Initial Study/Mitigated Negative Declaration

San Bernardino County
Department of Public Works

State Street Widening Project
Adams Street to Darby Street (Muscoy Area)

Lead Agency

San Bernardino County Department of Public Works

825 E. Third Street
San Bernardino, CA 92415

Technical assistance provided by:

SummitWest Environmental, Inc.
PO Box 1499
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July 2025

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SECTION 1 – INTRODUCTION

Background

The San Bernardino County Department of Public Works (County) proposes to widen the west side of State Street between Adams Street and Darby Street. The work would construct a new curb and gutter, driveways, ADA ramps, streetlights, painted traffic striping and traffic signs (Project). The Project length is approximately 0.61 miles, with maximum excavation in spot locations, of up to a maximum of approximately 48” for the streetlights.

SECTION 2 – REGULATORY FRAMEWORK

The County has identified that the State Street Widening Project meets the California Environmental Quality Act (CEQA) Guidelines Section 15378 definition of a Project. CEQA Guidelines Section 15378 defines a Project as the following:

> "Project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.

In accordance with the CEQA (Public Resources Code Sections 21000-21177), this Initial Study has been prepared to determine potentially significant impacts upon the environment resulting from the construction, operation, and maintenance of the Project. In accordance with Section 15063 of the State *CEQA Guidelines*, this Initial Study is a preliminary analysis prepared by the County as Lead Agency to inform the Lead Agency decision makers, other affected agencies, and the public of potential environmental impacts associated with the implementation of the proposed Project.

Initial Study Organization

This Initial Study is organized as follows:

Introduction: Provides the regulatory context for the review along with a brief summary of the CEQA process.

Project Information: Provides fundamental Project information, such as the Project description, Project location and figures.

Lead Agency Determination: Identifies environmental factors potentially affected by the Project and identifies the Lead Agency's determination based on the initial evaluation.

Mitigated Negative Declaration: Prepared when a determination can be made that no significant environmental effects will occur because revisions to the Project have been made or mitigation measures will be implemented which will reduce all potentially significant impacts to less than significant levels.

Evaluating Environmental Impacts: Provides the parameters the District uses when determining level of impact.

CEQA Checklist: Provides an environmental checklist and accompanying analysis for responding to checklist questions.

References: Include a list of references and various resources utilized in preparing the analysis.

SECTION 3 – DETAILED PROJECT DESCRIPTION

The County has designed the proposed Project to conform with the General Plan Transportation & Mobility Element Policy Maps. The roadway ultimate classification is that of a Major Highway – SBC Std. Plan 101, four lane highway with intersections at grade and control access. In order to minimize right-of- way take and encroachment into typical residential structure setback requirements, as well as to address current and projected emerging mobility needs, proposed work involves widening of the roadway west of its existing centerline to accommodate improvements for approximately 0.61 miles on State Street from Adams Street to Darby Street. The interim geometric section and improvements posed west of the centerline affords the inclusion of a 12-foot median that obliges left turn movement at intersections and midblock access to individual parcels, a 12-foot through travel lane - southbound, an eight-foot shoulder to accommodate on-street parking and refuse pickup, and a five-foot parkway to accommodate sidewalk and driveway approaches. Provisions for the inclusion of ADA compliant curb ramps, curb and gutter and street lighting are also addressed. Existing improvements easterly of the centerline for the interim condition will remain largely as is. Anticipated maximum excavation depth for most work is 18-inches.

Streetlights are to be installed within the Project limits that lie within CSA 70 SL-5. Placement/work should be coordinated with Special Districts/Streetlights and complement existing lighting present with mid-block locations alternating, where feasible, from one side of the street to the other. Standard spacing for residential streetlighting is 200-feet on-center. Street lighting placed on the easterly side of State Street should match that currently present utilizing existing power poles. The maximum excavation depth for this work will be 48”.

The Project is currently scheduled for construction in 2027.

Project Location

The Project location is State Street from Adams Street to Darby Street in the Muscoy Area.

