) site must not exceed 10 percent of the site. Given that this direct use is below the threshold set forth in the statute, the proposed 0.05-acre acquisition at John Galvin Park is eligible to be considered as a *de minimis* impact. In addition, the area to be acquired is primarily unused landscaped and mulch-covered space, which does not contribute to the ball fields and basketball courts that qualify John Galvin Park as a resource under Section 4(f). Therefore, this acquisition would not adversely affect the activities, features, or attributes of John Galvin Park. Thus, under Section 4(f), the direct use is considered *de minimis*.

In addition, the Build Alternative would result in temporary use of 0.68 acre of John Galvin Park; however, work is minor in scope, and there are no anticipated permanent adverse physical effects or other interference with the activities or purpose of the resource. Temporarily disturbed areas would be fully restored to pre-project conditions once temporary impacts are complete.

Given that the five conditions set forth in 23 CFR Section 774.13(d) are satisfied, and the proposed acquisition and temporary use proposed would not adversely affect the

activities, features, or attributes of John Galvin Park. Thus, under Section 4(f), this temporary use is considered *de minimis*.

4.4.4 Documentation of Consultation

Since the scoping period, staff members from the City of Ontario Public Works, Planning, and Parks Departments have coordinated internally with the City Manager regarding potential project impacts and potential avoidance and minimization measures to be implemented during construction at John Galvin Park. Meetings and further correspondence between City departments continued to occur throughout the development of the Draft and Final EIR/EA.

Formal consultation with the City of Ontario Planning Director to confirm the *de minimis* finding occurred prior to and after the public review of the Draft EIR/EA. Concurrence on the *de minimis* finding and that the temporary occupancy and permanent transportation use of a portion of this park would not adversely affect the activities, features, or attributes of the park has been obtained from the City of Ontario Planning Director, as the official with jurisdiction over John Galvin Park, and has been included in Appendix C.

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Chapter 5 Avoidance Alternatives

As outlined in 23 CFR 774.3, USDOT may not approve the use of Section 4(f) property unless they first determine that there is no prudent and feasible alternative to the use of land from the property, or that any use of Section 4(f) property would be a *de minimis* impact. An alternative is not feasible and prudent, according to 23 CFR 774.17(3)), if it compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need. In other words, alternatives that do not adequately meet the project's purpose and need can be dropped from further consideration.

The No Build Alternative, which would result in no direct, temporary, or constructive use of parks or bike trails within the project area, would not fulfill the project purpose and need; thus, it is not a prudent or feasible avoidance alternative.

The Build Alternative would affect one or more protected Section 4(f) properties; however, all impacts are considered *de minimis*. Therefore, no avoidance alternatives are required. Also, no avoidance alternatives are feasible given that Grove Avenue is an existing roadway corridor, which is constrained by park and residential uses. Alternative alignments would be infeasible due to ROW costs and impacts to the community.

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Chapter 6 Measures to Minimize Harm

6.1 Common Measures to Minimize Harm

Several common measures have been identified during development of the technical studies and the Draft and Final EIR/EA to minimize potential project impacts to Section 4(f) properties.

Common Visual Measures

For common visual measures to minimize harm, please see Chapter 2 of the Final EIR/EA.

Common Air Quality Measures

For common air quality measures to minimize harm, please see Chapter 2 of the Final EIR/EA.

Common Noise Measures

For common noise measures to minimize harm, please see Chapter 2 of the Final EIR/EA.

Common Vibration Measures

For common vibration measures to minimize harm, please see Chapter 2 of the Final EIR/EA.

Common Vegetation and Wildlife Measures

For common vegetation and wildlife measures to minimize harm, please see Chapter 2 of the Final EIR/EA.

Common Water Quality Measures

For common water quality measures to minimize harm, please see Chapter 2 of the Final EIR/EA.

6.2 Specific Measures to Minimize Harm by Specific Section 4(f) Property

Along with the common measures described above, indirect impacts would be reduced to *de minimis* levels through implementation of specific measures at potentially impacted Section 4(f) resources as discussed below.

Grove Memorial Park

A 0.52-acre TCE would be required at Grove Memorial Park under the Build Alternative to widen Grove Avenue and to construct curb returns and sidewalk connections. The affected area in the park is the sidewalk and an area of the park landscaped with turf grass and scattered tree cover. Turf grass would be replaced in TCE areas to match pre-project conditions in consultation with the property owner (City of Ontario) during and at the completion of construction. By doing so, the land used as a TCE would have similar function and value as it did prior to project construction.

John Galvin Park

A 0.68-acre TCE would be required at John Galvin Park under the Build Alternative to widen Grove Avenue and to construct a sidewalk and curb return. The affected area in the park is the sidewalk and an area of the park landscaped with turf grass and scattered tree cover. Turf grass would be replaced in TCE areas to match pre-project conditions in consultation with the property owner (City of Ontario) during and at the completion of construction. By doing so, the land used as a TCE would have similar function and value as it did prior to project construction.

The Build Alternative proposes permanent removal of approximately 40 parking spaces that are currently available for users of the western portion of John Galvin Park in the Grove Avenue and 4th Street parking lot. Although these parking spaces are within the Grove Avenue ROW and not technically within the John Galvin Park boundaries, the impacted parking spaces are currently accessible to park users and are perceived as belonging to the park. The remnant parking lot on the west side of John Galvin Park would be reconfigured to maintain as many parking spots at this location as possible.

**Appendix A Federal Highway Administration
Section 4(f) Checklist**

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Section 4(f) Checklist

The attached section 4(f) checklist was developed by Dan Harris (FHWA, San Francisco). It includes the items he looks for when reviewing section 4(f) evaluations, and is based on 2 CFR 771.15, the FHWA Technical Advisory T 6640.8A, the FHWA Guidebook Section 24, and project experience.

Comments and suggestions regarding the checklist are encouraged; please send them to Dan Harris via the internet or FHWA email. The checklist has been in use for some time; however, it is a working document subject to change and improvement.

Dan R. Harris
Environmental Specialist
FHWA Western Resource Center
201 Mission Street, Suite 2100
San Francisco 94105-188
tel: 415.744.2611
dan.harris@fhwa.dot.gov

May 1997

Draft Section 4(f) Evaluation

General

Is the section 4(f) evaluation contained in a separate section, chapter, or appendix?

For EIS's, is the environmental document entitled Draft Environmental Impact Statement and Section 4(f) Evaluation@ on the EIS title page?

For EA's, is it entitled Draft Environmental Assessment and Section 4(f) Evaluation@?

Does the title page include the citation: Submitted Pursuant to 42 U.S.C. 42(2)(c) and 49 U.S.C. 0@?

Does the introduction to the section 4(f) evaluation include the following boiler plate description of section 4(f):

Section 4(f) of the Department of Transportation Act of 1966, codified in Federal law at 49 U.S.C. '0, declares that A[i]t is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.

Section 4(f) specifies that A[t]he Secretary [of Transportation] may approve a transportation program or project . . . requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- (1) there is no prudent and feasible alternative to using that land; and
- (2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Section 4(f) further requires consultation with the Department of the Interior and, as appropriate, the involved offices of the Departments of Agriculture and Housing and Urban Development in developing transportation projects and programs which use lands protected by section 4(f).

Is Section 4(f) listed in the EIS index with correct page numbers?

Proposed Action

Are the proposed project and the project purpose and need briefly described with the corresponding EIS/EA text discussions properly referenced for additional information?

Description of Section 4(f) Property(ies)

Does the description of **each** section 4(f) resource which would be used by any alternative include all of the applicable information outlined in Attachment A?

Impacts on the Section 4(f) Property(ies)

Does the impact evaluation discussion address the following impacts on **each** section 4(f) property for **each** alternative?

- the amount of land to be used?
- the facilities, functions, and/or activities affected?
- accessibility?
- visual?
- noise?
- vegetation?
- wildlife?
- air quality?
- water quality?

If there is not an impact in one of the above areas, does the evaluation state such with adequate supportive information?

Does the evaluation include an impact summary table when:

- (1) more than one section 4(f) property is involved and
- (2) such a table would be useful in comparing the various impacts of the alternatives?

Alternatives

Does the section 4(f) evaluation of alternatives **identify** and **summarize** the alternatives addressed in the EIS/EA and include specific references to those discussions?

Detailed discussions of alternatives in an EIS/EA do not need to be repeated in the section 4(f) portion of the document if they are identified and summarized with specific references to the EIS/EA discussions of alternatives.

Do both the section 4(f) evaluation and the EIS/EA discussion of alternatives include the same location alternatives?

Are location alternatives and site-specific design variations which avoid section 4(f) property(ies) identified and evaluated?

Does the section 4(f) evaluation of alternatives
include at least one build alternative which avoids **each** and **all** section 4(f) resources
or
explain why there are not any such avoidance alternatives with adequate supportive
information?

Measures to Minimize Harm

Are all possible measures which are available to minimize the impacts to the section 4(f) property(ies) discussed?

Detailed discussions of mitigation measures in the EIS/EA may be referenced and appropriately summarized rather than repeated.

If the section 4(f) property includes lands or facilities developed under section 6(f) of the Land and Water Conservation Fund Act, does the mitigation discussion address the section 6(f) requirements? See Attachment C.

Other Park, Recreational Facilities, Wildlife Refuges, and Historic Properties Evaluated Relative to the Requirements of Section 4(f)

This section evaluates other park, recreational facilities, wildlife refuges, and historic sites in the project vicinity that do not involve a section 4(f) use.

It needs to include the information outlined in Attachment B. This discussion is necessary to explain why some resources or facilities are not protected by provisions of section 4(f) and to document that any proximity impacts to section 4(f) resources do not result in a constructive use.

Coordination

Does the summary discussion of preliminary coordination with the public official having jurisdiction over the section 4(f) resource address the following:

avoidance alternatives,
impacts to the property,
measures to minimize harm, and
where necessary, the significance and primary use of the property?

If section 6(f) lands are involved, does the summary discussion include preliminary coordination with the National Park Service Region Office?

Final Section 4(f) Evaluation

Is the information contained in the draft section 4(f) evaluation included in the final evaluation with appropriate revisions to reflect comments received on the draft document and any changed conditions, new information, or project refinements?

Does the final evaluation provide the basis for concluding that there are no feasible and prudent alternatives to the use of section 4(f) land(s)?

The supporting information must demonstrate that there are unique problems or unusual factors involved in the use of alternatives that avoid these properties or that the cost, social, economic, and environmental impacts, or community disruption resulting from such alternatives reach extraordinary magnitudes 2 CFR '771.15(a)(2).

Does the final evaluation provide the basis for concluding that the preferred alternative includes all possible planning to minimize harm to the section 4(f) property(ies)?

Does the final evaluation demonstrate that the preferred alternative is the feasible and prudent alternative with the least harm on the section 4(f) resources after considering mitigation?

Does the Coordination Section summarize the formal section 4(f) coordination with the Department of the Interior and, as appropriate, the involved offices of the Departments of Agriculture (usually the Forest Service) and Housing and Urban Development?

Are copies of the section 4(f) comments included in the final evaluation, or if contained in the Draft EIS Comment and Response Section, are they accurately referenced?

Have each of the section 4(f) comments received a full and adequate response?

Where new alternatives or modifications to existing alternatives are identified and will not be given further consideration, the basis for dismissing the alternatives/modifications needs to be provided and supported by factual information.

Where section 6(f) land is involved, is the National Park Service's position on the land transfer summarized in the text and documented with a copy of an NPS letter?

Does the final section 4(f) evaluation conclude with the following statement?

Based upon the above considerations, there is no feasible and prudent alternative to the use of land from the [name(s) of the section 4(f) property(ies)] and the proposed action includes all possible planning to minimize harm to the [names(s) of the section 4(f) property(ies)] resulting from such use.

EIS/EA's Without a Section 4(f) Use

All EIS's (and EA's only if appropriate) need to include a subsection/subchapter within the Environmental Consequences section/chapter entitled:

Park, Recreational Facilities, Wildlife Refuges, and Historic Properties
Evaluated Relative to the Requirements of Section 4(f)

that addresses the information outlined in Attachment B.

This discussion is necessary to explain why some resources or facilities are not protected by provisions of section 4(f) and to document that any proximity impacts to section 4(f) resources do not result in a constructive use.

Description of Section 4(f) Property(ies)

A detailed map or drawing of sufficient scale to identify the relationship of the alternatives to the section 4(f) property.

Size of the section 4(f) property (hectares or square meters (with acres or square feet following parenthesis)).

Location of the section 4(f) property (maps or other exhibits such as photographs and/or sketches).

Ownership (e.g., private, city, county, State, Federal agency).

Type of section 4(f) property (e.g., park, recreation, historic).

Available activities or function of the property (e.g., ball playing, swimming, golfing).

Description and location of all existing and planned facilities (e.g., ball diamonds, tennis courts).

Type of access to the property (e.g., pedestrian, vehicular).

Usage of the section 4(f) resource (e.g., approximate number of users/visitors).

Relationship to other similarly used lands in the vicinity.

Applicable clauses affecting the ownership, such as lease, easement, covenants, restrictions, or conditions, including forfeiture.

Unusual characteristics of the section 4(f) property that either reduce or enhance the value of all or part of the property (e.g., flooding problems, terrain conditions, or other features).

If the section 4(f) property includes lands or facilities developed under section 6(f) of the Land and Water Conservation Fund Act, the description of the section 4(f) resource will need to indicate such. See Attachment C.

**Park, Recreational Facilities, Wildlife Refuges,
and Historic Properties
Evaluated Relative to the Requirements of Section 4(f)**

This section evaluates parks, recreational facilities, wildlife refuges, and historic sites in the project vicinity that do not involve a use of section 4(f) land. It describes each resource and then either:

- (1) explains why it is not protected by section 4(f), or
- (2) demonstrates that the proximity impacts do not rise to a level that substantially impairs the activities, features, or attributes that qualified the resource for protection under section 4(f).

All archaeological and historic sites within the section 106 area of potential effect (APE) and all public and private parks, recreational facilities, and wildlife refuges within approximately 0.8 km (one-half mile) of any of the project alternatives should be included. It is usually unlikely that such resources would be affected at greater distances; however, if there is an issue or question whether they would be affected, they should also be included.

Does the introduction to this discussion include:

a listing of the parks, recreational facilities, wildlife refuges, and historic properties being addressed in this section?

if a section 4(f) resource type (i.e., a park, recreational facility, wildlife refuge, or historic property) does not exist in the project vicinity, does the discussion state such?

the following statement, edited as appropriate for the types of resources involved:

The purpose of this discussion is to address section 4(f) requirements relative to other park, recreational facilities, wildlife refuges, and historical properties in the project vicinity. As indicated below, none of the alternatives under consideration result in a section 4(f) use of these other park, recreational, wildlife refuges, or historical resources.

The discussion of each resource either documents (1) why the resource is not protected by the provisions of section 4(f) or (2) if it is protected by section 4(f), why none of the alternatives under consideration cause a section 4(f) use by (a) permanently incorporating land into the project, (b) by temporarily occupying land that is adverse to the preservationist purposes of section 4(f), or (c) by constructively using land from the resource.

Does the description of **each** resource include:

all of the applicable information outlined in Attachment A?

documentation of whether it is or is not protected by the provisions of section 4(f)?

For each of the resources protected by section 4(f), does the impact evaluation:

address the following for **each** alternative:

the facilities, functions, and/or activities potentially affected?

accessibility?

visual?

noise?

vegetation?

wildlife?

air quality?

water quality?

conclude, based on the above discussion, whether any of the alternatives under consideration would cause a section 4(f) use?

If there is not an impact in one of the above areas, does the evaluation state such with adequate supportive information?

Concluding discussions of section 4(f) **must not use** phrases such as “therefore, section 4(f) does not apply.” Section 4(f) is applicable to all US Department of Transportation actions.

Rather, use:

Therefore, the provisions of section 4(f) are not triggered,

Therefore, the provisions of section 4(f) do not come into play,

or

The proposed project [*<preferred alternative= for final evaluations>*] will not cause a constructive use of [*name of section 4(f) resource*] because the proximity impacts will not substantially impair the protected activities, features, or attributes of [*type of resource, e.g., park, historic site, future park*].

Section 6(f)

Section 6(f) of the Land and Water Conservation Fund Act directs the Department of the Interior (National Park Service) to assure that replacement lands of equal value, location, and usefulness are provided as conditions to their approval of the section 6(f) land conversion. Therefore, where a section 6(f) land conversion is proposed, replacement land will be necessary. Regardless of the mitigation proposed, the draft and final section 4(f) evaluations need to document the National Park Service's position on the section 6(f) land transfer.

Appendix B **Representative Site Photos**

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Photo 1: Looking south along the western portion of John Galvin Park.



Photo 2: Looking north along Grove Avenue at John Galvin Park.



Photo 3: Jay Littleton Ballpark and other baseball fields are character-defining elements of the eastern portion of John Galvin Park.



Photo 4: In addition to baseball fields, the eastern portion of John Galvin Park contains basketball courts, picnic facilities, mature trees, and turf landscaping.



Photo 5: Typical view of the eastern portion of Grove Memorial Park (looking north).



Photo 6: Looking north at the western portion of Grove Memorial Park.

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Appendix C Summary of Consultation with the City of Ontario

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DEPARTMENT OF TRANSPORTATION

DISTRICT 8
464 WEST 4th STREET
SAN BERNARDINO, CA 92401
PHONE (800) 427-7623
FAX (800) 427-7623
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October 25, 2018

Cathy Wahlstrom, Director
City of Ontario
Planning Department
303 East "B" Street
Ontario, California 91764

Re: Grove Avenue Corridor Project – Section 4(f) Evaluation

Dear Ms. Wahlstrom,

The purpose of this letter is to inform you that the California Department of Transportation District 8 (Caltrans) intends to issue a *de minimis* impact finding under Section 4(f) of the U.S. Department of Transportation Act of 1966 as part of the environmental compliance process for the proposed Grove Avenue Corridor Project, as discussed in detail below. As public park facilities managed by the City of Ontario, Grove Memorial Park and John Galvin Park are afforded special protections under Section 4(f). A *de minimis* impact to a Section 4(f) resource is a nominal impact that would not be adverse to the activities, features, or attributes of the resource. A *de minimis* finding is conditioned upon:

- The official(s) with jurisdiction over the resource indicating, in writing, that the proposed action, including consideration of any mitigation, will not adversely affect the activities, features, and attributes that are important to the resource;
- The public has been afforded an opportunity (by public notice) to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resources; and
- Implementation of mitigation measures, if applicable.

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Project Background

The City of Ontario, in cooperation with the County of San Bernardino and Caltrans, proposes to widen Grove Avenue in Ontario from four to six lanes between 4th Street and East State Street/East Airport Drive. Figure 1 shows the project's regional location. Grove Avenue is located approximately 1.4 miles east of Euclid Avenue and approximately 1.2 miles west of Vineyard Avenue along Interstate 10 (I-10). The project area is bound on the north by 4th Street and on the south by East State Street/East Airport Drive. The widened segment of Grove Avenue would be located south of I-10 and would serve the City of Ontario. The Grove Avenue Corridor Project considers one No Build Alternative and one Build Alternative to address existing and future projected traffic demands:

Alternative 1 – No Build Alternative: Alternative 1 would not result in any project improvements.

Alternative 2 – Build Alternative: The Build Alternative includes widening Grove Avenue from four lanes to six lanes between 4th Street and East State Street/East Airport Drive in accordance with the City of Ontario Master Plan. South of 4th Street, Grove Avenue would be widened to the west to avoid impacts to the historic Jay Littleton Ballpark. Between I Street and Holt Boulevard, Grove Avenue would be widened to the east, and between Holt Boulevard and East State Street/East Airport Drive, Grove Avenue would be widened on both sides. In addition, Holt Boulevard would be widened at the Grove Avenue intersection from one through lane, one through-right lane, and one left-turn lane in each direction to two through lanes, one through-right lane, and two left-turn lanes in each direction.

Effective July 1, 2007, the Federal Highway Administration (FHWA) assigned, and Caltrans assumed, all of FHWA's responsibilities under the National Environmental Policy Act (NEPA) for projects on California's State Highway System (SHS) and for federal-aid local street and road projects under FHWA's Surface Transportation Project Delivery Pilot Program, pursuant to 23 *Code of Federal Regulations* (CFR) 773. Caltrans also assumed all of FHWA's responsibilities for environmental coordination and consultation under other federal environmental laws pertaining to the review or approval of projects. Caltrans is deemed to be acting as FHWA with respect to environmental review, consultation, and other actions required under those responsibilities.

The proposed Grove Avenue Corridor Project may receive federal funding and/or discretionary approvals through the U.S. Department of Transportation (i.e., FHWA); therefore, documentation of compliance with Section 4(f) is required. The purpose of this letter is to share information from the Section 4(f) Evaluation. Section 4(f) of the federal Department of Transportation Act of 1966 (49 United States Code [U.S.C.] § 303), declares that "[i]t is the policy of the United States government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites." In addition to these areas, Section 4(f) can also apply to publicly accessible bikeways and scenic trails, as well as school playgrounds and sports fields/arenas/courts/tracks.

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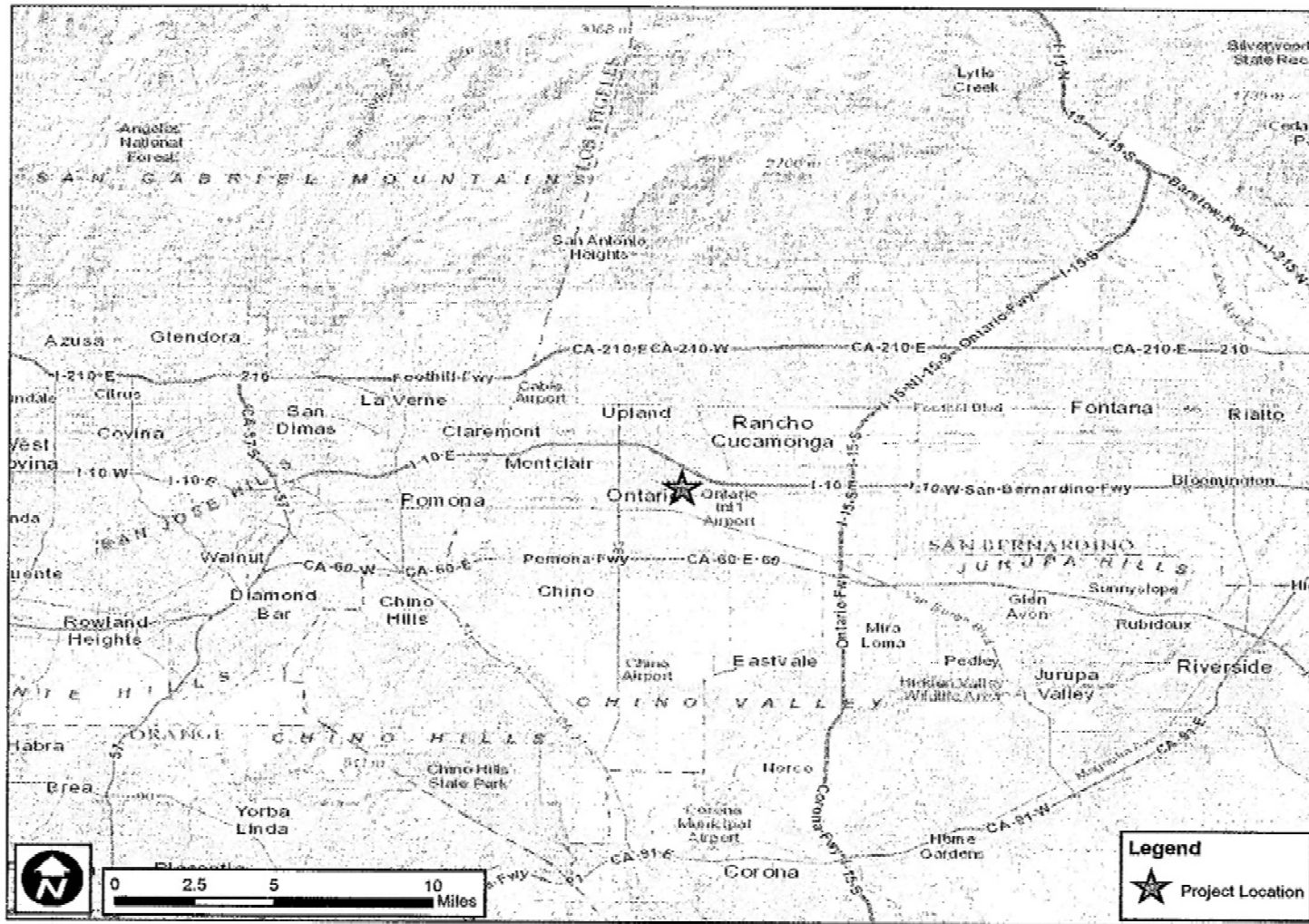


Figure 1. Regional Project Location

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Accordingly, a Section 4(f) Evaluation has been prepared. The evaluation identifies the Section 4(f) resources in the Grove Avenue Corridor Project study area, describes the nature and extent of the potential effects on these properties, evaluates alternatives that would avoid the use of Section 4(f) resources, and describes measures to minimize harm to the affected resources.

The City of Ontario administers numerous trails, bike paths, parks, and open spaces within the study area that are subject to Section 4(f) protection. The Section 4(f) Evaluation has identified Grove Memorial Park and John Galvin Park as being affected by the Grove Avenue Corridor Project.

- The 4.32-acre Grove Memorial Park, which is owned by the City of Ontario, is located on the west and east sides of Grove Avenue, generally located between G Street and I Street in Ontario.
- The 34.90-acre John Galvin Park, which is owned by the City of Ontario, is located on both sides of Grove Avenue, generally between 4th Street and I Street in Ontario.

Impacts to Grove Memorial Park

Grove Memorial Park – Direct Use

The Build Alternative would require acquisition of 0.06 acre (2,393 square feet) of Grove Memorial Park on both sides of Grove Avenue, which represents approximately 1.4 percent of the park's pre-project acreage.

At the western portion of Grove Memorial Park, acquisition would be necessary to accommodate a modified curb return and a connection with the proposed new sidewalk, which would connect this side of the park with John Galvin Park 0.2 mile to the north. As such, the proposed project would help increase usage of this section of the park and would provide improved pedestrian connectivity between Grove Memorial Park and John Galvin Park.

At the eastern portion of Grove Memorial Park, partial acquisition would be necessary to extend the covered portion of the existing West Cucamonga Creek concrete channel. Because this park has no active use areas, this minor proposed direct use is not anticipated to impair recreational values of the park.

The direct use areas described above would not adversely affect any of the recreational activities, features, or attributes within the park. Although the acquisition area would minimally reduce the overall size of the park, it would not inhibit existing recreational activities within the park. Because this park is primarily used by walkers and joggers, improving pedestrian connectivity along the western side of Grove Avenue through this park would help increase its utility for neighborhood residents.

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Grove Memorial Park – Temporary Use

Under the Build Alternative, a 0.48-acre temporary construction easement (TCE) would be required at Grove Memorial Park to allow construction of curb returns and new sidewalks on both sides of Grove Avenue and to extend the covered portion of the existing West Cucamonga Creek concrete channel, as shown in Figure 2. Although this TCE would temporarily reduce the overall park area during construction, it would not affect existing recreational activities, features, or attributes in the park. Pedestrian connectivity along Grove Avenue through Grove Memorial Park would be maintained during project construction. Construction of the proposed project would not result in a temporary use of the park because recreational activities within this park would not be impeded.

Grove Memorial Park – Constructive Use

The Build Alternative would not result in a constructive use of Grove Memorial Park. An indirect impact would be considered a constructive use under Section 4(f) if the impact were so severe that the public did not have access to the park and/or recreational activities occurring within the park were severely affected by the project's impacts. Potential indirect impacts related to the Build Alternative are discussed below. No indirect impacts to Grove Memorial Park would qualify as a constructive use under Section 4(f).

Impacts to John Galvin Park

John Galvin Park – Direct Use

The Build Alternative would require acquisition of 0.06 acre (2,304 square feet) of John Galvin Park on both sides of Grove Avenue, which represents 0.2 percent of the park's pre-project acreage.

At the western portion of John Galvin Park, partial acquisition would be necessary to accommodate two curb returns and widening of the 4th Street culvert, as shown in Figure 3. In addition, the project proposes removal of approximately 40 parking spaces that are currently available for users of the western portion of John Galvin Park in the Grove Avenue and 4th Street parking lot, as shown in Figure 3. Although these parking spaces are within the Grove Avenue right-of-way and not technically within the John Galvin Park boundaries, the impacted parking spaces are currently accessible to park users and are perceived as belonging to the park. As part of the project, the remnant parking lot would be reconfigured to maintain as many parking spaces at this location as possible. Parking lots on the east side of Grove Avenue, as well as ample on-street parking on I Street, would remain.

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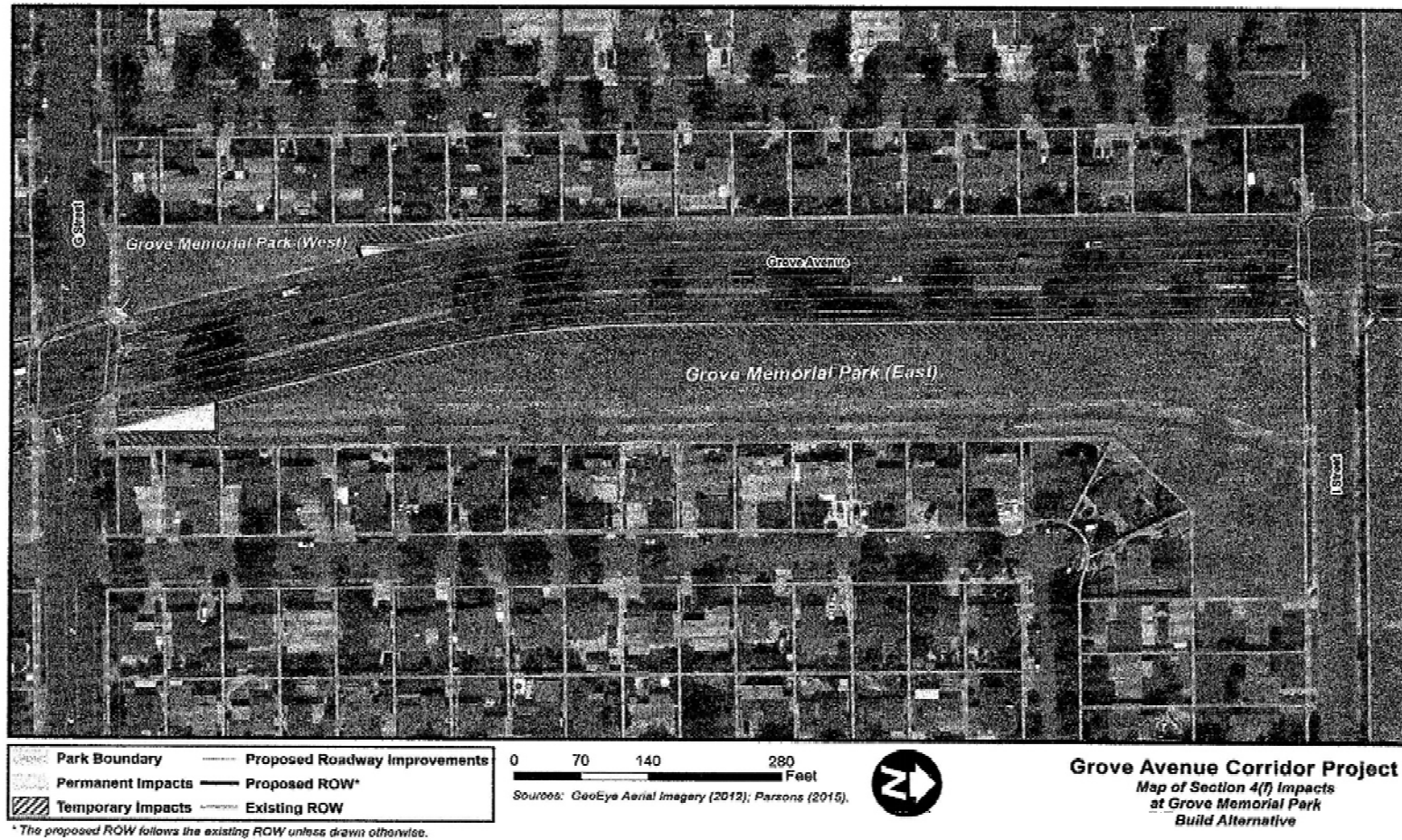


Figure 2. Impacts at Grove Memorial Park

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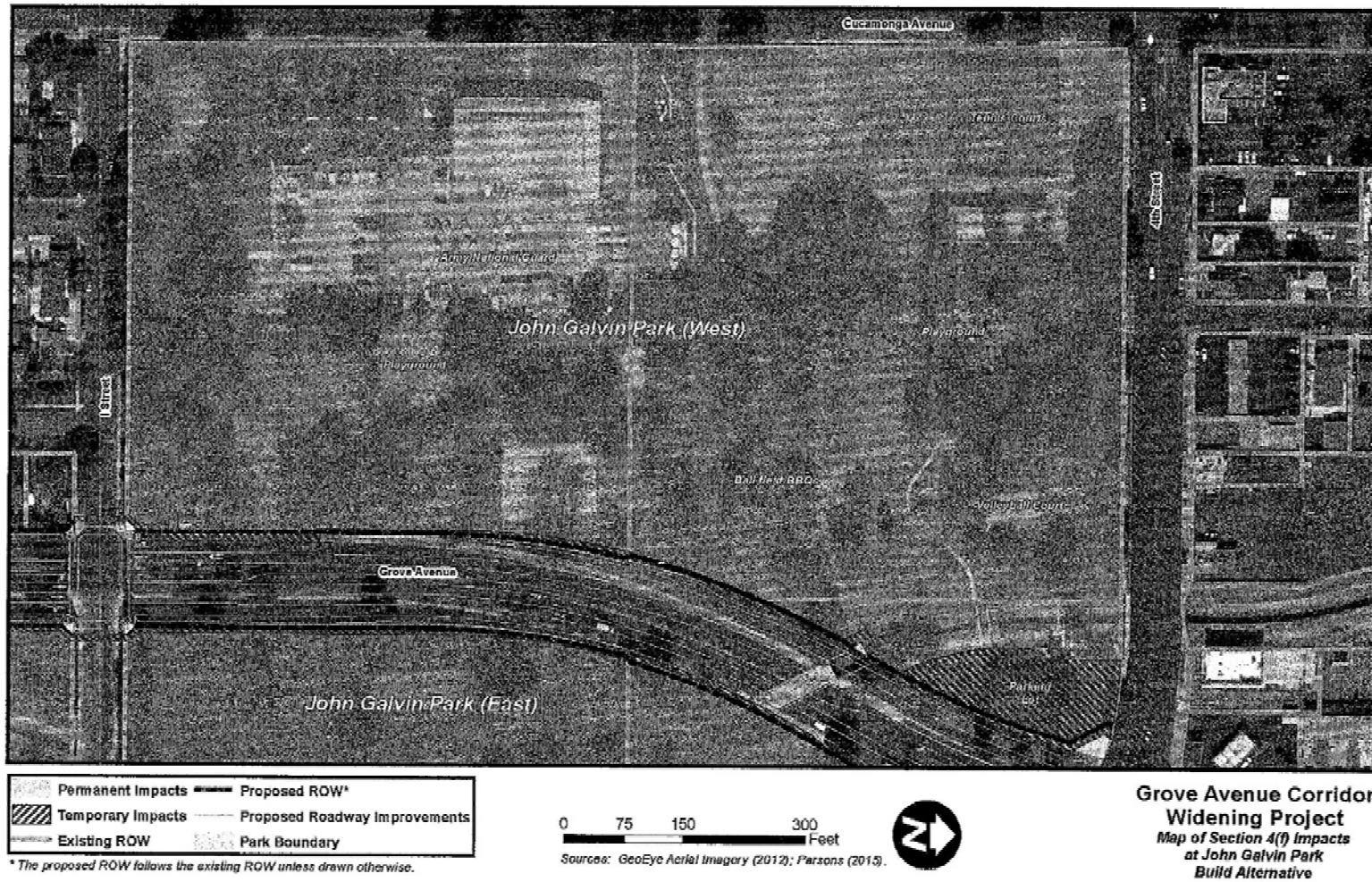


Figure 3. Build Alternative Impacts at John Galvin Park – West

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At the eastern portion of John Galvin Park, partial acquisition would be necessary to accommodate two curb returns, as shown in Figure 4. No permanent impacts to parking at the eastern portion of John Galvin Park are proposed. Access to the parking lot and the total number of parking spaces available would remain the same after project construction.

The direct use areas in the western and eastern portions of John Galvin Park would not adversely affect any of the recreational activities, features, or attributes of the park. Although the acquisition areas would minimally reduce the overall size of the park and number of parking spaces, these direct uses would not inhibit existing recreational activities within either portion of the park or substantially affect access to the park. Sufficient parking would remain for existing and future use of the western and eastern portions of John Galvin Park.

John Galvin Park – Temporary Use

Under the Build Alternative, a 0.20-acre TCE would be required at John Galvin Park to allow construction of curb returns and sidewalks. Although the TCEs would temporarily reduce the overall park area available to users during construction, the proposed TCEs would not affect existing recreational activities, features, or attributes in the park. The areas proposed as TCEs are landscaped areas at the edge of the western and eastern sections of John Galvin Park and are not used for recreational purposes. Furthermore, pedestrian access along Grove Avenue through John Galvin Park would be maintained during project construction. Therefore, construction of the proposed project, including the proposed TCEs at this park, would not result in a temporary use of the park itself because use of the park can continue throughout project construction.

The parking lot on the west side of John Galvin Park would be closed for approximately 1 month so that it can be reconfigured, resulting in a temporary reduction of 10 parking spaces beyond those that would be permanently impacted, as discussed in the direct use section above. No impacts to parking for the east side of John Galvin Park are anticipated.

Due to the road realignment and widening, the sidewalks along northbound and southbound Grove Avenue through John Galvin Park would be reconstructed to follow the proposed road. Pedestrian connectivity would be maintained through the park during project construction.

John Galvin Park – Constructive Use

The Build Alternative would not result in a constructive use of John Galvin Park. An indirect impact would be considered a constructive use under Section 4(f) if the impact were so severe that the public did not have access to the park and/or recreational activities occurring within the park were severely affected by the project's impacts. No indirect impacts to John Galvin Park would qualify as a constructive use under Section 4(f).

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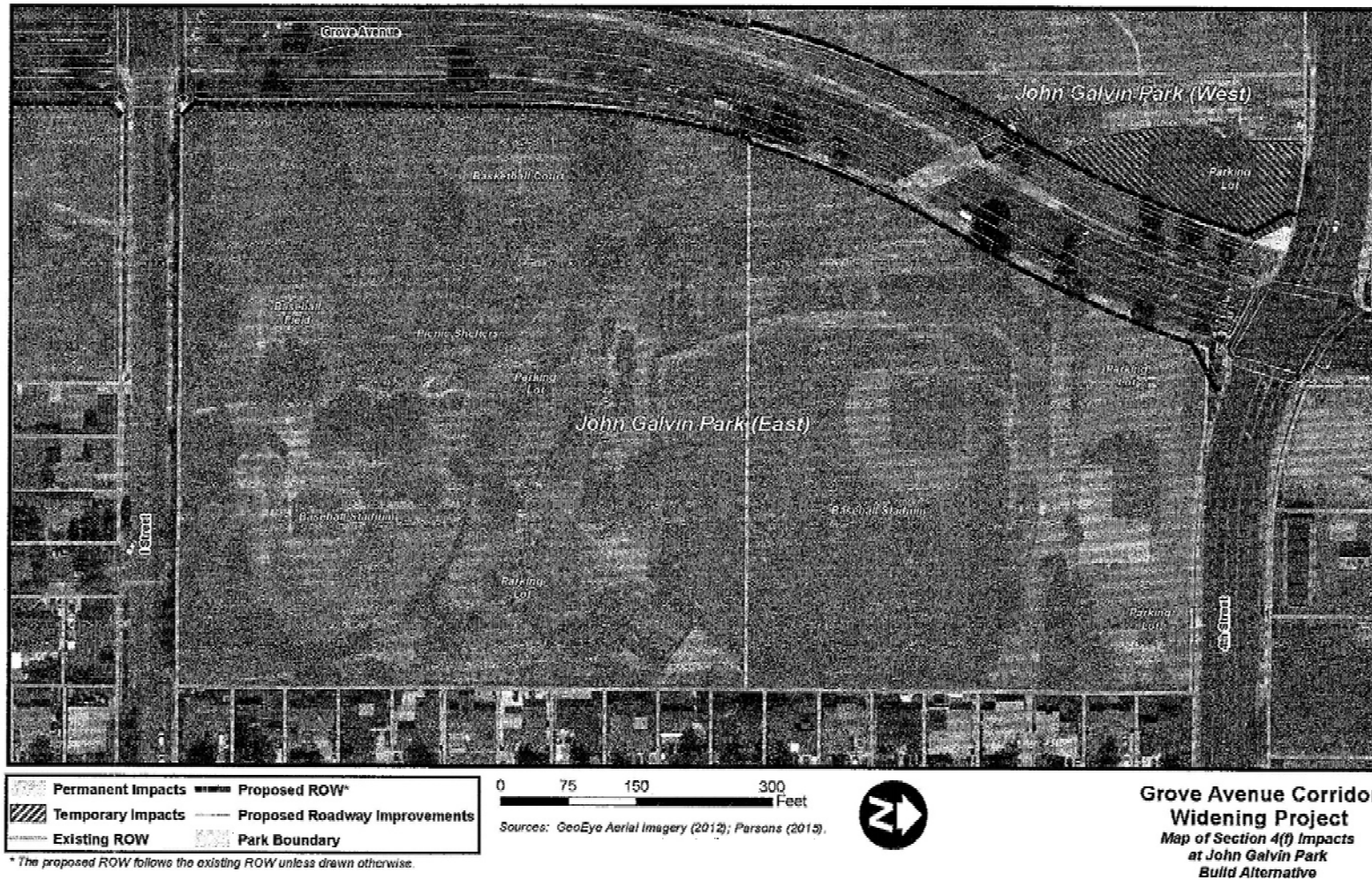


Figure 4. Build Alternative Impacts at John Galvin Park – East

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Grove Memorial Park and John Galvin Park – De Minimis Impact Finding Determination

Since the scoping period, Caltrans has contacted the City of Ontario to consult on project impacts to Grove Memorial Park and John Galvin Park.