Figure 1: Regional Location Map

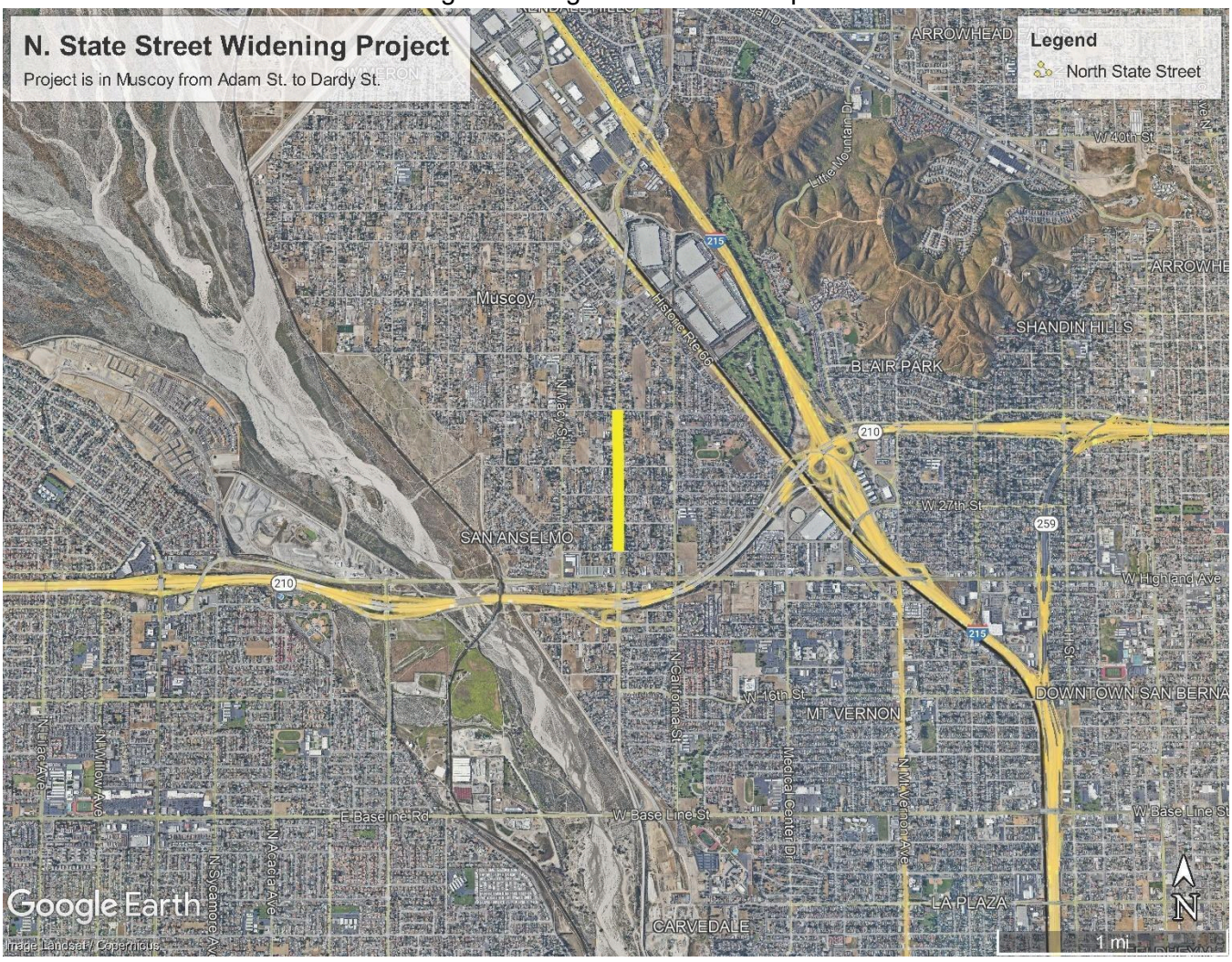
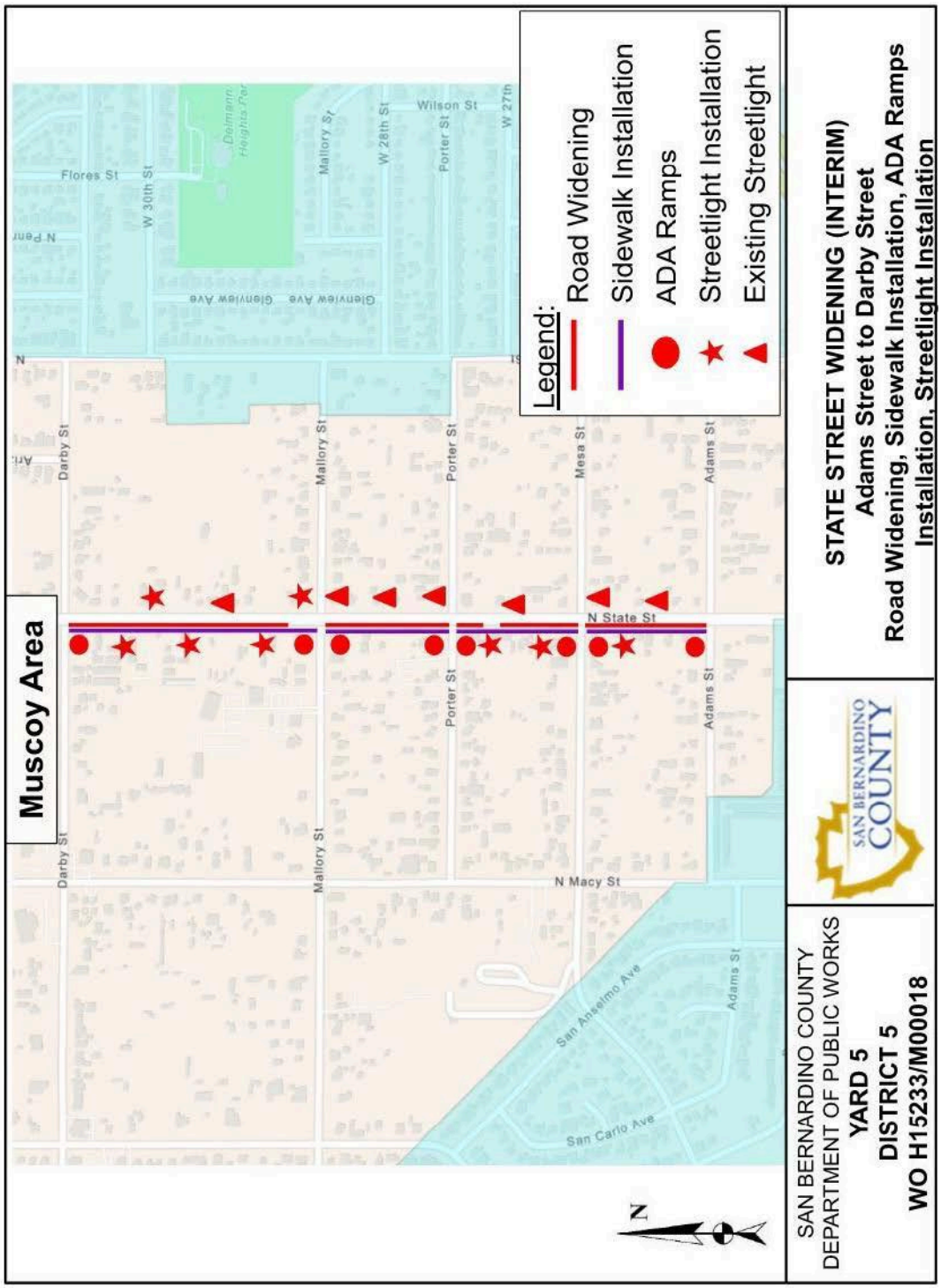