While the extent of project improvements is under review, it is expected that the project would result in *de minimis* impacts to Grove Memorial Park and John Galvin Park under Section 4(f) because the activities, features, and attributes of these resources would not be adversely affected as discussed above; therefore, Caltrans is requesting the City of Ontario's concurrence with this *de minimis* impact finding determination, as required under Section 4(f) in 23 CFR 774. For your convenience, a signature block is provided as an attachment to this letter. Your concurrence is needed to continue to maintain the schedule of the project. Therefore, please provide concurrence on or before November 7, 2018. If you have any questions or would like to discuss in more detail, please contact Aaron Burton at Caltrans District 8 (909) 383-2841.

Sincerely,



Aaron Burton
Senior Environmental Planner, District 8
Local Assistance – Environmental Support

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MAYOR

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MAYOR PRO TEM

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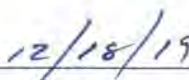
The City of Ontario appreciates the opportunity to participate in the Section 4(f) concurrence process. The City of Ontario understands that as part of the Grove Avenue Corridor Project, the California Department of Transportation (Caltrans) is proposing to widen Grove Avenue in the City of Ontario and the County of San Bernardino from four to six lanes between 4th Street and East State Street/East Airport Drive.

Caltrans determines that the *de minimis* finding is appropriate and would be maintained with regard to potential impacts to Grove Memorial Park and John Galvin Park on the activities, features, and attributes that qualify these trails for protection under Section 4(f).

My signature below represents written concurrence on the *de minimis* finding that the Grove Avenue Corridor Project would not adversely affect the activities, features, and attributes that qualify Grove Memorial Park and John Galvin Park for protection under Section 4(f). The temporary occupancy or use of portions of Grove Memorial Park and John Galvin Park during the construction phase and transportation use of the Section 4(f) resource incorporated into the Grove Avenue Corridor Project, together with the Section 4(f) avoidance, minimization, and mitigation or enhancement measures incorporated into the Grove Avenue Corridor Project, do not adversely affect the activities, features, and attributes that qualify Grove Memorial Park and John Galvin Park for protection under Section 4(f). The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource. The signature is conditioned upon the Section 4(f) impacts and avoidance, minimization, and mitigation measures as previously referenced.



Cathy Wahlstrom, Director
City of Ontario
Planning Department
303 East "B" Street
Ontario, California 91764



Date

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Appendix B Title VI Policy Statement

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DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
FAX (916) 653-5776
TTY 711
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August 2020

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a nondiscriminatory manner.

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page:
<https://dot.ca.gov/programs/civil-rights/title-vi>.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at 1823 14th Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

Original signed by
Toks Omishakin
Director

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DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
FAX (916) 653-5776
TTY 711
www.dot.ca.gov



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Agosto de 2020

**DECLARACIÓN DE POLÍTICA
DE NO DISCRIMINACIÓN**

El Departamento de Transporte de California, bajo el Título VI de la Ley de Derechos Civiles de 1964, asegura que *"Ninguna persona en los Estados Unidos, debido a su raza, color u origen nacional, será excluida de participar, ni se le negarán los beneficios, o será objeto de discriminación, en ningún programa o actividad que reciba ayuda financiera federal."*

Caltrans hará todos los esfuerzos para asegurar que no exista discriminación en ninguno de sus servicios, programas y actividades, ya sea que reciban fondos del gobierno federal o no, y que los servicios y beneficios sean justamente distribuidos a todas las personas sin importar su raza, color, u origen nacional. Adicionalmente, Caltrans facilitará la participación significativa en el proceso de planeación de los programas de transporte de manera no discriminatoria.

Los estatutos federales relacionados, los remedios, y la ley estatal refuerzan estas protecciones para incluir el sexo, la discapacidad, la religión, la orientación sexual y la edad.

Para información u orientación sobre cómo presentar una queja o para obtener más información relacionada con el Título VI, por favor comuníquese con el Gerente del Título VI al teléfono (916) 324-8379 o visite la siguiente página de Internet: <https://dot.ca.gov/programs/civil-rights/title-vi>.

Para obtener esta información en un formato alternativo como el Braille o en un lenguaje diferente al inglés, por favor póngase en contacto con la Oficina de Derechos Civiles del Departamento de Transporte de California, al 1823 14th Street, MS-79, Sacramento, CA 95811; al teléfono (916) 324-8379 (Teléfono de Texto TTY: 711); o al email: Title.VI@dot.ca.gov

Original signed by
Toks Omishakin
Director

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Appendix C Summary of Relocation Benefits

California Department of Transportation Relocation Assistance Program

RELOCATION ASSISTANCE ADVISORY SERVICES

This appendix is general in nature and is not intended to be a complete statement of federal and state relocation laws and regulations. Any questions about relocation should be addressed to Caltrans Right-of-Way. This section provides some general descriptive information on Public Law (PL) 91-646, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. This is often referred to simply as the “Uniform Act.” The information in this appendix is provided only as background and is not intended as a complete statement of all the state or federal laws and regulations; for specific details, the environmental planner should contact the Caltrans District or Regional Right-of-Way Relocation Branch. After presenting an outline of the basic legal foundation for relocation policy, the appendix looks at important relocation assistance information, including advisory services and the payment program. Refer to the Caltrans Right-of-Way Manual Chapter 10, for more detailed and specific information on relocation and housing programs.

DECLARATION OF POLICY

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

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

Fair Housing

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

Any persons to be displaced will be assigned to a relocation advisor, who will work closely with each displacee in order to see that all payments and benefits are fully utilized and that all regulations are observed, thereby avoiding the possibility of displacees jeopardizing or forfeiting any of their benefits or payments. At the time of the initiation of negotiations (usually the first written offer to purchase), owner-occupants are given a detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted soon after the initiation of negotiations and also are given a detailed explanation of the Caltrans Relocation Assistance Program. To avoid loss of possible benefits, no individual, family, business, farm, or nonprofit organization should commit to purchase or rent a replacement property without first contacting a Caltrans relocation advisor.

Relocation Assistance Advisory Services

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

Residential replacement dwellings will be in a location generally not less desirable than the displacement neighborhood at prices or rents within the financial ability of the individuals and families displaced, and reasonably accessible to their places of

employment. Before any displacement occurs, comparable replacement dwellings will be offered to displacees that are open to all persons regardless of race, color, religion, sex, national origin, and consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include the supplying of information concerning federal and state assisted housing programs and any other known services being offered by public and private agencies in the area.

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

Residential Relocation Payments

The Relocation Assistance Program will help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for or incidental to the purchase or rental of a replacement dwelling and actual reasonable moving expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of the 50 miles are the responsibility of the displacee. The Residential Relocation Assistance Program can be summarized as follows:

Moving Costs

Any displaced person, who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, will be eligible for reimbursement of moving costs. Displacees will receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 50 miles, or a fixed payment based on a fixed moving cost schedule. Lawful occupants who move into the displacement property after the initiation of negotiations must wait until Caltrans obtains control of the property in order to be eligible for relocation payments.

Purchase Differential

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

Homeowners who have owned and occupied their property for 90 days or more prior to the date of the initiation of negotiations (usually the first written offer to purchase the property), may qualify to receive a price differential payment and may qualify to receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An interest differential payment is also available if the interest

rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate.

Rent Differential

Tenants and certain owner-occupants (based on length of ownership) who have occupied the property to be acquired by Caltrans prior to the date of the initiation of negotiations may qualify to receive a rent differential payment. This payment is made when Caltrans determines that the cost to rent a comparable “decent, safe and sanitary” replacement dwelling will be more than the present rent of the displacement dwelling. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to certain limitations noted under the Down Payment section below.

To receive any relocation benefits, the displaced person must buy or rent and occupy a “decent, safe and sanitary” replacement dwelling within one year from the date Caltrans takes legal possession of the property, or from the date the displacee vacates the displacement property, whichever is later.

Down Payment

The down payment option has been designed to aid owner-occupants of less than 90 days and tenants in legal occupancy prior to Caltrans’ initiation of negotiations. The one-year eligibility period in which to purchase and occupy a “decent, safe and sanitary” replacement dwelling will apply.

Last Resort Housing

Federal regulations (49 CFR 24) contain the policy and procedure for implementing the Last Resort Housing Program on federal-aid projects. Last Resort Housing benefits are, except for the amounts of payments and the methods in making them, the same as those benefits for standard residential relocation as explained above. Last Resort Housing has been designed primarily to cover situations where a displacee cannot be relocated because of lack of available comparable replacement housing, or when the anticipated replacement housing payments exceed the limits of the standard relocation procedure, because either the displacee lacks the financial ability or other valid circumstances.

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

- Number of people to be displaced.
- Specific arrangements needed to accommodate any family member(s) with special needs.
- Financial ability to relocate into comparable replacement dwelling which will adequately house all members of the family.
- Preferences in area of relocation.
- Location of employment or school.

Nonresidential Relocation Assistance

The Nonresidential Relocation Assistance Program provides assistance to businesses, farms and nonprofit organizations in locating suitable replacement property, and reimbursement for certain costs involved in relocation. The Relocation Advisory Assistance Program will provide current lists of properties offered for sale or rent, suitable for a particular business's specific relocation needs. The types of payments available to eligible businesses, farms and nonprofit organizations are: searching and moving expenses, and possibly reestablishment expenses; or a fixed in lieu payment instead of any moving, searching and reestablishment expenses. The payment types can be summarized as follows:

Moving Expenses

Moving expenses may include the following actual, reasonable costs:

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

Reestablishment Expenses

Reestablishment expenses related to the operation of the business at the new location, up to \$25,000 for reasonable expenses actually incurred.

Fixed In Lieu Payment

A fixed payment in lieu of moving, searching, and reestablishment payments may be available to businesses that meet certain eligibility requirements. This payment is an amount equal to half the average annual net earnings for the last two taxable years prior to the relocation and may not be less than \$1,000 nor more than \$40,000.

Additional Information

Reimbursement for moving costs and replacement housing payments are not considered income for the purpose of the Internal Revenue Code of 1954, or for the purpose of determining the extent of eligibility of a displacee for assistance under the Social Security Act, or any other law, except for any federal law providing local “Section 8” Housing Programs.

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

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

The link to the Division of Right-of-Way’s Relocation Assistance Program is:

- <https://dot.ca.gov/programs/right-of-way/relocation-assistance-program>

Appendix D Avoidance, Minimization and/or Mitigation Summary

To be sure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated on the proposed Environmental Commitments Record [ECR], which follows) would be implemented. During project design, avoidance, minimization, and/or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in this ECR are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. As the following ECR is a draft, some fields have not been completed and will be filled out as each of the measures is implemented. Note: Some measures may apply to more than one resource area. Duplicative or redundant measures have not been included in this ECR.

The following matrix lists each of the environmental topics evaluated in the environmental document and the avoidance, minimization, and mitigation measures required to reduce or eliminate project impacts related to those topics. The column headings include the following information:

- **ID No.:** This column provides each commitment, as defined in Chapters 2 and 3.
- **Task and Brief Description:** This column provides the complete language of each environmental commitment, from Chapters 2 and 3.
- **Source:** Describes the specific section in the Final Environmental Document from where the commitment was derived.
- **CEQA Significance Addressed:** This column describes the significance level (potentially significant impact, less than significant with mitigation, less than significant, and no impact) of the California Environmental Quality Act (CEQA) impact that the commitment addresses.

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ID No.	Task and Brief Description	Source	SSP/NSSP	Project Timing	Responsible Staff	Action to Comply	CEQA Significance Addressed	Task Completed		Remarks/ Due Date
								Initial	Date	
Consistency with State, Regional, and Local Plans and Programs										
LU-3	The remnant parking lot on the west side of John Galvin Park will be reconfigured to maintain as many parking spots at this location as possible.	Final Environmental Document, Section 2.2.3.4, Measure LU-3	No				No Impact			
VA-2	Where it is not feasible to save the existing trees, new tree and vegetation plantings shall be included in the final design of the roadway. Replacement trees shall be two 24-inch boxed trees for each tree removed by the project. All areas disturbed by the project shall be fitted with new landscaping, including trees, groundcovers, accent plants, and turf grass (in park areas adjacent to existing remaining turf).	Final Environmental Document, Section 2.2.11.4, Measure VA-2	Yes				Less Than Significant Impact			
NC-1	The project shall preserve as many mature trees as practicable. Although there is no City of Ontario (City) or County of San Bernardino (County) ordinance for tree removal, the project's landscape plan will incorporate a tree replacement plan with a replacement ratio of 2:1 – for every mature tree removed, two trees will be planted to be consistent with Measure VA-2. Mature trees (larger than 20 feet high) that are to be removed shall be replaced with two 24-inch box trees. Design plans shall indicate locations of existing mature trees (larger than 20 feet high) to be preserved in place. Tree replacement shall meet all California Department of Transportation (Caltrans) and City standards and policies, and near John Galvin Park, the replacement tree species will incorporate species that have been identified as those of the original planting of John Galvin Park in the 1930s.	Final Environmental Document, Section 2.4.1.3, Measure NC-1	Yes				No Impact			
Parks and Recreation										
LU-1	Turf grass and rock curbs will be replaced in temporary construction easement (TCE) areas within Grove Memorial Park to match pre-project conditions in consultation with the property owner (City) during and at completion of construction.	Final Environmental Document, Section 2.2.3.4, Measure LU-1	No				No Impact			
LU-2	Turf grass and rock curbs will be replaced in TCE areas within John Galvin Park to match pre-project conditions in consultation with the property owner (City) during and at completion of construction.	Final Environmental Document, Section 2.2.3.4, Measure LU-2	No				No Impact			
LU-3	The remnant parking lot on the west side of John Galvin Park will be reconfigured to maintain as many parking spots at this location as possible.	Final Environmental Document, Section 2.2.3.4, Measure LU-3	No				No Impact			
Community Character and Cohesion										
SC-CI-1	To the extent practicable, street closures required during construction shall be scheduled to occur during nighttime hours. This requirement will be addressed in the Transportation Management Plan (TMP) to be prepared during the final design phase of project development.	Final Environmental Document, Section 3.3, Measure SC-CI-1	Yes				No Impact			
SC-CI-2	To the extent practicable, the contractor shall avoid blocking or limiting access to businesses during construction during normal business hours. Businesses will be contacted and advised of nearby construction activities before their start.	Final Environmental Document, Section 3.3, Measure SC-CI-2	Yes				No Impact			
SC-CI-3	Caltrans shall notify emergency service providers, such as fire, police, and ambulance services, in advance of construction of the timing, location, and duration of construction activities and the locations of detours and lane closures.	Final Environmental Document, Section 3.3, Measure SC-CI-3	No				No Impact			
Utilities and Emergency Services										
SC-CI-4	In accordance with the requirements in the California Code of Regulations (CCR), prior to the initiation of construction, the contractor shall coordinate and notify the operators of underground or overhead utility and service lines prior to any excavation activities. This coordination will avoid damage to existing utility lines and will limit disruption to existing utility services to the existing developments near the proposed alignments.	Final Environmental Document, Section 3.3, Measure SC-CI-4	No				No Impact			
UT-1	During final design, the Project Engineer will prepare utility relocation plans in consultation with the affected utility providers/owners for those utility facilities that will need to be relocated, removed, or protected in-place	Final Environmental Document, Section 2.2.9.3, Measure UT-1	Yes				No Impact			

ID No.	Task and Brief Description	Source	SSP/NSSP	Project Timing	Responsible Staff	Action to Comply	CEQA Significance Addressed	Task Completed		Remarks/ Due Date
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UT-2	During final design, the Project Engineer will prepare utility relocation plans in consultation with the affected utility providers/owners for those utility facilities that will need to be relocated, removed, or protected in place. If relocation is necessary, the final design will focus on relocating utilities within the State right-of-way (ROW) or other existing public ROWs and/or easements. If relocation outside of existing or the additional public ROWs and/or easements required for the project is necessary, the final design will focus on relocating those facilities in adjacent public ROWs and in a manner so as to not result in significant community, land use, or natural resource impacts.	Final Environmental Document, Section 2.2.9.3, Measure UT-2	Yes				No Impact			
UT-3	Close coordination with utility service providers and implementation of a public outreach program will be conducted, as needed, to minimize impacts to surrounding communities.	Final Environmental Document, Section 2.2.9.3 Measure UT-3	No				No Impact			
UES-1	Prior to and during any construction activities, the City will coordinate with emergency service providers to ensure that all providers are aware of temporary road closures and detours.	Final Environmental Document, Section 2.2.9.3, Measure UES-1	No				No Impact			
UES-2	Emergency service phone numbers (i.e., fire, emergency medical, police) will be posted in visible locations in all active construction areas.	Final Environmental Document, Section 2.2.9.3, Measure UES-2	No				No impact			
UES-3	To avoid conflicts during construction, the project's Resident Engineer will notify all emergency and other essential service providers no less than 2 weeks prior to the start of construction. Agencies to be notified include: <ul style="list-style-type: none"> • City of Ontario Police Department • City of Ontario Fire Department • San Bernardino County Sherriff's Department • San Bernardino County Fire Department 	Final Environmental Document, Section 2.2.9.3, Measure UES-3	No				No Impact			
Relocations and Real Property Acquisition										
COM-1	Where acquisition and relocation are unavoidable, provisions of the Uniform Act and the 1987 Amendments, as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs adopted by the United States Department of Transportation (USDOT) (March 2, 1989) and, where applicable, the California Public Park Preservation Act of 1971, will be followed. An appraisal of the affected property will be obtained, and an offer for the full appraisal will be made.	Final Environmental Document, Section 2.2.6.4, Measure COM-1	No				Less Than Significant Impact			
Traffic and Transportation / Pedestrian and Bicycle Facilities										
SC-CI-5	Caltrans shall require the contractor to provide motorist alert and awareness information during construction, as appropriate for the conditions, to include the following options: changeable message signs (CMSs), stationary ground-mounted signs, traffic radio announcements, and the Caltrans Highway Information Network.	Final Environmental Document, Section 3.3, Measure SC-CI-5	yes				No Impact			
T-1	Final TMP – A TMP (July 2015) was prepared during development of the preliminary engineering for the project. During final design, a Final TMP will be prepared. At a minimum, the Final TMP will include the detailing of any projected temporary street closures or expected traffic delays due to project construction activities. The Final TMP will include a public awareness program that will use an appropriate combination of the Highway Advisory Radio (HAR), local media, newsletters, and/or flyers. The following elements will be major components of the Final TMP: Public Awareness Campaign, particularly related to the scheduling of work; Construction Zone Enhanced Enforcement Program (COZEPP); utilization of portable CMSs; and notification to be sent to local cities and emergency responders, if applicable.	Final Environmental Document, Section 2.2.6.4, Measure T-1	Yes				No Impact			
T-2	During project construction, the Project Engineer will ensure that the measures in the Final TMP are properly implemented by the contractor.	Final Environmental Document, Section 2.2.6.4, Measure T-2	Yes				No Impact			
T-3	During final design and construction, the Project Engineer will work with affected property owners to identify means to avoid and minimize parking impacts, including space management, such as restriping of parking areas and identifying parking replacement options.	Final Environmental Document, Section 2.2.6.4, Measure T-3	No				No Impact			

ID No.	Task and Brief Description	Source	SSP/NSSP	Project Timing	Responsible Staff	Action to Comply	CEQA Significance Addressed	Task Completed		Remarks/ Due Date
								Initial	Date	
T-4	All pedestrian facilities will be designed to meet or exceed requirements of the Americans with Disabilities Act (ADA) and current safety standards. Access to pedestrians and bicyclists shall be maintained to the extent practicable during the construction period.	Final Environmental Document, Section 2.2.6.4, Measure T-4	Yes				No Impact			
T-5	Prior to and during construction, the Project Engineer will coordinate with Omnitrans, the Ontario-Montclair School District, and other affected transit providers to request and comply with applicable procedures for any required temporary bus stop relocations or other disruptions to transit service during construction, if necessary.	Final Environmental Document, Section 2.2.6.4, Measure T-5	No				No Impact			
T-6	During final design and prior to and during construction, the Project Engineer will coordinate with the design and construction team for the I-10/Grove Avenue Interchange Project to ensure the Grove Avenue Corridor Project and the I-10/Grove Avenue Interchange Project are designed compatibly.	Final Environmental Document, Section 2.2.6.4, Measure T-6	No				No Impact			
Cultural Resources										
SC-CI-6	In accordance with Caltrans standard specifications, if cultural materials are discovered during construction, all earth-moving activities within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find. If human remains are discovered, Section 7050.5 of the State Health and Safety Code states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the county coroner shall be contacted. Pursuant to Section 5097.98 of the Public Resources Code (PRC), if the remains are thought to be Native American, the coroner will notify the Resident Engineer and the Native American Heritage Commission (NAHC), who will then notify the Most Likely Descendent (MLD). At this time, the Resident Engineer will contact the District 8 Environmental Branch so that staff may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of Section 5097.98 of the PRC are to be followed as applicable.	Final Environmental Document, Section 3.3, Measure SC-CI-6	Yes				No Impact			
SC-CI-7	It is Caltrans' policy to avoid cultural resources whenever possible. Further investigation may be needed if resources cannot be avoided by the project. Additional survey(s) will be required if the project changes to include areas not previously surveyed.	Final Environmental Document, Section 3.3, Measure SC-CI-7	Yes				No Impact			
CR-1	If cultural resources are discovered at the job site, all work activities shall stop within a 60-foot radius of the discovery, the discovery area shall be protected, and the Resident Engineer shall be notified. Cultural resources shall not be moved or taken from the job site until Caltrans investigates and determines the significance of the find. Work activities shall not resume within the discovery area until Caltrans provides written notification authorizing work activities to resume.	Final Environmental Document, Section 2.2.12.4, Measure CR-1	Yes				No Impact			
CR-2	Human Remains: If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities will cease in any area or nearby area suspected to overlie remains, and the County Coroner will be contacted. Pursuant to PRC Section 5097.98, if the remains are thought to be Native American, the Coroner will notify the NAHC, who will designate the MLD. At this time, the Caltrans District 8 Environmental Branch Chief, Andrew Walters (909) 383-2647, will be contacted so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.	Final Environmental Document, Section 2.2.12.4, Measure CR-2	Yes				No Impact			
CI-1	Inadvertent Discoveries: Should subsurface archaeological resources be discovered; a qualified archaeologist shall be contacted to assess the significance of the find according to CEQA Guidelines Section 15064.5. If any find is determined to be significant, the archaeologist shall determine, in consultation with Caltrans, the City, and any local Native American groups expressing interest for prehistoric resources, appropriate avoidance measures or other appropriate mitigation. Per CEQA Guidelines Section 15126.4(b)(3), preservation in place shall be the preferred means to avoid impacts to archaeological resources qualifying as historical resources. Methods of avoidance may include, but shall not be limited to, rerouting or redesign, cancellation, or identification of protection measures such as capping or fencing. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures, such as data recovery or other appropriate measures, in	Final Environmental Document, Section 3.3, Measure CI-1	No				No Impact			

ID No.	Task and Brief Description	Source	SSP/NSSP	Project Timing	Responsible Staff	Action to Comply	CEQA Significance Addressed	Task Completed		Remarks/ Due Date
								Initial	Date	
	consultation with Caltrans, the City, and any local Native American representatives expressing interest for prehistoric archaeological resources. If an archaeological site does not qualify as a historical resource but meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site shall be treated in accordance with the provisions of Section 21083.2.									
Water Quality and Stormwater Runoff										
SC-CI-8	The project shall conform to and submit a Water Quality Management Plan to the City. In addition, the project shall conform to the requirements of the National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009- DWQ, NPDES No. CAS000002, as amended by 2010-0014-DWQ and 2012-0006-DWQ), also referred to as the Construction General Permit.	Final Environmental Document, Section 3.3, Measure SC-CI-8	Yes				No Impact			
SC-CI-9	The contractor shall develop an acceptable Storm Water Pollution Prevention Plan (SWPPP) containing proven best management practices (BMPs) to minimize stormwater pollution that has the potential to affect water quality. All construction site BMPs will follow the latest edition of the Storm Water Quality Handbooks and the Construction Site Best Management Practices Manual. In addition, the SWPPP shall include implementation of specific stormwater effluent monitoring requirements based on the project's risk level to ensure water quality standards are met.	Final Environmental Document, Section 3.3, Measure SC-CI-9	Yes				No Impact			
SC-CI-10	During construction, when dewatering is required, the contractor shall fully conform to the requirements specified in Order No. R5-00-175 (CAG 995001), General Waste Discharge Requirements for Discharges to Surface Water which Pose an Insignificant (<i>De Minimis</i>) Threat to Water Quality, from the Regional Water Quality Control Board (RWQCB).	Final Environmental Document, Section 3.3, Measure SC-CI-10	Yes				Less Than Significant Impact			
SC-CI-11	The contractor shall comply with all requirements of the Section 404 Permit issued by the U.S. Army Corps of Engineers (USACE) for the discharge of dredged or fill material into waters of the U.S.	Final Environmental Document, Section 3.3, Measure SC-CI-11	Yes				No Impact			
SC-CI-12	The contractor shall comply with all requirements of the Section 401 Certification issued by the RWQCB to ensure that all discharges comply with applicable federal and State effluent limitations and water quality standards.	Final Environmental Document, Section 3.3, Measure SC-CI-12	Yes				No Impact			
SC-CI-13	The contractor shall comply with all requirements of the Streambed Alteration Agreement per Section 1602 of the California Fish and Game Code (CFG Code).	Final Environmental Document, Section 3.3, Measure SC-CI-13	Yes				No Impact			
WQ-1	Implement Temporary Construction BMPs. The project will be required to conform to the requirements of the NPDES Permit for Construction Activities, Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ, NPDES No. CAS000002.	Final Environmental Document, Section 2.2.2.4, Measure WQ-1	Yes				No Impact			
WQ-2	Prepare and Implement an SWPPP. The Contractor will be required to develop an acceptable SWPPP. The SWPPP shall contain BMPs that have demonstrated effectiveness at reducing stormwater pollution. The SWPPP shall address all construction-related activities, equipment, and materials that have the potential to affect water quality. All Construction Site BMPs will be installed, maintained, and inspected to control and minimize the impacts of construction-related pollutants. The SWPPP shall include BMPs to control pollutants, sediment from erosion, stormwater runoff, and other construction-related impacts. In addition, the SWPPP shall include implementation of specific stormwater effluent monitoring requirements based on the project's risk level to ensure that the implemented BMPs are effective in preventing discharges from exceeding any of the water quality standards.	Final Environmental Document, Section 2.3.2.4, Measure WQ-2	Yes				Less Than Significant Impact			
WQ-3	Incorporate Design Principles into Final Roadway Design. Design Principles are permanent measures to minimize pollution discharges by retaining source materials and stabilizing soils. The three objectives associated with Design Principle BMPs include maximizing vegetated surfaces, preventing downstream erosion, and stabilizing soil areas. These design objectives will be applied to the entire project.	Final Environmental Document, Section 2.3.2.4, Measure WQ-3	Yes				No Impact			

ID No.	Task and Brief Description	Source	SSP/NSSP	Project Timing	Responsible Staff	Action to Comply	CEQA Significance Addressed	Task Completed		Remarks/ Due Date
								Initial	Date	
Paleontology										
P-1	Develop and implement a Paleontological Monitoring Plan (PMP), with monitoring in excavations more than 10 feet deep for sediments mapped as Holocene at the surface and more than 5 feet deep for excavations mapped as Pleistocene at the surface. The PMP will guide and facilitate the identification and treatment of paleontological resources, if any are found, during project construction to reduce adverse effects on significant resources. The PMP will summarize identified paleontologically sensitive areas within the area of potential effects (APE), the organization and responsibilities of the paleontological team, the responsibilities of other parties, and the treatment and communications procedures to be implemented if paleontological resources are encountered during the project.	Final Environmental Document, Section 2.3.4.4, Measure P-1	No				Less than Significant Impact			
SC-CI-14	Specifications for paleontological mitigation shall be included in the construction contract special provisions section for this project to advise the construction contractor of the requirement to cooperate with the salvage of paleontological resources, particularly fossil remains and associated locality data.	Final Environmental Document, Section 3.3, Measure SC-CI-14	Yes				Less Than Significant Impact			
SC-CI-15	A principal paleontologist that meets the qualifications in Chapter 8 – Paleontology of the Caltrans Standard Environmental Reference shall prepare a detailed Paleontological Mitigation Plan before the start of construction. The paleontologist must have a Master of Science/Arts (M.S./M.A.) or Doctor of Philosophy (Ph.D.) degree in paleontology or geology and will be familiar with paleontological salvage or mitigation procedures and techniques. The Paleontological Mitigation Plan shall be certified by a California Professional Geologist.	Final Environmental Document, Section 3.3, Measure SC-CI-15	Yes				Less Than Significant Impact			
SC-CI-16	If unanticipated fossils are discovered in an area of the project site not being actively monitored, the remains shall not be disturbed. The Resident Engineer shall direct that all work within a 60-foot radius of the discovery be stopped and that the area be protected. The Resident Engineer, in consultation with the paleontologist, will investigate and modify the dimensions of the protected area, if necessary. Paleontological resources will not be removed from the project site without authorization. Work will not resume within the specified radius of the discovery until authorized by the Resident Engineer.	Final Environmental Document, Section 3.3, Measure SC-CI-16	Yes				Less Than Significant Impact			
SC-CI-17	The construction contractor shall attend a preconstruction meeting with the Paleontological Salvage Team and the Resident Engineer to establish procedures for cooperation in the event fossil remains are encountered and to provide for worker safety during monitoring and salvage activities. The Principal Paleontologist and the Caltrans paleontology coordinator will be present at pregrading meetings to consult with grading and excavation contractors.	Final Environmental Document, Section 3.3, Measure SC-CI-17	Yes				Less Than Significant Impact			
Environmental Justice										
COM-2	Outreach activities targeted to low-income residents will be conducted during the planning, design, and construction phases of the Build Alternative.	Final Environmental Document, Section 2.2.6.4, Measure COM-2	No				Not Available- NEPA Only			
Visual Aesthetics										
VA-1	The existing trees, particularly within the park area, provide scale, shade, and visual relief to the extent of roadway paving. Preserving existing trees to the extent feasible will help maintain the existing visual character of the roadway.	Final Environmental Document, Section 2.2.11.4, Measure VA-1	Yes				Less Than Significant Impact			
VA-2	Where it is not feasible to save the existing trees, new tree and vegetation plantings shall be included in the final design of the roadway. Replacement trees shall be two 24-inch boxed trees for each tree removed by the project. All areas disturbed by the project shall be fitted with new landscaping, including trees, groundcovers, accent plants, and turf grass (in park areas adjacent to existing remaining turf).	Final Environmental Document, Section 2.2.11.4, Measure VA-2	Yes				Less Than Significant Impact			
VA-3	To support the replacement of plantings, the project shall include a permanent irrigation system to all new plantings. Materials used for irrigation shall be as per City of Ontario standards.	Final Environmental Document, Section 2.2.11.4, Measure VA-3	Yes				Less Than Significant Impact			

ID No.	Task and Brief Description	Source	SSP/NSSP	Project Timing	Responsible Staff	Action to Comply	CEQA Significance Addressed	Task Completed		Remarks/ Due Date
								Initial	Date	
VA-4	Decorative paving shall be employed for medians, islands, and parkway strips that are too narrow to plant. Paving color and texture/pattern shall match City of Ontario standards.	Final Environmental Document, Section 2.2.11.4, Measure VA-4	Yes				No Impact			
Hydrology										
HYD-1	Provide positive drainage during construction and refrain from filling designated floodplains. Construction site surface runoff will be channeled into existing drainage facilities so as to not cause water flow on neighboring properties. Offsite flows will be managed in a manner that will mimic the existing drainage network and will not inundate the roadway surface of any of the existing drainage systems.	Final Environmental Document, Section 2.3.1.4, Measure HYD-1	Yes				Less Than Significant Impact			
HYD-2	Implement standard BMPs as identified in the City of Ontario's Water Quality Management Plan, including temporary construction site BMPs to address site soil stabilization and reduce deposition of sediments to receiving waters.	Final Environmental Document, Section 2.3.1.4, Measure HYD-2	Yes				No Impact			
HYD-3	Include erosion control and water quality protection during construction at the West Cucamonga Channel. BMPs will be designed and implemented to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP). Typical measures that may be implemented include preservation of existing vegetation, use of soil binders or hydroseeding, and installation of silt fences or fiber rolls.	Final Environmental Document, Section 2.3.1.4, Measure HYD-3	Yes				No Impact			
HYD-4	Contractor shall develop a contingency plan for unforeseen discovery of underground contaminants in the SWPPP.	Final Environmental Document, Section 2.3.1.4, Measure HYD-4	Yes				No Impact			
HYD-5	Limit construction activities between October and May to those actions that can adequately withstand high flows and entrainment of construction materials. The Contractor shall prepare a Rain Event Action Plan (REAP) and discuss high flows mitigation.	Final Environmental Document, Section 2.3.1.4, Measure HYD-5	Yes				No Impact			
Natural Communities										
NC-1	The project shall preserve as many mature trees as practicable. Although there is no City or County ordinance for tree removal, the project's landscape plan will incorporate a tree replacement plan with a replacement ratio of 2:1 – for every mature tree removed, two trees will be planted to be consistent with Measure VA-2. Mature trees (larger than 20 feet high) that are to be removed shall be replaced with two 24-inch box trees. Design plans shall indicate locations of existing mature trees (larger than 20 feet high) to be preserved in place. Tree replacement shall meet all Caltrans and City standards and policies, and near John Galvin Park, the replacement tree species will incorporate species that have been identified as those of the original planting of John Galvin Park in the 1930s.	Final Environmental Document, Section 2.4.1.3, Measure NC-1	Yes				No Impact			
Wetlands and Other Waters										
WET-1	Construction activities within the West Cucamonga Channel and Princeton Basin will be designed and conducted to maintain downstream flow conditions. All construction activities will be effectively isolated from water flows to the greatest extent feasible. This may be accomplished by working in the dry season or dewatering the work area in the wet season. When work in standing or flowing water is required, structures for isolating the in-water work area and/or diverting the water flow must not be removed until all disturbed areas are cleaned and stabilized. The diverted water flow must not be contaminated by construction activities. Structures used to isolate the in-water work area and/or diverting the water flow (e.g., coffer dam, geotextile silt curtain) must not be removed until all disturbed areas are stabilized.	Final Environmental Document, Section 2.4.2.4, Measure WET-1	Yes				No Impact			
Hazardous Waste										
HW-1	If any discolored, odorous, or compromised soils are encountered during excavation, they shall be tested and removed and disposed of per regulatory requirements.	Final Environmental Document, Section 2.4.5.4, Measure HW-1	Yes				Less than Significant Impact			
SC-CI-18	Appropriately manage, per regulatory compliance requirements, environmental areas of concern (AOCs) including treated wood waste (TWW)PCB in transformers and other	Final Environmental Document, Section 3.3, Measure SC-CI-18	Yes				Less than Significant Impact			

ID No.	Task and Brief Description	Source	SSP/NSSP	Project Timing	Responsible Staff	Action to Comply	CEQA Significance Addressed	Task Completed		Remarks/ Due Date
								Initial	Date	
	equipment, LBP in yellow thermoplastic/paint striping, and ADL-contaminated soils on unpaved areas if encountered prior to or during construction.									
SC-CI-19	As part of the ROW acquisition process, property to be acquired will be tested for asbestos-containing material (ACM) and lead-based paint (LBP). If ACM and LBP are found, the contractor will remove these materials per California Occupational Safety and Health Administration standards. Removal and/or disturbance of ACM must be conducted by a California Occupational Safety and Health Administration-registered and State-licensed asbestos removal contractor. At no time shall the identified asbestos-containing construction materials be drilled, cut, sanded, scraped, or otherwise disturbed by untrained personnel. Construction activities involving the potential for impacting asbestos-containing construction materials shall be conducted in accordance with the requirements of Title 8 of the CCR, Section 1529. Written notification shall be made to the California Occupational Safety and Health Administration at least 24 hours prior to the initiation of any construction activities that involve asbestos-related work of at least 100 square or linear feet.	Final Environmental Document, Section 3.3, Measure SC-CI-19	Yes				Less than Significant Impact			
SC-CI-20	Any compromised soils, if present, will be removed and disposed of per regulatory requirements.	Final Environmental Document, Section 3.3, Measure SC-CI-20	Yes				Less than Significant Impact			
Air Quality										
SC-CI-21	<p>The contractor shall implement all applicable measures that are feasible during construction. Examples of air quality control measures include:</p> <ul style="list-style-type: none"> All disturbed areas, including storage piles that are not being actively used for construction purposes shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant, or they shall be covered with a tarp, another suitable cover, or vegetative ground cover. All onsite unpaved roads and offsite unpaved access roads shall be effectively stabilized of dust emissions using water or a chemical stabilizer/suppressant. All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions by applying water or by presoaking. With the demolition of buildings up to six stories in height, all exterior surfaces of the building shall be wetted during demolition. When materials are transported offsite, all material shall be covered or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained. All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden. Within urban areas, an owner/operator shall prevent carryout and trackout, or immediately remove carryout and trackout when it extends 50 feet or more from the nearest unpaved surface exit point of the site. Any construction site with 150 or more vehicle trips per day shall prevent carryout and trackout. <p>The following measures shall be implemented at large construction sites near sensitive receptors:</p> <ul style="list-style-type: none"> Install wheel washers for all exiting trucks, or wash off tires of trucks and equipment leaving the site. Install wind breaks at windward side(s) of construction areas. Suspend excavation and grading activities when wind exceeds 20 mph. Limit areas subject to excavation, grading, and other earthwork activity at any one time. 	Final Environmental Document, Section 3.3, Measure SC-CI-21	Yes				No Impact			

ID No.	Task and Brief Description	Source	SSP/NSSP	Project Timing	Responsible Staff	Action to Comply	CEQA Significance Addressed	Task Completed		Remarks/ Due Date
								Initial	Date	
SC-CI-22	<p>The contractor shall comply with the following Caltrans' Standard Specifications and South Coast Air Quality Management District (SCAQMD) rules, ordinances, and regulations:</p> <ul style="list-style-type: none"> The construction contractor must comply with SCAQMD Rule 403 (Fugitive Dust), which specifies actions or control measures to prevent, reduce, or mitigate particulate matter (PM) emissions generated from construction, demolition, excavation, extraction, and other earth-moving activities. Water or dust palliative will be applied to the site and equipment as frequently as necessary to control fugitive dust emissions. Soil binder will be spread on any unpaved roads used for construction purposes and all project construction parking areas. Trucks will be washed off as they leave the ROW as necessary to control fugitive dust emissions. Construction equipment and vehicles shall be properly tuned and maintained. Low-sulfur fuel shall be used in all construction equipment as provided in CCR Title 17, Section 93114. Equipment and materials storage sites will be located as far away from residential and park uses as practicable. Keep construction areas clean and orderly. Track-out reduction measures, such as gravel pads, will be used at project access points to minimize dust and mud deposits on roads affected by construction traffic. All transported loads of soils and wet materials will be covered prior to transport or adequate freeboard will be provided (i.e., space from the top of the material to the top of the truck) to reduce particulate matter less than 10 microns in diameter (PM₁₀) and deposition of particulates during transportation. Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be removed to decrease PM. The construction contractor must comply with Caltrans Standard Specifications in Section 14-9. Section 14-9.02 includes specifications relating to compliance with air pollution control rules, regulations, ordinances, and statutes of the local ordinances and air quality management district. Section 14-9.03 includes specifications relating to preventing and alleviating dust by applying water, dust palliative, or both and by covering active and inactive stockpiles. 	Final Environmental Document, Section 3.3, Measure SC-CI-22	Yes				No Impact			
AQ-1	<p>The City shall encourage construction contractors to apply for SCAQMD "SOON" funds. The "SOON" program provides funds to applicable fleets for the purchase of commercially available low-emission heavy-duty engines to achieve near-term reduction of NO_x emissions from in-use off-road diesel vehicles. More information on this program can be found at SCAQMD's website: http://www.aqmd.gov/home/programs/business/business-detail?title=off-road-diesel-engines&parent=vehicle-engine-upgrades.</p>	Final Environmental Document, Section 2.3.6.4, Measure AQ-1	No				Less than Significant Impact			
Noise										
SC-CI-23	<p>The contractor shall be required to adhere to the following equipment noise-control measures:</p> <ul style="list-style-type: none"> Each internal combustion engine used for any purpose on the job or related to the job shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the job site without an appropriate muffler. Construction methods or equipment that will provide the lowest level of noise and ground vibration impact (e.g., avoid impact pile driving near residences and consider alternative methods that are also suitable for the soil condition) shall be used. Idling equipment shall be turned off. Construction activities shall be coordinated to build recommended permanent soundwalls during the first phase of construction to protect sensitive receivers from subsequent construction noise, dust, light, glare, and other impacts, to the extent feasible. Temporary noise barriers shall be used and relocated, as needed, to protect sensitive receptors against excessive noise from construction activities involving large equipment 	Final Environmental Document, Section 3.3, Measure SC-CI-23	Yes				No Impact			

ID No.	Task and Brief Description	Source	SSP/NSSP	Project Timing	Responsible Staff	Action to Comply	CEQA Significance Addressed	Task Completed		Remarks/ Due Date
								Initial	Date	
	<p>and by small items such as compressors, generators, pneumatic tools, and jackhammers. Noise barriers can be made of heavy plywood, moveable insulated sound blankets, or other best available control techniques.</p> <ul style="list-style-type: none"> • Newer equipment with improved noise muffling shall be used, and all equipment items shall have the manufacturers' recommended noise abatement measures (e.g., mufflers, engine covers, and engine vibration isolators) intact and operational. Newer equipment will generally be quieter in operation than older equipment. All construction equipment shall be inspected at periodic intervals to ensure proper maintenance and presence of noise-control devices (e.g., mufflers and shrouding). • Construction activities shall be minimized to the extent possible in residential areas during evening, nighttime, weekend, and holiday periods. Noise impacts are typically minimized when construction activities are performed during daytime hours. However, nighttime construction may be desirable (e.g., in commercial areas where businesses may be disrupted during daytime hours) or necessary to avoid major traffic disruption. Coordination with the City or County shall occur before construction can be performed in noise-sensitive areas between 9:00 p.m. and 6:00 a.m. 									
SC-CI-24	<p>The contractor shall be required to adhere to the following vibration control measures:</p> <ul style="list-style-type: none"> • Restrict the hours of vibration-intensive equipment or activities such as vibratory rollers so that impacts to residents are minimal (e.g., weekdays during daytime hours only when as many residents as possible are away from home). • The owner of a building close enough to a construction vibration source that could cause damage to that structure could be entitled to a preconstruction building inspection to document the preconstruction condition of that structure. • Conduct vibration monitoring during vibration-intensive activities. 	Final Environmental Document, Section 3.3, Measure SC-CI-24	Yes				No Impact			
SC-CI-25	<p>The contractor shall be required to adhere to the following administrative noise control measures:</p> <ul style="list-style-type: none"> • Once details of the construction activities become available, the contractor shall work with local authorities to develop an acceptable approach to minimize interference with the business and residential communities, traffic disruptions, and the total duration of the construction. • Good public relations shall be maintained with the community to minimize objections to unavoidable construction impacts. Frequent activity updates of all construction activities shall be provided. A construction noise monitoring program to track sound levels and limit the impacts shall be implemented. • In case of construction noise complaints by the public, the Resident Engineer shall coordinate with the construction manager, and the specific noise-producing activity may be changed, altered, or temporarily suspended, if necessary. 	Final Environmental Document, Section 3.3, Measure SC-CI-25	Yes				No Impact			
N-1	<p>Based on the studies completed to date and input from the public, Caltrans and the City will incorporate noise abatement in the form of soundwalls that meet the criteria for reasonableness and feasibility. The recommended soundwalls would reduce the traffic noise by at least 5 decibels (dB) at the impacted receivers, would meet the design goal by providing a 7-dB reduction for at least one receiver, and would cost less than the reasonable cost allowance. If conditions have substantially changed during final design, noise abatement may change or may not be necessary, depending on the results of the updated noise analysis using final design information. The final decision of the noise abatement will be made upon completion of the project design and the public involvement process.</p> <p>After circulation of the draft environmental document, soundwall surveys were conducted with all property owners and residents of benefited receptors located within the footprint of the Build Alternative. Where 100 percent of the responding benefited receptors did not support the soundwall, the soundwall will not be constructed.</p> <p>However, if conditions substantially change at the time of final design, a noise analysis and/or soundwall surveys may be conducted again and the final decision on noise abatement will be reconsidered as part of the project design.</p>	Final Environmental Document, Section 2.3.7.4, Measure N-1	Yes				Unavoidable Significant Environmental Impacts			

ID No.	Task and Brief Description	Source	SSP/NSSP	Project Timing	Responsible Staff	Action to Comply	CEQA Significance Addressed	Task Completed		Remarks/ Due Date
								Initial	Date	
Energy										
SC-CI-26	The contractor shall identify specific measures that reduce the amount of refuse generated by construction of the proposed project, consistent with the waste reduction requirements established by the California Integrated Waste Management Act of 1989.	Final Environmental Document, Section 3.3, Measure SC-CI-26	Yes				Not Available- NEPA Only			
Invasive Species										
SC-CI-27	In compliance with the Executive Order (EO) on Invasive Species (EO 13112) and subsequent guidance from the Federal Highway Administration (FHWA), the City of Ontario shall not use species listed as invasive as part of landscaping erosion control measures. In areas of particular sensitivity, extra precautions shall be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur. To adhere to this requirement, any landscape designs shall be submitted to the City of Ontario for review and concurrence by a qualified biologist during the project design phase. The review shall verify that no noxious weeds/invasive exotic plant species are in the proposed landscaping plan. If the plan contains noxious weeds/invasive species, the reviewing biologist shall coordinate suitable substitutes.	Final Environmental Document, Section 3.3, Measure SC-CI-27	Yes				Not Available- NEPA Only			
IS-1	In compliance with the EO on Invasive Species (EO 13112) and guidance from FHWA, the landscaping and erosion control included in the project will not use species listed as invasive. In areas of particular sensitivity (i.e., near or adjacent to drainages), extra precautions will be taken if invasive species are found in or next to the construction areas. This includes the inspection and cleaning of construction equipment and eradication strategies, as required by the City of Ontario Biological Monitor, to be implemented should an invasion occur. Any cleaning of equipment or site watering will be conducted in adherence to any applicable drought conditions and related regulations. A City of Ontario biologist or landscape Architect will approve any seed lists (for planting).	Final Environmental Document, Section 2.4.6.4, Measure IS-1	Yes				Not Available- NEPA Only			
Animal Species										
Mitigation Measure AS-1	<p>To avoid effects to nesting birds, the Project Engineer will require the contractor to conduct vegetation removal or tree-trimming activities outside of the nesting bird season (i.e., February 15 through August 31).</p> <p>If vegetation clearing is necessary during the nesting season, the Project Engineer will require the contractor to have a qualified biologist conduct a preconstruction survey within 150 feet of construction areas no more than 10 days prior to construction at the location to identify the location of nests, if any. A qualified biologist is one that has previously surveyed for nesting bird species within southern California.</p> <p>Should nesting birds be found, an exclusionary buffer will be established by the qualified biologist around each nest site. The buffer will be clearly marked in the field by construction personnel under guidance of the contractor's qualified biologist, and construction or clearing will not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active.</p> <p>The qualified biologist will monitor the nests on a weekly basis to ensure that construction activities do not disturb or disrupt nesting activities.</p> <p>If the qualified biologist determines that construction activities are disturbing or disrupting nesting activities, then the biologist will notify the Project Engineer, who has the authority to stop or modify construction to reduce the noise and/or disturbance to the nests. Responses may include, but are not limited to, increasing the size of the exclusionary buffer, curtailing nearby work activities, turning off vehicle engines and other equipment wherever possible to reduce noise, installing a protective noise barrier between the nest and the construction activities, and/or working in other areas until the young have fledged.</p>	Final Environmental Document, Section 2.4.4.4, Measure AS-1	Yes				Less Than Significant with Mitigation			

Appendix E List of Acronyms and Abbreviations

°F	degrees Fahrenheit
µg/m ³	micrograms per cubic meter
AADT	average annual daily traffic
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
ACS	American Community Survey
ACM	asbestos-containing material
ADA	Americans with Disabilities Act
ADT	average daily traffic
ALUCP	Airport Land Use Compatibility Plan
AOC	Areas of Concern
APE	Area of Potential Effect
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
ASR	Archaeological Survey Report
BACM	Best Available Control Measures
Basin	South Coast Air Basin
BAU	business as usual
bgs	below ground surface
BFE	base flood elevation
BMPs	Best Management Practices

BSA	Biological Study Area
BTEX	benzene, toluene, ethylbenzene, and xylene
BTU	British thermal units
CAFE	Corporate Average Fuel Economy
Cal/EPA	California Environmental Protection Agency
Cal-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CE	Categorical Exclusion
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CERFA	Community Environmental Response Facilitation Act of 1992
CESA	California Endangered Species Act
CFG Code	California Fish and Game Code
CFR	<i>Code of Federal Regulations</i>
CH ₄	methane
CHP	California Highway Patrol
C+M	Construction and Management
City	City of Ontario

CMS	changeable message sign
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO-CAT	Coastal and Ocean Working Group of the California Climate Action Team
County	San Bernardino County
COZEEP	Construction Zone Enhanced Enforcement Program
CRHR	California Register of Historic Resources
CSA	construction staging area
CTP	California Transportation Plan
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DOC	California Department of Conservation
DPM	diesel particulate matter
DSA	disturbed soil area
DTSC	Department of Toxic Substances Control
EA	Environmental Assessment
ECR	Environmental Commitments Record
EDR	Environmental Data Resources, Inc.
EIR	Environmental Impact Report
EIS	Environmental Impact Statement

EO	Executive Order
EPA	United States Environmental Protection Agency
ESA	Environmentally Sensitive Area
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Study
FMMP	Farmland Mapping and Monitoring Program
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FSTIP	Federal Statewide Transportation Improvement Program
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
GHG	greenhouse gas
GIS	geographic information system
GPS	global positioning system
H ₂ S	hydrogen sulfide
HAR	Highway Advisory Radio
HCM	Highway Capacity Manual
HEI	Health Effects Institute
HHS	Department of Health and Human Services

HOV	High-Occupancy Vehicle
HPSR	Historic Property Survey Report
HREC	Historic Recognized Environmental Condition
HRER	Historical Resources Evaluation Report
HSA	hydrologic subarea
I-10	Interstate 10
I-15	Interstate 15
IBI	Index of Biotic Integrity
IEUA	Inland Empire Utility Agency
IPaC	Information, Planning, and Conservation
IPCC	Intergovernmental Panel on Climate Change
LCFS	low carbon fuel standard
LED	light-emitting diode
LBP	Lead-based paint
LEDPA	least environmentally damaging practicable alternative
LOS	Level of Service
LST	Localized Significance Threshold
LUST	leaking underground storage tank
MAP-21	Moving Ahead for Progress in the 21 st Century
MBTA	Migratory Bird Treaty Act
MEP	maximum extent practicable
MLD	Most Likely Descendent
MMTCO ₂ e	million metric tons of carbon dioxide equivalent
MOU	Memorandum of Understanding

mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
MS4	municipal separate storm sewer system
MSAT	Mobile source air toxic
MSWMP	Master Stormwater System Maintenance Program
MTCO _{2e}	metric tons of carbon dioxide equivalent
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1966
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	National Oceanic and Atmospheric Administration's National Marine Fisheries
NOC	Notice of Completion
NOIS	Notice of Initiation of Studies
NOP	Notice of Preparation

NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSR	Noise Study Report
NWI	National Wetlands Inventory
NWP	Nationwide Permit
O ₃	ozone
OE	Operations Engineer
OHWM	ordinary high water mark
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Act
OSTP	Office of Science and Technology Policy
PA	Programmatic Agreement
PA/ED	Project Approval/Environmental Document
Pb	lead
PCB	polychlorinated biphenyls
PCE	passenger car equivalent
PCL	Pacific Coast League
PDT	Project Development Team
PFYC	Potential Fossil Yield Classification
PL	Public Law
PM	particulate matter
PM ₁₀	particulate matter less than 10 microns in diameter
PM _{2.5}	particulate matter less than 2.5 microns in diameter

PMP	Paleontological Monitoring Plan
POAQC	Project of Air Quality Concern
ppb	parts per billion
ppm	parts per million
PRC	Public Resources Code
Project	Grove Avenue Corridor Project
RAP	Relocation Assistance Program
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act of 1976
RCTC	Riverside County Transportation Commission
REC	Recognized environmental conditions
REAP	Rain Event Action Plan
Resources Agency	California Natural Resources Agency
RIS	Relocation Impact Statement
ROG	reactive organic gases
ROW	right-of-way
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SAWCO	San Antonio Water Company
SB	Senate Bill
SBAIC	San Bernardino Archaeological Information Center
SBCFCD	San Bernardino County Flood Control District
SBCM	San Bernardino County Museum

SBCTA	San Bernardino County Transportation Authority
SBTAM	San Bernardino County Transportation Analysis Model
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCH	State Clearinghouse
SCS	Sustainable Communities Strategy
SDC	Seismic Design Criteria
SER	Standard Environmental Reference
SF ₆	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SLR	Sea Level Rise
SO ₂	sulfur dioxide
SO _x	sulfur oxides
SPRR	Southern Pacific Railroad
SR	State Route
SWMP	Storm Water Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCE	Temporary Construction Easement
TCWG	Transportation Conformity Working Group
TDS	total dissolved solids
TMDLs	Total Maximum Daily Loads
TMP	Transportation Management Plan

TPH	total petroleum hydrocarbon
TSCA	Toxic Substances Control Act
TWW	treated wood waste
UPRR	Union Pacific Railroad
U.S.C.	United States Code
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGCRP	U.S. Global Change Research Program
USGS	United States Geological Survey
v/c	volume to capacity
VHT	vehicle hours traveled
VMT	vehicle miles traveled
VOC	volatile organic compounds
VRP	visibility-reducing particles
WDR	Waste Discharge Requirements
WPCP	Water Pollution Control Program

Appendix F Health Risk Assessment

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DRAFT HEALTH RISK ASSESSMENT

Grove Avenue Corridor Project

City of Ontario
San Bernardino County

FPN HPLUL-5092(039)
Project Identification 0815000220



July 2016



CITY OF ONTARIO

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DRAFT HEALTH RISK ASSESSMENT



CITY OF ONTARIO

Prepared By: *Joza M. Burnham* Date: 8/23/2017
Joza M. Burnham, Senior Planner
Parsons Transportation Group

Approved By: *[Signature]* Date: 8/23/17
Richard Ayala, Senior Planner
City of Ontario, Planning Department

*Grove Avenue Corridor Project
Draft Health Risk Assessment*

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List of Acronyms and Abbreviations

AADT	average annual daily traffic
ADT	average daily traffic
ARB	California Air Resources Board
AQR	Air Quality Report
AT	Averaging time
BW	body weight
CAAQS	California Ambient Air Quality Standards
Cair	concentration of contaminant in air
Caltrans	California Department of Transportation
CDI	chronic daily intake
CEQA	California Environmental Quality Act
City	City of Ontario
CO	carbon monoxide
CPF	cancer potency factor
County	County of San Bernardino
DPM	diesel particulate matter
ED	exposure duration
EF	exposure frequency
EPA	U.S. Environmental Protection Agency
FHWA	Federal Highway Administration

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I-10	Interstate 10
IR	inhalation rate
LOS	level of service
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
mg/m^3	milligrams per cubic meter
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
NB	northbound
NEPA	National Environmental Policy Act
NOA	naturally occurring asbestos
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
O_3	ozone
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in diameter
$\text{PM}_{2.5}$	particulate matter less than 2.5 microns in diameter
ppb	parts per billion
ppm	parts per million
REL	Reference Exposure Level
RME	reasonable maximum exposures
ROGs	reactive organic gases

ROW	right-of-way
SB	Southbound
SCAQMD	South Coast Air Quality Management District
UPRR	Union Pacific Railroad
URF	unit risk factor
TAC	toxic air contaminant
SRA	Source Receptor Area
VMT	vehicle miles traveled
VOC	volatile organic compounds

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Chapter 1 Introduction

For the Grove Avenue Corridor Project, emissions generated by the widening of the roadway are a potential concern and relevant thresholds and standards exist to determine the impact of vehicular emissions on an exposed population. As such, a health risk assessment was prepared to evaluate the potential impact of these emissions on individuals residing within the proposed project area.

In April 2005, the California Air Resources Board (CARB) developed recommendations regarding setting sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural road with 50,000 vehicles per day. According to the recommendation from CARB, the increased cancer risk is 300 to 1,700 per million within this domain. The strongest association of traffic related emissions with adverse health outcomes was seen within 300 feet of roadways with high truck densities and particulate pollution levels decreasing by approximately 70 percent at a distance of 500 feet and greater.

The ambient concentrations of air pollutants are determined by the amount of emissions released by sources and the atmosphere's ability to transport and dilute the emissions. Air quality conditions are generated by topography, wind speed, wind direction, air temperature gradients, and emissions released by air pollutant sources, which interact to move and disperse air pollutants.

This report summarizes the methodologies used in assessing the potential health risks associated with the proposed project and presents the results of the assessment. The assessment and dispersion modeling methodologies used in the preparation of this report were composed of all relevant and appropriate procedures presented by the U.S. Environmental Protection Agency (EPA), California Environmental Protection Agency (CalEPA) and South Coast Air Quality Management District (SCAQMD). The methodologies and assumptions offered under this regulatory guidance were used to ensure that the assessment effectively quantified residential exposures associated with the generation of contaminant emissions from the Grove Avenue Corridor Project.

1.1 Project Purpose, Need, Description, and Alternatives

1.1.1 Project Purpose

The purpose of the proposed Grove Avenue Corridor Project is to accomplish the following objectives:

*Grove Avenue Corridor Project
Draft Health Risk Assessment*

- Alleviate existing and anticipated future congestion along Grove Avenue between Interstate 10 (I-10) and State Street/Airport Drive;
- Improve traffic operations and mobility to and from LA/Ontario International Airport, a future cargo hub facility near Grove Avenue and Holt Boulevard, and other planned uses; and

Provide route continuity along Grove Avenue in conformance with the City of Ontario General Plan Circulation Element, which identifies Grove Avenue as a six-lane principal arterial.

1.1.2 Project Need

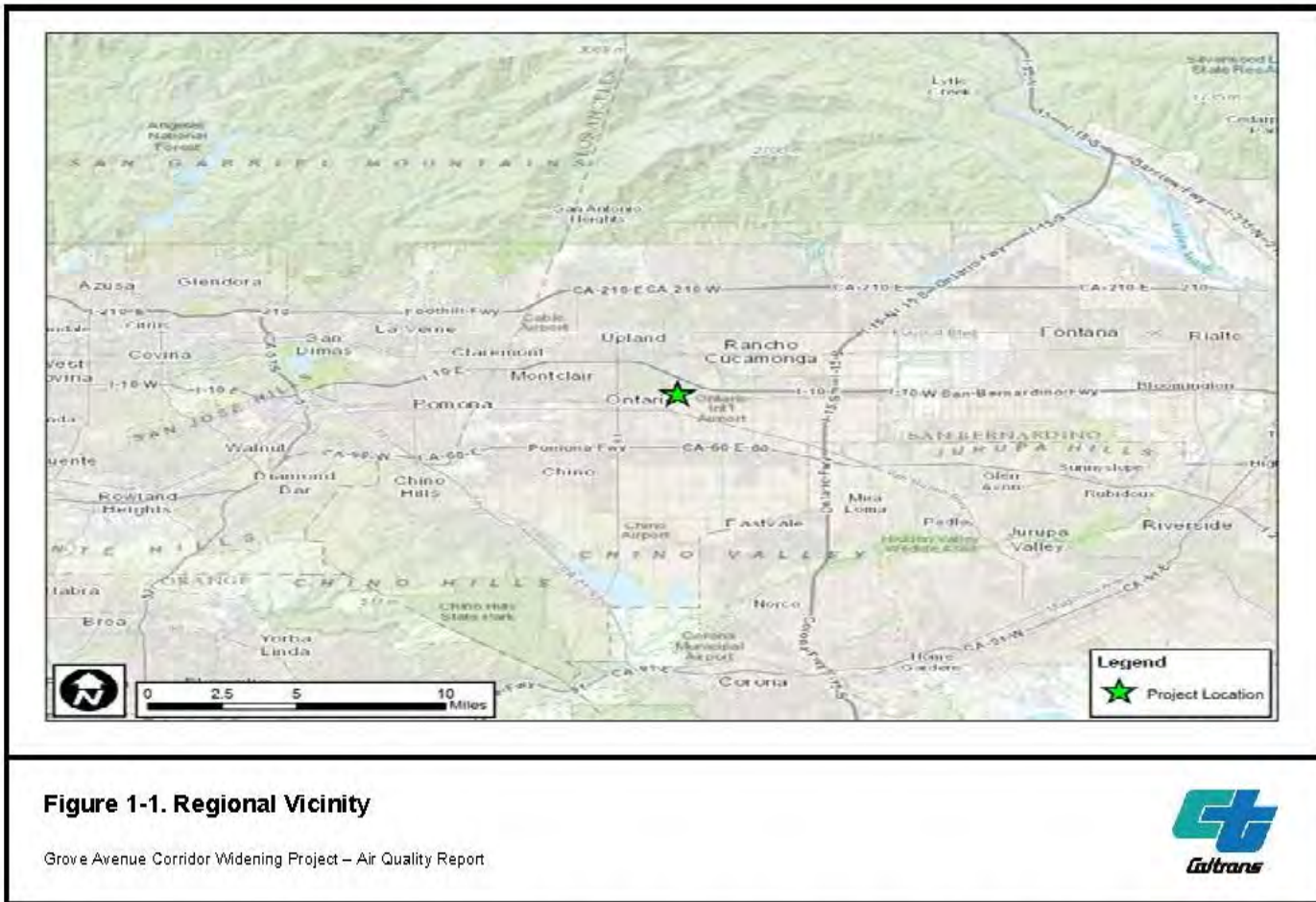
The proposed project is needed to serve existing and projected travel demand along the Grove Avenue corridor. Improvements to Grove Avenue are needed to accommodate the recent and projected growth in passenger and goods/trucks movement associated with the LA/Ontario International Airport and changes in land use since Grove Avenue was originally constructed.

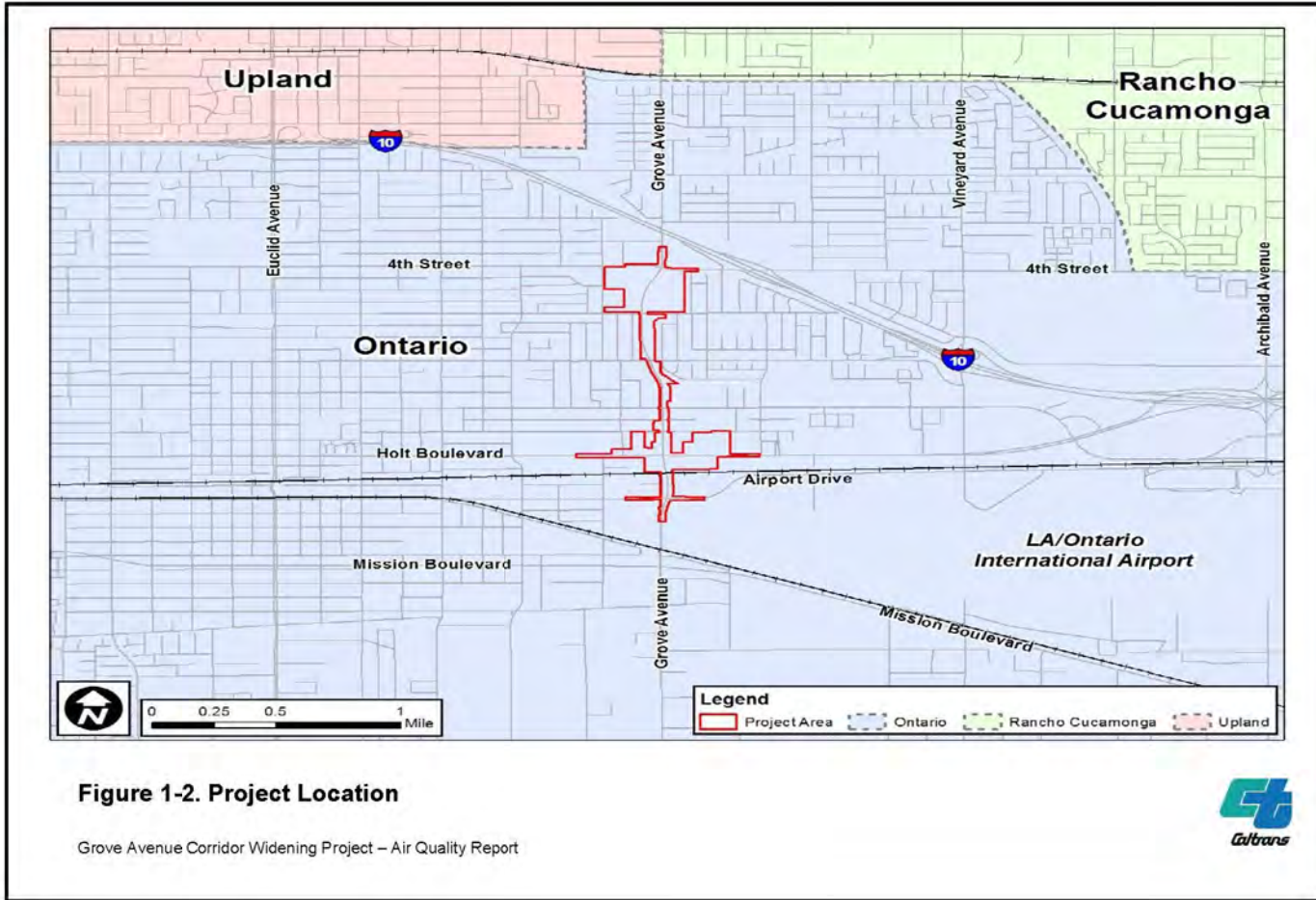
Based on traffic projections and the existing and planned land uses in the vicinity, the existing Grove Avenue facility is forecast to operate at unsatisfactory level of service (LOS) at three intersections within the project limits by 2045 without improvements.

1.1.3 Project Description

The City of Ontario (City) proposes to widen Grove Avenue from a four-lane roadway to a six-lane roadway from 4th Street to State Street/Airport Drive, as shown in Figures 1-1 and 1-2. One Build Alternative and a No Build Alternative are being considered for the Grove Avenue Corridor Project.

Grove Avenue is located approximately 1.4 miles east of Euclid Avenue and approximately 1.2 miles west of Vineyard Avenue along I-10. The project area is bound on the north by 4th Street and on the south by East State Street/East Airport Drive.





1.1.4 Alternatives

Build Alternative

The Build Alternative proposes local street improvements along Grove Avenue and improvements at the Grove Avenue/Holt Boulevard intersection. This includes widening Grove Avenue from four lanes to six lanes between 4th Street and East State Street/East Airport Drive in accordance with the City of Ontario Master Plan. South of 4th Street, Grove Avenue would be widened to the west to avoid impacts to the historical Jay Littleton Ballpark. Between I Street and Holt Boulevard, Grove Avenue would be widened to the east, and between Holt Boulevard and East State Street/East Airport Drive, Grove Avenue would be widened on both sides. Holt Boulevard would be widened at the Grove Avenue intersection from one through lane, one through-right lane, and one left turn lane in each direction to two through lanes, one through-right lane, and two left turn lanes in each direction. Alternative 2 would include covering a portion of two culverts: the G Street Culvert and the Grove Avenue Culvert.

Earthwork and Retaining Walls. The project would include earthwork activities and development of retaining walls. The cut slopes would be a standard two (horizontal) to one (vertical), and fill slopes would be a standard four (horizontal) to one (vertical). Four retaining walls would be proposed under the Union Pacific Rail Road (UPRR) Bridge between Holt Boulevard and East State Street/East Airport Drive to accommodate widening Grove Avenue without impacting the UPRR Bridge. The walls would range from 6 to 10 feet in height and would be constructed at the following locations:

- Northbound (NB) Grove Avenue under the UPRR Bridge, between the roadway and the sidewalk
- NB Grove Avenue between the UPRR Bridge and Holt Boulevard, at the back of sidewalk
- Southbound (SB) Grove Avenue under the UPRR Bridge, between the roadway and the sidewalk
- SB Grove Avenue between the UPRR Bridge and Holt Boulevard, at the back of sidewalk

Nonmotorized and Pedestrian Features. Grove Avenue is designated as a Bicycle Corridor by the City of Ontario Multipurpose Trails and Bikeway Corridor Plan. The Build Alternative proposes an outside lane width of 15 feet, in accordance with the City of Ontario Master Plan. Standard sidewalks would be provided along Grove Avenue within the project limits.

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Right-of-Way (ROW) Acquisition. To provide ROW for the local street widening, the Build Alternative would fully acquire approximately 14 properties and partially acquire approximately 70 properties. The ROW impacts consist of single-family and multi-family residential properties, vacant parcels, and commercial and industrial properties. In addition, temporary construction easements would be needed from several properties where grading would occur.

No Build Alternative

The No Build Alternative proposes no improvements to the project area. Grove Avenue would maintain the existing four through lanes, and the existing configuration at the Grove Avenue/Holt Boulevard intersection would be maintained.

1.1.5 Existing Land Uses

The area surrounding the project alignment supports a variety of land uses, including outdoor recreational uses (John Galvin Park and Memorial Grove Park); single- and multi-family residences; three motels; and commercial properties.

Generally, people that are more susceptible to poor air quality are young children, the elderly, and people with immune deficiencies; therefore, land uses, such as schools, daycare facilities, hospitals, elderly care facilities, and other areas that are occupied by people susceptible to air quality pollutants are considered sensitive air quality receptors. Residential land uses also are considered sensitive receptors.

1.1.6 Summary of Findings

For carcinogenic exposures, the summation of risk for the maximum exposed residential receptor totaled 3.03E-06 (3.03 in one million) for the 30 year and 9.09E-08 (9.09 in one million) for the 9 year exposure scenarios. In comparison to the threshold level of ten in one million, carcinogenic risks will not exceed the applicable thresholds for both the 30 and 9 year exposure scenario. Therefore, carcinogenic exposures are calculated to be within acceptable limits and are less than significant.

For chronic noncarcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than one for both the 30 year and 9 year exposure scenarios. For acute exposures, the hazard indices for the identified averaging times did not exceed unity. Therefore, noncarcinogenic hazards are calculated to be within acceptable limits and a less than significant impact would occur.

For the maximum exposed residential receptor, results of the analysis predicted freeway emissions will produce PM₁₀ concentrations of 0.552 µg/m³ and 0.25 µg/m³ for the 24-hour and annual averaging times. These values will not exceed the SCAQMD significance thresholds of 2.5 µg/m³ and 1.0 µg/m³, respectively.

For PM_{2.5}, a maximum 24-hour average concentration of 1.38 µg/m³ was predicted. This value also will not exceed the identified significance threshold of 2.5 µg/m³.

The maximum modeled 1-hour average concentration for CO of 1.5 parts per million (ppm) (3,600 µg/m³), when added to an existing background concentration of 2.1 ppm, would equal a total Project concentration of 3.6 ppm. This would not cause an exceedance of the California CAAQS of 20 ppm. For the 8-hour averaging time, the maximum predicted concentration of 1.5 ppm (1,500 µg/m³), when added to an existing background level of 1.3 ppm, would equal a total Project concentration of 2.8 ppm. This would not cause an exceedance of the CAAQS of 9 ppm.

For NO₂, a maximum one hour concentration of 0.20 ppm (200µg/m³) was predicted. This concentration, when added to a background concentration of 00.072 ppm, would equal a total Project concentration.

1.1.7 Mitigation Measures

No significant impacts would occur, thus no mitigation is required.

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Chapter 2 Source Identification and Characterization

2.1 Source Identification

Motor vehicle emissions contribute to ambient levels of air toxics known or suspected as human or animal carcinogens, or that have noncancer health effects. Noncancer health effects can result from exposures to air toxics, and include neurological, cardiovascular, liver, kidney, and respiratory effects as well as effects on the immune and reproductive systems.

In January 2015, Iteris, Inc. developed a Traffic Operations Analysis to future design-year traffic volumes generated by the operation of the proposed project. Table 2-1 presents the annual average daily traffic volumes (AADT) for the roadway segments considered in the assessment.

Table 2-1. Average Daily Traffic Volumes

2045 Conditions	AADT	Truck AADT	Diesel Truck Percentage
Grove Avenue/4 th Street	103,052	4,431	4
Grove Avenue/I Street	69,507	2,989	4
Grove Avenue/G Street	79,522	3,022	4
Grove Avenue/D Street	77,562	2,947	4
Grove Avenue/Holt Boulevard	168,413	6,400	4
Grove Avenue/State Street-Airport Drive	131,811	5,009	4

Source: Iteris, Inc. 2015

2.2 Source Characterization

Mobile source emissions within the project area contribute significantly to localized air pollutant concentrations. Emissions that are generated from mobile sources are sorted by vehicle mix, the rate pollutants are generated during the course of travel and the number of vehicles traveling along the roadway network. For on-road motor vehicles, emissions rates are typically expressed as mass of pollutant emitted per mile driven, per vehicle per day, or per trip made, depending on the emissions process being analyzed. An emissions process for a motor vehicle is the physical mechanism that results in the emissions of a pollutant (e.g., the combustion of fuel, the evaporation of fuel, tire or brake wear, or the start of an engine).

CARB developed an Emission FACTors (EMFAC) model to calculate statewide or regional emissions inventories by multiplying emissions rates with vehicle activity data from all motor vehicles, including passenger cars to heavy-duty trucks, operating on highways,

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freeways, and local roads in California. In December 2015, the EPA approved the EMFAC2014 model making this model the most current emission factor model. However, at the time the Air Quality Report (AQR) for the proposed project was developed EMFAC2014 had not been approved; therefore, EMFAC2011 was utilized to evaluate potential air quality impacts and establish project conformity. To remain consistent with the project’s AQR, emissions factors from EMFAC2011 was utilized to identify pollution emission rates for total organic gases (TOG), diesel particulates, particulates (PM₁₀ and PM_{2.5}), carbon monoxide (CO) and nitrogen oxide (NO_x) compounds. To produce a representative vehicle fleet distribution, the assessment utilized CARB’s San Bernardino County population estimates for the 2045 calendar year. This approach provides an estimate of vehicle mix associated with operational profiles at the link or intersection level. Table 2-2 lists the identified vehicle traffic percentage considered in the assessment. Based upon the project’s Traffic Operation Analysis, diesel vehicles account for 4 percent of the on-road mobile fleet. For chronic (long term) and acute (e.g., 1-hour) exposures, AADT values were averaged to produce representative hourly traffic volumes. Table 2-3 presents the hourly traffic volumes considered in the assessment.

Table 2-2. Vehicle Traffic Percentage

Segment	Low (2 Axle Long)	Medium (2 Axle 6 Tire)	Heavy (>3 Axle Single)
7th St - 4th St	19.9%	4.6%	0.2%
4th St - G St	19.7%	4.0%	0.3%
G St - Holt Blvd	19.5%	3.4%	0.4%
Holt Blvd - Mission Blvd	19.5%	3.4%	0.4%
South of Mission Blvd	20.7%	6.7%	0.4%

Table 2-3. PM Peak Hour Traffic Volumes

Segment	Southbound	Northbound	Total Vehicles
Grove Avenue/4th Street	1290	1510	2800
Grove Avenue/I Street	1200	1740	2940
Grove Avenue/G Street	1070	1720	2790
Grove Avenue/D Street	1080	1900	2980
Grove Avenue/Holt Boulevard	1560	1860	3420
Grove Avenue/State Street [Airport Drive]	1520	2510	4030

Source: Iteris, Inc. 2015

Posted speeds were assumed for vehicles traveling along this segment of Grove Avenue. Emissions associated with acceleration and deceleration (i.e., intersection signals) was based upon vehicle speeds of 15 and 5 mile(s) per hour, respectively.

For particulates (PM₁₀ and PM_{2.5}), emissions were quantified through the reentrainment of paved roadway dust. The predictive emission equation developed by the EPA (AP-42, Section 13.2.1) was utilized to generate particulate source strength. To account for the mass rate of emissions entrained from the roadway surface, the contribution from exhaust, break and tire wear were added to the AP-42 emission factor equation.

A list of compounds associated with mobile source emissions is presented in Table 2-4. Appendix A presents the on-road emission rate calculation worksheets for the freeway segments considered in the assessment.

Table 2-4. Compounds Emitted from On-Road Mobile Source Activity

Source	Pollutant
Grove Avenue	Benzene
	Formaldehyde
	1,3-Butadiene
	Acetaldehyde
	Acrolein
	Diesel Particulates
	Reentrained Particulates (PM ₁₀ , PM _{2.5})
	Carbon Monoxide
	Nitrogen Dioxide

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Chapter 3 Exposure Quantification

To determine potential impacts on residents who live within 500 feet of the Grove Avenue Corridor improvements, air quality modeling was performed utilizing Caltrans' dispersion model CALINE4. CALINE4 is a simple line source Gaussian plume dispersion model. The user defines the proposed roadway geometry, worst-case meteorological parameters, anticipated traffic volumes, and receptor positions. The user must also define emission factors for each roadway link. Emission factors should be generated with CARB's EMFAC7f model or CT-EMFAC1.

This assessment followed guidance promulgated by the U.S. EPA, whereby the model was programmed to assume flat, level terrain. As Grove Avenue is predominantly at-grade with nearby residences, no modifications were developed to account for the discrepancy in terrain elevation.

Air dispersion models require additional input parameters including pollutant emission data and local meteorology. Due to their sensitivity to individual meteorological parameters such as wind speed and direction, the EPA recommends that meteorological data used as input into dispersion models be selected on the basis of relative spatial and temporal conditions that exist in the area of concern. In response to this recommendation, the nearest meteorological data available from the SCAQMD Upland (Source Receptor Area [SRA] 32), which is located less than 3 miles northwest of the project site, was used to represent local weather conditions and prevailing winds.

The modeling analysis also considered the spatial distribution of mobile source activity traveling on Grove Avenue in relation to nearby residential receptors. To accommodate a Cartesian grid format, direction dependent calculations were obtained by identifying the universal transverse mercator (UTM) coordinates for each volume source location. On-site receptors were placed to provide coverage across the identified project boundary. A two meter (6.5 feet) receptor height was assumed per AQMD guidance.

A dispersion model input summary table is provided in Appendix C. A complete listing of model input/output files are provided in electronic format in Appendix D.

Chapter 4 Risk Characterization

4.1 Carcinogenic Chemical Risk

There are no threshold levels for carcinogenic compounds; any exposure is expected to carry some associated risk. As a result, the State of California has established a threshold of one in one hundred thousand (or ten in one million) (1.0E-05) as a level posing no significant risk for exposures to carcinogens regulated under the Safe Drinking Water and Toxic Enforcement Act (Proposition 65). This threshold is also consistent with the maximum incremental cancer risk established by the SCAQMD for projects prepared under the auspices of the California Environmental Quality Act (CEQA). The SCAQMD CEQA Air Quality Handbook (1993) states that emissions of toxic air contaminants (TACs) are considered significant if a health risk assessment shows an increased risk of greater than ten in one million.

Health risks associated with exposure to carcinogenic compounds can be defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. Under a deterministic approach (i.e., point estimate methodology), the cancer risk probability is determined by multiplying the chemical's annual concentration by its unit risk factor (URF). The URF is a measure of the carcinogenic potential of a chemical when a dose is received through the inhalation pathway. It represents an upper bound estimate of the probability of contracting cancer as a result of continuous exposure to an ambient concentration of one microgram per cubic meter ($\mu\text{g}/\text{m}^3$) over a 70 year lifetime. The URFs utilized in the assessment and corresponding cancer potency factor were obtained from the Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values .

To effectively quantify dose, the procedure requires the incorporation of several discrete exposure variants. Once determined, contaminant dose is multiplied by the cancer potency factor (CPF) in units of inverse dose expressed in milligrams per kilogram per day ($\text{mg}/\text{kg}/\text{day}$)-1 to derive the cancer risk estimate. Therefore, to assess exposures associated with the proposed residential population, the following dose algorithm was utilized.

$$\text{CDI} = (\text{Cair} \times \text{EF} \times \text{ED} \times \text{IR}) / (\text{BW} \times \text{AT})$$

Where:

CDI = chronic daily intake ($\text{mg}/\text{kg}/\text{day}$)

Cair = concentration of contaminant in air (mg/m^3)

EF = exposure frequency (days/year)

ED = exposure duration (years)

IR = inhalation rate (m³/day)

BW = body weight (kg)

AT = averaging time (days)

To represent residential exposures, the assessment employed the EPA's guidance to develop viable dose estimates based on reasonable maximum exposures (RME). Specifically, activity patterns for population mobility recommended by the EPA and presented in the Exposure Factors Handbook were utilized. As a result, lifetime risk values for residents were adjusted to account for an exposure duration of 350 days per year for 30 years (i.e., 95th percentile). A 9 year exposure duration was additionally assessed to identify risk estimates associated with the average time individuals are reported to reside at a given residence. These values are consistent with CEQA, which considers the evaluation of environmental effects of proposed projects in a manner that reflects both reasonable and feasible assumptions. For body weight and inhalation, the assessment employed average adult values of 70 kilograms and 20 cubic meters per day, respectively.

Appendix 3.2, Tables A1 and A2, columns f-g, present the URF's and corresponding cancer potency factors for carcinogens considered in the assessment. The cancer risk attributed to each compound and summation of those risks are presented in column h.

For carcinogenic exposures, the summation of risk for the maximum exposed residential receptor totaled 3.03E-06 (3.03 in one million) for the 30 year and 9.09E-08 (9.09 in one million) for the 9 year exposure scenarios. In comparison to the threshold level of ten in one million, carcinogenic risks will not exceed the applicable thresholds for both the 30 and 9 year exposure scenario. Therefore, carcinogenic exposures were predicted to be within acceptable limits and are less than significant.

4.2 Non-Carcinogenic Hazards

An evaluation of the potential noncancer effects of contaminant exposures was also conducted. Under the point estimate approach, adverse health effects are evaluated by comparing the concentration of each compound with the appropriate Reference Exposure Level (REL). Available REL's presented in the Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values were considered in the assessment.

To quantify noncarcinogenic impacts, the hazard index approach was used. The hazard index assumes that subthreshold exposures adversely affect a specific organ or organ system (i.e., toxicological endpoint). For each discrete pollutant exposure, target organs presented in regulatory guidance were utilized.

To calculate the hazard index, the pollutant concentration or dose is divided by the appropriate toxicity value. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds one (i.e., unity), a health hazard is presumed to exist. For chronic exposures, REL's were converted to units expressed in mg/kg/day to accommodate the above referenced intake algorithm. To assess acute noncancer impacts, the maximum pollutant concentration is divided by the REL for the corresponding averaging time (e.g., 1-hour). No exposure adjustments are considered for short duration exposures.

Appendix C, Tables A1 and A2, columns i-j, present the REL's and corresponding reference dose values used in the evaluation of chronic noncarcinogenic exposures. The noncancer hazard quotient for identified compounds generated from each source and a summation for each toxicological endpoint are presented in columns k-r. Tables A3 through A4, column e present the REL's for the assessment of acute exposures. Columns f-m identify each compound's hazard quotient and corresponding index for each endpoint.

For chronic noncarcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than one for both the 30 year and 9 year exposure scenarios. For acute exposures, the hazard indices for the identified averaging times did not exceed unity. Therefore, acute and chronic non-carcinogenic hazards were predicted to be within acceptable limits and are less than significant.

4.3 Criteria Pollutant Exposures

The State of California has promulgated strict ambient air quality standards (CAAQS) for various pollutants. These standards were established to safeguard the public's health and welfare with specific emphasis on protecting those individuals susceptible to respiratory distress, such as asthmatics, the young, the elderly and those with existing conditions which may be affected by increased pollutant concentrations. However, recent research has shown that unhealthful respiratory responses occur with exposures to pollutants at levels that only marginally exceed clean air standards. Table 4-1 presents the CAAQS for the criteria pollutants considered in the assessment.

Table 4-1. California Ambient Air Quality Standards

Pollutant	Standard	Health Effects
Particulates (PM10)	50 µg/m ³ (24 hr avg) 20 µg/m ³ (Annual)	1) Excess deaths from short-term exposures and the exacerbation of symptoms in sensitive individuals with respiratory disease. 2) Excess seasonal declines in pulmonary function especially in children.
Particulates (PM2.5)	12 µg/m ³ (Annual)	1) Excess deaths and illness from long-term exposures and the exacerbation of symptoms in sensitive individuals with respiratory and cardio pulmonary disease.
Carbon Monoxide (CO)	20 ppm (1 hr avg) 9.0 ppm (8 hr avg)	1) Aggravation of angina pectoris and other aspects of coronary heart disease. 2) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease. 3) Impairment of central nervous system functions. 4) Possible increased risk to fetuses.
Nitrogen Dioxide (NO ₂)	0.18 ppm (1 hr avg) 0.030 ppm (Annual)	1) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups. 2) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes.

Abbreviations: ppm: parts per million; µg/m³: micrograms per cubic meter.
Source: California Code of Regulations, Title 17, Section 70200.

Pollutant emissions are considered to have a significant effect on the environment if they result in concentrations that create either a violation of an ambient air quality standard, contribute to an existing air quality violation or expose sensitive receptors to substantive pollutant concentrations. Should ambient air quality already exceed existing standards, the SCAQMD has established significance criteria for selected compounds to account for the continued degradation of local air quality. Background concentrations are based upon the highest observed value for the most recent three year period.