Figure 2: Project Location Map



Figure 3: Project Elements



SECTION 4 – ENVIRONMENTAL CHECKLIST FORM

1.	**Project Title:**	State Street Widening Project
2.	**Lead Agency Name:**	County of San Bernardino Department of Public Works
	Address:	825 East Third Street, Room 123 San Bernardino, California 92415-0835
3.	**Contact Person:**	Patrick Egle, Planner III Patrick.Egle@dpw.sbcounty.gov 909-387-1865
4.	**Project Location:**	The Project location is State Street from Adams Street to Darby Street in the Muscoy Area, San Bernardino County.
	Topographic Quad (USGS 7.5"):	San Bernardino North
	Topographic Quad Coordinates:	T1N R4W, SBB&M
	Latitude/Longitude	34.141519N - 117.335506W
	Site Access:	State Street between Adams Street and Darby Street
5.	**Project Sponsor:**	San Bernardino County Department of Public Works Environmental Management Division
	Name and Address:	825 East Third Street, Room 123 San Bernardino, CA 92415
6.	**General Plan/Zoning Designation:**	General Plan Land Use Categories 2023: C: Commercial; Zoning: MS/SD-COM; Zoning District Muscoy /Special Development-Commercial

7. Project Description Summary:

Details of the Project are further discussed in Section 3.

8. Environmental/Existing Site Conditions:

The Project length is approximately 0.61 miles. State Street or University Parkway is currently a two-laned asphalt paved road with curb shoulders that trends north south. The area is developed. Currently, pedestrians travel along an area that provides a path of dirt, but there is no sidewalk. Vehicles Park on the pathway obstructing travel.

9. Surrounding land uses and setting:

The Project site is situated in a low-density residential area that also includes commercial and light industrial businesses.

10. Other public agencies whose approval is required:

The following agencies are responsible for review and approval of the Proposed Project:

City/County Agencies:

- San Bernardino County

11. Have California Native American tribes traditionally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation?

On January 21, 2025, the County sent Project notification letters to the following California Native American tribes, which had previously submitted general consultation request letters pursuant to 21080.3.1(d) of the Public Resources Code:

- Soboba Band of Luiseňo Indians;
- the Yuhaaviatam of San Manuel Nation (YSMN, also known as San Manuel Band of Mission Indians);
- and the Gabrieleno Band of Mission Indians-Kizh Nation.

Each recipient was provided with a brief description of the Project, a map of its location, the lead agency representative's contact information, and a notification that the tribe has 30 days to request consultation. The 30-day response period concluded on February 21, 2025.

As a result of the initial notification letters, San Bernardino County received the following responses:

- No response or request to consult was received from the Soboba Band of Luiseňo Indians

- The Gabrieleno Band of Mission Indians-Kizh Nation indicated that they wished to consult, but did not provide their availability to the County. The County sent the Gabrieleno Band of Mission Indians-Kizh Nation the 65% plans on March 10, 2025, and have heard nothing further from them. This document (IS/MND) will be mailed to the Gabrieleno Band of Mission Indians-Kizh Nation.

- The YSMN provided the following response: "Thank you for contacting the Yuhaaviatam of San Manuel Nation (formerly the San Manuel Band of Mission Indians) regarding the above referenced Project. YSMN appreciates the opportunity to review the Project documentation, which was received by our Cultural Resources Management Department on January 21, 2025, pursuant to CEQA (AB 52) and CA PRC 21080.3.1. The Project area is located within Serrano ancestral territory and,

therefore, is of interest to the Tribe." The YSMN further stated that the Project is near known sensitive areas and provided language to be made a part of the project/permit/plan conditions.

At the request of the YSMN, their suggested language has been incorporated into Mitigation Measures CR-1 through CR-5 and TCR-1 in this CEQA document and shall be implemented to ensure potential impacts to cultural resources and tribal cultural resources are reduced to the extent feasible.

12. Lead Agency Discretionary Actions:

- San Bernardino County Board of Supervisors approval of the CEQA document (expected to be a Mitigated Negative Declaration) is required prior to Project implementation.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact requiring mitigation to be reduced to a level that is less than significant as indicated in the checklist on the following pages.

☐	Aesthetics	☐	Agricultural / Forest Resources	■	Air Quality
■	Biological Resources	■	Cultural Resources	☐	Energy
☐	Geology / Soils	☐	Greenhouse Gas Emissions	☐	Hazards / Hazardous Materials
☐	Hydrology / Water Quality	☐	Land Use / Planning	☐	Mineral Resources
☐	Noise	☐	Population / Housing	☐	Public Services
☐	Recreation	☐	Transportation	■	Tribal Cultural Resources
☐	Utilities / Service Systems	☐	Wildfire	■	Mandatory Findings of Significance

LEAD AGENCY DETERMINATION

On the basis of this initial evaluation, the following finding is made:

	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



7/8/25

Signature: Patrick Egle, Senior Planner Date

1. AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade an 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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				X
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

(Check ☐ if project is located within a view-shed of any Scenic Route listed in the General Plan):

Environmental Setting

The unincorporated community of Muscoy, situated northwest of the City of San Bernardino, is where the Project is located. The Project is located within low-density residential and commercial/light industrial development and will consist of the addition of new curbs, gutters, and sidewalk ramps, as well as widening of asphalt pavement, removal of asphalt, curbs, gutters, and driveways, painting of traffic stripes, and installation of traffic signs and streetlighting.