For PM₁₀ emissions, background concentrations representative of the project area exceed the CAAQS for the 24-hour and annual averaging times. As a result, a significant impact is achieved when pollutant concentrations produce a measurable change over existing background levels. Although background concentrations exceed the CAAQS annual averaging time for fine particulates, no measurable change criteria currently exists. As a result, the SCAQMD significance threshold of 2.5 µg/m³ for the 24-hour averaging time is used to assess PM_{2.5} impacts.

For the CO 1 and 8-hour averaging times and NO₂ 1-hour averaging time, background concentrations are below the current air quality standards. As such, significance is achieved when pollutant concentrations add to existing levels and create an exceedance of the CAAQS. Table 4-2 shows the pollutant concentrations collected at the nearest available

monitoring sites to the Project for the last three years of available data. Table 4-3 outlines the relevant significance thresholds considered to affect local air quality.

Table 4-2. Air Quality Data Summary (2013-2015)

Pollutant	Monitoring Data by Year		
	2013	2014	2015
Carbon Monoxide			
Highest 8 Hour Average (ppm)	1.4	1.2	1.3
Highest 1 Hour Average (ppm)	3	2.9	2.1
Particulate Matter (PM₁₀)			
Highest 24 Hour Average (µg/m ³) ^b	113	65	69
Annual Average (µg/m ³) ^b	33.9	NA	NA
Particulate Matter (PM_{2.5})			
Highest 24 Hour Average (µg/m ³) ^b	49.3	38.4	52.7 ^d
Annual Average (µg/m ³) ^b	11.98	NA	NA
Nitrogen Dioxide			
Highest 1 Hour Average (ppb)	62	66	72

NOTES:

ppm = parts per million; µg/m³ = micrograms per cubic meter, ppb = parts per billion

NA = There was insufficient (or no) data available to determine the value.

^a Generally, state standards and national standards are not to be exceeded more than once per year.

^b Values represent federal statistics and are midnight-to-midnight 24-hour averages. State and federal statistics may differ because of different sampling methods.

^c Measurements are usually collected every 6 days. Days over the standard represent the measured number of days that the standard has been exceeded.

^d Monitor values at the Upland monitoring station were not available to 2015, monitor values from the Ontario (2330 S. Castle Harbour, Ontario) were used as this is the next closest monitoring station with PM_{2.5} concentration values.

Table 4-3. SCAQMD Air Quality Significance Threshold

Pollutant	Averaging Time	Pollutant Concentration
Particulates (PM10) Particulates (PM2.5)	24 Hours	2.5 µg/m ³ (operation)
Particulates (PM10)	Annual	1.0 µmg/m ³

Table 4-3. SCAQMD Air Quality Significance Threshold

Pollutant	Averaging Time	Pollutant Concentration
Carbon Monoxide (CO)	1/8 Hours	SCAQMD is in attainment; impacts are significant if they cause or contribute to an exceedance of the following attainment standards 20 ppm (1-hour) and 9 ppm (8-hour).
Nitrogen Dioxide (NO ₂)	1 Hour	SCAQMD is in attainment; impacts are significant if they cause or contribute to an exceedance of the following attainment standard 0.18 ppm.

Abbreviations: ppm: parts per million; µg/m³: micrograms per cubic meter
Source: South Coast Air Quality Management District.

For the maximum exposed residential receptor, results of the analysis predicted freeway emissions will produce PM₁₀ concentrations of 0.552 µg/m³ and 0.25 µg/m³ for the 24-hour and annual averaging times. These values will not exceed the SCAQMD significance thresholds of 2.5 µg/m³ and 1.0 µg/m³, respectively.

For PM_{2.5}, a maximum 24-hour average concentration of 1.38 µg/m³ was predicted. This value also will not exceed the identified significance threshold of 2.5 µg/m³.

The maximum modeled 1-hour average concentration for CO of 1.5 parts per million (ppm) (3,600 µg/m³), when added to an existing background concentration of 2.1 ppm, would equal a total Project concentration of 3.6 ppm. This would not cause an exceedance of the California CAAQS of 20 ppm. For the 8-hour averaging time, the maximum predicted concentration of 1.5 ppm (1,500 µg/m³), when added to an existing background level of 1.3 ppm, would equal a total Project concentration of 2.8 ppm. This would not cause an exceedance of the CAAQS of 9 ppm.

For NO₂, a maximum one hour concentration of 0.20 ppm (200µg/m³) was predicted. This concentration, when added to a background concentration of 00.072 ppm, would equal a total Project concentration.

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Chapter 5 Conclusion

For carcinogenic exposures, the summation of risk for the maximum exposed residential receptor totaled 3.03E-06 (3.03 in one million) for the 30 year and 9.09E-08 (9.09 in one million) for the 9 year exposure scenarios. In comparison to the threshold level of ten in one million, carcinogenic risks will not exceed the applicable thresholds for both the 30 and 9 year exposure scenario. Therefore, carcinogenic exposures are calculated to be within acceptable limits and impacts are less than significant.

For chronic noncarcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than one for both the 30 year and 9 year exposure scenarios. For acute exposures, the hazard indices for the identified averaging times did not exceed unity. Therefore, noncarcinogenic hazards are calculated to be within acceptable limits and a less than significant impact would occur.

For the maximum exposed residential receptor, results of the analysis predicted freeway emissions will produce PM₁₀ concentrations of 0.552 µg/m³ and 0.25 µg/m³ for the 24-hour and annual averaging times. These values will not exceed the SCAQMD significance thresholds of 2.5 µg/m³ and 1.0 µg/m³, respectively.

For PM_{2.5}, a maximum 24-hour average concentration of 1.38 µg/m³ was predicted. This value also will not exceed the identified significance threshold of 2.5 µg/m³.

The maximum modeled 1-hour average concentration for CO of 1.5 parts per million (ppm) (3,600 µg/m³), when added to an existing background concentration of 2.1 ppm, would equal a total Project concentration of 3.6 ppm. This would not cause an exceedance of the California CAAQS of 20 ppm. For the 8-hour averaging time, the maximum predicted concentration of 1.5 ppm (1,500 µg/m³), when added to an existing background level of 1.3 ppm, would equal a total Project concentration of 2.8 ppm. This would not cause an exceedance of the CAAQS of 9 ppm.

For NO₂, a maximum one hour concentration of 0.20 ppm (200µg/m³) was predicted. This concentration, when added to a background concentration of 00.072 ppm, would equal a total Project concentration.

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Appendix A Emission Rate Calculation Worksheets

Running Rate Emission Summary

Criteria	5 mph	15 mph	45 mph
CO	2,660	1,251	2,496
NOx	0.686	0.142	0.581
PM10	0.016	0.006	0.010
PM2.5	0.014	0.006	0.009
TOG GAS	0.433	0.174	0.122
TOG DSL	1.170	0.131	0.153
DSL Particulate	0.007	0.006	0.008

EMFAC2011 Worksheet
(5 mph)

EMFAC2014 (v1.0.7) Emission Rates										
Region Type: County										
Region: San Bernardino										
Calendar Year: 2045										
Season: Annual										
Vehicle Classification: EMFAC2011 Categories										
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW										
Region	CaYr	VehClass	MdYr	Speed	Fuel	VMT	CO_RUNE	NOx_RUN	PM10_RU	PM2_5_RUNE
San Bernai	2045	LDA	Aggregate	5	GAS	32547.21	0.054899	0.038211	0.000466	0.000428326
San Bernai	2045	LDA	Aggregate	5	DSL	452.8933	0.002552	0.041175	0.000158	0.000150878
San Bernai	2045	LDT1	Aggregate	5	GAS	2259.238	0.059582	0.042747	0.000498	0.000457543
San Bernai	2045	LDT1	Aggregate	5	DSL	1.264741	0.027298	0.157824	0.000104	0.000996577
San Bernai	2045	LDT2	Aggregate	5	GAS	12814.22	0.717647	0.045358	0.000469	0.000431683
San Bernai	2045	LDT2	Aggregate	5	DSL	28.17083	0.026451	0.000151	0.000911	0.00087202
San Bernai	2045	LHD1	Aggregate	5	GAS	125.2526	0.229792	0.073791	0.0076	0.000698811
San Bernai	2045	LHD1	Aggregate	5	DSL	140.5119	0.003528	0.034596	0.000159	0.000152462
San Bernai	2045	LHD2	Aggregate	5	GAS	48.68335	0.214608	0.000551	0.000777	0.000714574
San Bernai	2045	LHD2	Aggregate	5	DSL	70.56483	0.033257	0.002376	0.000151	0.000144925
San Bernai	2045	MCY	Aggregate	5	GAS	292.5383	0.004201	0.016387	0.000139	0.000129779
San Bernai	2045	MDV	Aggregate	5	GAS	6867.409	0.849694	0.056445	0.000506	0.004650622
San Bernai	2045	MDV	Aggregate	5	DSL	193.4764	0.029179	0.004708	0.000194	0.000185309
San Bernai	2045	MH	Aggregate	5	GAS	15.12271	0.299882	0.000181	0.000764	0.0007029
San Bernai	2045	MH	Aggregate	5	DSL	3.07548	0.00021	0.000107	0.000433	0.000414249
San Bernai	2045	SBUS	Aggregate	5	GAS	227.4591	0.032253	0.001574	0.000777	0.000714302
San Bernai	2045	SBUS	Aggregate	5	DSL	405.8311	0.011897	0.094554	0.000542	0.000518493
San Bernai	2045	UBUS	Aggregate	5	GAS	770.3906	0.059122	0.054685	0.000762	0.000700814
San Bernai	2045	UBUS	Aggregate	5	DSL	769.8618	0.004072	0.020859	0.000572	0.00054737
							2.660123	0.686279	0.015984	0.013611637

**EMFAC2011 Worksheet
 (5 mph)**

EMFAC2014 (v1.0.7) Emission Rates							
Region Type: County							
Region: San Bernardino							
Calendar Year: 2045							
Season: Annual							
Vehicle Classification: EMFAC2011 Categories							
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW							
Region	CaYr	VehClass	MdYr	Speed	Fuel	VMT	TOG_RUN
San Bernar	2045	LDA	Aggregate	5	GAS	32547.21	0.036586
San Bernar	2045	LDT1	Aggregate	5	GAS	2259.238	0.04204
San Bernar	2045	LDT2	Aggregate	5	GAS	12814.22	0.046724
San Bernar	2045	LHD1	Aggregate	5	GAS	125.2526	0.034363
San Bernar	2045	LHD2	Aggregate	5	GAS	48.68335	0.030429
San Bernar	2045	MCY	Aggregate	5	GAS	292.5383	0.000157
San Bernar	2045	MDV	Aggregate	5	GAS	6867.409	0.060447
San Bernar	2045	MH	Aggregate	5	GAS	15.12271	0.087098
San Bernar	2045	SBUS	Aggregate	5	GAS	227.4591	0.083891
San Bernar	2045	UBUS	Aggregate	5	GAS	770.3906	0.010895
							0.43263

**EMFAC2011 Worksheet
 (5 mph)**

EMFAC2014 (v1.0.7) Emission Rates							
Region Type: County							
Region: San Bernardino							
Calendar Year: 2045							
Season: Annual							
Vehicle Classification: EMFAC2011 Categories							
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW							
Region	CalYr	VehClass	MdlYr	Speed	Fuel	VMT	TOG_RUN
San Bernai	2045	LDA	Aggregator	5	DSL	452.8933	0.087735
San Bernai	2045	LDT1	Aggregator	5	DSL	1.264741	0.302185
San Bernai	2045	LDT2	Aggregator	5	DSL	28.17083	0.299059
San Bernai	2045	LHD1	Aggregator	5	DSL	140.5119	0.086295
San Bernai	2045	LHD2	Aggregator	5	DSL	70.56483	0.084797
San Bernai	2045	MDV	Aggregator	5	DSL	193.4764	0.10179
San Bernai	2045	MH	Aggregator	5	DSL	3.07548	0.085917
San Bernai	2045	SBUS	Aggregator	5	DSL	405.8311	0.025732
San Bernai	2045	UBUS	Aggregator	5	DSL	769.8618	0.09608
							1.169589

**EMFAC2011 Worksheet
 (5 mph)**

EMFAC2014 (v1.0.7) Emission Rates								
Region Type: County								
Region: San Bernardino								
Calendar Year: 2045								
Season: Annual								
Vehicle Classification: EMFAC2011 Categories								
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW								
Region	CaYr	VehClass	MdYr	Speed	Fuel	VMT	PM10_RU	PM2_5_RL
San Bernar	2045	LDA	Aggregate	5	DSL	452.8933	0.000158	0.000151
San Bernar	2045	LDT1	Aggregate	5	DSL	1.264741	0.000104	0.000997
San Bernar	2045	LDT2	Aggregate	5	DSL	28.17083	0.000911	0.000872
San Bernar	2045	LHD1	Aggregate	5	DSL	140.5119	0.000159	0.000152
San Bernar	2045	LHD2	Aggregate	5	DSL	70.56483	0.000151	0.000145
San Bernar	2045	MDV	Aggregate	5	DSL	193.4764	0.000194	0.000185
San Bernar	2045	MH	Aggregate	5	DSL	3.07548	0.000433	0.000414
San Bernar	2045	SBUS	Aggregate	5	DSL	405.8311	0.000542	0.000518
San Bernar	2045	UBUS	Aggregate	5	DSL	769.8618	0.000572	0.000547
							0.003225	0.003982
								0.007207

EMFAC2011 Worksheet
(15 mph)

Region	CalYr	VehClass	MdlYr	Speed	Fuel	VMT	CO_RUNE	NOx_RUN	PM10_RU	PM2_5_RL
San Bernai	2045	LDA	Aggregate	15	GAS	320624.1	0.045821	0.000289	0.000194	0.000179
San Bernai	2045	LDA	Aggregate	15	DSL	4461.331	0.932349	0.000229	0.000128	0.000123
San Bernai	2045	LDT1	Aggregate	15	GAS	22327.73	0.004978	0.000323	0.000208	0.000191
San Bernai	2045	LDT1	Aggregate	15	DSL	12.50322	0.010012	0.000909	0.000817	0.000781
San Bernai	2045	LDT2	Aggregate	15	GAS	126797	0.05995	0.000343	0.000196	0.00018
San Bernai	2045	LDT2	Aggregate	15	DSL	278.7426	0.096729	0.000841	0.000747	0.000715
San Bernai	2045	LHD1	Aggregate	15	GAS	2592.963	0.001916	0.000562	0.000317	0.000292
San Bernai	2045	LHD1	Aggregate	15	DSL	2901.016	0.001302	0.002426	0.000118	0.000113
San Bernai	2045	LHD2	Aggregate	15	GAS	1006.708	0.00179	0.00042	0.000325	0.000298
San Bernai	2045	LHD2	Aggregate	15	DSL	1458.048	0.01216	0.001354	0.000123	0.000118
San Bernai	2045	MCY	Aggregate	15	GAS	2693.575	0.026175	0.013301	0.000607	0.000566
San Bernai	2045	MDV	Aggregate	15	GAS	68294.39	0.007088	0.000425	0.000211	0.000194
San Bernai	2045	MDV	Aggregate	15	DSL	1924.133	0.010659	0.000262	0.000158	0.000151
San Bernai	2045	MH	Aggregate	15	GAS	289.8469	0.002501	0.001376	0.000319	0.000294
San Bernai	2045	MH	Aggregate	15	DSL	56.92518	0.007781	0.059369	0.000339	0.000325
San Bernai	2045	SBUS	Aggregate	15	GAS	1594.465	0.002687	0.001204	0.000324	0.000298
San Bernai	2045	SBUS	Aggregate	15	DSL	2844.834	0.006786	0.042722	0.000419	0.000401
San Bernai	2045	UBUS	Aggregate	15	GAS	4328.418	0.004917	0.004194	0.000318	0.000293
San Bernai	2045	UBUS	Aggregate	15	DSL	4325.096	0.015099	0.011693	0.000351	0.000336
							1.2507	0.142241	0.006222	0.005848

**EMFAC2011 Worksheet
 (15 mph)**

Calendar Year: 2045							
Region Type: County							
Region: San Bernardino							
Calendar Year: 2045							
Season: Annual							
Vehicle Classification: EMFAC2011 Categories							
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW							
Region	CalYr	VehClass	MdYr	Speed	Fuel	VMT	TOG_RUNI
San Bernai	2045	LDA	Aggregate	15	GAS	320624.1	0.001529
San Bernai	2045	LDT1	Aggregate	15	GAS	22327.73	0.017599
San Bernai	2045	LDT2	Aggregate	15	GAS	126797	0.019555
San Bernai	2045	LHD1	Aggregate	15	GAS	2592.963	0.014387
San Bernai	2045	LHD2	Aggregate	15	GAS	1006.708	0.012748
San Bernai	2045	MCY	Aggregate	15	GAS	2693.575	0.00069
San Bernai	2045	MDV	Aggregate	15	GAS	68294.39	0.02527
San Bernai	2045	MH	Aggregate	15	GAS	289.8469	0.036485
San Bernai	2045	SBUS	Aggregate	15	GAS	1594.465	0.000351
San Bernai	2045	UBUS	Aggregate	15	GAS	4328.418	0.045509
							0.174124

**EMFAC2011 Worksheet
(15 mph)**

Calendar Year: 2045							
Region Type: County							
Region: San Bernardino							
Calendar Year: 2045							
Season: Annual							
Vehicle Classification: EMFAC2011 Categories							
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW							
Region	CalYr	VehClass	MdlYr	Speed	Fuel	VMT	TOG_RUN
San Bernai	2045	LDA	Aggregated	15	DSL	4461.331	0.032053
San Bernai	2045	LDT1	Aggregated	15	DSL	12.50322	0.011008
San Bernai	2045	LDT2	Aggregated	15	DSL	278.7426	0.010933
San Bernai	2045	LHD1	Aggregated	15	DSL	2901.016	0.003181
San Bernai	2045	LHD2	Aggregated	15	DSL	1458.048	0.031011
San Bernai	2045	MDV	Aggregated	15	DSL	1924.133	0.03718
San Bernai	2045	MH	Aggregated	15	DSL	56.92518	0.000315
San Bernai	2045	SBUS	Aggregated	15	DSL	2844.834	0.001458
San Bernai	2045	UBUS	Aggregated	15	DSL	4325.096	0.003529
							0.130677

**EMFAC2011 Worksheet
 (15 mph)**

Calendar Year: 2045								
Region Type: County								
Region: San Bernardino								
Calendar Year: 2045								
Season: Annual								
Vehicle Classification: EMFAC2011 Categories								
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW								
Region	CaYr	VehClass	MdYr	Speed	Fuel	VMT	PM10_RU	PM2_5_RU
San Bernar	2045	LDA	Aggregate	15	DSL	4461.331	0.000128	0.000123
San Bernar	2045	LDT1	Aggregate	15	DSL	12.50322	0.000817	0.000781
San Bernar	2045	LDT2	Aggregate	15	DSL	278.7426	0.000747	0.000715
San Bernar	2045	LHD1	Aggregate	15	DSL	2901.016	0.000118	0.000113
San Bernar	2045	LHD2	Aggregate	15	DSL	1458.048	0.000123	0.000118
San Bernar	2045	MDV	Aggregate	15	DSL	1924.133	0.000158	0.000151
San Bernar	2045	MH	Aggregate	15	DSL	56.92518	0.000339	0.000325
San Bernar	2045	SBUS	Aggregate	15	DSL	2844.834	0.000419	0.000401
San Bernar	2045	UBUS	Aggregate	15	DSL	4325.096	0.000351	0.000336
							0.003201	0.003063
								0.006264

**EMFAC2011 Worksheet
(45 mph)**

EMFAC2014 (v1.0.7) Emission Rates										
Region Type: County										
Region: San Bernardino										
Calendar Year: 2045										
Season: Annual										
Vehicle Classification: EMFAC2011 Categories										
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW										
Region	CalYr	VehClass	MdYr	Speed	Fuel	VMT	CO_RUNE	NOx_RUN	PM10_RUI	PM2_5_RL
San Bernai	2045	LDA	Aggregate	45	GAS	4921516	0.002846	0.020597	0.000513	0.000471
San Bernai	2045	LDA	Aggregate	45	DSL	68494.75	0.091658	0.006864	0.000544	0.000616
San Bernai	2045	LDT1	Aggregate	45	GAS	335568	0.307101	0.023013	0.000545	0.000501
San Bernai	2045	LDT1	Aggregate	45	DSL	187.5199	0.101614	0.035283	0.000404	0.000387
San Bernai	2045	LDT2	Aggregate	45	GAS	1890185	0.037037	0.024355	0.000515	0.000474
San Bernai	2045	LDT2	Aggregate	45	DSL	4156.098	0.09436	0.024338	0.000372	0.000356
San Bernai	2045	LHD1	Aggregate	45	GAS	23091.99	0.117287	0.037733	0.000435	0.000368
San Bernai	2045	LHD1	Aggregate	45	DSL	34014.87	0.147118	0.018903	0.000576	0.000551
San Bernai	2045	LHD2	Aggregate	45	GAS	8996.578	0.109494	0.028089	0.000854	0.000285
San Bernai	2045	LHD2	Aggregate	45	DSL	17053.37	0.120516	0.04768	0.000614	0.000588
San Bernai	2045	MCY	Aggregate	45	GAS	60092.63	0.001498	0.001082	0.000177	0.000165
San Bernai	2045	MDV	Aggregate	45	GAS	984244.3	0.442269	0.030984	0.000557	0.000512
San Bernai	2045	MDV	Aggregate	45	DSL	27723.64	0.104768	0.007683	0.000795	0.00076
San Bernai	2045	MH	Aggregate	45	GAS	3354.581	0.153418	0.091801	0.00084	0.000472
San Bernai	2045	MH	Aggregate	45	DSL	902.7625	0.089742	0.001786	0.000195	0.000186
San Bernai	2045	SBUS	Aggregate	45	GAS	1362.492	0.164257	0.08041	0.000354	0.000785
San Bernai	2045	SBUS	Aggregate	45	DSL	2430.949	0.106103	0.026487	0.000255	0.000244
San Bernai	2045	UBUS	Aggregate	45	GAS	657.354	0.303122	0.027368	0.00084	0.000772
San Bernai	2045	UBUS	Aggregate	45	DSL	654.9276	0.001652	0.046879	0.000129	0.000124
							2.495861	0.581335	0.009512	0.008616

**EMFAC2011 Worksheet
 (45 mph)**

Region	CaYr	VehClass	MdlYr	Speed	Fuel	VMT	TOG_RUNI
EMFAC2014 (v1.0.7) Emission Rates							
Region Type: County							
Region: San Bernardino							
Calendar Year: 2045							
Season: Annual							
Vehicle Classification: EMFAC2011 Categories							
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW							
San Bernai	2045	LDA	Aggregate	45	GAS	4921516	0.004107
San Bernai	2045	LDT1	Aggregate	45	GAS	335568	0.004684
San Bernai	2045	LDT2	Aggregate	45	GAS	1890185	0.005215
San Bernai	2045	LHD1	Aggregate	45	GAS	23091.99	0.003778
San Bernai	2045	LHD2	Aggregate	45	GAS	8996.578	0.003341
San Bernai	2045	MCY	Aggregate	45	GAS	60092.63	0.002093
San Bernai	2045	MDV	Aggregate	45	GAS	984244.3	0.067943
San Bernai	2045	MH	Aggregate	45	GAS	3354.581	0.009591
San Bernai	2045	SBUS	Aggregate	45	GAS	1362.492	0.009197
San Bernai	2045	UBUS	Aggregate	45	GAS	657.354	0.012059
							0.122007

**EMFAC2011 Worksheet
(45 mph)**

EMFAC2014 (v1.0.7) Emission Rates							
Region Type: County							
Region: San Bernardino							
Calendar Year: 2045							
Season: Annual							
Vehicle Classification: EMFAC2011 Categories							
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW							
Region	CalYr	VehClass	MdYr	Speed	Fuel	VMT	TOG_RUNI
San Bernai	2045	LDA	Aggregate	45	DSL	68494.75	0.003158
San Bernai	2045	LDT1	Aggregate	45	DSL	187.5199	0.011202
San Bernai	2045	LDT2	Aggregate	45	DSL	4156.098	0.010687
San Bernai	2045	LHD1	Aggregate	45	DSL	34014.87	0.034224
San Bernai	2045	LHD2	Aggregate	45	DSL	17053.37	0.030565
San Bernai	2045	MDV	Aggregate	45	DSL	27723.64	0.003661
San Bernai	2045	MH	Aggregate	45	DSL	902.7625	0.032602
San Bernai	2045	SBUS	Aggregate	45	DSL	2430.949	0.022948
San Bernai	2045	UBUS	Aggregate	45	DSL	654.9276	0.003727
							0.152775

**EMFAC2011 Worksheet
 (45 mph)**

EMFAC2014 (v1.0.7) Emission Rates								
Region Type: County								
Region: San Bernardino								
Calendar Year: 2045								
Season: Annual								
Vehicle Classification: EMFAC2011 Categories								
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW								
Region	CalYr	VehClass	MdlYr	Speed	Fuel	VMT	PM10_RU	PM2_5_RU
San Bernar	2045	LDA	Aggregate	45	DSL	68494.75	0.000544	0.000616
San Bernar	2045	LDT1	Aggregate	45	DSL	187.5199	0.000404	0.000387
San Bernar	2045	LDT2	Aggregate	45	DSL	4156.098	0.000372	0.000356
San Bernar	2045	LHD1	Aggregate	45	DSL	34014.87	0.000576	0.000551
San Bernar	2045	LHD2	Aggregate	45	DSL	17053.37	0.000614	0.000588
San Bernar	2045	MDV	Aggregate	45	DSL	27723.64	0.000795	0.00076
San Bernar	2045	MH	Aggregate	45	DSL	902.7625	0.000195	0.000186
San Bernar	2045	SBUS	Aggregate	45	DSL	2430.949	0.000255	0.000244
San Bernar	2045	UBUS	Aggregate	45	DSL	654.9276	0.000129	0.000124
							0.003883	0.003811
								0.007694

Toxic Fractions of VOC for 2007 and later Diesel Vehicles

Pollutant	Toxic fraction
1,3-Butadiene	0.00080
Acetaldehyde	0.06934
Acrolein	0.00999
Benzene	0.01291
Formaldehyde	0.21744

*Grove Avenue Corridor Project
Draft Health Risk Assessment*

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Appendix B Risk Calculation Worksheets

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Table A1
Quantification of Carcinogenic Risks and Noncarcinogenic Hazards
Residential Exposure Scenario (30 Year)

Source	Concentration		Weight Fraction (d)	Contaminant (e)	Carcinogenic Risk					Noncarcinogenic Hazards / Toxicological Endpoints*								
	(ug/m3) (b)	(mg/m3) (c)			URF (ug/m3) (f)	CPF (mg/kg/day) (g)	Risk (h)	REL (ugm3) (i)	RID (mg/kg/day) (j)	RESP (k)	CNS/PNS (l)	CV/BL (m)	IMMUN (n)	KIDN (o)	GI/LV (p)	REPRO (q)	EYES (r)	
Grove Avenue	0.26732	2.60E-04	4.60E-01	Benzene	2.90E-05	9.16E-06	1.22E-10	6.00E+01	7.12E-05			4.27E-03	4.27E-03				4.27E-03	
			3.32E-01	Formaldehyde	6.00E-06	1.17E-02	2.33E-08	9.00E+00	2.74E-03	2.47E-02								
			1.05E-01	1,3-Butadiene	1.70E-04	3.70E-03	6.60E-08	2.00E+01	2.88E-02									5.75E-01
			7.80E-02	Acetaldehyde	2.70E-06	2.75E-03	5.79E-10	1.40E+02	2.14E-04	2.99E-02								
		2.50E-02	Acrolein				3.50E-01	6.85E-03	2.40E-03									
	0.008	0.00008	1.00E+00	Diesel Particulate	3.00E-04	2.82E-05	8.45E-10	5.00E+00	2.19E-07	1.10E-06								
Total							9.09E-08				0.0569737	1.42E-02	1.42E-02	0.00E+00	0.00E+00	0.00E+00	0.5796164	0.00E+00

RESP Respiratory System
 CNS/PNS Central/Peripheral Nervous System
 CV/BL Cardiovascular/Blood System
 IMMUN Immune System
 KIDN Kidney
 GI/LV Gastrointestinal System/Liver
 REPRO Reproductive System (e.g., teratogenic and developmental effects)
 EYES Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year) 350
 exposure duration (years) 9
 inhalation rate (m3/day) 20
 average body weight (kg) 70
 averaging time(cancer) (days) 25550
 averaging time(noncancer) (days) 3285

Appendix C CALINE 4 Model Output Summary File

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Grove Avenue Corridor Project
Draft Health Risk Assessment

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 3

JOB: Grove Avenue_CO_1hr

RUN: Hour 1 (WORST CASE ANGLE)

POLLUTANT:

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR H	* (DEG)	* PRED *	* CONC *	CONC/LINK						
				A	B	C	D	E	F	G
1. R1 0.0 0.0	* 166.	* 2.5 *	* 0.0	0.0	0.0	0.0	0.0	0.2	0.2	
2. R2 0.0 0.0	* 173.	* 2.8 *	* 0.0	0.0	0.0	0.0	0.1	0.2	0.3	
3. R3 0.0 0.0	* 172.	* 2.6 *	* 0.0	0.0	0.0	0.0	0.1	0.2	0.2	
4. R4 0.0 0.2	* 357.	* 2.7 *	* 0.0	0.0	0.2	0.0	0.0	0.0	0.0	
5. R5 0.0 0.3	* 355.	* 3.2 *	* 0.0	0.0	0.5	0.0	0.0	0.0	0.0	

Grove Avenue Corridor Project
Draft Health Risk Assessment

6. R6	*	353.	*	3.6 *	0.0	0.0	0.4	0.0	0.0	0.0
0.0	0.8									
7. R7	*	357.	*	3.1 *	0.1	0.0	0.3	0.0	0.0	0.0
0.0	0.2									
8. R8	*	7.	*	2.6 *	0.1	0.1	0.0	0.0	0.0	0.0
0.0	0.0									
9. R9	*	18.	*	2.8 *	0.5	0.0	0.0	0.0	0.0	0.0
0.0	0.0									
10. R10	*	170.	*	2.6 *	0.0	0.1	0.0	0.0	0.0	0.0
0.0	0.1									
11. R11	*	188.	*	2.7 *	0.0	0.0	0.0	0.0	0.2	0.4
0.0	0.0									
12. R12	*	349.	*	2.6 *	0.0	0.0	0.1	0.0	0.0	0.0
0.1	0.2									
13. R13	*	349.	*	2.9 *	0.0	0.0	0.2	0.0	0.0	0.0
0.1	0.4									
14. R14	*	343.	*	2.6 *	0.0	0.0	0.1	0.0	0.0	0.0
0.0	0.3									
15. R15	*	186.	*	2.4 *	0.0	0.0	0.0	0.0	0.1	0.1
0.1	0.0									
16. R16	*	183.	*	2.5 *	0.0	0.0	0.0	0.1	0.1	0.1
0.1	0.1									
17. R17	*	177.	*	2.9 *	0.0	0.0	0.1	0.1	0.0	0.0
0.0	0.4									
18. R18	*	180.	*	2.5 *	0.0	0.0	0.1	0.0	0.0	0.0
0.0	0.1									
19. R19	*	7.	*	3.0 *	0.2	0.0	0.0	0.0	0.0	0.0
0.0	0.0									
20. R20	*	208.	*	2.4 *	0.1	0.0	0.0	0.0	0.0	0.0
0.0	0.0									

Grove Avenue Corridor Project
Draft Health Risk Assessment

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 4

JOB: Grove Avenue_CO_1hr

RUN: Hour 1 (WORST CASE ANGLE)

POLLUTANT:

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

```
* CONC/LINK
* (PPM)
RECEPTOR * I J
-----*-----
1. R1 * 0.0 0.0
2. R2 * 0.0 0.0
3. R3 * 0.0 0.0
4. R4 * 0.1 0.1
5. R5 * 0.1 0.1
6. R6 * 0.2 0.0
7. R7 * 0.3 0.1
8. R8 * 0.1 0.2
```


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9. R9	*	0.0	0.2
10. R10	*	0.2	0.0
11. R11	*	0.0	0.0
12. R12	*	0.1	0.0
13. R13	*	0.1	0.0
14. R14	*	0.0	0.0
15. R15	*	0.0	0.0
16. R16	*	0.0	0.0
17. R17	*	0.0	0.0
18. R18	*	0.0	0.0
19. R19	*	0.0	0.7
20. R20	*	0.0	0.2

Grove Avenue Corridor Project
Draft Health Risk Assessment

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 1

JOB: Grove Avenue_CO_8hr

RUN: (MULTI-RUN/WORST CASE HYBRID)

POLLUTANT:

I. SITE VARIABLES

VD= 0.0 CM/S Z0= 100. CM ALT=
306.0 (M)
VS= 0.0 CM/S

II. METEOROLOGICAL CONDITIONS

TEMP	* U	BRG	CLASS	AMB	MIXH	SIGTH
(C)	RUN * (M/S)	(DEG)		(PPM)	(M)	(DEG)
-----*	-----	-----	-----	-----	-----	-----
1. Hour 1	* 0.5	WORST	7 (G)	1.3	1000.	5.00
27.0						

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2. Hour 2 27.0	*	0.5	WORST	7 (G)	1.3	1000.	5.00
3. Hour 3 27.0	*	0.5	WORST	7 (G)	1.3	1000.	5.00
4. Hour 4 27.0	*	0.5	WORST	7 (G)	1.3	1000.	5.00
5. Hour 5 27.0	*	0.5	WORST	7 (G)	1.3	1000.	5.00
6. Hour 6 27.0	*	0.5	WORST	7 (G)	1.3	1000.	5.00
7. Hour 7 27.0	*	0.5	WORST	7 (G)	1.3	1000.	5.00
8. Hour 8 27.0	*	0.5	WORST	7 (G)	1.3	1000.	5.00

III. LINK GEOMETRY

LINK	* LINK COORDINATES (FT) *				H	W
DESCRIPTION	* X1	Y1	X2	Y2 *	TYPE (FT)	(FT)
-----*-----*-----						
A. Grove SB-4th	*****	*****	*****	*****	* AG	0.0 72.0
B. Grove SB-I S	*****	*****	*****	*****	* AG	0.0 72.0
C. Grove SB-G S	*****	*****	*****	*****	* AG	0.0 72.0
D. Grove SB-D S	*****	*****	*****	*****	* AG	0.0 83.0
E. Grove SB-Hol	*****	*****	*****	*****	* AG	0.0 76.0
F. Grove NB- Ar	*****	*****	*****	*****	* AG	0.0 84.0

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G. Grove NB- Ho	*****	*****	*****	*****	*	AG	0.0	72.0
H. Grove NB- D	*****	*****	*****	*****	*	AG	0.0	72.0
I. Grove NB- G	*****	*****	*****	*****	*	AG	0.0	72.0
J. Grove NB- G	*****	*****	*****	*****	*	AG	0.0	83.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 2

JOB: Grove Avenue_CO_8hr

RUN: (MULTI-RUN/WORST CASE HYBRID)

POLLUTANT:

IV. EMISSIONS AND VEHICLE VOLUMES

		LINK									
RUN	*	A	B	C	D	E	F	G	H	I	J
-----*											

*											
1 VPH	*	1290	1200	1070	1080	1560	2510	1860	1900	1720	
1740											
EF	*	3.	1.	2.	2.	3.	3.	1.	2.	2.	
3.											
*											
2 VPH	*	1290	1200	1070	1080	1560	2510	1860	1900	1720	
1740											
EF	*	3.	1.	2.	2.	3.	3.	1.	2.	2.	
3.											

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*
3 VPH * 1290 1200 1070 1080 1560 2510 1860 1900 1720
1740

EF * 3. 1. 2. 2. 3. 3. 1. 2. 2.
3.

*
4 VPH * 1290 1200 1070 1080 1560 2510 1860 1900 1720
1740

EF * 3. 1. 2. 2. 3. 3. 1. 2. 2.
3.

*
5 VPH * 1290 1200 1070 1080 1560 2510 1860 1900 1720
1740

EF * 3. 1. 2. 2. 3. 3. 1. 2. 2.
3.

*
6 VPH * 1290 1200 1070 1080 1560 2510 1860 1900 1720
1740

EF * 3. 1. 2. 2. 3. 3. 1. 2. 2.
3.

*
7 VPH * 1290 1200 1070 1080 1560 2510 1860 1900 1720
1740

EF * 3. 1. 2. 2. 3. 3. 1. 2. 2.
3.

*
8 VPH * 1290 1200 1070 1080 1560 2510 1860 1900 1720
1740

EF * 3. 1. 2. 2. 3. 3. 1. 2. 2.
3.