Impact Analysis

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. The Project would not obstruct any scenic vista or sweeping view to the public as the proposed changes are improvements to an existing roadway. The Project will install streetlighting at every 200 feet. The lighting would be shielded to prevent light trespassing to the adjacent residential properties. Most of the proposed improvements would be at ground level or below, so scenic vistas would not be impacted. Therefore, less than significant impacts are identified or anticipated, and no mitigation measures are required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. Pavement, curb, gutter, and lighting improvements along State Street are proposed. The recommended improvements along this stretch of roadway would improve the long-term scenic qualities of this

section of roadway and while having no impact on surrounding scenic resources. Furthermore, there are no protected trees, rock outcroppings, or historic buildings along this section of roadway that would be impacted by construction (County 2025a). Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

c) *Substantially degrade an 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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

No Impact. The Project location is not located within an urbanized area as defined under PRC 21071 (Office of Planning and Research 2025). As stated previously, pavement, curb, gutter, and lighting improvements along State Street are proposed. The recommended improvements along this sketch of roadway would improve the long-term scenic qualities of this section of roadway and while having no impact on surrounding scenic resources. Furthermore, there are no protected trees, rock outcroppings, or historic buildings along this section of roadway that would be impacted by construction. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Less Than Significant Impact. Construction would take place during daylight hours; therefore, no night lighting would be required. Large construction equipment and soil stockpiles (if applicable) would periodically be left on site which may temporarily affect views for nearby residences. This would not be significant because houses in this area face north or south and the presence of equipment and stockpiles would have a temporary impact during construction only. No permanent impacts to day or nighttime views would occur.

Existing sources of light and glare include the current street lighting, and light and glare from the existing and surrounding residential and commercial buildings. The Project may introduce temporary lighting during construction. However, lighting would be shielded to prevent light trespass to the adjacent residential properties and members of the public who may be traveling on adjacent roads or rights-of-way as described in the detailed Project description (County 2025b). New sources of permanent light would be installed along the roadways. As with construction lighting, the permanent light shall be shielded to prevent light trespass onto adjacent properties. Therefore, adverse effects associated with the creation of light and glare would be less than significant.

Aesthetics Impact Conclusions:

Aesthetic impacts related to scenic views, scenic quality, and light and glare are generally site-specific. As concluded in Thresholds 1(a) through 1(d), the Project's potential aesthetic impacts related to aesthetics resources would be less than significant. Consistent with the Project, each cumulative development would be subject to compliance with applicable state and local development standards, and guidelines to minimize aesthetic-related impacts. Therefore, the Project's aesthetic related impacts are not expected to be cumulatively considerable.

2. AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?				X
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))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
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?				X

(Check ☐ if project is located in the Important Farmlands Overlay):

Environmental Setting

The Project is situated in the unincorporated community of Muscoy, northwest of the City of San Bernardino, within the developed area of San Bernardino County. The Project area has not been designated as prime

agricultural land by the U.S. Department of Agriculture Soil Conservation Service and there is no known history of agricultural activity in the area.

Impact Analysis

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?

No Impact. The Project site and surrounding area are not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. As the proposed area of disturbance would occur within the public right of way and not on farmland, no impacts are anticipated, and no mitigation measures are required.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact. The Project will not occur on land zoned for agricultural use under the Williamson Act contract (Department of Conservation 2022), or on land that would impact on agricultural resources. The disturbance will be confined to the existing public right-of-way. As such, there are no anticipated impacts to agricultural resources, and no mitigation is required.

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))?

No Impact. The Project would not result in rezoning of or conflict with existing zones for forest land or timberland zones for Timberland Production. The proposed improvements would occur within the public right of way and would not include forest land or timberland. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project site does not contain forest land, and implementing the Project will not result in forest land loss or conversion to non-forest use. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

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?

No Impact. The Project will not result in the loss of agricultural or forest land uses because the improvements would occur on previously disturbed land that does not currently support those uses. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

Agriculture and Forestry Services Impact Conclusions:

There are no anticipated or identified potentially significant adverse impacts, and no mitigation measures are necessary.

3. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
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?		X		
c) Expose sensitive receptors to substantial pollutant concentrations?		X		
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

(Discuss conformity with the South Coast Air Quality Management Plan, if applicable):

Environmental Setting

Overview of the Existing Air Quality Environment

The Project site is in the western portion of San Bernardino County, California, which is part of the South Coast Air Basin (Basin) and is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

Air quality in the planning area is not only affected by various emission sources (e.g., mobile and industry), but also by atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall). The combination of topography, low mixing height, abundant sunshine, and emissions transported by prevailing winds from the second-largest urban area in the United States gives the Basin some of the worst air pollution problems in the nation. The Project area is at the northeastern edge of the Basin at an elevation of approximately 1,300 feet above sea-level, which is at the upper mixing height of the Basin. Due to the elevation and location at the northeastern edge of the Basin, the Project area is prone to the highest ozone concentrations within the Basin.

Surrounding Land Uses in the Project Vicinity

The Project site is bordered by single-family, commercial, and light industrial land uses.

REGULATORY SETTING

Federal Regulations

Pursuant to the Federal Clean Air Act (CAA) of 1970, the Environmental Protection Agency (EPA) established the National Ambient Air Quality Standards (NAAQS). The NAAQS was established for six major pollutants, termed “criteria” pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established ambient air quality standards (AAQS), or criteria, for outdoor concentrations to protect public health.

California Regulations

In 1967, the State Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus (i.e., the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board) to establish the California Air Resources Board (CARB). Since its formation, the CARB has worked with the public, the business sector, and local governments to find solutions to the State’s air pollution problems.

California adopted the CCAA in 1988. CARB administers the CAAQS for the 10 air pollutants designated in the CCAA. These 10 State air pollutants are the six criteria pollutants designated by the CAA as well as four others: visibility-reducing particulates, H_2S, sulfates, and vinyl chloride.

Regional Air Quality Planning Framework

The 1976 Lewis Air Quality Management Act established SCAQMD and other air districts throughout the State. The CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the federal standards in nonattainment areas of the state.

CARB is responsible for incorporating Air Quality Management Plans (AQMPs) for local air basins into a State Implementation Plan (SIP) for EPA approval. Significant authority for air quality control within them has been given to local air districts that regulate stationary-source emissions and develop local nonattainment plans.

Regional Air Quality Management Plan

SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the AQMP for the Basin. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. SCAQMD prepares a new AQMP every three years, updating the previous plan and 20-year horizon.

The latest plan is the 2022 AQMP (SCAQMD 2022), which incorporates the latest scientific and technological information and planning assumptions, including the 2020 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories which also benefits reduction of GHG emissions. Key elements of the 2022 AQMP pertaining to GHG emissions include:

- Specifically addresses decarbonization and climate policy development and its role in achieving the 2015 Ozone standard,
- Calculation and credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation),
- A strategy with fair-share emission reductions at the federal, State, and local levels,
- Investment in strategies and technologies meeting multiple air quality and climate objectives,
- Identification of new partnerships and significant funding for incentives to accelerate deployment of zero and near-zero technologies,

- Attainment of the 1-hour Ozone standard by 2022 with no reliance on “black box” future technology (CAA Section 182(e)(5) measures). While not directly correlated to GHG emissions, the measures rely heavily on zero emission technologies that will also significantly reduce GHG emissions.

SCAQMD adopts rules and regulations to implement portions of the AQMP. Several of these rules may apply to project construction or operations impacting reduction of GHG emissions.

Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate new development projects within the Basin, such as in the case of this Project. Instead, SCAQMD published the *CEQA Air Quality Handbook* (SCAQMD 1993) to assist lead agencies, as well as consultants, Project proponents, and other interested parties, in evaluating potential GHG and air quality impacts of projects proposed in the Basin. The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures that can be used in conducting GHG analyses in environmental impact reports and were used extensively in the preparation of this analysis. SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook.*

While the replacement *Air Quality Analysis Guidance Handbook* is being updated, supplemental guidance/information on the SCAQMD website includes: (1) Emission FACtors (EMFAC) on-road vehicle air pollutant and GHG emission factors, (2) GHG analysis guidance, (3) mitigation measures and control efficiencies, (5) off-road mobile source air pollutant and GHG emission factors, and (8) updated SCAQMD Air Quality Significance Thresholds. SCAQMD also recommends using approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod). These recommendations were followed in the preparation of this analysis.

County of San Bernardino GHG Reduction Plan

The County completed a GHG Emissions Reduction Plan Update in June 2021 (County of San Bernardino 2021), which sets forth an emissions reduction targets, emissions reduction measures, and action steps to assist the County to demonstrate consistency with California’s Global Warming Solutions Act (Senate Bill 32). Together with the GHG Emissions Reduction Plan (ERP), the County adopted the GHG ERP (County of San Bernardino 2021) in 2021. The ERP procedures need to be followed to evaluate GHG impacts and determine significance for CEQA purposes. All projects need to apply the GHG performance standards identified in the ERP and comply with State requirements.

THRESHOLDS OF SIGNIFICANCE

SCAQMD has established daily emissions thresholds for construction and operation of a proposed project in the Basin. The emissions thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health within an adequate margin of safety (SCAQMD 2017), these emissions thresholds are regarded as conservative and would overstate an individual project’s contribution to health risks.

Regional Emissions Thresholds

Table 3-1 lists the CEQA significance thresholds for construction and operational emissions established for the Basin.

Table 3-1: Regional Thresholds for Construction and Operational Emissions

	Pollutant Emissions Threshold (lbs/day)					
Emissions Source	VOC	NOx	CO	PM_{10}	$PM_{2.5}$	SOx
Construction	75	100	550	150	55	150
Operations	55	55	550	150	55	150

Source: SCAQMD. Air Quality Significance Thresholds. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf (accessed May 2025).

CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District
SOx = sulfur oxides
VOC = volatile organic compounds

Projects in the Basin with construction- or operation-related emissions that exceed any of their respective emission thresholds would be considered significant under SCAQMD guidelines. These thresholds, which SCAQMD developed and that apply throughout the Basin, apply as both Project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and cumulative impact.

Localized Significance Thresholds (LST)

SCAQMD published its *Final Localized Significance Threshold Methodology* in June 2003 and updated it in July 2008 (SCAQMD 2008), recommending that all air quality analyses include an assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of the NAAQS or the CAAQS for carbon monoxide (CO), nitrogen oxides (NO_2,) particulate matter less than 10 microns in size (PM_{10}) and particulate matter less than 2.5 microns in size ($PM_{2.5}$), as shown in previously referenced Table 3-1. LSTs are based on the ambient concentrations of that pollutant within the project Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For this Project, the appropriate SRA is the East San Bernardino Valley area (SRA 35).