Grove Avenue Corridor Project
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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 3

JOB: Grove Avenue_CO_8hr

RUN: (MULTI-RUN/WORST CASE HYBRID)

POLLUTANT:

V. RECEPTOR LOCATIONS AND MULTI-RUN AVERAGE CONCENTRATIONS

RECEPTOR	COORDINATES (FT)			AVG (PPM)
	X	Y	Z	
1. R1	*****	*****	6.5	1.7
2. R2	*****	*****	6.5	2.0
3. R3	*****	*****	6.5	1.8
4. R4	*****	*****	6.5	1.9
5. R5	*****	*****	6.5	2.4
6. R6	*****	*****	6.5	2.8
7. R7	*****	*****	6.5	2.3
8. R8	*****	*****	6.5	1.8
9. R9	*****	*****	6.5	2.0
10. R10	*****	*****	6.5	1.8

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11. R11	*	*****	*****	6.5	*	1.9
12. R12	*	*****	*****	6.5	*	1.8
13. R13	*	*****	*****	6.5	*	2.1
14. R14	*	*****	*****	6.5	*	1.8
15. R15	*	*****	*****	6.5	*	1.6
16. R16	*	*****	*****	6.5	*	1.7
17. R17	*	*****	*****	6.5	*	2.1
18. R18	*	*****	*****	6.5	*	1.7
19. R19	*	*****	*****	6.5	*	2.2
20. R20	*	*****	*****	6.5	*	1.6

Grove Avenue Corridor Project
Draft Health Risk Assessment

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 1

JOB: Grove Avenue_NO2_1hr

RUN: Hour 1

POLLUTANT: Nitrogen Dioxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT=
306.0 (M)

BRG= 0.0 DEGREES VD= 0.0 CM/S

CLAS= 7 (G) VS= 0.0 CM/S

MIXH= 1000. M TEMP= 27.0 DEGREE (C)

SIGTH= 5. DEGREES

NOX VARIABLES

NO2= 0.07 PPM NO= 0.00 PPM O3= 0.13 PPM
KR= 0.000 1/SEC

II. LINK VARIABLES

Appendix F Health Risk Assessment

*Grove Avenue Corridor Project
Draft Health Risk Assessment*

H	LINK	* LINK COORDINATES (FT) *				EF			
	W	DESCRIPTION	X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)
	(FT)	(FT)							
-----*									

A.	Grove SB-4th	0.0 72.0	*	*****	*****	*****	*****	* AG	1290 0.69
B.	Grove SB-I S	0.0 72.0	*	*****	*****	*****	*****	* AG	1200 0.14
C.	Grove SB-G S	0.0 72.0	*	*****	*****	*****	*****	* AG	1070 0.14
D.	Grove SB-D S	0.0 83.0	*	*****	*****	*****	*****	* AG	1080 0.14
E.	Grove SB-Hol	0.0 76.0	*	*****	*****	*****	*****	* AG	1560 0.58
F.	Grove NB- Ar	0.0 84.0	*	*****	*****	*****	*****	* AG	2510 0.69
G.	Grove NB- Ho	0.0 72.0	*	*****	*****	*****	*****	* AG	1860 0.14
H.	Grove NB- D	0.0 72.0	*	*****	*****	*****	*****	* AG	1900 0.14
I.	Grove NB- G	0.0 72.0	*	*****	*****	*****	*****	* AG	1720 0.14
J.	Grove NB- G	0.0 83.0	*	*****	*****	*****	*****	* AG	1740 0.58

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 2

JOB: Grove Avenue_NO2_1hr

RUN: Hour 1

POLLUTANT: Nitrogen Dioxide

III. RECEPTOR LOCATIONS

	*	COORDINATES (FT)		
RECEPTOR	*	X	Y	Z
-----*				
1. R1	*	*****	*****	6.5
2. R2	*	*****	*****	6.5
3. R3	*	*****	*****	6.5
4. R4	*	*****	*****	6.5
5. R5	*	*****	*****	6.5
6. R6	*	*****	*****	6.5
7. R7	*	*****	*****	6.5
8. R8	*	*****	*****	6.5
9. R9	*	*****	*****	6.5

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Draft Health Risk Assessment

10.	R10	*	*****	*****	6.5
11.	R11	*	*****	*****	6.5
12.	R12	*	*****	*****	6.5
13.	R13	*	*****	*****	6.5
14.	R14	*	*****	*****	6.5
15.	R15	*	*****	*****	6.5
16.	R16	*	*****	*****	6.5
17.	R17	*	*****	*****	6.5
18.	R18	*	*****	*****	6.5
19.	R19	*	*****	*****	6.5
20.	R20	*	*****	*****	6.5

Grove Avenue Corridor Project
Draft Health Risk Assessment

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 3

JOB: Grove Avenue_NO2_1hr

RUN: Hour 1

POLLUTANT: Nitrogen Dioxide

IV. MODEL RESULTS (PRED. CONC. INCLUDES AMB.)

RECEPTOR		* PRED *	CONC/LINK									
		* CONC *	(PPM)									
I	J	* (PPM) *	A	B	C	D	E	F	G	H		
1.	R1	* 0.10 *	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			0.00	0.01								
2.	R2	* 0.10 *	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	
			0.00	0.01								
3.	R3	* 0.11 *	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	
			0.00	0.01								
4.	R4	* 0.11 *	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	
			0.00	0.01								
5.	R5	* 0.13 *	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.02	
			0.00	0.01								

Grove Avenue Corridor Project
 Draft Health Risk Assessment

6. R6	*	0.13	*	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.03
0.00		0.01									
7. R7	*	0.14	*	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.01
0.01		0.02									
8. R8	*	0.08	*	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00									
9. R9	*	0.07	*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00									
10. R10	*	0.07	*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00									
11. R11	*	0.08	*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00									
12. R12	*	0.08	*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00									
13. R13	*	0.08	*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00									
14. R14	*	0.08	*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00									
15. R15	*	0.07	*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00									
16. R16	*	0.08	*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00									
17. R17	*	0.10	*	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.02									
18. R18	*	0.12	*	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.03									
19. R19	*	0.20	*	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.08									
20. R20	*	0.07	*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		0.00									

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 1

JOB: Grove Avenue_PM10

RUN: Hour 1 (WORST CASE ANGLE)

POLLUTANT: Particulates

(NOTE: OUTPUT IN MICRO-GRAMS/METER**3. IGNORE PPM LABEL)

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT=
306.0 (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 5. DEGREES TEMP= 27.0 DEGREE (C)

II. LINK VARIABLES

LINK * LINK COORDINATES (FT) * EF H
W
DESCRIPTION * X1 Y1 X2 Y2 * TYPE VPH (G/MI)
(FT) (FT)

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 Draft Health Risk Assessment

A. Grove SB-4th	0.0	*	*	*	*	*	AG	1290	0.0
	72.0								
B. Grove SB-I S	0.0	*	*	*	*	*	AG	1200	0.0
	72.0								
C. Grove SB-G S	0.0	*	*	*	*	*	AG	1070	0.0
	72.0								
D. Grove SB-D S	0.0	*	*	*	*	*	AG	1080	0.0
	83.0								
E. Grove SB-Hol	0.0	*	*	*	*	*	AG	1560	0.0
	76.0								
F. Grove NB- Ar	0.0	*	*	*	*	*	AG	2510	0.0
	84.0								
G. Grove NB- Ho	0.0	*	*	*	*	*	AG	1860	0.0
	72.0								
H. Grove NB- D	0.0	*	*	*	*	*	AG	1900	0.0
	72.0								
I. Grove NB- G	0.0	*	*	*	*	*	AG	1720	0.0
	72.0								
J. Grove NB- G	0.0	*	*	*	*	*	AG	1740	0.0
	83.0								

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 2

JOB: Grove Avenue_PM10

RUN: Hour 1 (WORST CASE ANGLE)

POLLUTANT: Particulates

(NOTE: OUTPUT IN MICRO-GRAMS/METER**3. IGNORE PPM LABEL)

III. RECEPTOR LOCATIONS

	*	COORDINATES (FT)		
RECEPTOR	*	X	Y	Z
1. R1	*	*****	*****	6.5
2. R2	*	*****	*****	6.5
3. R3	*	*****	*****	6.5
4. R4	*	*****	*****	6.5
5. R5	*	*****	*****	6.5
6. R6	*	*****	*****	6.5
7. R7	*	*****	*****	6.5
8. R8	*	*****	*****	6.5
9. R9	*	*****	*****	6.5
10. R10	*	*****	*****	6.5

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11. R11	* *****	*****	6.5
12. R12	* *****	*****	6.5
13. R13	* *****	*****	6.5
14. R14	* *****	*****	6.5
15. R15	* *****	*****	6.5
16. R16	* *****	*****	6.5
17. R17	* *****	*****	6.5
18. R18	* *****	*****	6.5
19. R19	* *****	*****	6.5
20. R20	* *****	*****	6.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 3

JOB: Grove Avenue_PM10

RUN: Hour 1 (WORST CASE ANGLE)

POLLUTANT: Particulates

(NOTE: OUTPUT IN MICRO-GRAMS/METER**3. IGNORE PPM LABEL)

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* (DEG)	* PRED * * BRG * CONC *	* (PPM) *	CONC/LINK						
				A	B	C	D	E	F	G
H										
1. R1	* 166.	* 1.0	* 0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.0
0.0										
2. R2	* 173.	* 1.8	* 0.0	0.0	0.0	0.0	0.4	0.6	0.7	0.1
0.0										
3. R3	* 171.	* 1.2	* 0.0	0.0	0.0	0.0	0.2	0.4	0.5	0.1
0.0										
4. R4	* 357.	* 1.7	* 0.1	0.1	0.6	0.0	0.0	0.0	0.0	0.0
0.5										
5. R5	* 355.	* 2.9	* 0.1	0.1	1.3	0.0	0.0	0.0	0.0	0.0
0.9										

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6. R6	*	353.	*	4.0	*	0.1	0.2	1.0	0.0	0.0	0.0	0.0
2.0												
7. R7	*	356.	*	2.8	*	0.2	0.3	0.9	0.0	0.0	0.0	0.0
0.4												
8. R8	*	8.	*	1.4	*	0.2	0.4	0.0	0.0	0.0	0.0	0.0
0.0												
9. R9	*	169.	*	1.8	*	0.0	0.7	0.1	0.1	0.0	0.0	0.1
0.3												
10. R10	*	171.	*	1.6	*	0.1	0.5	0.1	0.1	0.0	0.1	0.1
0.2												
11. R11	*	352.	*	1.7	*	0.1	0.1	0.2	0.2	0.0	0.0	0.7
0.3												
12. R12	*	349.	*	1.6	*	0.0	0.1	0.3	0.1	0.0	0.0	0.4
0.5												
13. R13	*	349.	*	2.4	*	0.0	0.2	0.4	0.1	0.0	0.0	0.5
1.0												
14. R14	*	185.	*	1.6	*	0.0	0.0	0.0	0.2	0.2	0.2	0.9
0.0												
15. R15	*	188.	*	1.0	*	0.0	0.0	0.0	0.2	0.1	0.1	0.6
0.0												
16. R16	*	342.	*	0.7	*	0.0	0.3	0.0	0.0	0.0	0.0	0.0
0.0												
17. R17	*	176.	*	2.1	*	0.0	0.0	0.3	0.2	0.1	0.1	0.2
1.2												
18. R18	*	180.	*	1.0	*	0.0	0.0	0.2	0.1	0.1	0.1	0.1
0.4												
19. R19	*	191.	*	2.0	*	0.0	0.3	0.0	0.0	0.0	0.0	0.0
0.0												
20. R20	*	207.	*	0.8	*	0.3	0.0	0.0	0.0	0.0	0.0	0.0
0.0												

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 4

JOB: Grove Avenue_PM10

RUN: Hour 1 (WORST CASE ANGLE)

POLLUTANT: Particulates

(NOTE: OUTPUT IN MICRO-GRAMS/METER**3. IGNORE PPM LABEL)

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	* CONC/LINK	* (PPM)
	* I	* J
1. R1	* 0.0	* 0.0
2. R2	* 0.0	* 0.0
3. R3	* 0.0	* 0.0
4. R4	* 0.2	* 0.1
5. R5	* 0.3	* 0.1
6. R6	* 0.5	* 0.1
7. R7	* 0.9	* 0.2
8. R8	* 0.3	* 0.4
9. R9	* 0.4	* 0.0
10. R10	* 0.5	* 0.0

Grove Avenue Corridor Project
Draft Health Risk Assessment

11. R11	*	0.1	0.1
12. R12	*	0.1	0.0
13. R13	*	0.2	0.0
14. R14	*	0.0	0.0
15. R15	*	0.0	0.0
16. R16	*	0.4	0.0
17. R17	*	0.0	0.0
18. R18	*	0.1	0.0
19. R19	*	0.3	1.4
20. R20	*	0.0	0.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 1

JOB: Grove Avenue_PM2.5

RUN: Hour 1 (WORST CASE ANGLE)

POLLUTANT: Particulates

(NOTE: OUTPUT IN MICRO-GRAMS/METER**3. IGNORE PPM LABEL)

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT=
306.0 (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 5. DEGREES TEMP= 27.0 DEGREE (C)

II. LINK VARIABLES

LINK * LINK COORDINATES (FT) * EF
H W
DESCRIPTION * X1 Y1 X2 Y2 * TYPE VPH (G/MI)
(FT) (FT)

Grove Avenue Corridor Project
 Draft Health Risk Assessment

A. Grove	SB-4th	*	*****	*****	*****	*****	*	AG	1290	0.0
0.0	72.0									
B. Grove	SB-I S	*	*****	*****	*****	*****	*	AG	1200	0.0
0.0	72.0									
C. Grove	SB-G S	*	*****	*****	*****	*****	*	AG	1070	0.0
0.0	72.0									
D. Grove	SB-D S	*	*****	*****	*****	*****	*	AG	1080	0.0
0.0	83.0									
E. Grove	SB-Hol	*	*****	*****	*****	*****	*	AG	1560	0.0
0.0	76.0									
F. Grove	NB- Ar	*	*****	*****	*****	*****	*	AG	2510	0.0
0.0	84.0									
G. Grove	NB- Ho	*	*****	*****	*****	*****	*	AG	1860	0.0
0.0	72.0									
H. Grove	NB- D	*	*****	*****	*****	*****	*	AG	1900	0.0
0.0	72.0									
I. Grove	NB- G	*	*****	*****	*****	*****	*	AG	1720	0.0
0.0	72.0									
J. Grove	NB- G	*	*****	*****	*****	*****	*	AG	1740	0.0
0.0	83.0									

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 2

JOB: Grove Avenue_PM2.5

RUN: Hour 1 (WORST CASE ANGLE)

POLLUTANT: Particulates

(NOTE: OUTPUT IN MICRO-GRAMS/METER**3. IGNORE PPM LABEL)

III. RECEPTOR LOCATIONS

	*	COORDINATES (FT)		
RECEPTOR	*	X	Y	Z
1. R1	*	*****	*****	6.5
2. R2	*	*****	*****	6.5
3. R3	*	*****	*****	6.5
4. R4	*	*****	*****	6.5
5. R5	*	*****	*****	6.5
6. R6	*	*****	*****	6.5
7. R7	*	*****	*****	6.5
8. R8	*	*****	*****	6.5
9. R9	*	*****	*****	6.5

Grove Avenue Corridor Project
Draft Health Risk Assessment

10. R10	* * * * *	* * * * *	6.5
11. R11	* * * * *	* * * * *	6.5
12. R12	* * * * *	* * * * *	6.5
13. R13	* * * * *	* * * * *	6.5
14. R14	* * * * *	* * * * *	6.5
15. R15	* * * * *	* * * * *	6.5
16. R16	* * * * *	* * * * *	6.5
17. R17	* * * * *	* * * * *	6.5
18. R18	* * * * *	* * * * *	6.5
19. R19	* * * * *	* * * * *	6.5
20. R20	* * * * *	* * * * *	6.5

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 3

JOB: Grove Avenue_PM2.5

RUN: Hour 1 (WORST CASE ANGLE)

POLLUTANT: Particulates

(NOTE: OUTPUT IN MICRO-GRAMS/METER**3. IGNORE PPM LABEL)

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	* (DEG)	* CONC	* (PPM)	CONC/LINK						
				A	B	C	D	E	F	G
1. R1	* 166.	* 1.6	* 0.0	0.0	0.0	0.0	0.0	0.7	0.8	
0.0 0.0										
2. R2	* 173.	* 2.7	* 0.0	0.0	0.0	0.0	0.6	0.9	1.1	
0.1 0.0										
3. R3	* 171.	* 1.8	* 0.0	0.0	0.0	0.0	0.3	0.5	0.8	
0.2 0.0										
4. R4	* 357.	* 2.5	* 0.2	0.1	0.9	0.0	0.0	0.0	0.0	
0.0 0.8										

Appendix F Health Risk Assessment

*Grove Avenue Corridor Project
Draft Health Risk Assessment*

5. R5	*	355.	*	4.3	*	0.2	0.2	1.9	0.0	0.0	0.0
0.0				1.3							
6. R6	*	353.	*	6.0	*	0.2	0.3	1.5	0.0	0.0	0.0
0.0				3.0							
7. R7	*	356.	*	4.2	*	0.2	0.4	1.4	0.0	0.0	0.0
0.0				0.6							
8. R8	*	8.	*	2.1	*	0.4	0.6	0.0	0.0	0.0	0.0
0.0				0.0							
9. R9	*	169.	*	2.7	*	0.0	1.1	0.2	0.1	0.0	0.1
0.2				0.4							
10. R10	*	171.	*	2.3	*	0.1	0.7	0.1	0.1	0.1	0.1
0.2				0.2							
11. R11	*	352.	*	2.6	*	0.1	0.1	0.3	0.3	0.0	0.0
1.0				0.5							
12. R12	*	349.	*	2.5	*	0.1	0.2	0.5	0.1	0.0	0.0
0.5				0.8							
13. R13	*	349.	*	3.6	*	0.1	0.2	0.6	0.1	0.0	0.0
0.8				1.5							
14. R14	*	185.	*	2.3	*	0.0	0.0	0.0	0.4	0.3	0.3
1.4				0.0							
15. R15	*	188.	*	1.5	*	0.0	0.0	0.0	0.3	0.2	0.1
0.8				0.0							
16. R16	*	342.	*	1.1	*	0.0	0.4	0.0	0.0	0.0	0.0
0.0				0.0							
17. R17	*	176.	*	3.2	*	0.0	0.0	0.5	0.3	0.1	0.2
0.3				1.7							
18. R18	*	180.	*	1.4	*	0.0	0.0	0.3	0.1	0.1	0.1
0.1				0.5							
19. R19	*	191.	*	3.1	*	0.0	0.5	0.0	0.0	0.0	0.0
0.0				0.0							

Grove Avenue Corridor Project
Draft Health Risk Assessment

20.	R20	*	207.	*	1.2	*	0.4	0.0	0.0	0.0	0.0	0.0
0.0	0.0											

Grove Avenue Corridor Project
Draft Health Risk Assessment

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL

JUNE 1989 VERSION

PAGE 4

JOB: Grove Avenue_PM2.5

RUN: Hour 1 (WORST CASE ANGLE)

POLLUTANT: Particulates

(NOTE: OUTPUT IN MICRO-GRAMS/METER**3. IGNORE PPM LABEL)

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

* CONC/LINK
* (PPM)

RECEPTOR	* I	J
1. R1	* 0.0	0.0
2. R2	* 0.0	0.0
3. R3	* 0.0	0.0
4. R4	* 0.3	0.2
5. R5	* 0.5	0.2
6. R6	* 0.8	0.2
7. R7	* 1.4	0.3
8. R8	* 0.5	0.7

Grove Avenue Corridor Project
Draft Health Risk Assessment

9. R9	*	0.6	0.0
10. R10	*	0.7	0.0
11. R11	*	0.2	0.1
12. R12	*	0.2	0.1
13. R13	*	0.3	0.1
14. R14	*	0.0	0.0
15. R15	*	0.0	0.0
16. R16	*	0.7	0.0
17. R17	*	0.1	0.0
18. R18	*	0.2	0.0
19. R19	*	0.5	2.1
20. R20	*	0.0	0.8

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Appendix D CALINE4 Input/Output Files

Electronic Format, Available on Request

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Maximum Predicted CO Concentrations (no background)

	Existing	2025	2025	2045	2045
		No Build	Build	No Build	Build
1-hour CO Concentrations					
State Standards - 20 ppm					
Federal Standards - 35 ppm					
Intersections					
Grove Avenue/Holt Boulevard	0.6	0.5	0.4	0.7	0.4
Grove Avenue/State Street-Airport Drive	0.8	0.5	0.5	0.5	0.5
Grove Avenue/Mission Boulevard	0.5	0.4	0.4	0.5	0.5
Euclid Ave/I-10 Eastbound Ramps	0.6	0.5	0.5	0.5	0.5
I-10 Westbound Ramps/7th Street	0.4	0.2	0.2	0.2	0.2
Vineyard Avenu Off-Ramp	0.4	0.3	0.3	0.3	0.3
8-hour CO Concentrations					
Federal Standards - 9 ppm					
Intersections					
Grove Avenue/Holt Boulevard	0.42	0.35	0.28	0.49	0.28
Grove Avenue/State Street-Airport Drive	0.56	0.35	0.35	0.35	0.35
Grove Avenue/Mission Boulevard	0.35	0.28	0.28	0.35	0.35
Euclid Ave/I-10 Eastbound Ramps	0.42	0.35	0.35	0.35	0.35
I-10 Westbound Ramps/7th Street	0.28	0.14	0.14	0.14	0.14
Vineyard Avenu Off-Ramp	0.28	0.21	0.21	0.21	0.21

A 0.7 persistence factor applied to obtain 8-hour CO concentrations based on Table B.13 from the "Transportation Project-Level Carbon Monoxide Protocol"

Maximum Predicted CO Concentrations (with background)

	Existing	2025	2025	2045	2045
		No Build	Build	No Build	Build
Intersections	1-hour CO Concentrations				
	State Standards - 20 ppm				
	Federal Standards - 35 ppm				
Grove Avenue/Holt Boulevard	3.6	3.5	3.4	3.7	3.4
Grove Avenue/State Street-Airport Drive	3.8	3.5	3.5	3.5	3.5
Grove Avenue/Mission Boulevard	3.5	3.4	3.4	3.5	3.5
Euclid Ave/I-10 Eastbound Ramps	3.6	3.5	3.5	3.5	3.5
I-10 Westbound Ramps/7th Street	3.4	3.2	3.2	3.2	3.2
Vineyard Aveneu Off-Ramp	3.4	3.3	3.3	3.3	3.3
Intersections	8-hour CO Concentrations				
	Federal Standards - 9 ppm				
Grove Avenue/Holt Boulevard	2.2	2.2	2.1	2.3	2.1
Grove Avenue/State Street-Airport Drive	2.4	2.2	2.2	2.2	2.2
Grove Avenue/Mission Boulevard	2.2	2.1	2.1	2.2	2.2
Euclid Ave/I-10 Eastbound Ramps	2.2	2.2	2.2	2.2	2.2
I-10 Westbound Ramps/7th Street	2.1	1.9	1.9	1.9	1.9
Vineyard Aveneu Off-Ramp	2.1	2.0	2.0	2.0	2.0

Background CO concentrations obtained from SCAQMD website and year 2011 (3.0 ppm 1-hr, 1.8 ppm 8-hr) applied to this study.

Notes:

The freeway intersections they are far enough from the "project" that there is no difference at all between build and no-build scenarios. The volume did not change in the build/no build scenarios for the freeway ramp intersections.

Historical data from SCAQMD website:

- 2013 - 1.6 ppm high 8-hr
- 2012 - 1.5 ppm high 8-hr
- 2011 - 1.6 ppm high 8-hr
- 2010 - 1.8 ppm high 8-hr, 3.0 ppm high 1-hr

From SCAQMD website - 2012 AQMP

2011 - 2.7 ppm high 1-hr and 1.9 ppm high 8-hr in Riverside (LA County data is downtown and San Bernardino data is desert)

Maximum PM2.5 and PM10 Emissions (lbs/day)

Pollutant	PM10					PM2.5				
	Existing	2025 No Build	2025 Build	2045 No Build	2045 Build	Existing	2025 No Build	2025 Build	2045 No Build	2045 Build
Grove Avenue/Holt Boulevard	1.10	0.58	0.57	0.65	0.54	0.90	0.45	0.44	0.51	0.41
Grove Avenue/State Street-Airport Drive	1.01	0.40	0.41	0.40	0.39	0.81	0.32	0.33	0.33	0.32
Grove Avenue/Mission Boulevard	1.29	0.57	0.53	0.58	0.55	1.08	0.47	0.45	0.46	0.44
Euclid Ave/I-10 Eastbound Ramps	1.92	0.82	0.82	0.67	0.67	1.69	0.74	0.74	0.62	0.62
I-10 Westbound Ramps/7th Street	0.66	0.25	0.25	0.21	0.21	0.53	0.20	0.20	0.16	0.16
Vineyard Avenu Off-Ramp	1.61	0.68	0.68	0.62	0.62	1.48	0.63	0.63	0.58	0.58

Maximum PM2.5 and PM10 Emissions (lbs/year)

Pollutant	PM10					PM2.5				
	Existing	2025 No Build	2025 Build	2045 No Build	2045 Build	Existing	2025 No Build	2025 Build	2045 No Build	2045 Build
Grove Avenue/Holt Boulevard	402	212	207	236	197	329	163	161	187	149
Grove Avenue/State Street-Airport Drive	370	146	150	146	142	297	117	121	119	117
Grove Avenue/Mission Boulevard	471	206	195	212	201	396	171	162	169	162
Euclid Ave/I-10 Eastbound Ramps	699	298	298	244	244	619	269	269	226	226
I-10 Westbound Ramps/7th Street	241	91	91	75	75	193	73	73	60	60
Vineyard Avenu Off-Ramp	589	248	248	227	227	542	232	232	213	213

Notes:

Due to freeways not having equivalent external links compared to the other intersections and wanting an apples to apples comparison, only took into account approach and departures links.

Appendix G SHPO Concurrence Letter

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DEPARTMENT OF TRANSPORTATION

DISTRICT 8
ENVIRONMENTAL PLANNING (MS 825)
464 W. FOURTH STREET, 6TH FLOOR
SAN BERNARDINO, CA 92401-1400
PHONE: (909) 383-6933
FAX: (909) 383-6494
TTY: (909) 383-6300



*Serious drought.
Help save water!*

April 3, 2017

Julianne Polanco
State Historic Preservation Officer
1725 23rd Street, Suite 100
Sacramento, CA 95816

City of Ontario
Grove Ave. Corridor Project
HPLUL 5092 (039)

Attention: Lucinda Woodward

Re: Historic Property Survey Report for the Grove Ave. Corridor Project, San Bernardino County, CA

The Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans) are initiating consultation with the State Historic Preservation Officer (SHPO) in regard to the proposed City of Ontario Grove Ave. Corridor Project, in San Bernardino County. This consultation is undertaken in accordance with the *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the Administration of the Federal-Aid Highway Program in California* (Section 106 PA). Caltrans is concurrently complying with PRC 5024 pursuant to Stipulation III of the *Memorandum of Understanding between the California Department of Transportation and the California State Historic Preservation Officer regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92 (PRC 5024 MOU)*.

Enclosed you will find a Historic Property Survey Report (HPSR) for the proposed undertaking. The HPSR is intended to fulfill three of Caltrans' responsibilities under Section 106 of the National Historic Preservation Act: determination of the Area of Potential Effects (APE); identification of potential historic properties located within the undertaking's APE; and evaluation of potential historic properties for eligibility to the National Register of Historic Places (National Register). Under the PA, Caltrans is responsible for ensuring the appropriateness of the APE (Stipulation VIII.A) and the adequacy of historic property identification efforts (Stipulation VIII.B). We are consulting with you at the present time under Stipulation VIII.C.6 of the PA, which requires concurrence with Caltrans' determinations of eligibility for potential historic properties.

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April 3, 2017
Page 2

Caltrans, in cooperation with the City of Ontario, proposes an undertaking to widen Grove Ave. from a four lane roadway to a six lane roadway from Interstate 10 to State Street/Airport Drive. This project coincides with the I-10. Grove Avenue Interchange Project, which would construct a new interchange along I-10 at Grove Avenue.

Consultation and identification efforts resulted in the identification of seven cultural resources within the APE for the proposed project that required evaluation that were found to be not eligible for the NRHP. Pursuant to Stipulation VIII.C.6 of the first amended Section 106 PA (January 2014), we request your concurrence that the following properties within the APE are not eligible for the NRHP:

Name	Address/Location	Community	OHP Status Code	Map Reference #
John Galvin Park		Ontario, CA	6Z	MR-1
Fountain Winery	1300 E. Holt Boulevard	Ontario, CA	5S1	MR-3
Cucamonga Valley Winery and Distillery	1101 E. Holt Boulevard	Ontario, CA	5S1	MR-4
N/A	1111 E. Holt Boulevard	Ontario, CA	6Z	MR-5
N/A	1175 E. Holt Boulevard	Ontario, CA	6Z	MR-6
N/A	1179 E. Holt Boulevard	Ontario, CA	6Z	MR-7
N/A	1329 E. Holt Boulevard	Ontario, CA	6Z	MR-8

In addition, identification efforts resulted in the identification of one cultural resource within the APE for the proposed project that was evaluated and appears eligible for the NRHP. Pursuant to Stipulation VIII.C.6 of the Section 106 PA, we request your concurrence that the following property within the APE is eligible for the NRHP:

Name	Address/Location	Community	OHP Status Code	Map Reference #
Jay Littleton Ballpark	John Galvin Park	Ontario, CA	N/A	MR-2

Pursuant to PA Stipulation IX.A, Caltrans is proposing that a finding of No Historic Properties Affected is appropriate for the undertaking. The Jay Littleton Ballpark, the only Historic Property in the APE, will not be directly affected by the undertaking, and potential indirect effects are minimal. The ballpark has been avoided through the engineering design: all project work is adjacent to the ballpark on City Streets (see HPSR page 7). The Jay Littleton Ballpark (MR-2) was included in the APE due to its proximity to the project and to clarify its (lack of) association with the adjacent John Galvin Park (MR-1) which will be directly affected by the undertaking.

We look forward to receiving your response within thirty (30) days of receipt of this submittal in accordance with Stipulation VIII.C.6 of the Section 106 PA. If you have any questions or comments regarding the proposed project, please feel free to contact Andrew Walters, Associate Environmental Planner (Architectural History) at (909) 383-2647 or by email at Andrew.walters@dot.ca.gov.

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April 3, 2017
Page 3

Sincerely,



For: Gabrielle Duff
Environmental Branch Chief
Caltrans, District 8

Enclosure: Historic Property Survey Report for the Grove Avenue Corridor Project, San Bernardino County (February 2017)

cc: Alexandra Bevk Neeb, Caltrans HQ
Andrew Walters, District 8 HRC

*"Provide a safe, sustainable, integrated and efficient transportation system to enhance
California's economy and livability"*

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov



April 25, 2017

In reply refer to: FHWA_2017_0403_001

VIA EMAIL

Gabrielle Duff, Environmental Branch Chief
Caltrans District 8
464 West 4th Street
San Bernardino, CA 92401

Subject: Determinations of Eligibility for the Grove Avenue Corridor Project, San Bernardino County, CA

Dear Ms. Duff:

Thank you for consulting with me about the subject undertaking in accordance with the January 1, 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (PA)*.

Caltrans, in cooperation with the City of Ontario, proposes an undertaking to widen Grove Avenue from a four lane roadway to a six lane roadway from Interstate 10 to State Street/Airport Drive. This project coincides with the I-10 Grove Avenue Interchange Project, which would construct a new interchange along I-10 at Grove Avenue.

Caltrans has determined that the following properties, located within the area of potential effect, are not eligible for the listing in the National Register of Historic Places (NRHP):

- John Galvin Park, Ontario, CA
- Fountain Winery, 1300 East Holt Boulevard, Ontario, CA
- Cucamonga Valley Winery and Distillery, 1101 E Holt Boulevard, Ontario, CA
- 1111 E Holt Boulevard, Ontario, CA
- 1175 E Holt Boulevard, Ontario, CA
- 1179 E Holt Boulevard, Ontario, CA
- 1329 E Holt Boulevard, Ontario, CA

In addition Caltrans has determined that the Jay Littleton Ballpark (Ballpark), located in John Galvin Park, is eligible for the NRHP under Criteria A and C. Under Criteria A and C the Ballpark is eligible as an excellent example of both a Work Progress Administration (WPA) project, as well as a State Emergency Recovery Act (SERA) project, that touched all social levels of a community and worked towards improving neighborhood relations. While there are notable WPA-funded ballparks in the United States, there does not

Ms. Duff
April 25, 2017
Page 2 of 2

FHWA_2017_0403_001

appear to be a better extant example in California. Though some modifications have been made to the Ballpark in recent years, the property retains its original functionality, with a covered grandstand that hark back to a time when structures of these type were constructed by hand with a simple post and truss framing system. The period of significance in 1937-1960, as the Ballpark stopped hosting Pacific Coast League games in 1960. The outfield fence and scoreboard are contemporary and considered non-contributors.

Based on my review of the submitted documentation I concur.

Thank you for considering historic properties during project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 445-7014 with e-mail at natalie.lindquist@parks.ca.gov or Alicia Perez at (916) 445-7020 with e-mail at alicia.perez@parks.ca.gov.

Sincerely,



Julianne Polanco
State Historic Preservation Officer

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Appendix H IPaC Database Search

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United States Department of the Interior



FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901
<http://www.fws.gov/carlsbad/>

In Reply Refer To:
Consultation Code: 08ECAR00-2019-SLI-1055
Event Code: 08ECAR00-2021-E-01190
Project Name: I-10/Grove Corridor

January 28, 2021

Subject: Updated list of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

01/28/2021

Event Code: 08ECAR00-2021-E-01190

1

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

01/28/2021

Event Code: 08ECAR00-2021-E-01190

00

Project Summary

Consultation Code: 08ECAR00-2019-SLI-1055

Event Code: 08ECAR00-2021-E-01190

Project Name: I-10/Grove Corridor

Project Type: TRANSPORTATION

Project Description: The City, in cooperation with the County of San Bernardino (County) and Caltrans District 8, proposes to widen Grove Avenue in the city of Ontario and the county of San Bernardino from four to six lanes between 4th Street and State Street/Airport Drive. Grove Avenue is located approximately 1.4 miles east of Euclid Avenue and approximately 1.2 miles west of Vineyard Avenue along I-10. The project area is bound on the north by 4th Street and on the south by State Street/Airport Drive.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@34.068881385467705,-117.6285187516007,14z>



Counties: San Bernardino County, California

01/28/2021

Event Code: 08ECAR00-2021-E-01190

3

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
San Bernardino Merriam's Kangaroo Rat <i>Dipodomys merriami parvus</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2060	Endangered

Birds

NAME	STATUS
Coastal California Gnatcatcher <i>Polioptila californica californica</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered

Insects

NAME	STATUS
Delhi Sands Flower-loving Fly <i>Rhaphiomidas terminatus abdominalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1540	Endangered

01/28/2021

Event Code: 08ECAR00-2021-E-01190

4

Flowering Plants

NAME	STATUS
San Diego Ambrosia <i>Ambrosia pumila</i>	Endangered
There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8287	

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Appendix I Flood Insurance Rate Maps

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FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT. THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTP://AOF.C.FEMA.GOV](http://aofc.fema.gov)

- SPECIAL FLOOD HAZARD AREAS**
 - Without Base Flood Elevation (BFE) - Zone A, A99
 - With BFE or Depth - Zones AH, AL, AN, AV, X, X99
 - Regulatory Floodway
 - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile - Zone X
 - Future Conditions 1% Annual Chance Flood Hazard - Zone X
 - Area with Reduced Flood Risk due to Levee - See Notes - Zone X
 - Area of Minimal Flood Hazard - Zone X
 - Area of Underestimated Flood Hazard - Zone X
- OTHER AREAS OF FLOOD HAZARD**
 - Channel, Culvert or Storm Sewer
 - Accredited or Provisionally Accredited Levee, Dike or Floodwall
 - Non-accredited Levee, Dike or Floodwall
 - Cross Sections with 1% Annual Chance
 - Water Surface Elevation (WSE)
 - Coastal Transect
 - Profile Baseline
 - Hydrographic Profile
 - Base Flood Elevation Line (BFE)
- OTHER FEATURES**
 - Limit of Study
 - Jurisdiction Boundary
 - Project Area

NOTES TO USERS

The information and graphics on this map, available products associated with this FIRM including historic elevation data, are not intended for use in the National Flood Insurance Program's policies, either on the FIRM or in the Flood Insurance Study. For more information on the FIRM or FIS, contact the FEMA Map Service Center at 1215 L Street, NW, Washington, DC 20548-4201 or call the FEMA Map Service Center at 1-877-486-7287. This map is not intended for use in the National Flood Insurance Program's policies, either on the FIRM or in the Flood Insurance Study. For more information on the FIRM or FIS, contact the FEMA Map Service Center at 1215 L Street, NW, Washington, DC 20548-4201 or call the FEMA Map Service Center at 1-877-486-7287.

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For more information on the FIRM or FIS, contact the FEMA Map Service Center at 1215 L Street, NW, Washington, DC 20548-4201 or call the FEMA Map Service Center at 1-877-486-7287.

SCALE

Map Projection: UTM Zone 12N, North American Datum 1983
 Datum: North American Datum 1983
 Vertical Datum: North American Datum 1983

1 inch = 500 feet

0 250 500 750 1,000 2,000 Feet

0 125 250 500 Meters

PANEL LOCATOR

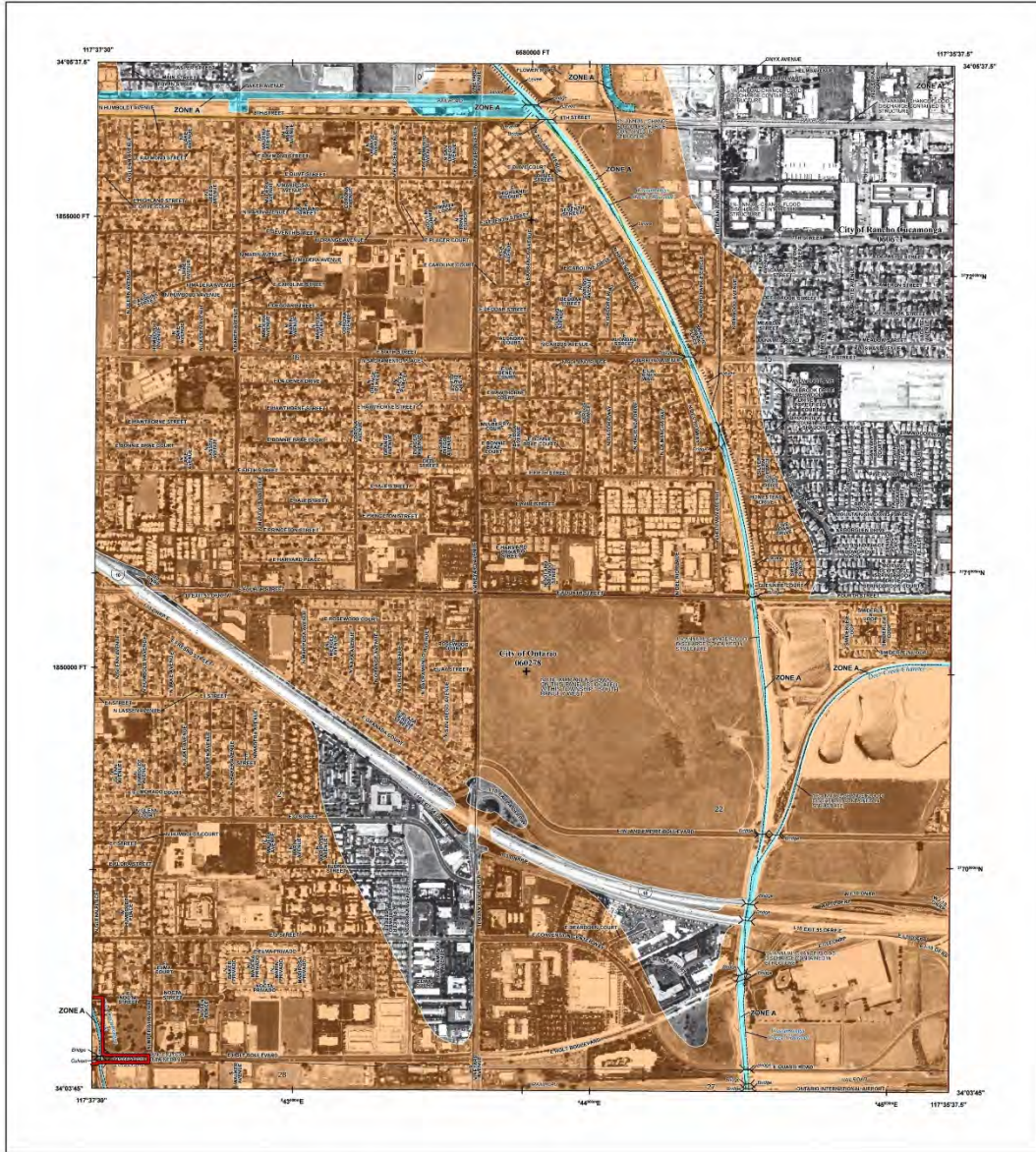
FEMA
 National Flood Insurance Program

**NATIONAL FLOOD INSURANCE PROGRAM
 FLOOD INSURANCE RATE MAP**

SAN BERNARDINO COUNTY, CALIFORNIA
 SAN BERNARDINO COUNTY, CALIFORNIA
 FIRM 8009 or 9400

Panel Locator:
 COMMUNITY: 8009
 PANEL: 8009
 SUFFIX: J

VERSION NUMBER: 2.3.1.3
 MAP NUMBER: 06071C8009
 MAP REVISED: FEBRUARY 18, 2015



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT. THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTP://MSC.FEMA.GOV](http://msc.fema.gov)

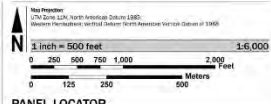
- SPECIAL FLOOD HAZARD AREAS**
 - Without Base Flood Elevation (BFE) (Zone A, X, AP, AH, AO)
 - With BFE or Depth (Zone A, X, AP, AH, AO)
 - Regulatory Floodway
 - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile (Zone X)
 - Future Conditions 1% Annual Chance Flood Hazard (Zone X)
 - Area with Reduced Flood Risk due to Levee (See Note) (Zone X)
 - Areas of Minimal Flood Hazard (Zone X)
 - Area of Undetermined Flood Hazard (Zone X)
- OTHER AREAS OF FLOOD HAZARD**
- OTHER AREAS**
 - Channel, Culvert or Storm Sewer
 - Accredited or Provisionally Accredited Levee, Dike or Floodwall
 - Non-accredited Levee, Dike or Floodwall
 - Cross Sections with 1% Annual Chance
 - Water Surface Elevation (BFE)
 - Coastal Transact
 - Profile Baseline
 - Hydrographic Feature
 - Base Flood Elevation Line (BFE)
 - Limit of Study
 - Jurisdiction Boundary
 - Project Area
- GENERAL STRUCTURES**
- OTHER FEATURES**

NOTES TO USERS

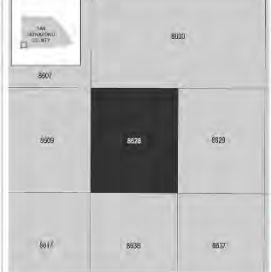
This information and questions about this map, available products associated with this FISB including historic versions of this FISB, may be obtained from the National Flood Insurance Program by calling 800-451-7000, the FISB Web Information Network at 1-877-FLOODMAP (1-877-352-6277) or visit the FISB Web Service Center website at www.flood.gov. Available products and update products listed on the FISB Change a Flood Insurance Rate Map website. Higher versions of the map, many of these products are not available in digital format. Users are advised to check the FISB website for the most current products. For information on how to obtain a copy of this map, please contact the National Flood Insurance Program at 1-800-451-7000.