The LST Methodology uses look-up tables based on site acreage to determine the significance of emissions for CEQA purposes. Based on the SCAQMD recommended methodology and the construction equipment planned, no more than one-acre would be disturbed on any one day; thus, the one-acre LSTs have been used for construction emissions. On-site operational emissions would occur from stationery and mobile sources. Because the project operation area would be less than one-acre, the one-acre thresholds would apply during project operations.

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. As described above, the closest residences are within 20 feet (six meters) from the southern boundary of construction. SCAQMD LST Methodology specifies, “Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.” Therefore, the following emissions thresholds apply during Project construction and operation:

Construction LST (2 acre, 25 meters, East San Bernardino Valley):

- 170 pounds per day (lbs/day) of NOx.
- 1,174 lbs/day of CO.
- 7 lbs/day of PM_{10}.

- 5 lbs/day of $PM_{2.5}$.

· Operation LST (2 acre, 25 meters, East San Bernardino Valley):
- 170 lbs/day of NOx.
- 1,174 lbs/day of CO.
- 2 lb/day of PM_{10}.
- 2 lb/day of $PM_{2.5}$.

IMPACTS

Calculations of air pollutants and GHG emissions in the following analysis were conducted using the California Emissions Estimator Model Version 2022.1.1.29 (CALEEMod 2022).

Short-Term Construction Impacts

Construction activities produce combustion emissions from various emissions from various sources and activities including (construction equipment, heavy-duty haul trucks, and motor vehicles transporting the construction crew). Exhaust emissions from construction activities envisioned on site would vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions.

The most recent version of CalEEMod (Version 2022.1.1.29) was used to develop the construction equipment inventory and calculate the construction emissions. The emissions shown in Table 3-2 are the combination of the on-site and off-site emissions from the CalEEMod output tables. No exceedances of any criteria pollutants are expected. The CalEEMod output is included in Appendix A.

Table 3-2: Short-Term Regional Construction Emissions

Construction Phase	Total Regional Pollutant Emissions (lbs/day)					
	VOC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Site Preparation	0.46	4.04	4.49	>0.01	0.21	0.2
Excavation/Trenching	3.5	29.90	36.60	0.07	1.31	1.2
Installation/Construction	1.79	16.00	19.7	0.04	1.59	0.57
Paving	0.81	7.53	11.70	0.02	0.30	0.28
Architectural Coating	0.41	0	0.00	0	0	0
Peak Daily (Unmitigated)	**3.67**	**30.2**	**39.5**	**0.07**	**5.55**	**1.73**
Peak Daily (Mitigated)	**3.67**	**30.2**	**39.5**	**0.07**	**1.98**	**0.28**
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**

Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by MHC (May 2025).

CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SOx = sulfur oxides
VOC = volatile organic compounds

Short-term Construction Localized Impacts Analysis

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. Table 3-3 shows that the construction emission rates would exceed the LSTs for PM_{10}. With mitigation (watering unpaved areas during construction twice a day) PM_{10} is reduced to less than four pounds per day. With Mitigation incorporated into the Project all LSTs are below the LST threshold. Table 3-3 also shows that the emissions of the pollutants on the peak day of construction would result in concentrations of pollutants at the nearest residences that are all below SCAQMD thresholds of significance. Note that the LST was set at two-acres while total acreage is 2.81. The LST tables examine thresholds at one, two and five acres and since the two-acre LST table is closest to the site size, it was used. Note that lower acreage sites have lower thresholds, so using the LST table is a more conservative approach for determination of impacts for this Project.

Table 3-3: Construction Localized Impacts Analysis

Emissions Sources	NOx	CO	PM_{10}	$PM_{2.5}$
Construction Emissions (Unmitigated)	30.20	39.5	5.55	1.73
Construction Emissions (Mitigated)	30.20	39.5	1.98	0.28
LST	**170**	1,174	**5.00**	**4.00**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Compiled by MHC (May 2025).

Note: Source Receptor Area 33 – Southwest San Bernardino Valley, one acre, 25 meters.

CO = carbon monoxide
lbs/day = pounds per day
LST = localized significance threshold
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Odors from Construction Activities

Heavy-duty equipment in the Project area during construction would emit odors, primarily from the equipment exhaust. However, the construction activity would cease to occur after construction is completed. No other sources of objectionable odors have been identified for the Project, and no mitigation measures are required.

SCAQMD Rule 402 regarding nuisances states: “A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.” The proposed uses are not anticipated to emit any objectionable odors. Therefore,

objectionable odors posing a health risk to potential on-site and existing off-site uses would not occur as a result of the Project.

Construction Period Mitigation

AQ-1: During excavation and earth moving activities all exposed earthen areas shall be watered at least twice daily. In addition, track in/track out devices shall be incorporated into the construction site and all paved roadways leading into/out of the construction area shall be swept at least twice per day.

Construction Emissions Conclusions

Previously referenced Tables 3-2 and 3-3 show that with mitigation daily regional construction emissions and localized emissions would not exceed the daily thresholds or localized significance thresholds established by SCAQMD; thus, during construction, there would be no regional or localized impacts.

Long-Term Operational Impacts

Long-term air pollutant emission impacts are those associated with stationary sources and mobile sources involving any project-related changes. The Project would result in a modest net increase in mobile-source emissions associated with increased traffic.