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SCALE



PANEL LOCATOR

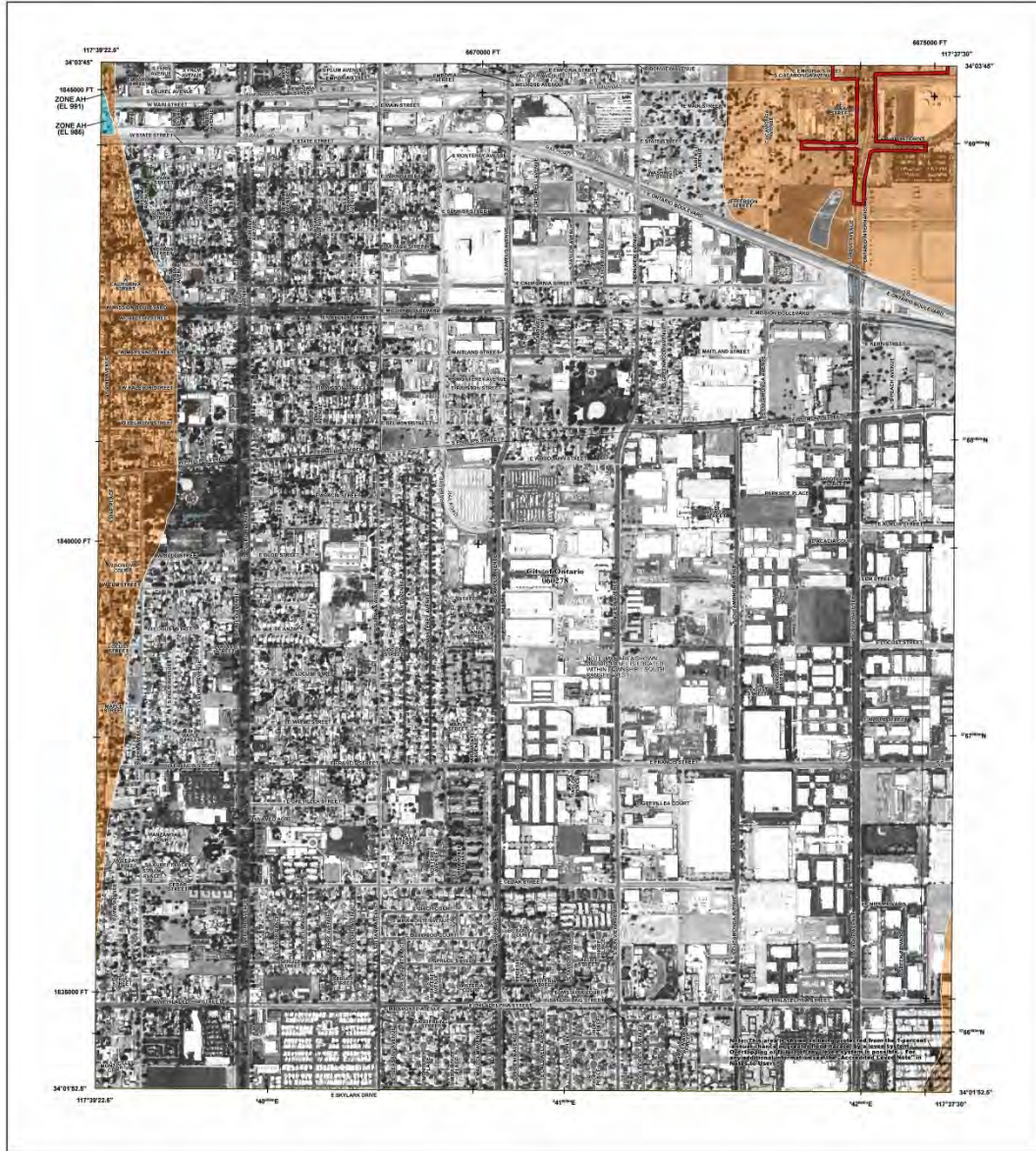


FEMA
National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP
SAN BERNARDINO COUNTY, CALIFORNIA
Panel 8628 of 9400

COMMUNITY: CHULA VISTA
FIRM NUMBER: 06071C8628B
FIRM DATE: 02/18/2015

VERSION NUMBER: 2.3.2.3
MAP NUMBER: 06071C8628B
MAP REVISION: FEBRUARY 18, 2015



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT. THE INFORMATION SHOWN ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTP://NFCDC.FEMA.GOV](http://nfdc.fema.gov)

- SPECIAL FLOOD HAZARD AREAS**
 - Without Base Flood Elevation (BFE) (Zone A, X, AH)
 - With BFE or Depth (Zone A, X, AH)
 - Regulatory Floodway
 - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile (Zone X)
 - Future Conditions 1% Annual Chance Flood Hazard (Zone X)
 - Area with Reduced Flood Risk due to Levee (See Notes) (Zone X)
 - Area of Minimal Flood Hazard (Zone X)
 - Area of Underdetention Flood Hazard (Zone X)
 - Channel, Culvert or Storm Sewer
 - Accredited or Provisionally Accredited Levee, Dike or Floodwall
- OTHER AREAS OF FLOOD HAZARD**
- OTHER AREAS**
- GENERAL STRUCTURES**
 - Non-accredited Levee, Dike or Floodwall
 - Cross Sections with 1% Annual Chance
 - Water Surface Elevation (BFE)
 - Coastal Transact
 - Coastal Transact Baseline
 - Profile Baseline
 - Hydrographic Profile
 - Base Flood Elevation Line (BFE)
- OTHER FEATURES**
 - Limit of Study
 - Jurisdiction Boundary
 - Project Area

NOTES TO USERS

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SCALE

Map Projection: UTM Zone 12N, North American Datum (NAD83)
Horizontal Reference System: North American Vertical Datum of 1988

1 inch = 500 feet

0 250 500 750 1,000 2,000 Feet

0 125 250 500 Meters

PANEL LOCATOR

8008 8009 8010 8011 8012 8013 8014 8015 8016 8017 8018 8019 8020 8021 8022 8023 8024 8025

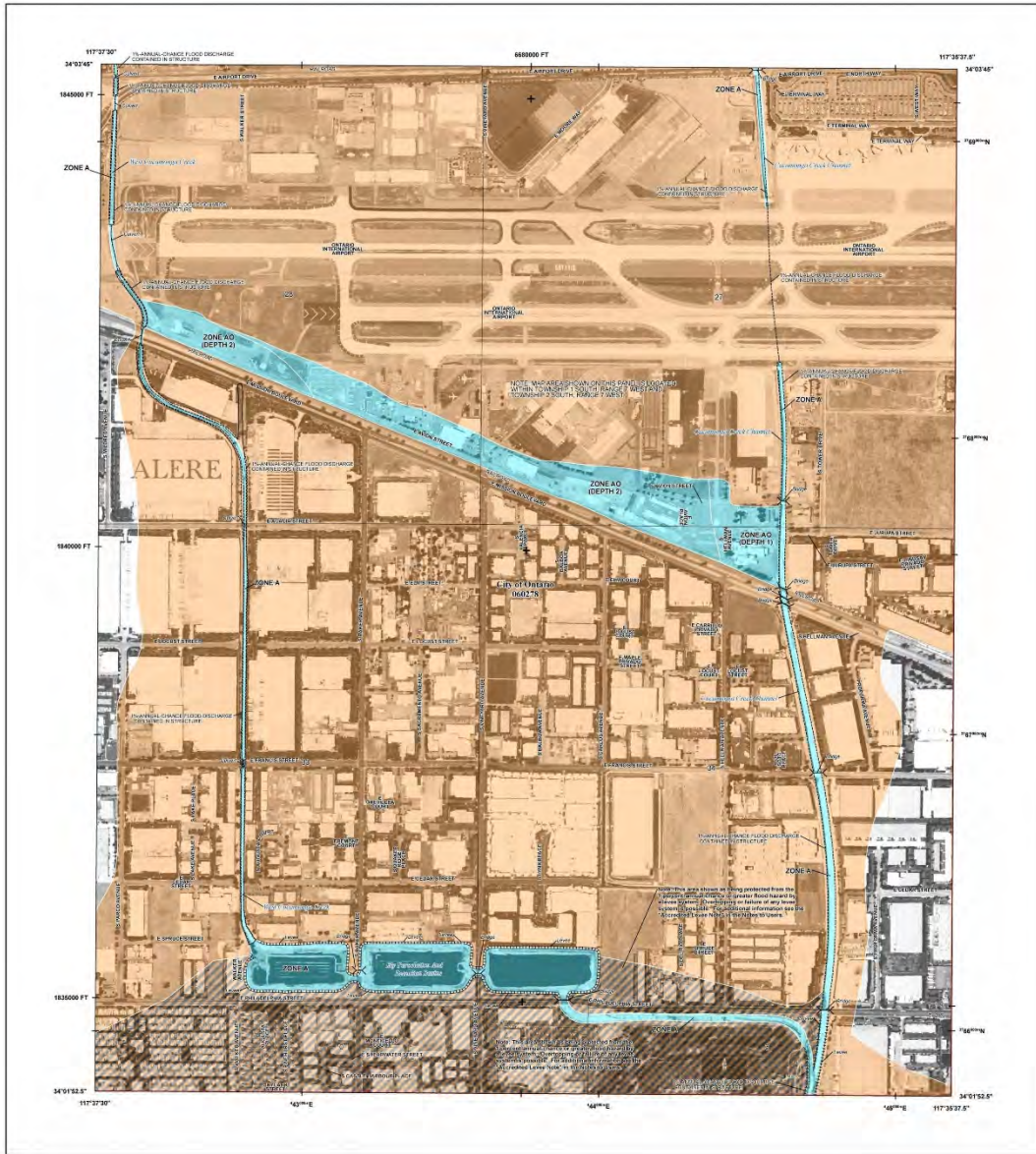
FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP
SAN BERNARDINO COUNTY, CALIFORNIA
Panel 8617 of 9400

Standard Citation:
COMMUNITY: 0606210100 NUMBER: 8617 PANEL: 8617 SUFFIX: 2

VERSION NUMBER: 2.3.2.3
MAP NUMBER: 06071C8617
MAP REVISED: FEBRUARY 18, 2015



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT. THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTP://ABC.FEMA.GOV](http://abc.fema.gov)

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) Zone A, X, AE
- With BFE or Depth Zone A, X, AE, AH, V, VE, Regulatory Floodway
- 0.2% Annual Chance Flood Hazard, Areas of 1% Annual Chance Flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X

OTHER AREAS OF FLOOD HAZARD

- Area with Reduced Flood Risk due to Levee See Note Zone X
- Area of Minimal Flood Hazard Zone X
- Area of Unflooded Flood Hazard Zone X
- Channel, Culvert or Storm Sewer
- Accredited or Provisionally Accredited Levee, Dike or Floodwall
- Non-accredited Levee, Dike or Floodwall

GENERAL STRUCTURES

- 19.2 Cross Sections with 1% Annual Chance
- 17.4 Water Surface Elevation (BFE)
- Coastal Transact
- Coastal Transact Baseline
- Profile Baseline
- Hydrographic Profile
- Base Flood Elevation Line (BFE)

OTHER FEATURES

- Limit of Study
- Jurisdiction Boundary
- Project Area

NOTES TO USERS

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SCALE

Map Projection: UTM Zone 11N, North American Datum 1983. Horizontal Datum: North American Datum of 1983.

1 inch = 500 feet

0 250 500 750 1,000 1,250 1,500 1,750 2,000 Feet

0 125 250 375 500 Meters

PANEL LOCATOR

8008	8009	8010
8009	8010	8011
8010	8011	8012

FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP

SAN BERNARDINO COUNTY, CALIFORNIA

Panel 8036

Number 8036

Panel 8036

Suffix 1

VERSION NUMBER 2.3.2.3

MAP NUMBER 06071C8036

MAP REVISED FEBRUARY 18, 2015

Appendix J Comment Letters and Responses

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COMMENTS ON DRAFT EIR/EA AND RESPONSES

Comment Letter A
Lijin Sun
SCAQMD

From: Lijin Sun [mailto:LSun@aqmd.gov]
Sent: Tuesday, September 17, 2019 7:51 AM
To: Richard Ayala <rayala@ontarioca.gov>
Subject: South Coast AQMD Staff Comments on the Draft Environmental Impact Report/Environmental Assessment (EIR/EA) for the Grove Avenue Corridor Project

Dear Mr. Ayala.

Attached are South Coast AQMD staff comments on the Draft EIR/EA for the Grove Avenue Corridor Project (South Coast AQMD Control Number: SBC190820-04). The original, electronically signed letter will be forwarded to your attention by regular USPS mail. South Coast AQMD staff comments are meant as guidance for the Lead Agency and should be reviewed for incorporation into the Final EIR/EA. Please contact me if you have any questions regarding these comments.

A-1

Thank you,
Lijin Sun, J.D.
Program Supervisor, CEQA IGR
South Coast Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765
Direct: (909) 396-3308
Fax: (909) 396-3324
Please note that the South Coast AQMD is closed on Mondays.



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL AND USPS:

September 17, 2019

rayala@ontarioca.gov

Richard Ayala, Senior Planner
City of Ontario, Planning Department
303 East B Street
Ontario, CA 91764

Draft Environmental Impact Report/Environmental Assessment (Draft EIR/EA) for the Proposed Grove Avenue Corridor Project

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final EIR/EA.

South Coast AQMD Staff's Summary of Project Description

The Lead Agency proposes to widen Grove Avenue from four lanes to six lanes between Fourth Street and State Street/Airport Drive to provide consistency of access and mobility along Grove Avenue between Interstate 10 and Holt Boulevard (Proposed Project). Based on a review of aerial photographs, South Coast AQMD staff found that portions of the Proposed Project will be located in close proximity to existing residential uses.

A-2

South Coast AQMD Staff's Summary of the Air Quality Analysis

In the air quality analysis section, the Lead Agency quantified the Proposed Project's regional and localized construction emissions and compared those emissions to South Coast AQMD's recommended regional and localized air quality CEQA significance thresholds for construction. Based on the analysis, the Lead Agency found that the Proposed Project's regional construction air quality impacts would be less than significant. However, construction of the Proposed Project would result in 16.9 pounds per day (lbs/day) of PM10 emissions, which would exceed South Coast AQMD's localized construction air quality CEQA significance threshold for PM10 at 6 lbs/day¹. The Lead Agency requires implementation of two standard conditions with a list of air quality control measures to reduce PM10 emissions during construction². As a result, the Lead Agency stated that "impacts would be temporary and considered less than significant³."

South Coast AQMD Staff's Comments – Recommended Mitigation Measures during Construction

CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate significant adverse impacts. While the Lead Agency requires implementation of air quality control measures to reduce PM10 emissions during construction, the Draft EIR/EA did not quantify the Proposed Project's construction PM10 emissions after implementation as substantial evidence to support that the Proposed Project's localized construction air quality impacts would be less than significant. To further reduce the Proposed Project's localized air quality impacts during construction on nearby residences, South Coast AQMD staff has identified the following air quality mitigation measures during construction that the Lead Agency should review and incorporate in the Final EIR/EA.

A-3

A-4

¹ Draft EIR/ES, Page 3-7.

² *Ibid.*, Page 3-8.

³ *Ibid.*

- a. Require the use of zero-emission or near-zero emission heavy-duty haul trucks during construction, such as trucks with natural gas engines that meet the California Air Resources Board's (CARB) adopted optional NOx emissions standard of 0.02 grams per brake horsepower-hour (g/bhp-hr). At a minimum, require that operators of heavy-duty haul trucks visiting the Proposed Project during construction commit to using 2010 model year⁴ or newer engines that meet CARB's 2010 engine emission standards of 0.01 g/bhp-hr for particulate matter (PM) and 0.20 g/bhp-hr of NOx emissions or newer, cleaner trucks. Include analyses to evaluate and identify sufficient power available for zero emission trucks and supportive infrastructures in the Energy and Utilities and Service Systems Sections of the Final EIR/EA, where appropriate. Require that contractor(s) maintain records of all trucks visiting the Proposed Project and make these records available to the Lead Agency upon request. The records will serve as evidence to prove that each truck called to the Proposed Project during construction meets the minimum 2010 model year engine emission standards. The Lead Agency should conduct regular inspections of the records to the maximum extent feasible and practicable to ensure compliance with this mitigation measure. A-5
- b. Limit the daily number of truck trips allowed at the Proposed Project to levels analyzed in the Final EIR/EA. If higher daily truck volumes are anticipated to visit the Proposed Project, the Lead Agency should commit to re-evaluating the Proposed Project through CEQA prior to allowing the higher activity level. A-6
- c. Require the use of off-road diesel-powered construction equipment that meets or exceeds the CARB and U.S. Environmental Protection Agency (USEPA) Tier 4 Final off-road emissions standards for equipment rated at 50 horsepower or greater during construction of the Proposed Project. Such equipment will be outfitted with Best Available Control Technology (BACT) devices including a CARB certified Level 3 Diesel Particulate Filter (DPFs). Level 3 DPFs are capable of achieving at least 85 percent reduction in particulate matter emissions⁵. A list of CARB verified DPFs are available on the CARB website⁶. A-7
- d. To ensure that Tier 4 Final construction equipment or better would be used during the Proposed Project's construction, South Coast AQMD staff recommends that the Lead Agency include this requirement in applicable bid documents, purchase orders, and contracts. Successful contractor(s) must demonstrate the ability to supply the compliant construction equipment for use prior to any ground disturbing and construction activities. A copy of each unit's certified tier specification or model year specification and CARB or South Coast AQMD operating permit (if applicable) shall be available upon request at the time of mobilization of each applicable unit of equipment. Additionally, the Lead Agency should require periodic reporting and provision of written construction documents by construction contractor(s) to ensure compliance, and conduct regular inspections to the maximum extent feasible to ensure compliance. A-8
- e. In the event that construction equipment cannot meet the Tier 4 Final engine certification, the Project representative or contractor must demonstrate through future study with written findings supported by substantial evidence that is approved by the Lead Agency before using other A-9

⁴ CARB adopted the statewide Truck and Bus Regulation in 2010. The Regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. More information on the CARB's Truck and Bus Regulation is available at: <https://www.arb.ca.gov/msprog/ordiesel/ordiesel.html>.

⁵ CARB, November 16-17, 2004. *Diesel Off-Road Equipment Measure – Workshop*. Page 17. Accessed at: https://www.arb.ca.gov/msprog/ordiesel/presentations/nov16-04_workshop.pdf

⁶ *Ibid*, Page 18.

technologies/strategies. Alternative applicable strategies may include, but would not be limited to, construction equipment with Tier 4 Interim or Tier 3 emission standards that the Lead Agency has already included in the air quality modeling, reduction in the number and/or horsepower rating of construction equipment, limiting the number of daily construction haul truck trips to and from the Proposed Project, and/or limiting construction phases occurring simultaneously with the remediation activities.

A-9

f. Maintain vehicle and equipment maintenance records for the construction portion of the Proposed Project. All construction vehicles must be maintained in compliance with the manufacturer's recommended maintenance schedule. All maintenance records shall remain on-site for a period of at least two years from completion of construction.

A-10

g. Encourage construction contractors to apply for South Coast AQMD "SOON" funds. The "SOON" program provides funds to applicable fleets for the purchase of commercially-available low-emission heavy-duty engines to achieve near-term reduction of NOx emissions from in-use off-road diesel vehicles. More information on this program can be found at South Coast AQMD's website: <http://www.aqmd.gov/home/programs/business/business-detail?title=off-road-diesel-engines>.

A-11

Conclusion

Pursuant to California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(b), South Coast AQMD staff requests that the Lead Agency provide South Coast AQMD staff with written responses to all comments contained herein prior to the certification of the Final EIR/EA. In addition, issues raised in the comments should be addressed in detail giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice (CEQA Guidelines Section 15088(c)). Conclusory statements do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful, informative, or useful to decision makers and to the public who are interested in the Proposed Project. Further, when the Lead Agency makes the finding that the recommended mitigation measures are not feasible, the Lead Agency should describe the specific reasons for rejecting them in the Final EIR/EA (CEQA Guidelines Section 15091).

A-12

South Coast AQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. If you have any questions regarding this letter, please contact me at lsun@aqmd.gov.

A-13

Sincerely,

Lijin Sun

Lijin Sun, J.D.

Program Supervisor, CEQA-IGR

Planning, Rule Development & Area Sources

LS

SBC190820-04

Control Number

Response A-1: We acknowledge receipt of both the electronic and hard copies of the SCAQMD comment letter.

Response A-2: Comment is noted. As stated in Section 2.1.1.1, Existing and Future Land Uses, of the EIR/EA, various residential uses are located along and near Grove Avenue between Airport Drive and 4th Street. As stated in Section 3.2.3, Air Quality, the estimated PM10 emissions during construction would exceed SCAQMD's Localized Significance Thresholds. Standard Conditions SC-CI-21 and SC-CI-22 include an extensive list of air quality control measures, such as soil stabilization and soil binders on disturbed areas, storage piles, and unpaved roads; fugitive dust control by watering; wetting of building exteriors prior to demolition; covering of hauls or provision of freeboard; mud or dirt removal from adjacent streets/removal of carryout and track out; speed limits; wheel washers/gravel pads; wind breaks and suspension of work during strong winds; limiting ground disturbance each day; SCAQMD Rule 403 compliance; equipment maintenance and tuning; and storage sites away from residential and park uses. Since these measures would be implemented during construction of the project and PM10 impacts on adjacent land uses would be temporary (lasting approximately 1 year) and would occur for an even shorter time period when construction activity occurs adjacent to specific residences, impacts are not considered significant.

Response A-3: Standard Conditions SC-CI-21 and SC-CI-22 includes measures beyond those required by SCAQMD to reduce PM10 emissions. The specific reductions in PM10 due to the implementation of Standard Conditions SC-CI-21 and SC-CI-22 cannot be readily quantified as there are no public or commercially available computer models that would provide specific PM10 reductions for each measure under SC-CI-21 and SC-CI-22. In addition, details on the specific construction schedule and equipment that would be utilized by the selected contractor, the number of acres that would be disturbed per day, the number and volume of buildings demolished per day, the extent and volume of ground disturbance adjacent to individual residences, the dust suppressant, soil binder or dust control that would be utilized, future wind speeds on specific dates, the condition of contractor equipment and trucks, and other construction information would be required to provide an accurate estimate of PM10 emissions and potential reductions. Without a construction plan at this time, the use of assumptions for any of these details would not provide an accurate estimate of reductions in PM10 emissions from measures listed under SC-CI-21 and SC-CI-22. As indicated above, PM10 impacts on adjacent land uses would be temporary (with project construction lasting approximately 1 year) and PM impacts to adjacent residential uses would be confined to the times when construction activities and equipment are occurring only during short time periods when construction activity is within 20 to 30 feet of the receptor (although PM10 may settle within a few hundred feet depending on initial emission height of the particle, its settling velocity, and wind speeds or other atmospheric turbulence). No one residence would be exposed to PM10 emissions during the entire year of construction along Grove Avenue. Thus, impacts are considered temporary and less than significant.

Response A-4: Since the project's construction emissions are considered less than significant, the City does not propose mitigation measures in addition to compliance with Standard Conditions SC-CI-21 and SC-CI-22.

Response A-5: The reduction in PM10 emissions due to the use of zero-emission or near-zero emission heavy-duty haul trucks during construction cannot be readily quantified without knowing the truck mix that would be used by the selected contractor. For example, if assumed zero in the modelling estimates, the elimination of truck and equipment exhaust would reduce PM10 by less than 2 pounds per day or 13 percent. Also, ARB requires heavy and light trucks to have 2010 model year engines by January 2023. Therefore, it is expected that the selected contractors would use trucks that would comply with this

regulation during the construction of the project, which is anticipated to be in 2024 at the earliest. By 2023, only vehicles compliant with this regulation will be registered by the California Department of Motor Vehicles (DMV). Thus, this mitigation measure is not considered necessary and has not been added into the Final EIR/EA.

Response A-6: The distances of individual truck trips, fleet mix, and the number, size, and condition of trucks that would be used by the selected contractor are not known at this time. The amount of PM10 that would come from debris and building materials, wind speeds on specific construction dates, and the reduction in PM10 emissions due to covering hauls or providing freeboard, reductions in PM10 due to limits on the number of trucks cannot be readily quantified. Consequently, the number of trucks that would provide the reduction in PM10 emissions to bring PM10 below the LST cannot be easily set. Since the rough proportionality of setting a limit on the number of trucks coming to the construction site cannot be ascertained, this measure is not considered feasible and has not been added into the Final EIR/EA.

Response A-7: It is anticipated that the selected contractor (with either a small, medium, or large fleet of construction equipment) will comply with the ARB Regulation for in-use off-road diesel-fueled fleets with 25 horsepower or greater by 2023 for large and medium fleets and by 2028 for small fleets. Compliance with this regulation would reduce NOx and PM from construction equipment that would be used for the project. No additional mitigation measure is required.

Response A-8: Construction of the project is anticipated to begin in 2024 at the earliest, when compliance with ARB Regulation for in-use off-road diesel-fueled fleets would have been completed by contractors and other affected entities. Thus, a mitigation measure that requires use of Tier 4 construction equipment is not considered necessary.

Response A-9: See Response A-8 above.

Response A-10: This measure is included as bullet #5 under SC-CI-22.

Response A-11: As suggested, the City shall encourage contractors to apply for SOON funds under a new Minimization Measure AQ-1 that has been added to read:

AQ-1: The City shall encourage construction contractors to apply for South Coast AQMD "SOON" funds. The "SOON" program provides funds to applicable fleets for the purchase of commercially available low-emission heavy-duty engines to achieve near-term reduction of NOx emissions from in-use off-road diesel vehicles. More information on this program can be found at SCAQMD's website:

<http://www.aqmd.gov/home/programs/business/business-detail?title=off-road-diesel-engines&parent=vehicle-engine-upgrades>

Response A-12: A response to each of the mitigation measures listed in the comment letter have been provided above. These responses would be provided to the SCAQMD prior to certification of the Final EIR, as required under Section 21092.5 of CEQA and Section 15088(b) of the CEQA Guidelines. Findings will be made by the City Council in accordance with Section 15091 of the CEQA Guidelines, during the certification of the Final EIR.

Response A-13: We acknowledge the offer of assistance. No response is required.

Comment Letter B
Alexandra McCleary
San Manuel Band of Mission Indians

From: Alexandra McCleary [<mailto:Alexandra.McCleary@sanmanuel-nsn.gov>]
Sent: Friday, September 13, 2019 4:29 PM
To: Richard Ayala <ravala@ontarioca.gov>; gary.jones@dot.ca.gov
Subject: Grove Ave Corridor Project

Dear Richard Ayala and Gary Jones,

Thank you for contacting the San Manuel Band of Mission Indians (SMBMI) regarding the above referenced project. I write to you on behalf of Lee Clauss, Director of the Cultural Resources Management Department. SMBMI appreciates the opportunity to review the project documentation, which was received by the Cultural Resources Management Department on September 19th, 2019. The proposed project is located outside of Serrano ancestral territory and, as such, SMBMI will not be requesting consulting party status with the lead agency or requesting to participate in the scoping, development, and/or review of documents created pursuant to these legal and regulatory mandates.

B-1

Kind regards,

Alexandra McCleary

Alexandra McCleary
TRIBAL ARCHAEOLOGIST
O: (909) 864-8933 x502023
M: (909) 633-0054
26569 Community Center Drive Highland CA 92346

SAN MANUEL
BAND OF MISSION INDIANS [sanmanuel-nsn.gov]


SAN MANUEL
CASINO [sanmanuel.com]

BUILD SOMETHING GREATER. **TOGETHER** [sanmanuelcareers.com]

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If the reader of this message is not the intended recipient or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination or copying of this communication is strictly prohibited. If you have received this electronic transmission in error, please delete it from your system without copying it and notify the sender by reply e-mail so that the email address record can be corrected. Thank You

Response B-1: We appreciate the SMBMI's participation in the environmental review process. No response to this comment is required.

Comment Letter C
Norberto Corona

 **Grove Avenue Corridor Project**
COMMENT CARD

Name: Norberto Corona Date: 9/19/19
Address: 1206 E Flora St Phone: (909) 997-0607
Representing: _____


Comment:
C-1 [RSU Noise Table
Please email me at Down4Corona@gmail.com
Thank you

PLEASE SUBMIT THIS COMMENT CARD OR EMAIL YOUR COMMENTS TO
RAYALA@ONTARIOCA.GOV
BY OCTOBER 2, 2019

Response C-1: As requested, Table 2.2.7-3 of the Draft EIR/EA and the figures showing the noise receptors listed in the table were emailed to Norberto Corona on September 23, 2019.

Comment Letter D

Maria Hernandez

 **TARJETA DE COMENTARIO**
Proyecto de la Avenida Grove

Nombre: MARIA HERNANDEZ Fecha: 9-14-19
Dirección: 516 N GROVE AVE ontario Teléfono: (909) 331-57-41
Representando: _____

Comentario:

D-1 [SI ME GUSTARIA VER MAS ANCHA LA CALLE
Y SI PODIERAN PONER EN LA CALLE G
UNA LUZ EN EL SEMAFORO PARA PODER
DAR VUELTA A LA IZQUIERDA CON SEGURIDAD
O SE CON FLECHA EN GROVE Y G


POR FAVOR ENTREGUE SUS COMENTARIOS USANDO ESTA TARJETA O POR CORREO ELECTRONICO A RAYALA@ONTARIOCA.GOV ANTES DEL 2 DE OCTUBRE DEL 2019

English translation: I would like to see a wider street and if you can set up a traffic light to turn left for safety, with an arrow at Grove & G.

Response D-1: The project proposes to widen Grove Avenue from a four-lane roadway to a six-lane roadway from 4th Street to State Street/Airport Drive. The improvements proposed at the Grove Avenue and G street intersection include a single exclusive left-turn lane on all four sides of the intersection, a traffic signal, and ADA compliant curb ramps at all corners for safe pedestrian crossing. Signal phasing (left turn arrow) will be determined during final design and will consider the need for dedicated left-turn phasing. Project features are described in Section 1.3.1 of the EIR/EA.

Spanish translation: El proyecto propone ampliar Grove Avenue de una carretera de cuatro carriles a una carretera de seis carriles desde 4th Street hasta State Street/Airport Drive. Las mejoras propuestas en la intersección de la Grove Avenue y la G Street incluyen un carril único exclusivo para girar a la izquierda en los cuatro lados de la intersección, una señal de tráfico y rampas en el borde de la acera que cumplen con la ADA en todas las esquinas para un cruce peatonal seguro. La fase de la señal (flecha de giro a la izquierda) se determinará durante el diseño final y se considerará la necesidad de una fase de giro a la izquierda dedicada. Las características del proyecto se describen en la Sección 1.3.1 del EIR/EA.

Comment Letter E
Ray Mendoza



Grove Avenue Corridor Project
COMMENT CARD

Name: RAY MENDOZA Date: 9-19-19

Address: 1222 E. FLORA ST Phone: ⁹⁰⁹ () 986-9417

Representing: my HOME AND PROPERTY

Comment:

E-1 [CURRENTLY HAVE ACCESS TO PARK WITH GATE. WILL SOUND

E-2 [WILL PROVIDE SAME GATE. WHAT IS SPEED LIMIT AND CARVE OUT 4TH &

AIRPORT? WILL ANY TREES BE REMOVED? WHAT IMPACT] E-3

E-5 [ON PROPERTY VALUES? WHEN WILL THE PROJECT BEGIN?] E-4

HOW LONG WILL IT TAKE? WILL LIGHTING IN THE AREA IMPROVE?] E-6

PLEASE SUBMIT THIS COMMENT CARD OR EMAIL YOUR COMMENTS TO
 RAYALA@ONTARIOCA.GOV
 BY OCTOBER 2, 2019


<p>Response E-1: Any existing access to individual properties that would remain in place will be maintained with this project, unless the property owner requests otherwise. If an existing gate requires removal for construction, either the same gate or a new comparable one will be reinstalled.</p>
<p>Response E-2: The existing speed limit on Grove Avenue is 45 miles per hour (mph). The project does not propose to change the speed limit on Grove Avenue.</p>
<p>Response E-3: The Build Alternative requires that any trees which conflict with the proposed improvements be removed. As stated in Section 3.2.1, Aesthetics, of the EIR/EA, an estimated 174 trees would be removed. However, new trees and bushes will be planted in the proposed parkway and median. Minimization Measure NC-1 requires the preservation of as many mature trees as practicable and Minimization Measure VA-2 requires a 2:1 replacement for each tree removed or 348 replacement trees. Existing trees that are outside the limits of the improvements will remain in place.</p>
<p>Response E-4: The Grove Avenue Corridor Project will reduce congestion and provide a more aesthetically pleasing corridor for drivers and residents. However, its impact on property values is not known, as this will depend on many other factors (such as market forces, local economy, sale activity, location of goods and services, and interest rates), aside from an adjacent roadway. Also, any change in property values is not considered a physical change to the environment that is evaluated in the EIR/EA. However, changes in land use, community impacts, and growth inducement (which affect property values) are addressed in Section 2.0 of the EIR/EA.</p>

Response E-5: If funding is obtained and the Build Alternative is implemented, it is currently anticipated that construction could begin as early as 2024, with completion in 2025, when the proposed project is scheduled to open to traffic. However, funding for the project has not yet been identified, and therefore, a delay in this schedule is anticipated. If the project moves forward, construction is anticipated to take approximately 18 months.

Response E-6: The Build Alternative for this project includes new streetlights along the Grove Avenue corridor and additional streetlights on Holt Boulevard near the intersection of Grove Avenue/Holt Boulevard, as discussed in Section 3.2.1, Aesthetics, of the EIR/EA. The project will improve lighting in the area.

Comment Letter F
Ernestine Mendoza

afraid of what is yet to come.



Grove Avenue Corridor Project
COMMENT CARD

Name: Ernestine Mendoza Date: 9/19/19
 Address: 1222 E. Flora St. Phone: (909) 986-9417
 Representing: myself as homeowner Ontario, CA 91764

Comment:
Concern - *provisions for school kids crossing, 64 Grove
* * * Noise level
* * * Flood channel

* As is now, there are frequent accidents at this intersection. Drivers race to make green lights especially going north. One child was killed at this intersection about a year ago with Grove becoming a highway cars will even go faster. What provisions are you talking to slow traffic so another child won't be killed.

PLEASE SUBMIT THIS COMMENT CARD OR EMAIL YOUR COMMENTS TO
RAYALA@ONTARIOCA.GOV
 BY OCTOBER 2, 2019

* * * The noise level is already high and we've taken measures to lower it by installing double-paned windows yet the traffic noise is very high coupled w/ airport noise. I'm sorry.

F-3

Since we live in a flood area - will all this disturbed construction impact the flood water control?

F-1

F-2

Response F-1: The proposed Build Alternative includes a signalized intersection at Grove Avenue and G Street with single exclusive left-turns on all sides, a dedicated pedestrian crossing phase, and ADA-compliant curb ramps and sidewalks. No speed limit change is proposed with the project. Any increase or decrease in speed limits on local streets in the City is regulated by Section 4-6.1501 to 4-6.1502 of the Ontario Municipal Code and, based on an engineering and traffic survey that shows the proposed speed limit would facilitate the orderly movement of traffic and would be reasonable and safe, is subject to City Council approval.

Response F-2: As discussed in Section 2.2.7 of the EIR/EA, the noise impacts of the Build Alternative were evaluated. According to Caltrans' Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 dBA or more increase) or when the future noise level with the project approaches (within 1 dBA) or exceeds the noise abatement criteria (NAC). Where noise levels meet the NAC, soundwalls were evaluated to determine if they were reasonable and feasible. Of the 15 soundwalls evaluated, 8 were found to be feasible and reasonable. The viewpoints of benefitted receptors (property owners and tenants) would determine the construction of the soundwall. With noise level increases in the future design-year Build conditions at a maximum of 8 dB at one receiver location over the existing noise conditions and with lower increases at other receivers, the increase in noise levels due to the project is not considered substantial or significant.

Response F-3: As stated in Section 3.2.9 of the EIR/EA, the proposed Build Alternative geometrically encroaches upon the West Cucamonga Channel at the culvert crossings on Grove Avenue. The proposed encroachment would not alter the floodplain because the culvert crossings would only be extended to accommodate the roadway widening by a maximum of approximately 37 feet. The 100-year flood event would still be contained in the existing channel under the proposed conditions. Thus, existing drainage patterns would not be altered. In addition, several minimization measures would be incorporated into the design and construction phases to avoid potential floodplain and water quality impacts. The project will also implement temporary construction best management practices (BMPs) and permanent source control BMPs and BMP techniques (i.e. drainage swales, bioretention, and/or infiltration basins/trenches). No change in the limits of the floodplain would occur with the project.

Comment Letter G
Ontario-Montclair School District

Ontario-Montclair

School District

950 West D Street, Ontario, California 91762 • (909) 418-6366 FAX: (909) 459-2550

FACILITIES PLANNING & OPERATIONS

Sent Via Certified Mail
Receipt No. 7018 0680 0002 0066 7049
Return Receipt Requested

October 2, 2019

Mr. Richard Ayala, Senior Planner
Attn: Grove Avenue Corridor Project
Planning Department
City of Ontario
303 East "B" Street
Ontario, CA 91764-4105

Re: Grove Avenue Corridor Project

Dear Mr. Ayala:

The Ontario-Montclair School District (District) understands the City of Ontario (City) and the California Department of Transportation (Caltrans) are seeking information as part of its efforts to prepare an environmental document pursuant to the California Environmental Quality Act ("CEQA") for the Grove Avenue Corridor Project (Project). Thus, the District is providing the following information as a courtesy based solely on the information provided in the draft Environmental Impact Report/Environmental Assessment (EIR/EA). Except for the statements made below, the District is not providing any representations or endorsements regarding the plan or compliance with CEQA. The District has not done any independent analysis or investigation regarding the plan or any of the statements and issues included in the City's draft EIR/EA. The District hereby grants permission to the City and Caltrans to use the information provided below as part of its CEQA analysis but may not indicate or suggest that the District is involved in the Project or the City and Caltrans' efforts to comply with CEQA other than providing the information below for the City and Caltrans, independent use.

G-1

In addition to Grove Avenue being a route to school for many of the District's students, the District's buses travel the route several times a day with a stop on North Grove Ave. (between East "G" Street to the North and East "D" Street to the South). The District is very interested in knowing the project schedule and any road closures or detours that could impact District operations, including temporary relocation of District bus stops.

G-2

Please continue to send public notices and information regarding the Project to me. If you have any questions, feel free to contact me at 909-418-6369.

G-3

Sincerely,



Craig Misso
Director, Facilities Planning & Operations

BOARD OF TRUSTEES

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Chief Business Official

Craig Misso
Director, Facilities Planning & Operations

Response G-1: We appreciate Ontario-Montclair School District's participation in the environmental review process. Comment is noted and no response is required.

Response G-2: As discussed in Sections 2.1.6.3 and 2.1.6.4 of the EIR/EA, a Traffic Management Plan (TMP) was prepared during the preliminary engineering phase of the project, and a Final TMP will be prepared during final design. TMP strategies will include avoiding disruptions to existing transit services, including the Ontario-Montclair School District bus routes. At a minimum, the Final TMP will include details on projected temporary street closures or expected traffic delays due to project construction activities. The Final TMP will also include a public awareness campaign, which will include notification to the Ontario-Montclair School District. As stated in Minimization Measure T-5, "Prior to and during construction, the Project Engineer will coordinate with Omnitrans, the Ontario-Montclair School District, and other affected transit providers to request and comply with applicable procedures for any required temporary bus stop relocations or other disruptions to transit service during construction, if necessary."

Response G-3: The Ontario-Montclair School District has been informed of the project, public meetings, and environmental review process. Future notices will be sent to Mr. Craig Misso, Director of Facilities Planning and Operations, at the Ontario-Montclair School District.

Comment Letter H

USEPA

From: Mulvihill, Carolyn
Sent: Wednesday, October 02, 2019 1:52 PM
To: Richard Ayala <rayala@ontarioca.gov>
Subject: Grove Avenue Corridor Project

Mr. Ayala,

EPA appreciates the opportunity to review the environmental assessment for the Grove Avenue Corridor Project. We have some concerns about the potential for cumulative impacts from construction emissions if this project and other planned projects in the vicinity of this project have construction periods that overlap. We encourage Caltrans and the City of Ontario to implement all feasible mitigation measures to minimize those emissions, in particular if other projects are under construction concurrently. Please let us know when the final environmental document is complete. Thank you.

H-1
H-2
H-3

Carolyn Mulvihill
Environmental Review Branch
U.S. EPA, Region 9
75 Hawthorne Street, TIP-2
San Francisco, CA 94105-3901

phone: (415) 947-3554
email: mulvihill.carolyn@epa.gov

Response H-1: The cumulative impacts of the project are discussed in Section 2.4 of the EIR/EA. Under Air Quality, it states that depending on the construction schedules and implementation of other projects in the region, fugitive dust and pollutant emissions generated during construction may result in substantial short-term increases in air pollutants. This would contribute to short-term cumulative air quality impacts; however, implementation of construction best available control measures (BACMs) during site grading activities would reduce fugitive dust emissions to a level that is considered less than significant.

Response H-2: The project would comply with Standard Conditions SC-CI-21 and SC-CI-22, which include an extensive list of air quality control measures that would be implemented during construction of the project and would reduce impacts on adjacent land uses. A new Minimization Measure AQ-1 has also been added to encourage contractors to apply for SOON funds as a means of reducing NOx and PM2.5 emissions by construction equipment meeting NOx and PM fleet average standards. Since construction emissions would be temporary (lasting approximately 1 year) and would not be considered significant, no mitigation measures are proposed.

Response H-3: Prior to certification of the Final EIR/EA by the City of Ontario, written responses would be provided to the USEPA for their comments on the Draft EIR/EA, as required under Section 21092.5 of CEQA and Section 15088(b) of the CEQA Guidelines.

Comment Letter I
Lidia Rodriguez

From: lidia rodriguez
Sent: Tuesday, September 24, 2019 1:55 PM
To: Richard Ayala <rayala@ontariopca.gov>
Subject: Grove Avenue Corridor Project/Comment Card

City of Ontario:

The following items listed are my concerns about the Grove Avenue Corridor Project.

1. **Safety of the Children:**

They must cross Grove Avenue at I, G & D Streets, Elma & Nocta Streets to attend Del Norte Elementary School and Mariposa Elementary School. Along with Ray Wiltsey Middle School. We've had children killed trying to cross Grove Avenue in the past, plus multiple car accidents. Have the Planners considered how the children will cross safely to attend school?

I-1

2. **Impact of the City Parks:**

My concern is for the 2 parks east of D Street which are Veterans Memorial and James Galanis Park. The City of Ontario has many activities for the public and also distribution of food for the children. The Chaffey School District also has a bus stop at Veterans Memorial Park.

I-2

3. **The Speed Limit:** The Grove Avenue Corridor areas is a residential zone. The current speed limit is 45 mph which I believe is too fast for this zone. I suggest it be reduced to 35 mph.

I-3

4. **Environmental Concerns:** As it is, we have the noise from the Semi-trucks which will be greatly increased if this project proceeds. Along with more traffic, comes more noise in this residential area.

I-4

We believe this will cause increase of air pollution from the added traffic.

5. **Traffic Corridors:** There are already 10 more direct existing traffic corridors that lead to Ontario International Airport. From the 10 Freeway, there is Vineyard Avenue, Archibald Avenue, Milliken and Haven. From the 60 Freeway, there is Grove Avenue from the south along with Vineyard, Archibald, Haven & Milliken. Plus the existing traffic that Grove is carrying already.

I-5

I've been a resident of Ontario, at this address (213 N. Grove) since 1956. At that time, Grove ended at I Street to the North and Nocta on the South. We've seen it go from 2 lanes to 4 lanes. And now you're proposing 6 lanes plus a median. My concern is how will I and my neighbors enter and exit our driveways safely.

I-6

I hope you will consider my concerns.

Thank you,

Lidia Rodriguez

Response I-1: The Build Alternative for the project proposes signalized intersections with dedicated left-turn lanes at the intersections of Grove Avenue with D Street, G Street, and I Street. Each of these signalized intersections will include ADA-compliant curb ramps and crosswalks, and a dedicated pedestrian crossing phase.

Response I-2: As discussed in Section 2.1.1.3 of the EIR/EA, five public parks are located within 0.5-mile of the Grove Avenue Corridor and were considered Section 4(f) resources for the project. Section 4(f) resources include any publicly owned public park, recreational area, or wildlife or waterfowl refuge or any publicly or privately-owned historic site. The five nearby parks include James Galanis Park, Veterans Memorial Park, Grove Memorial Park, John Galvin Park, and Vineyard Neighborhood Park. Of these parks, only the Grove Memorial Park and John Galvin Park are expected to be physically impacted by the proposed Build Alternative improvements. The Veterans Memorial Park and James Galanis Park will not be directly affected by the project.

Response I-3: The project does not propose a change in speed limit. Any increase or decrease in speed limits on local streets in the City is regulated by Section 4-6.1501 to 4-6.1502 of the Ontario Municipal Code and, based on an engineering and traffic survey that shows the proposed speed limit would facilitate the orderly movement of traffic and would be reasonable and safe, is subject to City Council approval.

Response I-4: As described in Section 2.2.7 of the EIR/EA, noise impacts of the Build Alternative were studied as part of this project. According to Caltrans' Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 dBA or more increase) or when the future noise level with the project approaches (within 1 dBA) or exceeds the noise abatement criteria (NAC). Where noise levels meet the NAC, soundwalls were evaluated to determine if they were reasonable and feasible. Please refer to Section 2.2.7 of the EIR/EA for the noise analysis and associated exhibits for a visual representation of the soundwalls studied and currently proposed for the Build Alternative. Of the 15 soundwalls evaluated, 8 were found to be feasible and reasonable. The viewpoints of benefitted receptors (property owners and tenants) would determine the construction of the soundwall. With noise level increases in the future design-year Build conditions at a maximum of 8 dB at one receiver location over the existing noise conditions and with lower increases at other receivers, the increase in noise levels due to the project is not considered substantial or significant.

Regarding the increase in air pollution, Section 2.2.6 of the EIR/EA discusses the National Ambient Air Quality Standards (NAAQS) and State ambient air quality standards, which have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: CO, nitrogen dioxide (NO₂), ozone (O₃), PM—which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM₁₀) and particles of 2.5 micrometers or smaller (PM_{2.5})—and sulfur dioxide (SO₂). The project would comply with dust control requirements in Caltrans' Standard Specifications and SCAQMD regulations during construction. Construction emissions would be temporary and minor. Because the project is included in and consistent with regional transportation plans that conform to federal and state air quality requirements, the project would not degrade ambient air quality in the long-term and would not result in substantial air quality impacts from operation of the project. The project is anticipated to have a less than significant impact on existing air quality.

Response I-5: There are other north-south running corridors from nearby freeways that lead to the Ontario International Airport. However, these corridors would not accommodate recent and projected growth in passenger and goods/trucks movement along Grove Avenue that go to and from the Ontario International Airport and changes in land uses in the area since Grove Avenue was originally constructed. Based on traffic projections and the existing and planned land uses in the vicinity, the existing Grove Avenue facility is forecast to operate at unsatisfactory level of service (LOS) at three intersections within the project limits by 2045 without improvement. The purpose of the project is to alleviate this existing and future congestion and improve traffic operations on Grove Avenue.

Response I-6: Existing driveways at properties on Grove Avenue that would not be subject to full acquisition will be retained, with no restrictions to driveway access. It is anticipated that residents will have an easier time pulling out of driveways on Grove Avenue with the increase in road capacity. With the additional lane in each direction, the proposed street widening will improve access onto Grove Avenue.

Comment Letter J

Jerry Hale

From: JERRY HALE
Sent: Tuesday, October 01, 2019 4:08 PM
To: Richard Ayala <rayala@ontarioca.gov>
Subject: Grove Avenue Corridor Project

To Whom it may concern

I would like to have my opinion on record.

I went to the meeting on Sept 19, 2019 and found out that this project will have a big impact on the residents in this area.

1. More traffic while children are crossing G st and D st. to get to and from school. More dangerous for the kids.] J-1
2. Cars speeding and more accidents (Drivers don't do the speed limit now).] J-2
3. The noise will be at a higher sound level day and night. According to the plans only certain houses will get a sound wall.] J-3
4. Personally my property will not be getting a sound wall due to having to use Grove Ave. driveway, which will be dangerous.] J-4
5. My D st driveway will be taken away to make handicapped access. Which is fine but, with this proposed project I will lose part
Of my front and backyard and driveway which will cause less driveway to pull in and out of. And not sure if we will be able to have a fence] J-5
With a gate to keep people out and keep our dogs in.. If a fence is possible, we would not be able to have a gate, due to not having enough
Room to pull our car up in the driveway to open the gate when coming in off Grove Ave.]

This project has not been well thought out. I don't think the residents that will be affected have been taken into consideration.] J-6

Thank You
Susan Hale
1195 E D st.
Ontario Ca.

Sent from [Mail \[go.microsoft.com\]](mailto:go.microsoft.com) for Windows 10

Response J-1: The purpose of this project is to alleviate existing and anticipated congestion due to projected increases in traffic, which are occurring and expected to occur with or without the project. The project itself is not a cause for more traffic. The Build Alternative proposes that each signalized intersection along the corridor have a dedicated pedestrian crossing phase, as well as ADA-compliant curb ramps and crosswalks. This will promote pedestrian safety.

Response J-2: While the project would reduce traffic congestion during peak hours, it is not intended to increase the speed and number of speeding vehicles during off-peak hours. The enforcement of speed limits in the City is the responsibility of the Police Department and the Traffic Division. Also, any increase or decrease in speed limits on local streets in the City is regulated by Section 4-6.1501 to 4-6.1502 of the

Ontario Municipal Code and, based on an engineering and traffic survey that shows the proposed speed limit would facilitate the orderly movement of traffic and would be reasonable and safe, is subject to City Council approval.

Response J-3: As described in Section 2.2.7 of the EIR/EA, noise impacts of the Build Alternative were studied as part of this project. According to Caltrans' Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 dBA or more increase) or when the future noise level with the project approaches (within 1 dBA) or exceeds the noise abatement criteria (NAC). Where noise levels meet the NAC, soundwalls were evaluated to determine if they were reasonable and feasible. Please refer to Section 2.2.7 of the EIR/EA for the noise analysis and refer to the associated exhibits for a visual representation of the soundwalls studied and currently proposed for the Build Alternative. Soundwalls are not proposed on properties where existing driveways require access to Grove Avenue, as gaps in the walls would prevent the reduction in noise levels at these properties. At the same time, with noise level increases in the future design-year Build conditions at a maximum of 8 dB at one receiver location over the existing noise conditions and with lower increases at other receivers, the increase in noise levels due to the project is not considered substantial or significant.

Response J-4: It is anticipated that residents with direct driveway access to Grove Avenue will have an easier time pulling out of driveways with the increase in road capacity provided by the project. With the additional lane in each direction, the proposed street widening will improve access onto Grove Avenue.

Response J-5: If an access driveway requires reconfiguration due to the construction of the handicap curb ramp and/or other roadway improvements, the City will be coordinating with the property owner on the necessary improvements to re-construct the driveway to meet access and safety considerations, as well as replace other private property improvements, such as drive aisles, gates, and fences that would be removed by the project. Final design of the project would include specific modifications to existing driveways and yard areas that would be affected by the project, which may result in reduced disturbances to individual private properties.

Response J-6: The impacts to and views of residents have been taken into consideration throughout the planning phase of the project. The preliminary design of the project has incorporated standard engineering practices that account for public safety of vehicles, pedestrians, and adjacent residents and property owners. In addition, the project has been designed to limit the disruption of adjacent land uses by considering ways to reduce private property acquisition to the least amount necessary. Various alternatives were evaluated to determine those that would have the least impact to the existing residential and non-residential uses along the Grove Avenue corridor. Public meetings were held with public agencies and adjacent property owners and tenants to obtain input into the design of the project, as well as on the issues to be analyzed in the Draft EIR/EA. As part of the environmental analysis, technical studies that evaluated project impacts on land use, growth, community character, traffic/transportation, utilities and emergency services, environmental justice issues (Community Impact Assessment) and displacement and relocation (Draft Relocation Impact Statement) and other environmental issues were prepared. The findings of these technical studies were summarized in the Draft EIR/EA and subject to public review.

The EIR/EA acknowledges that impacts to the human, physical and biological environments would occur with the project. Thus, it includes avoidance, minimization and mitigation measures that have been incorporated into the project to avoid and reduce potential impacts to levels considered less than significant. Public hearings will be held to discuss the project and the EIR/EA prior to approval and

impacts to individual properties will comply with Caltrans' Relocation Assistance Program (RAP), as based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), and Title 49 CFR Part 24. As noted, considerations of the needs and concerns of local residents and several opportunities for public input have been provided and will continue to be provided as part of the project.

Comment Letter K
San Bernardino County Department of Public Works

From: Gerber, Arnold - DPW
Sent: Thursday, September 26, 2019 3:34 PM
To: Richard Ayala <rayala@ontarioca.gov>
Subject: CEQA Comments City of Ontario DEIR - Grove Avenue Corridor Project

Dear Mr. Ayala,

Please see the attached response to the Notice of Availability for the Draft Environmental Impact Report for the Grove Avenue Corridor Project.] K-1

Thank you,

AJ Gerber
Planner II
Environmental Management Division
Department of Public Works
825 E. Third Street, Room 123
San Bernardino, CA. 92415-0835
Phone: 909-387-7802
Fax: 909-387-7876



[\[sbcounty.gov\]](http://sbcounty.gov)

Our job is to create a county in which those who reside and invest can prosper and achieve well-being.

www.SBCounty.gov [\[sbcounty.gov\]](http://sbcounty.gov)



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Department of Public Works

- Flood Control
- Operations
- Solid Waste Management
- Surveyor
- Transportation

Kevin Blakeslee, P.E.
Director

Transmitted Via Email

September 26, 2019

Mr. Richard Ayala, Senior Planner
Attn: Grove A venue Corridor Project
Planning Department
City of Ontario
303 East "B" Street
Ontario, CA 91764-4105

File: 10(ENV)-4.01

RE: CEQA – NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE GROVE AVENUE CORRIDOR PROJECT

Dear Mr. Ayala:

Thank you for allowing the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project. **We received this request on August 27, 2019** and pursuant to our review, the following comments are provided:

GENERAL COMMENTS

1. We are aware there may be storm drains in and around the site that may be affected by the proposed Project. When planning for or altering existing or future storm drains, be advised that the Project is subject to the City of Ontario MPD, dated March 2012. It is to be used as a guideline for drainage in the area and is available in the City of Ontario offices. Any revision to the drainage should be reviewed and approved by the City of Ontario. Should construction of new, or alterations to existing storm drains be necessary as part of the Proposed Project, their impacts and any required mitigation should be discussed within the DEIR before the document is adopted by the Lead Agency. K-2

Flood Control Planning Division (Dan Worthington, Engineering Tech IV, 909-387-8128):

1. Regarding the DEIR, Chapter 2, 2.2.1.2 - Affected Environment, Page 2-113, the Project is "fully encompassed by the 500-year floodplain (Zone X-shaded; 0.2% annual chance flood), and the West Cucamonga Channel resides in Zone A (1% annual chance flood)". K-3
2. According to the most recent FEMA Flood Insurance Rate Maps, 06071C8609J and 06071C8617J, dated February 18, 2015, the Project lies within Zone X-shaded. K-4
3. We recommend that the project includes, and the City enforce, the most recent FEMA regulations for construction in a floodplain. K-5

BOARD OF SUPERVISORS

ROBERT A. LOVINGOOD
First District

JANICE RUTHERFORD
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Third District

CURT HAGMAN
Chairman, Fourth District

JOSE GONZALES
Vice Chair, Fifth District

Gary McBride
Chief Executive Officer

Proposed construction within the described floodplain, their impacts and any required mitigation should be discussed within the DEIR before the document is adopted by the Lead Agency. K-6

Permits/Operations Support Division (Melissa Walker, Chief, 909-387-7995):

1. Portions of the Project are crossing over or within the vicinity of San Bernardino County Flood Control District (SBCFCD) easement, fee owned property and facilities (1-201-IG West Cucamonga Channel). Any encroachments on the District's right-of-way or facilities, including but not limited to access, utility crossings, staging areas, and lane reconfiguration affecting District access to its facilities will require a permit from the SBCFCD prior to start of construction. The necessity for any, or all of these permits, and any impacts associated with them, should be addressed in the DEIR prior to adoption and certification. K-7

Transportation Planning Division (Jinghui Bradley, PWE III, 909-387-8173):

1. 1.3.3 Alternatives Considered but Withdrawn from Further Discussion states the following: Assembly Bill (AB) 2542 requires any state or local automobile capacity-increasing project or a major street or highway lane realignment project sent to the California Transportation Commission for approval consider reversible lanes in the design of the project. The Grove Avenue Corridor Project is not a capacity-increasing or major street realignment project; therefore, AB 2542 does not apply. K-8

This statement is confusing, since the Grove Avenue Corridor Project is a capacity increasing project. For clarification, the statement above should be edited to say that the project is not subject to CTC approval and therefore AB 2542 does not apply. If the project is subject to CTC approval, then the statement as written is incorrect and AB 2542 does apply.

This statement should be clarified or corrected as necessary within the DEIR prior to adoption and certification.

We respectfully request to be included on the circulation list for all project notices, public reviews, or public hearings. In closing, I would like to thank you again for allowing the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project. Should you have any questions or need additional clarification, please contact the individuals who provided the specific comment, as listed above. K-9

Sincerely,



MICHAEL R. PERRY
Supervising Planner
Environmental Management

MRP:AJ:sr
Email: rayala@ontario.ca.gov

Response K-1: We acknowledge receipt of the San Bernardino County Department of Public Works comment letter. No response is required.

Response K-2: Alterations to existing storm drains in the area will be made in compliance with the City of Ontario Master Plan of Drainage, and subject to review and approval by the City. The impacts of project construction on storm drainage infrastructure is discussed in Section 2.1.5, Utilities/Emergency Services, and Section 2.2.1, Hydrology and Floodplain, of the EIR/EA. Measures in Section 2.2.1.4, Avoidance, Minimization, and/or Mitigation Measures, include permanent and temporary best management practices (BMPs) to treat stormwater and non-stormwater discharges to the maximum extent practicable and to prevent water flow on neighboring properties.

Response K-3: The last sentence in Section 2.2.1.2 has been revised to read:

In accordance with FEMA Flood Insurance Rate Map (FIRM), the project is fully encompassed by the 500-year flood plain (Zone X-shaded; 0.2 percent annual chance flood), and the West Cucamonga Channel resides in Zone A (1 percent annual chance flood).

Response K-4: The comment is correct and the last sentence in Section 2.2.1.2 has been revised as noted above.

Response K-5: Chapter 13 of the Ontario Municipal Code is the City's Flood Damage Prevention Program. It adopts FEMA's FIRM for the City and requires that construction projects in the City include provisions for flood hazard reduction. The project will be designed and constructed in accordance with this City regulation.

Response K-6: Section 2.2.1, Hydrology and Floodplains, of the EIR/EA discusses flood hazards in the project area, with the existing environmental setting discussed in Section 2.2.1.2; the permanent and temporary impacts of the project discussed in Section 2.2.1.3; and minimization measures for impacts related to the grading and structural encroachments at designated floodplain and floodway areas listed in Section 2.2.1.4.

Response K-7: The need for an encroachment permit from the SBCFCD prior to construction on SBCFCD easements, properties and facilities has been added to Tables S-2 and 1-7 of the EIR/EA.

Response K-8: The last sentence of the 1st paragraph under Section 1.3.3 has been modified as follows:

The Grove Avenue Corridor Project is a capacity-increasing project; therefore, AB 2542 applies. Evaluation of the feasibility of reversible lanes on Grove Avenue from 4th Street to Airport Drive indicates that reversible lanes would not be feasible due to the short segment (1.24 miles) proposed for widening; the presence of 7 intersections at even shorter segments within the corridor; and the lack of a highly defined directional traffic during the AM or PM peak hours. In addition, the City's General Plan shows Grove Avenue as a 6-lane Principal Arterial, without reversible lanes.

Response K-9: The San Bernardino County Department of Public Works has been included in past notifications regarding the project and the environmental review process and will continue to be informed of the project through future notices.

Comment Letter L
Office of Planning and Research



Gavin Newsom
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Kate Gordon
Director

October 1, 2019

Richard Ayala
Ontario, City of
303 East B Street
Ontario, CA 91764

Subject: Grove Avenue Corridor Widening Project
SCH#: 2014101071

Dear Richard Ayala

The State Clearinghouse submitted the above named EIR to selected state agencies for review. The review period closed on 9/30/2019, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act, <https://ceqanet.opr.ca.gov/2014101071/2>.

L-1

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL 1-916-445-0613 state.clearinghouse@opr.ca.gov www.opr.ca.gov

Response L-1: The comment regarding project compliance with State Clearinghouse review requirements under CEQA is noted. No response is required.

Appendix K 2019 FTIP and FHWA Conformity Determination

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Final 2019 Federal Transportation Improvement Program

San Bernardino County Project Listing
Local Highway
(in \$000's)

ProjectID	County	Air Basin	Model	RTP ID	Program	Route	Begin	End	Signage Begin	Signage End	System	Conformity Category	Amendment	
SBD55033	San Bernardino	SCAB		SBD55033	CAX63						L	NON-EXEMPT	0	
Description: BOULDER AVE. FROM GREENSPOT TO SOUTH CITY LIMITS - WIDEN FROM 2-4 LANES (0.70 MILES)														
Fund														
		ENG	R/W	CON	Total	Prior	2018/2019	2019/2020		2020/2021	2021/2022	2022/2023	2023/2024	Total
CITY FUNDS		235		2,115	2,350	235		2,115						2,350
SBD55033 Total		235		2,115	2,350	235		2,115						2,350
SBD31876	San Bernardino	SCAB		SBD31876	CAX63						L	NON-EXEMPT	0	
Description: CALIFORNIA STREET BARTON ROAD TO REDLANDS BOULEVARD WIDEN FROM 2 TO 4 LANES														
Fund														
		ENG	R/W	CON	Total	Prior	2018/2019	2019/2020		2020/2021	2021/2022	2022/2023	2023/2024	Total
CITY FUNDS		20	70	1,000	1,090			20		70	1,000			1,090
SBD31876 Total		20	70	1,000	1,090			20		70	1,000			1,090
20150001	San Bernardino	SCAB		4007421	CAX60						L	NON-EXEMPT	0	
Description: BRIDGE NO. 5400112, CENTRAL AVE OVER UP RR AMTRAK METROLINK, 0.2 MI S HOLY AVENUE. Bridge rehabilitate. Rehabilitate existing four lane bridge with six lane bridge with sidewalks. Project must appear in 20 year RTP. Toll credits to match EARREPU.														
Fund														
		ENG	R/W	CON	Total	Prior	2018/2019	2019/2020		2020/2021	2021/2022	2022/2023	2023/2024	Total
2016 EARMARK REPURPOSING		1,440			1,440		1,440							1,440
CITY FUNDS		140	63	1,305	1,508	69		63				1,376		1,508
BRIDGE - LOCAL		1,079	483	10,075	11,637	521		483				10,623		11,637
20150001 Total		2,659	546	11,380	14,585	600		1,440		546		11,999		14,585
20150201	San Bernardino	SCAB		2002180	CAX76						L	NON-EXEMPT	0	
Description: GROVE AVE CORRIDOR: WIDEN GROVE BETWEEN FOURTH ST AND STATE ST / AIRPORT DR (4-6 LNS); AND IMPROVEMENTS TO GROVE AVE / HOLT BLVD INTERSECTION Toll Credit to match EARREPU.														
Fund														
		ENG	R/W	CON	Total	Prior	2018/2019	2019/2020		2020/2021	2021/2022	2022/2023	2023/2024	Total
OLMO-SAFETEA-LU		1,834			1,834	1,834								1,834
2016 EARMARK REPURPOSING				3,335	3,335			3,335						3,335
DEVELOPER FEES		204	111		315	315								315
SBD CO MEASURE		255	139	1,055	1,449	394		1,055						1,449
20150201 Total		2,293	250	4,390	6,993	2,543		4,390						6,993



U.S. Department
of Transportation
**Federal Highway
Administration**

California Division

December 17, 2018

650 Capitol Mall, Suite 4-100
Sacramento, CA 95814
(916) 498-5001
(916) 498-5008 (FAX)

In Reply Refer To:
HDA-CA

Mr. Darin Chidsey
Interim Executive Director, Southern California Association of Governments
900 Wilshire Blvd., Ste. 1700
Los Angeles, CA 90017

Attention: Mr. Naresh Amatya

SUBJECT: Conformity Determination for SCAG's 2019 FTIP, 2019 FTIP Amendment No. 19-01, and SCAG's 2016-2040 RTP/SCS through Amendment No. 3

Dear Mr. Chidsey:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed our reviews of the conformity determination for the Southern California Association of Governments' (SCAG) 2019-22 Federal Transportation Improvement Program (FTIP), including FTIP Amendment No. 19-01, and 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Amendment No. 3. A FHWA/FTA air quality conformity determination is required for SCAG's new 2019-22 FTIP, including FTIP Amendment No. 19-01, and 2016-2040 RTP/SCS Amendment No. 3 pursuant the Environmental Protection Agency's (EPA) *Transportation Conformity Rule*, 40 Code of Federal Regulations (CFR) Parts 51 and 93, and the United States Department of Transportation's *Final Rule on Statewide and Metropolitan Planning*, 23 CFR Part 450.

On September 6, 2018 SCAG adopted the 2019-22 FTIP, including FTIP Amendment No. 19-01, and 2016-2040 RTP/SCS Amendment No. 3. SCAG made the corresponding conformity determinations via Resolutions No. 18-603-4 and 18-603-3, respectively. The conformity analysis submitted indicates that all air quality conformity requirements have been met. Based on our review and after consultation with the EPA Region 9 Office we find that SCAG's 2019-22 FTIP, including FTIP Amendment No. 19-01, and 2016-2040 RTP/SCS Amendment No. 3 conform to the applicable state implementation plan in accordance with the provisions of 40 CFR Parts 51 and 93. In correlation with the February 14, 2018 *Memorandum of Agreement (MOA) between the FHWA California Division and the FTA Region 9*, FTA has concurred with this conformity determination.

Also, as associated with the above MOA, the FHWA's single signature constitutes the FHWA and the FTA's joint air quality conformity determination for SCAG's 2019-22 FTIP, including FTIP Amendment No. 19-01, and 2016-2040 RTP/SCS Amendment No. 3.

If you have questions pertaining to this conformity finding, contact Michael Morris (michael.morris@dot.gov) of the FHWA California Division's Cal-South Office at (213) 894-4014.

Sincerely,



Tashia J. Clemons
Director, Planning and Environment
Federal Highway Administration

PM Hot Spot Analysis Project Lists

Review of PM Hot Spot Interagency Review Forms

June, 2020	Determination
2002160 June 2020	Not a POAQC - Hot Spot Analysis Not Required
1M1003 June 2020	Not a POAQC - Hot Spot Analysis Not Required
RIV031202 June 2020	Not a POAQC - Hot Spot Analysis Not Required



U.S. Department
of Transportation
**Federal Highway
Administration**

California Division

August 26, 2020

650 Capitol Mall, Suite 4-100
Sacramento, CA 95814
(916) 498-5001
(916) 498-5008 (FAX)

In Reply, Refer To:
HDA-CA

John Bulinski, Director
California Department of Transportation
District 8
464 W. 4th Street
San Bernardino, CA 92401

Attention, Sean Yeung

SUBJECT: Project Level Conformity Determination for the Grove Avenue Corridor Project (MPO ID# 20150201)

Dear Mr. Bulinski:

On July 24, 2020, the California Department of Transportation (Caltrans) submitted to the Federal Highway Administration (FHWA) a complete request for a project level conformity determination for the Grove Avenue Corridor Project. The project is in an area that is designated Non-Attainment or Maintenance for Ozone, Carbon Monoxide (CO) and Particulate Matter (PM10, PM 2.5).

The project level conformity analysis submitted by Caltrans indicates that the project-level transportation conformity requirements of 40 CFR Part 93 have been met. The project is included in the Southern California Association of Governments' (SCAG) current Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP), as amended. The design concept and scope of the preferred alternative have not changed significantly from those assumed in the regional emissions analysis.

As required by 40 CFR 93.116 and 93.123, the localized PM2.5 and PM10 analyses are included in the documentation. The analyses demonstrate that the project will not create any new violations of the standards or increase the severity or number of existing violations.

Based on the information provided, FHWA finds that the Grove Avenue Corridor Project conforms with the State Implementation Plan (SIP) in accordance with 40 CFR Part 93.

If you have any questions pertaining to this conformity finding, please contact Joseph Vaughn at (916) 498-5346 or by email at Joseph.Vaughn@dot.gov.

Sincerely,

**ANTONIO
JOHNSON**

Digitally signed by
ANTONIO JOHNSON
Date: 2020.08.27
07:10:05 -07'00'

Tashia J. Clemons
Director, Planning and Environment

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Appendix L NOA Mailing List

Federal		Contact Name	Title	Address 1	Address 2
US Senate	Senator	Diane Feinstein		11111 Santa Monica Boulevard, Suite 915	Los Angeles, CA 90025
US Senate	Senator	Kamala Harris		11845 West Olympic Boulevard, Suite 1250W	Los Angeles, CA 90064
US Congress	Congresswoman	Norma Torres		3200 Inland Empire Blvd., Suite 200B	Ontario, CA 91764
U.S House of Representatives	US Representative	Pete Aguilar		685 E. Carnegie Drive, Suite 100	San Bernardino, CA 92408
State					
State Assembly	Assembly Member	Freddie Rodriguez		13160 7th Street	Chino, CA 91710
State Senate	Senator	Connie Leyva		101 West Mission Boulevard, Suite 111	Pomona, CA 91766
Local					
San Bernardino County, Board of Supervisors	Supervisor	Curt Hagman		14010 City Center Drive	Chino Hills, CA 91709
City of Ontario	Mayor	Paul Leon		303 East B Street	Ontario, CA 91764
City of Ontario	Mayor Pro Tem	Ruben Valencia		303 East B Street	Ontario, CA 91764
City of Ontario	Council Member	Alan Wapner		303 East B Street	Ontario, CA 91764
City of Ontario	Council Member	Jim Bowman		303 East B Street	Ontario, CA 91764
City of Ontario	Council Member	Debra Dorst-Porada		303 East B Street	Ontario, CA 91764
Public Agencies					
State Clearinghouse			-	1400 Tenth Street	Sacramento, CA 95814
San Bernardino County Clerk	Recorder-Clerk Office	Clerk of the Board	-	222 W. Hospitality Lane, 1st Floor	San Bernardino, CA 92415-0022
City of Ontario	Engineering Department	David Tan	Senior Associate Civil Engineer	303 East B Street	Ontario, CA 91764
City of Ontario	Engineering Department	Jay Bautista	Traffic/Transportation Manager	303 East B Street	Ontario, CA 91764
City of Ontario	Ontario Planning Department	Richard Ayala	Senior Planner	303 East B Street	Ontario, CA 91764
South Coast Air Quality Management District		Daniel Garcia	Program Supervisor	21865 Copley Drive	Diamond Bar, California 91765-4178
California Department of Fish and Wildlife	Inland Deserts Region	Jeff Brandt	Senior Environmental Scientist	3602 Inland Empire Boulevard, Suite C-220	Ontario, California 91764
California Native American Heritage Commission		Katy Sanchez	Associate Government Program Analyst	1550 Harbor Boulevard, Room 100	West Sacramento, California 95691
Office of State Historic Preservation		Julianne Polanco	State Historic Preservation Officer	1725 23rd Street, Suite 100	Sacramento, California 95816
Southern California Association of Governments		Art Yoon	Director of Policy and Public Affairs	900 Wilshire Boulevard, Suite 1700	Los Angeles, California 90017
Ontario-Montclair School District		James Q. Hammond, Ed.D.	Superintendent	950 West D Street	Ontario, California 91762
Ontario-Montclair School District		Phil Hillman	Chief Business Official	950 West D Street	Ontario, California 91762
San Bernardino County Department of Public Works		Kevin Blakeslee	Director	825 East Third Street	San Bernardino, California 92415-0835
US Army Corps of Engineers	Los Angeles District Regulatory Division	Veronica Li	Senior Project Manager, Transportation & Special Projects Branch	915 Wilshire Boulevard, Suite 980	Los Angeles, California 90017
Caltrans		Aaron Burton	Branch Chief	464 West Fourth Street, 6th Floor MS 829	San Bernardino, California 92401-1400
FHWA	District 8, 12 (State Program)	Tay Dam	Senior Transportation Engineer	650 Capital Mall, Suite 4-100	Sacramento, CA 95814
Ontario International Airport	Administration Offices	Alan Wapner		1923 East Avion Street	Ontario, CA 91761
SBCTA/SBCOG		Ray Wolfe	Executive Director	1170 W. 3rd Street, 2nd Floor	San Bernardino, California 92410-1715
United States Department of the Interior	Fish and Wildlife Service - Ecological Services	Karin Cleary-Rose	Fish and Wildlife Biologist	777 East Tahquitz Canyon Way, Suite 208	Palm Springs, California 92262
USDA Natural Resources Conservation Service	Legislative Public Affairs Division, Natural Resources Conservation Service	Kavesh Sadeghzadeh	Director	1400 Independence Avenue, SW Room 6121-S	Washington, D.C. 20250
United States Environmental Protection Agency	Region 9	Alexis Strauss	Environmental Review Office, Communities and Ecosystems Division	75 Hawthorne Street, TIP-1	San Francisco, California 94105
California Highway Patrol		Ed Krusey	Southern Division Lieutenant	411 North Central Avenue, #410	Glendale, California 91203
Santa Ana Regional Water Quality Control Board	Region 8	Wanda Cross	Chief of Regional Planning Programs	3737 Main Street, Suite 500	Riverside, California 92501
Public Utilities Commission		Director	Policy and Planning Division	320 West 4th Street, Suite 500	Los Angeles, California 90013
California Department of Parks and Recreation	Inlan Empire District	Gary Watts	District Superintendent	17801 Lake Perris Drive	Perris, California 92571
California Department of Conservation	Land Resource Protection	John Lowrie	Acting Assistant Director	801 K Street, MS 18-01	Sacramento, CA 95814
County of San Bernardino	Land Use Services (Planning)	Terri Rahhal	Director	385 North Arrowhead Avenue, 1st floor	San Bernardino, California 92415-0182
County of San Bernardino	Department of Public Works - Transportation Division	Mazin Kasey	Deputy Director (Transportation)	825 East Third Street	San Bernardino, California 92415-0835
County of San Bernardino	Department of Public Works - Flood Control District	David Doublet	Deputy Director (Flood Control District)	825 East Third Street	San Bernardino, California 92415-0835
City of Upland	Development Services	Michael Polland	Contract Planning Manager	460 North Euclid Avenue	Upland, California 91786
Upland Unified School District		Harold Sullins	Assistant Superintendent	390 North Euclid Avenue	Upland, CA 91786
Cucamonga School District		Janet Temkin	Superintendent	8776 Archibald Avenue	Rancho Cucamonga, CA 91730
City of Montclair	Community Development	Michael Diaz	Planning Manager	5111 Benito Street	Montclair, California 91763
City of Eastvale		Bryan Jones	City Manager	12363 Limonite Ave., Suite 910	Eastvale, CA 91752
City of Fontana	Planning Department	Zai AbuBakar		8353 Sierra Avenue	Fontana, CA 92335
City of Chino		Nick Liguori	Director of Development Services	P.O. Box 667	Chino, CA 91708-0067
City of Jurupa Valley	Planning Department			8930 Limonite Avenue	Jurupa Valley, CA 92509
City of Rancho Cucamonga	Cosntruction and Development Department	Candycy Burnett	Planning Director	10500 Civic Center Drive	Rancho Cucamonga, California 91729-0807
City of Rancho Cucamonga	Engineering Services Director	Jason Welday, PE, TE		10500 Civic Center Drive	Rancho Cucamonga, CA 91729
Ontario Heritage Society		Petrina Delman		1007 N. Euclid Avenue	Ontario, CA 91762

Chaffey Joint Union High School District		Mathew Holton	Superintendent	211 West Fifth Street	Ontario, CA 91762
Ontario Police Department		Derek Williams	Chief	2500 S. Archibald Avenue	Ontario, CA 91761
Ontario Fire Department		Ray Gayk	Fire Chief	415 East B Street	Ontario, CA 91764
Ovitt Family Community Library	Reference Desk			215 East "C" Street	Ontario, CA 91764-4111
Saouth Ontario Library/Colony High Branch Library	Reference Desk			3850 East Riverside Drive	Ontario, CA 91761-2603
City of Ontario	City Clerk's Office	Sheila Mautz	City Clerk	303 East "B" Street	Ontario, CA 91764
Gabrieleno/Tongva Band of Mission Indians		Anthony Morales	Chairperson	P.O. Box 693	San Gabriel, CA 91778
Gabrielino Band of Mission Indians		Andrew Salas	Chairperson	P.O. Box 393	Covina, CA 91723
Gabrielino/Tongva Nation Los Angeles		Sam Dunlap,	Cultural Resources Director	P.O. Box 86908	Los Angeles, CA 90086
San Manuel Band of Mission Indians		Daniel F. McCarthy	Cultural Resources Management	26569 Community Center Dr.	Highland, CA 92346
Serrano Nation		Goldie Walker		P.O. Box 343	Patton, CA 92369
SCE	Ontario Service Center	Service Planner		1351 E Francis St	Ontario, CA 91761
SCGas	Centralized Correspondence	Ontario Service Planner		PO BOX 1626	Monterey Park, CA 91754-8626
Inland Empire Utilities Agency		Shivaji Deshmukh	General Manager	6075 Kimball Avenue	Chino, CA 91708
San Antonio Water Company (SAWCO)		Brian Lee	General Manager	139 N. Euclid Avenue	Upland, CA 91786
Water Facilities Authority		Terry Catlin	General Manager	1775 North Benson Avenue	Upland, CA 91784
Spectrum				334 N Vineyard Ave	Ontario, CA 91764
Verizon				20 Enterprise, Ste 100	Aliso Viejo, CA 92656
Kinder Morgan		Pipeline Safety		1001 Louisiana St, Suite 1000	Houston, TX 77002
Level 3 Communications				818 7th St #510	Los Angeles, CA 90017
Lozeau Drury LLP		Richard Drury		1939 Harrison Street, Suite 150	Oakland, CA 94612
Lozeau Drury LLP		Komalpreet Toor		1939 Harrison Street, Suite 150	Oakland, CA 94612
Lozeau Drury LLP		Hannah Hughes		1939 Harrison Street, Suite 150	Oakland, CA 94612

Scoping Meeting Attendees

Name	Address 1	Address 2
John Hernandez	4732 Clair Street	Ontario, California 91762
Josefina Rodriguez	719 North Alameda Avenue	Ontario, California 91764
Roberto Rosas	510 North Grove Avenue	Ontario, California 91764
Elaine Naranjo	849 East Princeton Street	Ontario, California 91764
Alex Duran	1062 East Princeton Street	Ontario, California 91764
Mayra Gomez	932 East Princeton Street	Ontario, California 91764
Dr. Shay Salehrbai	1440 East 4th Street	Ontario, California 91764
Terry Moore	1205 East "D" Street	Ontario, California 91764
Danny Villanueva	203 North Grove Avenue	Ontario, California 91764
Bruce Wee	1245 East 4th Street	Ontario, California 91764
Margaret Vermillion	1355 North Council Avenue	Ontario, California 91764
Paramjit Sohi	1155 North Grove Avenue	Ontario, California 91764
Raul Naranjo	849 East Princeton Street	Ontario, California 91764
Petrina Delman	1007 North Euclid Avenue	Ontario, California 91762
Moises Redol	416 North Grove Avenue	Ontario, California 91764
David F. Stobaugh	701 Fifth Avenue, Suite 6550	Seattle, Washington 98104
Richard Martinez	755 North Alameda Avenue	Ontario, California 91764

PROPERTY OWNERS

OWNER_NAME	OWNER_ADDR	OWNER_ZONE
CARDENAS, RAMON	1043 N CALAVERAS AVE	ONTARIO CA 91764
MISTY LAKE PROPERTIES LP	6399 WILSHIRE BLVD STE 604	LOS ANGELES CA 90048
MISTY LAKE PROPERTIES LP	6399 WILSHIRE BLVD STE 604	LOS ANGELES CA 90048
ZYSA LLC	14069 SAN SEGUNDO DR	RANCHO CUCAMONGA CA 91739
MISTY LAKE PROPERTIES, LP	6399 WILSHIRE BLVD STE 604	LOS ANGELES CA 90048
MELCHOR, VIRGINIA	1047 N CALAVERAS AVE	ONTARIO CA 91764-3003
MARTINEZ, ANGEL A	1053 N CALAVERAS AVE	ONTARIO CA 91764
YANEZ, GUILLERMO Y	1037 N CALAVERAS AVE	ONTARIO CA 91761
SANABRIA, JOSE F LOPEZ	1033 CALAVERAS AVE	ONTARIO CA 91764
WANG, SHAOTING	1235 EAST D ST #9	ONTARIO CA 91764
LIN, IPING	11733 FERRIS RD	EL MONTE CA 91732
PARAMO, EDUARDO	428 N GROVE AVE	ONTARIO CA 91764
ROBINSON, MARY J	1235 E D ST UNIT 11	ONTARIO CA 91764
CORONA FAMILY TRUST 3-6-06	1206 E FLORA ST	ONTARIO CA 91764
LE, DAMIEN	1465 E 5TH ST	ONTARIO CA 91764
JACOBO, MARIAINES	14958 JOSHUA TREE CT	FONTANA CA 92335
MORENO, NICK AND RITA LIVING TR 8/27	1201 E FLORA ST	ONTARIO CA 91764
KEETER, AURA GARCIA	619 AMADOR AVE	ONTARIO CA 91762
RUIZ, JOSE D	1216 E FLORA ST	ONTARIO CA 91764
FLORES, ROSALVA	1235 E D ST	ONTARIO CA 91764
VENEGAS, APRIL R	1235 E D ST #16	ONTARIO CA 91764
HOLMAN, JOHN L	2619 PARCO	ONTARIO CA 91761
MENDOZA, RAY G	1222 E FLORA ST	ONTARIO CA 91764
PEREZ, RICARDO	1235 EAST D ST UNIT 22	ONTARIO CA 91764
CASTANEDES, CLIFFORD	1226 FLORA ST	ONTARIO CA 91764
ALEJANDRE, MONICA	1235 E D ST	ONTARIO CA 91764
SYNC LLC	4912 EDMONTON ST	FONTANA CA 92336
BEDOY, MARIA	416 N GROVE AVE	ONTARIO CA 91764
LI, ZHUO YANG	4132 TYLER AVE	EL MONTE CA 91731
GALLIHER, KEITH	635 AMADOR	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
ALBARRAN, JORGE	1205 E FLORA	ONTARIO CA 91764
AYON, PETER	1232 FLORA ST	ONTARIO CA 91764
MANNING, SANDRA R	8233 KLUSMAN AVE	RANCHO CUCAMONGA CA 91786
SAN BERNARDINO CO FLOOD CONTROL DIST	825 E THIRD ST	SAN BERNARDINO CA 92415
ALLEN, CHARLES M	110 S EUCLA	SAN DIMAS CA 91773
ROSAS, ROBERTO	510 N GROVE AVE	ONTARIO CA 91764
TRAN, CHARLIE	2547 BRENNEN WY	FULLERTON CA 92835
WU, ZHICAI	22 TERKUILE RD	MONTVALE NJ 07645
BAIRES, CARLOS A	504 N GROVE AVE	ONTARIO CA 91764
VELASCO, DANIEL	1235 E D ST #3	ONTARIO CA 91764
RIEVLEY, AARON J	1235 E D ST #4	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
SAN BERNARDINO CO FLOOD CONTROL DIST	825 E THIRD ST	SAN BERNARDINO CA 92415
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
THE GALLIHER FAMILY TRUST	629 AMADOR AVE	ONTARIO CA 91764
SAN BERNARDINO CO FLOOD CONTROL DIST	825 E THIRD ST	SAN BERNARDINO CA 92415
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
HERNANDEZ, JOSE A	516 N GROVE AVE	ONTARIO CA 91764

SONG REALTY LLC	21451 COLD SPRING LN	DIAMOND BAR CA 91765
CHEN, ZHE	1707 CREST VIEW PL	POMONA CA 91768
HERNANDEZ, VENIS R	434 N GROVE AVE	ONTARIO CA 91764
SONG REALTY LLC	21451 COLD SPRING LN	DIAMOND BAR CA 91765
CHAVEZ, RAY A	1200 E FLORA	ONTARIO CA 91764
WILSON, DAWN K	610 N AMADOR AVE	ONTARIO CA 91764
HARRISON, PHILIP C	1235 E "D" ST UNIT 8	ONTARIO CA 91764
SAN BERNARDINO CO FLOOD CONTROL DIST	825 E THIRD ST	SAN BERNARDINO CA 92415
PEREZ, JUAN P	726 N ALAMEDA AVE	ONTARIO CA 91764
SANDOVAL, ROSARIO	708 ALAMEDA AVE	ONTARIO CA 91764
GONZALEZ, JUAN	720 N ALAMEDA AVE	ONTARIO CA 91764
ALVARADO, PEDRO L	714 N ALAMEDA AVE	ONTARIO CA 91764
CHEN, DAVID HAO	9726 LA ROSA DR 7	TEMPLE CITY CA 91780
PEREZ, GUADALUPE	1205 E "G" ST	ONTARIO CA 91764
COMBS, CLINTON D	738 N ALAMEDA AVE	ONTARIO CA 91764
MORENO FAMILY REVOCABLE LIVING TR 9-	1429 N HACIENDA DR	ONTARIO CA 91764
MONTOYA, ROXANNE	744 N ALAMEDA AVE	ONTARIO CA 91764
VERGARA, CARMEN R	732 N ALAMEDA AVE	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
MACHUCA, ALEXANDER	611 N SUNSET AVE	WEST COVINA CA 91790
MACHUCA, ALEXANDER	611 N SUNSET AVE	WEST COVINA CA 91790
MACHUCA, ALEXANDER	611 N SUNSET AVE	WEST COVINA CA 91790
MACHUCA, ALEXANDER	611 N SUNSET AVE	WEST COVINA CA 91790
MACHUCA, ALEXANDER	611 N SUNSET AVE	WEST COVINA CA 91790
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
MACHUCA, ALEXANDER	611 N SUNSET AVE	WEST COVINA CA 91790
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
MACHUCA, ALEXANDER	611 N SUNSET AVE	WEST COVINA CA 91790
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
SOUTHERN PACIFIC TRANSPORTATION CO	610 MAIN ST	LOS ANGELES CA 90014
SAFETY INVESTMENT COMPANY	1121 E PHILADELPHIA	ONTARIO CA 91761
MACHUCA, ALEXANDER	611 N SUNSET AVE	WEST COVINA CA 91790
AIRPORT WAY TRUST	2840 STEEPLECHASE LN	DIAMOND BAR CA 91765
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
SELLER, JAMIE L	16 SHELLPRINT CT	NEWPORT BEACH CA 92663
BERKI, EDWARD	1370 N LA CADENA #B	COLTON CA 92324
BEACON GROUP INC	1072 BRISTOL ST STE 100	COSTA MESA CA 92626-8652
MILLER, DAVID D	1072 BRISTOL ST STE #100	COSTA MESA CA 92626-8652
GUZMAN, OSCAR	1234 E "D" ST	ONTARIO, CA 91764
LUCERO, AURORA A LIV TR	2708 BRYCE RD	EL MONTE CA 91732
BAUTISTA, ROBERTO	16 STAGE COACH DR	POMONA CA 91766
ROBLES, JAIME	1216 E D ST	ONTARIO CA 91764
DUONG, LOUIS	2905 ALLENTON AVE	HACIENDA HEIGHTS CA 91745
SONG REALTY LLC	21451 COLD SPRING LN	DIAMOND BAR CA 91765
PARADA, MELISSA A	1235 E D ST UNIT 14	ONTARIO CA 91764
PENALOZA, JUAN	422 N GROVE AVE	ONTARIO CA 91764