An assumed five percent increase in vehicle trips was used in CalEEMod. Long term emissions also include electricity use for new streetlights and periodic roadway maintenance including surface coating and line painting.

Table 3-4 shows long-term operational emissions associated with the Project. Area sources include architectural coatings during roadway maintenance. Note that energy use (i.e., electricity) for street lighting only shows GHG emissions because local criteria pollutants associated with electricity generation are not emitted near the site.

Table 3-4: Opening Year Regional Operational Emissions

	Pollutant Emissions, lbs/day					
Source	VOC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Area	0.15	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	<0.00	0.00	0.00
Mobile	2.73	3.55	2.76	0.08	7.91	2.06
Total Project Emissions	2.88	3.55	2.76	0.08	7.91	2.06
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by MHC (May 2025).

CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SOx = sulfur oxides
VOC = volatile organic compounds

Long-term Operational Localized Impacts Analysis

Table 3-5 shows the calculated emissions for the proposed operational activities compared with the appropriate LSTs. By design, the localized impacts analysis only includes on-site sources; however, the CalEEMod outputs do not separate on-site and off-site emissions for mobile sources. To account for this, the

emissions shown in Table 3-5 include all of the new mobile sources (i.e. 655 trips per day), traveling the 0.61 miles of roadway improvements, which is an estimate of the amount of project-related new vehicle traffic that would occur on the widened roadway.

Table 3-5: Operational Localized Impacts Analysis

Emissions Sources	NOx	CO	PM_{10}	$PM_{2.5}$
Operational Emissions	0.13	0.10	0.28	0.07
LST	170	1,174		**2**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Compiled by MHC (May 2025)

Note: Source Receptor Area – Central San Bernardino Mountains, five acre, 25 meters.
CO = carbon monoxide
lbs/day = pounds per day
LST = localized significance threshold
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Odors from Operational Activities

Vehicle use and periodic roadway maintenance will release localized odors; however, such odors in general would be confined mainly to the Project site and would be short term and minor and readily dissipate. Therefore, objectionable odors affecting a substantial number of people would not occur because of the Project. The impacts associated with odors would be less than significant and no mitigation measures are required.

Impact Analysis

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant. A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the air quality plans. A consistency determination fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review due to the air quality plan strategy based on projections from local General Plans.

The AQMP is based on regional growth projections developed by SCAG. The Project is the widening of an existing roadway. Thus, the Project would not be defined as a regionally significant project under CEQA; therefore, it does not meet SCAG's Intergovernmental Review criteria. The Project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be less than significant, and no mitigation measures are required.

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?

Less Than Significant with Mitigation Incorporated. Tables 3-2 and 3-3 show that airborne PM_{10} and $PM_{2.5}$ with mitigation the daily regional construction emissions and localized emissions would not exceed the daily thresholds or localized significance thresholds established by SCAQMD; thus, during construction, there would be no regional or localized impacts. With the implementation of Mitigation Measure AQ-1 the thresholds established by SCAQMD will not be exceeded.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant with Mitigation Incorporated. Tables 3-2 and 3-3 show that airborne PM_{10} and $PM_{2.5}$ with mitigation the daily regional construction emissions and localized emissions would not exceed the daily thresholds or localized significance thresholds established by SCAQMD; thus, during construction, there would be no regional or localized impacts. With the implementation of Mitigation Measure AQ-1 the thresholds established by SCAQMD will not be exceeded.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant. Heavy-duty equipment in the Project area during construction would emit odors, primarily from the equipment exhaust. However, the construction activity would cease to occur after construction is completed. No other sources of objectionable odors have been identified for the Project, and no mitigation measures are required.

SCAQMD Rule 402 regarding nuisances states: "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." The proposed uses are not anticipated to emit any objectionable odors. Therefore, objectionable odors posing a health risk to potential on-site and existing off-site uses would not occur as a result of the Project. Impacts would be less than significant.

Mitigation Measures:

AQ-1 During excavation and earth moving activities all exposed earthen areas shall be watered at least twice daily. In addition, track in/track out devices shall be incorporated into the construction site and all paved roadways leading into/out of the construction area shall be swept at least twice per day.

Air Quality Impact Conclusions:

The Implementation of Mitigation Measure AQ-1 would minimize potential impacts to Air Quality for this Project.

4. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
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?				X
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?				X
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?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?				X

☐ Check if project is located in the Biological Resources Overlay or Contains habitat for any species listed in the California Natural Diversity Database

Environmental Setting

The Project is located within low-density residential and commercial/light industrial development and will consist of the addition of new curbs, gutters, and sidewalk ramps, as well as widening of asphalt pavement, removal of asphalt, curbs, gutters, and driveways, painting of traffic stripes, and installation of traffic signs and streetlighting. Most of the Project area consists of developed land and landscaped with nonnative ornamental vegetation.

Impact Analysis

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 or U.S. Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated. No special-status plant or wildlife species listed in the 3-mile CNDDB search are expected to occur at the Project site. However, the vegetation within and adjacent to the Project site could offer suitable nesting and foraging habitat for nesting bird species. Implementation of Mitigation Measure BIO-1 would ensure potential impacts to nesting birds remain less than significant. Several small mammal species have potential to occur in the area based on the CNDDB searches. Although these species are not expected to occur in the immediate Project site, implementation of Mitigation Measure BIO-2 would ensure potential impacts to burrowing small mammals that may be present in the surrounding areas remain less than significant.

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?

No Impact. The Project area is not within any known riparian habitat or other sensitive natural community. No impacts are anticipated, and no mitigation measures are required.