SOUTHERN PACIFIC TRANSPORTATION CO	1200 CORPORATE CENTER DR ST 100	MONTEREY PARK CA 91754
ANAYA, WILLIAM	1204 E "D" ST	ONTARIO CA 91764
CHAN, LISA D	1235 E D ST UNIT 15	ONTARIO CA 91764
LEOTAUD, PHILLIP	1235 E D ST # 19	ONTARIO CA 91764
GONZALES, OLEGARIO	1239 E D ST	ONTARIO CA 91764
MALDONADO, CARMEN H	1213 E D ST	ONTARIO CA 91764
ACOSTA, RAMON	1221 E 'D' ST	ONTARIO CA 91764
TORRES, M ANTONIO	1229 E 'D' ST	ONTARIO CA 91764
MOORE, COLETHA R	1205 E D ST	ONTARIO CA 91764
COBOS, RODOLFO C	1237 E D ST	ONTARIO CA 91764
RAMI, KULENDRA N	1217 E HOLT BLVD	ONTARIO CA 91761
CCY ONTARIO LLC	11381 183RD ST	CERRITOS CA 90702
KIM, KYUNG SAM & KATHY JONGHI REV TR	5311 BRIDGE WOOD DR	LA PALMA CA 90623
GUPTA, NARENDRA TR	14650 PACIFIC AVE	BALDWIN PARK CA 91706
TRAN, QUEN	4287 E GRAND AVE	POMONA CA 91766
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
LE, AN BA	538 SOUTHCOAST DR	WALNUT CA 91789
PATEL, AVNI V	37 WOLF RD	LEBANON NH 03766-1939
MC DERMOTT, HENRIETTA	1223 E NOCTA ST #A	ONTARIO CA 91764
MC DERMOTT, ALAN J	1223 E NOCTA ST #A	ONTARIO CA 91764
RANGWALA FAMILY TRUST 11/12/98	1818 SUNSHINE CT	GLENDALE CA 91208
GOMEZ, GENET C EP PROP TR 06/16/06	1236 E AIRPORT DR	ONTARIO CA 91761
JSC AND JMC ENTERPRISES LLC	1336 E FRANCIS ST	ONTARIO CA 91761
JSC AND JMC ENTERPRISES LLC	1336 E FRANCIS ST	ONTARIO CA 91761
JSC AND JMC ENTERPRISES LLC	1336 E FRANCIS ST	ONTARIO CA 91761
AIELLO TRUST 5/24/1996	26112 SAN MARINO CT	MISSION VIEJO CA 92692
CONTRERAS, CARLOS	1734 S CAMPUS AVE	ONTARIO CA 91761
GARRETT, CARNEALEUS	201 WEST F ST	ONTARIO CA 91762
SCHACHTLE LIVING TRUST 6/20/08	6402 ENFIELD AVE	RESEDA CA 91335
PINA, JESUS JR	827 N ALAMEDA AVE	ONTARIO CA 91764
CABRERA, ANTONIO	828 N PARKSIDE AVE	ONTARIO CA 91764
QUERIDO, JOSEPH A	429 MANDEVILLE DR	WALNUT CA 91789
YD ENTERPRISES LLC	407 W IMPERIAL HWY H157	BREA CA 92821
LOPEZ, ORALIA F FAMILY TRUST 12/01/1	828 VIRGINIA AVE	ONTARIO CA 91764
MENDEZ, LEONOR	577 E 20TH ST	SAN BERNARDINO CA 92404
TORRES, LOUIE E	734 N PARKSIDE AVE	ONTARIO CA 91764
TORRES, LUIS A	733 N PARKSIDE AVE	ONTARIO CA 91764
ROTHENBERGER, MAUREEN L REV TRUST	4101 LIVELY ST	RIVERSIDE CA 92505
CHAVEZ, AUDEL	7774 CALLE BRESCA	RANCHO CUCAMONGA CA 91730
GUTIERREZ, JOSE LUIS	P O BOX 4861	ONTARIO CA 91764
SWAGER, LILLIAN	1173 E ELMA ST	ONTARIO CA 91764
BEACON GROUP INC	1072 BRISTOL ST STE 100	COSTA MESA CA 92626-8652
BEACON GROUP INC, THE	1072 BRISTOL ST STE 100	COSTA MESA CA 92626-8652
MACH, DIEN XUAN	11289 CRESTRIDGE CT	RANCHO CUCAMONGA CA 91737
VIZCAINO, GUADALUPE	752 VIRGINIA AVE	ONTARIO CA 91764
TOLENTINO, JAVIER	833 N ALAMEDA AVE	ONTARIO CA 91764
CONTRERAS, ISMAEL R	702 MILLBURY AVE	LA PUENTE CA 91746

MOZAFARZADEH, MANOUCHER	7785 KELLY CANYON DR	DUBLIN CA 94568
MOZAFARZADEH, MANOUCHER	7785 KELLY CANYON DR	DUBLIN CA 94568
HUANG, PHILIP	17360 COLIMA RD APT 877	ROWLAND HEIGHTS CA 91748
VELASQUEZ, ALFONSO	1814 E 4TH ST #A	ONTARIO CA 91764
REBOLLEDO, FELIPE	441 N GROVE AVE	ONTARIO CA 91764
CUADRAS, MIGUEL A	1185 E ELMA ST	ONTARIO CA 91764
VENEGAS, GERARDO LOPEZ	807 N ALAMEDA AVE	ONTARIO CA 91764
DELGADO, ABEL	804 N PARKSIDE	ONTARIO CA 91764
MOGHARBEL, HANAN	314 E BENNETT AVE	GLENDORA CA 91741
CHAVEZ, JOSE C R	804 N VIRGINIA AVE	ONTARIO, CA 91764
ROBLES, FILIBERTO	442 PARKSIDE AVE	ONTARIO CA 91764
DURBIN, PAUL L SEPARATE PROP TR 8-9-	P O BOX 792	ONTARIO CA 91764
VEGA, JULIA	1154 E G ST	ONTARIO CA 91764
WILLIAMS, ROCHELE	1150 E G ST	ONTARIO CA 91764
CALVARY APOSTOLIC TABERNACLE	602 VIRGINIA AVE	ONTARIO CA 91764
DIAZ, RIGOBERTO	761 N ALAMEDA AVE	ONTARIO CA 91764
HO, HARRY C	19208 SPRINGPORT DR	ROWLAND HEIGHTS CA 91748
GREENE, VICTOR	7432 LONDON AVE	RANCHO CUCAMONGA CA 91730
ARRIOLA, JOSE JAMES	764 VIRGINIA AVE	ONTARIO CA 91764
BIBLE BAPTIST CHURCH OF ONTARIO	1168 EAST G ST	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
GASPAR, CRESCENCIANO	834 N PARKSIDE DR	ONTARIO CA 91764
HERRERA, CARLOS T	833 N PARKSIDE AVE	ONTARIO CA 91764
ORTIZ, JOSE	834 VIRGINIA AVE	ONTARIO CA 91764
SANCHEZ, GREGORIO	303 N GROVE AVE	ONTARIO CA 91764
RAMIREZ, FRANCISCO MARTINEZ	737 N ALAMEDA AVE	ONTARIO CA 91764
WILLIAMS, MICHAEL	740 PARKSIDE AVE	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
MEZA, NEMESIO	33141 PARADISE LN	MENIFEE CA 92584
SHARP, TIMOTHY W	739 N PARKSIDE AVE	ONTARIO CA 91764
GOVEA, TEOFILO	740 VIRGINIA AVE	ONTARIO CA 91764
BEACON GROUP INC, THE	1072 BRISTOL ST STE 100	COSTA MESA CA 92626-8652
CARR, ZORAIDA I	845 N ALAMEDA AVE	ONTARIO CA 91764
FLORES, JOHN A	839 N ALAMEDA ST	ONTARIO CA 91764
GALVEZ, EILEEN	846 N PARKSIDE AVE	ONTARIO CA 91764
PLAZA, NOEMI P TRUST 1/11/10	845 N PARKSIDE AVE	ONTARIO CA 91764
SAN BERNARDINO CO FLOOD CONTROL DIST	825 E THIRD ST	SAN BERNARDINO CA 92415
FENG, XIAOQI	1531 MOONRIDGE CT	UPLAND CA 91784
LIM, DENNIS D	232 S GARFIELD AVE	MONTEREY PARK CA 91754
DR & O INVESTMENT LLC	1551 S ALPINE DR	WEST COVINA CA 91791
ESQUIVEL, HILARIO	746 N PARKSIDE DR	ONTARIO CA 91764
HERMOSILLO, MARTIN	745 N PARKSIDE DR	ONTARIO CA 91764
GASPAR, DOMINGA LORETO	746 VIRGINIA AVE	ONTARIO CA 91764
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA 90275
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA 90275
TOM, PAUL K	5004 VIA VERDE ST	ALTA LOMA CA 91701
VILLAGOMEZ, MARISELA	840 N PARKSIDE AVE	ONTARIO CA 91764
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA 90275
TOVAR, OSCAR ABARCA	839 N PARKSIDE DR	ONTARIO CA 91764
NEIGHBORHOOD PARTNERSHIP HOUSING SVC	320 W G ST #103	ONTARIO CA 91762
CALVARY APOSTOLIC TABERNACLE	602 VIRGINIA AVE	ONTARIO CA 91764
LOZANO, MARTIN G	P O BOX 587	MIRA LOMA CA 91752

MACIAS, ANTONIO G & SARA LIV TR 10/1	1632 DANBROOK PL	UPLAND CA 91784
MARTINEZ, RICHARD A	755 N ALAMEDA	ONTARIO CA 91764
FIERRO, JOHN A JR	3715 GREY FOX LN	ONTARIO CA 91761
CONTRERAS, MARIA RIOS	757 N PARKSIDE AVE	ONTARIO CA 91764
PEREZ, JOE	758 VIRGINIA AVE	ONTARIO CA 91764
DALLIN LLC	5440 TRABUCO RD #H200	IRVINE CA 92620
CANO, ALFRED C	851 N PARKSIDE AVE	ONTARIO CA 91764
ELIZARRARAS, RAMON	852 N VIRGINIA	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
ARAMBULA, MARTIN V	749 N ALAMEDA AVE	ONTARIO CA 91764
VALENCIA, MAGDALENO	752 PARKSIDE AVE	ONTARIO CA 91764
RUIZ, LUIS	751 N PARKSIDE	ONTARIO CA 91764
YASSA, JOSEPH G	1424 PASEO MARAVILLA	SAN DIMAS CA 91773
MACIAS, ANTONIO G & SARA LIV TR 10/1	1632 DANBROOK PL	UPLAND CA 91784
TRUONG, CHI & THAM, LOAN FAM TR 11/2	5926 ALESSANDRO AVE #6	TEMPLE CITY CA 91780
RANGWALA FAMILY TRUST 11/12/98	1818 SUNSHINE CT	GLENDALE CA 91208
RUVALCABA, JOSE JUAN	1193 E G ST	ONTARIO CA 91764
DE LA TORRE, ALFREDO	1157 E 'G' ST	ONTARIO CA 91764
RUBALCAVA, GUADALUPE	1141 E G ST	ONTARIO CA 91764
SAVANT, TONY & MARILOU FAM TRUST 6/2	14369 ROAD 20 1/2	MADERA CA 93637
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA 90275
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA 90275
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA 90275
RODRIGUEZ, FRANCISCO	719 N ALAMEDA AVE	ONTARIO CA 91764
CARRILLO, PRUDENCIO	722 N PARKSIDE AVE	ONTARIO CA 91764
RIVERA, FRANCISCO	721 N PARKSIDE AVE	ONTARIO CA 91761
VILLANUEVA, DANNY R	203 N GROVE AVE	ONTARIO CA 91764
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA 90275
TURNER, PHYLLIS J TR	214 S GROVE AVE	ONTARIO CA 91761
HALE, JERRY W	1195 E D ST	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
MORENO, ADRIANA	24616 N BEACON FIELD RD	SURPRISE AZ 85387
SANTIZO, RAMSES A	3132 MOUNTAIN VIEW RD	EL MONTE CA 91732
DALI V LLC	468 S SAN DIMAS AVE	SAN DIMAS CA 91773
SHAHOVEISI, HESAM	8716 CORD AVE	PICO RIVERA CA 90660
BPL GROUP INC	1245 E 4TH ST	ONTARIO CA 91764
CHAI, SOO-JUNG	1369 S LYON ST	SANTA ANA CA 92705
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
DAVILA, DAVID	219 N GROVE AVE	ONTARIO CA 91764
C & M METALS, INC	1709 E 24TH ST	LOS ANGELES CA 90058
CITY OF ONTARIO	303 E "B" ST	ONTARIO CA 91761-4196
CITY OF ONTARIO	303 E "B" ST	ONTARIO CA 91764
RODRIGUEZ, ARMANDO C TR	213 N GROVE AVE	ONTARIO CA 91764
C & M METALS, INC	1709 E 24TH ST	LOS ANGELES CA 90058
BEACON GROUP INC, THE	1072 BRISTOL ST STE 100	COSTA MESA CA 92626-8652
LE, QUOC PHAM	320 S GROVE AVE	ONTARIO CA 91761
LAGUNAS, LUCIA	709 N PARKSIDE DR	ONTARIO CA 91764
DU, JIAN	707 N ALAMEDA AVE	ONTARIO CA 91764-3601
MONCADA, REYNALDO	710 N PARKSIDE DR	ONTARIO CA 91764
BONILLA, JOSE	9649 CEDAR GLEN PL	RANCHO CUCAMONGA CA 91730
GONZALEZ, JORGE A	725 N ALAMEDA AVE	ONTARIO CA 91764

ROMERO, RAUL M	1175 E D ST #3	ONTARIO CA 91764
TAMPUBOLON, YOHANNES	728 N PARKSIDE DR	ONTARIO CA 91764
GODOY, VICTOR H A	727 N PARKSIDE AVE	ONTARIO CA 91764
PEREZ, JORGE	728 VIRGINIA AVE	ONTARIO CA 91761
BEACON GROUP INC, THE	1072 BRISTOL ST STE 100	COSTA MESA CA 92626-8652
LI, RUIFENG	821 N ALAMEDA AVE	ONTARIO CA 91764-3603
DANIEL, LEONEL	822 N PARKSIDE AVE	ONTARIO CA 91762
VIGIL, TOMAS C	821 PARKSIDE	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
VELAZQUEZ, PEDRO	1180 E NOCTA AVE	ONTARIO CA 91764
SARAVIA FAMILY REV LIVING TR (8-31-9	P O BOX 1281	UPLAND, CA 91786
SARAVIA FAMILY REV LIVING TR (8-31-9	P O BOX 1281	UPLAND, CA 91786
SOUTHERN PACIFIC TRANSPORTATION CO	610 MAIN ST	LOS ANGELES CA 90014
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
SAN BERNARDINO CO FLOOD CONTROL DIST	825 E THIRD ST	SAN BERNARDINO CA 92415
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA 90275
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA 90275
SAN BERNARDINO CO FLOOD CONTROL DIST	825 E THIRD ST	SAN BERNARDINO CA 92415
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA 90275
XUE, HONG	1175 E D ST #2	ONTARIO CA 91764
LOFTUS III, OWEN	ADDRESS UNKNOWN	
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA 90275
CHONG, SIAOHONG W	522 N PARKSIDE DR	ONTARIO CA 91764
FELIX, SONIA J	1175 EAST D ST #1	ONTARIO CA 91784
CENDEJAS, CASIMIRO	1188 E D ST	ONTARIO CA 91764
RANGEL, DARLENE	1180 E D ST	ONTARIO CA 91764
WRIGHT, MARVIN L	223 ARMSLEY SQ	ONTARIO CA 91762
CASIQUE, DELFINA	1166 E "D" ST	ONTARIO CA 91764
ONTARIO HOUSING AUTHORITY	303 E B ST	ONTARIO CA 91764
NGALO, UIKELOTU	1182 NOCTA ST	ONTARIO CA 91764
SOUTHERN PACIFIC TRANSPORTATION CO	1200 CORPORATE CENTER DR ST 100	MONTEREY PARK CA 91754
LUU, RAYMOND	1175 E "D" ST #6	ONTARIO CA 91764
YCYW INVESTMENTS LLC	24272 BRECKENRIDGE CT	DIAMOND BAR CA 91765
DANIELIS, ANDREEA	1175 E D ST #4	ONTARIO CA 91764
PERCHEZ, RUTH -EST OF	2588 AVENIDA DEL VISTA #202	CORONA CA 92882
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
SANCHEZ, ALFONSO R	1156 E I ST	ONTARIO CA 91764
OCHOA, SALLY	1140 E I ST	ONTARIO CA 91764
POLANCO, JORGE	1130 E "I" ST	ONTARIO CA 91764
BATARSEH, ADEL	11510 CEDAR AVE	BLOOMINGTON CA 92316
M L R C E GROUP LLC	3625 E PHILADELPHIA ST	ONTARIO CA 91761
CHAI, SOO-JUNG	1369 S LYON ST	SANTA ANA CA 92705
VELAZQUEZ, GUILLERMO	1177 E NOCTA ST	ONTARIO CA 91764
VELASQUEZ, BRUNO	1171 E NOCTA	ONTARIO CA 91764
METRO REALTY LLC	2523 N MOUNTAIN AVE	CLAREMONT CA 91711
VILLA MYREVA II LLC	2500 W ELECTRIC AVE	UPLAND CA 91784
ONTARIO HOUSING AUTHORITY	303 EAST 'B' STREET	ONTARIO CA 91764

BEACON GROUP INC, THE	1072 BRISTOL ST STE 100	COSTA MESA CA 92626-8652
CITY OF ONTARIO	303 E B ST	ONTARIO CA 91764
MARQUEZ, SALVADOR	809 N ALAMEDA AVE	ONTARIO CA 91764
MICHAELS FAMILY TRUST	407 WEST IMPERIAL HWY H157	BREA CA 92821
BERROSPE, ROCIO R	809 N PARKSIDE AVE	ONTARIO CA 91764
CUNG, EDMOND PHU	1820 S WALNUT ST	SAN GABRIEL CA 91776
CITY OF ONTARIO	303 E B ST	ONTARIO CA 91761-4406
LOPEZ, FERNANDO	815 N ALAMEDA AVE	ONTARIO CA 91764
SANCHEZ, ANTONIO	816 N PARKSIDE AVE	ONTARIO CA 91764
MARTINEZ, MARY	815 N PARKSIDE DR	ONTARIO CA 91764
MORA, RIGOBERTO	713 N ALAMEDA AVE	ONTARIO CA 91764
CERVANTES, JORGE & MARIA V REV TR	716 N PARKSIDE AVE	ONTARIO CA 91764
POOT, HECTOR J	715 N PARKSIDE DR	ONTARIO CA 91764
GONZALEZ, LEONARDA	816 N VIRGINIA AVE	ONTARIO CA 91764
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA 90275
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA 90275
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA 90275
CROSS, ROBERT D	P O BOX 1026	ONTARIO CA 91764
CISNEROS, ESTELA M	1184 N SIERRA BONITA	PASADENA CA 91104
SYAL TR 6-3-97	PO BOX 4977	PALOS VERDES PENINSULA CA
TURNER, PHYLLIS J TR	214 S GROVE AVE	ONTARIO CA 91761
BIBLE BAPTIST CHURCH INTL	PO BOX 267	STANTON CA 90680
CASILLAS-BRISENO REV LIV TR 10-4-5	11140 HAMAL AVE	MIRA LOMA CA 91752-1724
CASILLAS-BRISENO REV LIV TR 10/4/05	11140 HAMAL AVE	MIRA LOMA CA 91752-1724
CONTRERAS, CARLOS	1734 CAMPUS AVE	ONTARIO CA 91764
LOPEZ, FRANCISCO	517 PARKSIDE ST "C"	ONTARIO CA 91764
MEDINA, VICTOR M	5 CENTERSTONE CIR	BUENA PARK CA 90620
ALVARADO, ANGEL	1136 E FLORA ST #A	ONTARIO CA 91764
CASILLAS-BRISENO REVOC LIV TR 10-4-5	11140 HAMAL AVE	MIRA LOMA CA 91752-1724
AGRON, MICHAEL S	P O BOX 1503	ARCADIA CA 91007
LOZANO, MARTIN	P O BOX 587	MIRA LOMA CA 91752-1724
ROJAS, MARTIN	433 PARKSIDE AVE #A B C D	ONTARIO CA 91764
GAITAN, BLAZ	1143 E "D" ST	ONTARIO CA 91764
MORENO, DANIEL A	1137 E D ST	ONTARIO CA 91764
REYES, BENJAMIN	1133 E D ST	ONTARIO CA 91764
ONTARIO HOUSING AUTHORITY	303 EAST 'B' STREET	ONTARIO CA 91764
QUEZADA, JOSE D	1147 E "D" ST	ONTARIO CA 91764
CARLOS, JUAN M	426 VIRGINIA AVE	ONTARIO CA 91764
FLORES, JOSE L	416 VIRGINIA AVE	ONTARIO CA 91764
CITY OF LOS ANGELES	#1 WORLD WAY	LOS ANGELES, CA 90045
GUTIERREZ, CHARLES	1151 STATE ST	ONTARIO CA 91761
BARBA, RICHARD F	1135 E STATE ST	ONTARIO CA 91761
CITY OF ONTARIO	303 E B ST	ONTARIO CA 91764
SANCHEZ, CARLOS A	3501 S HARBOR BLVD #200	SANTA ANA CA 92704
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF LOS ANGELES	#1 WORLD WAY	LOS ANGELES, CA 90045
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
REES, WILLIAM JAY TR	1734 LA CANTERA WY	BEAUMONT CA 92223

CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	313 EAST "E" STREET	ONTARIO CA 91764
CERVANTES, JUAN	1102 E STATE ST	ONTARIO CA 91761
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF LOS ANGELES	#1 WORLD WAY	LOS ANGELES, CA 90045
CITY OF LOS ANGELES	#1 WORLD WAY	LOS ANGELES, CA 90045
CITY OF LOS ANGELES	#1 WORLD WAY	LOS ANGELES, CA 90045
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
BANK OF NEW YORK MELLON (TR)	1800 TAPO CANYON RD	SIMI VALLEY CA 93063
LOPEZ, RAMON T	424 S TULARE WY	UPLAND CA 91786
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
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CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
UNION PACIFIC RAILWAY CO	P O BOX 2500	BROOMFIELD, CO 80026
UNION PACIFIC RAILWAY CO	P O BOX 2500	BROOMFIELD, CO 80026
CITY OF ONTARIO	303 E B ST	ONTARIO CA 91711
ELLIS, GLEN	1511 SE HOLGATE	PORTLAND CA 97202
ELLIS, GLEN	1511 SE HOLGATE	PORTLAND CA 97202
ELLIS, GLEN	1511 SE HOLGATE	PORTLAND CA 97202
ELLIS, GLEN	1511 SE HOLGATE	PORTLAND CA 97202
CITY OF LOS ANGELES	#1 WORLD WAY	LOS ANGELES, CA 90045
CITY OF LOS ANGELES	#1 WORLD WAY	LOS ANGELES, CA 90045
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF LOS ANGELES	P O BOX 92216	LOS ANGELES CA 90009
CITY OF LOS ANGELES	#1 WORLD WAY	LOS ANGELES, CA 90045
LOS ANGELES AND SALT LAKE RR CO	P O BOX 2500	BROOMFIELD, CO 80026
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
GUTIERREZ, CHARLES	1151 STATE ST	ONTARIO CA 91761
CHAI, SOO-JUNG	1369 S LYON ST	SANTA ANA CA 92705
CITY OF ONTARIO	313 E E ST	ONTARIO CA 91764
HOVEY, RICHARD	P O BOX 322	RANCHO CUCAMONGA CA 91739
HOVEY, RICHARD	P O BOX 322	RANCHO CUCAMONGA CA 91739
LARIZ, AGUSTIN	1122 E EMPORIA ST	ONTARIO CA 91761
WONG, CALVIN K	1305 VERCOE PL	MONTEREY PARK CA 91755
WONG, CALVIN K	1305 VERCOE PL	MONTEREY PARK CA 91755
GESCO PROPERTIES, LLC	1106 E EMPORIA ST	ONTARIO CA 91761
SHIVASMT, INC	1120 E HOLT BLVD	ONTARIO CA 91761
COULTER, RICHARD S	3056 SANTA CARLOTTA ST	LA CRESCENT CA 91214
CHAI, SOO-JUNG	1369 S LYON ST	SANTA ANA CA 92705
CHAI, SOO-JUNG	1369 S LYON ST	SANTA ANA CA 92705

CITY OF ONTARIO	303 E B ST	ONTARIO CA 91764
MORENO, RENE & ROSE LIVING TR 5/6/13	6403 CAMBRIDGE ST	RANCHO CUCAMONGA CA 91737
ORTIZ, DONNASUE SMITH REV TR 7/30/10	10700 CIVIC CENTER DR STE 100C	RANCHO CUCAMONGA CA 91730
FRANCO, FIDENCIO	1143 E NOCTA ST	ONTARIO CA 91764
PEREZ-HUANCA, CELIO M	1140 E ELMA ST	ONTARIO CA 91764
DR & O INVESTMENTS LLC	1551 S ALPINE DR	WEST COVINA CA 91791
GUZMAN, SEVERIANO	1130 E ELMA ST	ONTARIO CA 91764
DELGADO, JOSE C	600 HELENSBURG ST	GLENDORA, CA 91740
CASTRO, JUAN	136 VIRGINIA AVE	ONTARIO CA 91764
TAN, JING	140 VIRGINIA AVE	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
MONTELLANO, MANUEL	11272 CACTUS AVE	BLOOMINGTON CA 92316
AVILA, ALEJANDRO FLORES	1134 E NOCTA ST	ONTARIO CA 91764
RUIZ, MARIA L	1157 E NOCTA ST	ONTARIO CA 91764
LOPEZ PARTNERS	11356 VERNON AVE	CHINO CA 91710
LOPEZ PARTNERS	11356 VERNON AVE	CHINO CA 91710
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
STAPP FAMILY TRUST 2003	PO BOX 8654	ALTA LOMA CA 91701
IBARRA, MAXIMO	2681 S MALCOM AVE	ONTARIO CA 91761-8708
GARCIA, PASCUALA	1139 E ELMA ST	ONTARIO CA 91764
NGUYEN, NGUYEN HUU	1137 E ELMA ST	ONTARIO CA 91764
MEDAL, MARY GAYLE	1131 E ELMA ST	ONTARIO CA 91764
SOTO, SUSANA	1145 E ELMA ST	ONTARIO CA 91764
AZPEITIA, NICOLAS	1130 E " D " ST	ONTARIO CA 91764
MARQUEZ FAMILY LIVING TRUST 6/28/12	429 N CAROLINE CT	ONTARIO CA 91762
CASTANON, MIGUEL	1152 E D ST	ONTARIO CA 91764-4338
ESQUIVEL, OSCAR	1146 E D ST	ONTARIO CA 91762
LICEA, ARTURO	1140 E D ST	ONTARIO CA 91764-4338
BALDERAMA, FRANK D	1134 EAST D ST	ONTARIO CA 91764
CARRINGTON, LOIS E	1136 EAST G ST	ONTARIO CA 91764
CALVARY APOSTOLIC TABERNACLE	602 N VIRGINIA AVE	ONTARIO CA 91764
ZAVALA, DAVID	1133 E "G" STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
V & B INVESTMENTS CORP	10803 FOOTHILL BLVD STE 212	RANCHO CUCAMONGA CA 91730
ANDRADE, ROBERTO A	722 VIRGINIA AVE	ONTARIO CA 91761
GARCIA, CARLOS	716 VIRGINIA AVE	ONTARIO CA 91764
KIMPTON, CHRISTIAN S	1003 CALAVERAS AVE	ONTARIO CA 91764
CABRERA, VERONICA D	949 CALAVERAS AVE	ONTARIO CA 91764
SANDOVAL, MARIO	907 CALAVERAS AVE	ONTARIO CA 91764
RODRIGUEZ, SANTIAGO	943 CALAVERAS AVE	ONTARIO CA 91764
MARIN, JOSE	903 CALAVERAS AVE	ONTARIO CA 91764
VALENCIA, GUILLERMINA	18063 FAIRVIEW DR	FONTANA CA 92336
RAMIREZ, J GUADALUPE & ANGELA JT LIV	6441 FRANK AVE	MIRA LOMA CA 91752
MOYNIHAN, WILLIAM P	1009 N CALAVERAS	ONTARIO CA 91764
BARAJAS, BALDOMERO	937 CALAVERAS AVE	ONTARIO CA 91764
MORALES, URIEL	931 CALAVERAS AVE	ONTARIO CA 91764
ORTEGA, ADRIAN A	1027 CALAVERAS AVE	ONTARIO CA 91764
VENEGAS, PAUL G & JUANITA	1021 CALAVERAS	ONTARIO CA 91764
JONES, LEROY O	1015 CALAVERAS ST	ONTARIO CA 91764
MENDEZ, MARIANA N	925 CALAVERAS AVE	ONTARIO CA 91764

HERNANDEZ, PABLO	761 AMADOR ST	ONTARIO CA 91764
VELASQUEZ, JUVENAL	762 N ALAMEDA AVE	ONTARIO CA 91764
ALAM, FARAH	851 AMADOR AVE	ONTARIO CA 91764
FELIX, JUDY N	1212 E I ST	ONTARIO CA 91764
WILLIAMSON, CATHARINE	1206 E I ST	ONTARIO CA 91764
VASQUEZ, JORGE O	839 AMADOR AVE	ONTARIO CA 91764
SCOTT, SHERRAN REVOCABLE LIV TR 5-9-	857 N ALAMEDA AVE	ONTARIO CA 91764
CENICEROS, JESUS O	851 N ALAMEDA AVE	ONTARIO CA 91764
BELTRAN, HERACLIO A	862 N ALAMEDA AVE	ONTARIO CA 91764
CID, GABRIELA	852 N ALAMEDA AVE	ONTARIO CA 91764
TENNIS, LEON H	803 AMADOR	ONTARIO CA 91764
NAVARRO, REBECCA FAMILY TRUST	804 N ALAMEDA	ONTARIO CA 91764
TORRES, FERNANDO A	821 AMADOR AVE	ONTARIO CA 91764
AMADOR, SERGIO	822 N ALAMEDA AVE	ONTARIO CA 91764
RUIZ, GUSTAVO	755 N AMADOR AVE	ONTARIO CA 91764
GUTIERREZ, FEDERICO	756 N ALAMEDA AVE	ONTARIO CA 91764
PEREZ, AUCENCIO	719 AMADOR AVE	ONTARIO CA 91764
ZEA, SUSANA	14870 BAMBOO CT	FONTANA CA 92335
WASE, VICTORIA LIVING TRUST 10-27-08	583 1/2 SIXTH AVE NORTH	UPLAND CA 91786
RENDON, HENRY JR	816 N ALAMEDA	ONTARIO CA 91764
VASQUEZ, TERESA M	809 N AMADOR	ONTARIO CA 91761
TRAN, DAN	13631 GLENHAVEN DR	GARDEN GROVE CA 92843
NAVARRO, MARIA	707 AMADOR AVE	ONTARIO CA 91764
LANTZ TRUST 8-16-1	P O BOX 2701	POMONA, CA 91767
ZICAFOOSE, STEVEN R	1147 W BADILLO ST #H	COVINA CA 91722
PALLARES, JESUS	731 N AMADOR AVE	ONTARIO CA 91764
MELCHOR, JUAN	749 AMADOR PL	ONTARIO CA 91761
BELTRAN, JESUS L	750 N ALAMEDA AVE	ONTARIO CA 91764
LUA, ANTONIO M	725 AMADOR AVE	ONTARIO CA 91764
THOMPSON, MARGARET A	640 AMADOR ST	ONTARIO CA 91764
ZAMARRIPA, ELEAZAR	622 AMADOR AVE	ONTARIO CA 91764
LEPE, ISAURA	634 AMADOR AVE	ONTARIO CA 91764
PALACIOS, OSCAR A	616 AMADOR AVE	ONTARIO CA 91764
GALAVIZ, GUADALUPE	628 AMADOR AVE	ONTARIO CA 91764
SINGH, AMARPREET REVOC LIV TR	13300 SAN ANTONIO DR	NORWALK CA 90650
MACIAS, JOSE E	1342 E FLORA ST	ONTARIO CA 91764
NGUYEN, PHAN	1336 E FLORA ST	ONTARIO CA 91764
KALIL, SALVADOR G	1330 E FLORA ST	ONTARIO CA 91764
OROZCO, CARMEN	1324 E FLORA ST	ONTARIO CA 91764
ESTRADA, RENE L	1318 E FLORA ST	ONTARIO CA 91764
HALWANI, EZRA O	1312 E FLORA ST	ONTARIO CA 91764
BARRIOS, PEDRO	1306 E FLORA ST	ONTARIO CA 91764
LOPEZ, FEDERICO	9883 ORCHARD ST	BLOOMINGTON CA 92316
PETERS, TERRY W	1270 E FLORA ST	ONTARIO CA 91764
PONCE, EZEQUIEL	1264 E FLORA ST	ONTARIO CA 91764
ALVAREZ, JOSE F	1258 E FLORA ST	ONTARIO CA 91764
MYERS, DEBORAH	1252 E FLORA ST	ONTARIO CA 91764
910 ESTATE LLC	136 N GRAND AVE #181	WEST COVINA CA 91791
ROMERO, VICTOR	1240 E FLORA ST	ONTARIO CA 91764
MEDINA, ALFREDO H	1386 FLORA ST	ONTARIO CA 91764
BREVARD, LANITA M	1378 E FLORA	ONTARIO CA 91764
ALEGRIA, RAFAEL	1372 E FLORA	ONTARIO CA 91764

AGUILAR, CARMEN	1366 E FLORA ST	ONTARIO CA 91764
RODRIGUEZ, VICTOR	1360 E FLORA ST	ONTARIO CA 91764
THR CALIFORNIA LLC	410 N MAIN ST	CORONA CA 92880
PINEDA, ANDRES S	611 N DEL NORTE AVE	ONTARIO CA 91764
CAMBA, GUILLERMO	608 N CALAVERAS AVE	ONTARIO CA 91764
OXIER, JAMES	609 CALAVERAS AVE	ONTARIO CA 91764
DAVIS, RAYMOND W TR	643 DEL NORTE	ONTARIO CA 91764
OCHOA, JOSE L	640 CALAVERAS AVE	ONTARIO CA 91764
GRACIANO, ALFREDO R	643 CALAVERAS ST	ONTARIO CA 91764
MORENO, MARIO	623 N DEL NORTE AVE	ONTARIO CA 91764
PEREZ, MAXIMILIANO	622 CALAVERAS AVE	ONTARIO CA 91764
HERRERA, DANIEL C	1348 E NOCTA ST # B8	ONTARIO CA 91764
NGUYEN, ANDY C T	637 N DEL NORTE AVE	ONTARIO CA 91764
ESCOBAR, LUPE TR	636 N CALAVERAS AVE	ONTARIO CA 91764
FLORES, HECTOR	635 N CALAVERAS AVE	ONTARIO CA 91764
QUINTANILLA, DAVID	605 N DEL NORTE AVE	ONTARIO CA 91764
MERCADO, JOSE A	1257 E FLORA ST	ONTARIO CA 91764
DAVIES FAMILY TRUST	407 W IMPERIAL HWY H157	BREA CA 92821
LOPEZ, JORGE	629 CALAVERAS AVE	ONTARIO CA 91764
ALFARO, JOSE A	617 N DEL NORTE AVE	ONTARIO CA 91764
RAMIREZ, ABIGAIL	616 CALAVERAS AVE	ONTARIO CA 91764-4006
CORRAL, COSME	617 CALAVERAS AVE	ONTARIO CA 91761
VALTIERRA, MANUEL	631 N DEL NORTE AVE	ONTARIO CA 91764
MC MILLEN, LAWRENCE R TR	628 CALAVERAS AVE	ONTARIO CA 91764
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
SAN BERNARDINO CO FLOOD CONTROL DIST	825 E THIRD ST	SAN BERNARDINO CA 92415
MARTINEZ, YOLANDA	PO BOX 3506	ONTARIO CA 91764
1246-1248 EAST D ST TRUST 1/6/12	18472 COLIMA RD STE 211	ROWLAND HEIGHTS CA 91748-5809
HYATT, JACK O	1240 E D ST	ONTARIO CA 91764
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
PEER, CHARLES E AND PHYLLIS J TR	9462 ORANGE ST	ALTA LOMA CA 91701
PEER, CHARLES E AND PHYLLIS J TR	9462 ORANGE ST	ALTA LOMA CA 91701
REED FAMILY TRUST DATED 4-15-82	10304 MOSELLE ST	SAN DIEGO CA 92131
REED, CALVIN N TR	10304 MOSELLE ST	SAN DIEGO CA 92131
GROUP IV POMONA PROPERTIES LTD	4900 SANTA ANITA AVE #2C	EL MONTE CA 91732
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
SAN BERNARDINO CO FLOOD CONTROL DIST	825 E THIRD ST	SAN BERNARDINO CA 92415
SAN BERNARDINO CO FLOOD CONTROL DIST	825 E THIRD ST	SAN BERNARDINO CA 92415
AMICK, ELMER E TR	905 W I ST	ONTARIO CA 91762
1253 HOLT LLC	1732 AVIATION BLVD STE 215	REDONDO BEACH CA 90278
LOPEZ, ALBERT R TR	8780 19TH ST #325	ALTA LOMA CA 91701
KIKUMOTO, HIDEO TR	28211 ELLA RD	RANCHO PALOS VERDES CA 90275
1253 HOLT LLC	1732 AVIATION BLVD STE 215	REDONDO BEACH CA 90278
1253 HOLT LLC	1732 AVIATION BLVD STE 215	REDONDO BEACH CA 90278
1253 HOLT LLC	1732 AVIATION BLVD STE 215	REDONDO BEACH CA 90278

CITY OF ONTARIO	303 EAST B STREET	ONTARIO CA 91764
PATEL, MOHAMMED I LIVING TR 05/12/00	12 PARMA	IRVINE CA 92602
PATEL, MOHAMMED I LIVING TR 05/12/00	12 PARMA	IRVINE CA 92602
PANNONE PROPERTIES LLC	1056 W HATHORNE ST	ONTARIO CA 91761
ROCKERFELLER PARTNERS LLC	9327 FAIRWAY VIEW PL STE 306	RANCHO CUCAMONGA CA 91730
ABMA FAMILY TRUST 9/15/04	2822 CALLE GUADALAJARA	SAN CLEMENTE CA 92673
JAUREGUI, FRANCISCO	16360 AVIANO LN	CHINO HILLS CA 91709
PANNONE PROPERTIES LLC	1056 W HATHORNE ST	ONTARIO CA 91761
PANNONE PROPERTIES LLC	1056 W HATHORNE ST	ONTARIO CA 91761
HINCKLEY & SCHMITT INC	10306 SAN DIEGO MISSION AVE	SAN DIEGO CA 92108
CITY OF LOS ANGELES	#1 WORLD WAY	LOS ANGELES, CA 90045
SFPP LP	1100 TOWN & COUNTRY RD	ORANGE CA 92868
SOUTHERN PACIFIC PIPE LINES INC	888 S FIGUEROA ST ROOM 236	LOS ANGELES CA 90017
SAFETY INVESTMENT COMPANY	1121 E PHILADELPHIA	ONTARIO CA 91761
SAFETY INVESTMENT COMPANY	1121 E PHILADELPHIA	ONTARIO CA 91761
ABMA FAMILY TRUST 9/15/04	2822 CALLE GUADALAJARA	SAN CLEMENTE CA 92673
SAN BERNARDINO CO FLOOD CONTROL DIST	825 E THIRD ST	SAN BERNARDINO CA 92415
LA COMMARE, JAMES AND JOSEPHINE TR	27685 PINESTRAP CIR	LAGUNA HILLS CA 92653
BEACON GROUP INC, THE	1072 BRISTOL ST STE 100	COSTA MESA CA 92626-8652
SAN BERNARDINO CO FLOOD CONTROL DIST	825 E THIRD ST	SAN BERNARDINO CA 92415
PAMA IV PROPERTIES LP	4900 SANTA ANITA 2-C	EL MONTE CA 91731
DE VAZQUEZ, ELODIS MUNOZ	6016 MULLER ST	BELL GARDENS CA 90201
AMERICAN WEST REGIONAL CENTER LLC	14392 ROSEWOOD CIR	TUSTIN CA 92780
HARB, NADIM FAYEZ	7805 5TH ST	DOWNEY CA 90241
GU, TOM FENG HUA	PO BOX 872	ROSEMEAD CA 91776
GUILLEN, RAFAEL DELGADO	105 VIRGINIA AVE	ONTARIO CA 91764
RODRIGUEZ, ARMANDINA	107 VIRGINIA ST	ONTARIO CA 91764
CALYPSO GROUP INVESTMENTS LLC	P O BOX 15562	IRVINE CA 92602
JOYFUL NATIONS MINISTRIES	P O BOX 4877	ONTARIO CA 91764
REXXONS HOLDINGS	21806 E PINTO WY	WALNUT CA 91789
PAMA IV PROPERTIES LP	4900 SANTA ANITA 2-C	EL MONTE CA 91731
DOTSON, FRIDA D	6205 ARCHIBALD AVE	RANCHO CUCAMONGA CA 91737
GOLDEN STATE ALLIANCE LLC	13541 PRAIRIE AVE	HAWTHORNE CA 90250
SU, FANGMING	835 E MOUNTAIN VIEW AVE	GLENDORA CA 91741
RUBIO, TERESA	4584 SAN JOSE ST	MONTCLAIR CA 91763-1719
STARLIGHT MGMT -17 LP	4900 SANTA ANITA 2-C	EL MONTE CA 91731
RIVERA, ALBERT	13256 TANGERINE	CHINO CA 91710
MUNOZ, RENE C	1116 E NOCTA ST	ONTARIO CA 91764
GUTIERREZ, ABE	1122 NOCTA ST	ONTARIO CA 91764
AGUIRRE, RUBEN	145 VIRGINIA	ONTARIO CA 91764
GARCIA, JOE	139 VIRGINIA AVE	ONTARIO CA 91764
JAUREGUI, RIGOBERTO G	135 VIRGINIA AVE	ONTARIO CA 91764
CAMACHO, GUILLERMO	109 VIRGINIA AVE	ONTARIO CA 91764
DEJAGER FAMILY TRUST	4285 NEW HAMPSHIRE AVE	CLAREMONT CA 91711
YANG, LIE JUAN	P O BOX 245	ROSEMEAD CA 91776
POPA, CATHERINE G	1910 SALMON VALLEY LN	EL DORADO HILLS CA 95762
POPA, CATHERINE G	1910 SALMON VALLEY LN	EL DORADO HILLS CA 95762
GALICIA, ADRIAN	1116 VIRGINIA AVE	ONTARIO CA 91764
MAYORGA, FRANCISCO J	1124 VIRGINIA AVE	ONTARIO CA 91764
BLEVINS FAMILY LIVING TRUST	1047 E YALE ST	ONTARIO CA 91764
SANCHES, MOISES	1138 VIRGINIA AVE	ONTARIO CA 91764
TACKETT, D OWEN	1148 VIRGINIA AVE	ONTARIO CA 91764

LOPEZ, MARTIN
HOUSING PARTNERS I INCORPORATED

1156 N VIRGINIA
715 E BRIER DR

ONTARIO CA 91764
SAN BERNARDINO CA 92408

List of Technical Studies

Air Quality Report, February 2017

Air Quality Conformity Analysis, July 2020

Archaeological Survey Report, March 2017

Community Impact Assessment, October 2016

Floodplain Evaluation Report, September 2015

Geotechnical Memorandum, September 2015

Health Risk Assessment, July 2016

Historic Property Survey Report, March 2017

Historical Resources Evaluation Report, March 2017

Initial Site Assessment, September 2015

Initial Site Assessment, August 2020

Jurisdictional Delineation Letter Report, September 2016

Natural Environment Study (Minimal Impacts), September 2016

Noise Abatement Decision Report, December 2017

Noise Study Report, December 2017

Paleontological Identification Report and Paleontological Evaluation Report,
March 2017

Project Report, March 2017

Relocation Impact Statement, October 2016

Section 4(f) *De Minimis* Finding, September 2016

Traffic Operations Analysis, January 2015

Visual Impact Assessment, November 2016

List of Technical Studies

Water Quality Management Plan, June 2016

Water Quality Technical Report, June 2016