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?

No Impact. The Project area is not within or near any known wetlands. No impacts are anticipated, and no mitigation measures are required.

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?

No Impact. The Project area is not within any known wildlife corridors and would not impact movement of migratory fish or wildlife. No mitigation measures are required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. Most of the trees determined to be present within the Project area by the Biological Resources Report (Appendix 2) are ornamental and/or non-native.

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?

No Impact. The Project Site is not within or adjacent to a habitat conservation plan and is not located within any USFWS designated critical habitat. No impacts are anticipated, and no mitigation measures are required.

Mitigation Measures

BIO-1 To avoid potential impacts to common and special status nesting birds during the nesting season (February 1- September 15), a qualified Avian Biologist shall conduct pre-construction Nesting Bird Surveys prior to commencement of any Project activities. If no active nests are found, no further action will be required. If an active nest is found, the qualified biologist will identify and flag a no-disturbance buffer around the nest which will be based upon the species, level of disturbance, and expected fledge date. The nests and no-disturbance buffers shall be

checked weekly by a qualified biological monitor until Project activities end or until young have fledged the nest or the nest is deemed inactive.

BIO-2 To avoid potential impacts to burrowing mammals (special status), any active small mammal burrows observed during Project activities should be avoided by at least 50 feet.

Biological Resources Impact Conclusions:

Implementation of Mitigation Measures BIO-1 and BIO-2 would minimize potential impacts to Biological Resources to the greatest extent feasible and would reduce impacts to less than significant.

5. CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

Environmental Setting

To identify previous investigations and known cultural resources within and near the Project area, an in-house records search was conducted by SummitWest at the South-Central Coastal Information Center (SCCIC) at California State University, Fullerton on April 29, 2025. The SCCIC is part of the California Historical Resources Information System (CHRIS) and serves as the official repository for all cultural resources, records, and reports for San Bernardino County. The records search was completed by Evelyn Chandler, a qualified archaeologist who meets the U.S. Secretary of Interior's standards for Archaeology. The records search examined records and reports within a 0.5-mile radius around the Project area.

SummitWest also conducted a review of the on-line Built Environment Resources Directory (BERD) on May 28, 2025, to identify any resources that have been listed on, or determined eligible, for the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR) situated within or near the Project area.

Previous Surveys. The results of the records search at SCCIC indicate that five cultural resources investigations have been conducted within 0.5 miles of the Project area, four of which overlap the Project area (**Table 5-1**). The four studies that overlap the Project area were conducted between 1997 and 2015 and consist of two surveys in support of telecommunication projects, one survey in support of a proposed highway project, and one linear survey in support of the proposed widening of State Street.

Table 5-1. Previous Cultural Resources Investigations Within 0.5 Mile of Project Area

Report Number	Year	Report Title	Author(s)	Organization	Overlaps Project Area?
SB-03651	**1997**	**Second Supplemental Historic Property Survey Report for the Proposed SR-30 Freeway Project, Los Angeles & San Bernardino Counties, CA**	**Strudwick, Ivan and Deborah Mclean**	**LSA**	**Yes**

SB-07959	1998	Determination of Eligibility for 50 Buildings in the City of San Bernardino, California	Hatheway, Roger G.	Hatheway and Associates	No
N/A	**2010**	**Cultural Resources Survey of the State Street Road Widening Project in the Community of Muscoy, County of San Bernardino, California**	**Michael H. Dice**	**Michael Brandman Associates**	**Yes**
SB-08133	**2015**	**Cultural Resource Assessment Class I Inventory, Verizon Wireless Services Muscoy-Duffy St. Facility, City of San Bernardino, County of San Bernardino, California**	**Fulton, Phil**	**LSA Associates, Inc.**	**Yes**
SB-08135	**2015**	**Cultural Resource Assessment Class III Inventory, Verizon Wireless Services Duffy-West Highland Ave. Facility, City of San Bernardino, County of San Bernardino, California**	**Fulton, Phil**	**LSA Associates, Inc.**	**Yes**

Bold indicates the study overlaps the project area

Known Cultural Resources. The results of the records search at SCCIC indicate that 29 cultural resources have been recorded within 0.5 miles of the Project area. However, 19 of the resources are located adjacent to the Project area, and none of the 29 resources overlap the Project area (**Table 5-2**).

All 29 resources identified by the SCCIC consist of historic-age (i.e., 50 years old or older) buildings or structures. One of the resources (P-36-031932) is a historic district of residential tracts known as Muscoy Tract No. 4. The houses within this tract were evaluated for eligibility to the NRHP and CRHR in 1989 and recommended as not eligible. Another resource (P-36-021195) consists of an abandoned farm complex with four standing structures. The farm was evaluated for eligibility for listing to the NRHP and CRHR in 2010 and recommended as not eligible. The remaining 27 resources all consist of residential or commercial buildings constructed between 1924 and 1960. All 27 resources have been recommended as not eligible for the NRHP and CRHR (**see Table 5-2**).

The SCCIC records indicate that no precontact resources have been recorded within 0.5 miles of the Project area. However, as described in more detail in *Section 18 Tribal Cultural Resources*, Native American consultation conducted by the County indicates that the Project is near areas known to be sensitive for precontact resources. No information on the location and types of resources has been provided.

Table 5-2. Known Cultural Resources Within 0.5 Mile of Project Area

Resource Number	Resource Name	Resource Type	Resource Age	NRHP/ CRHR Status	Proximity to Project Area
P-36-021172	2305 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021173	2306 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021174	2352 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021175	2378 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021176	2396 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021177	2403 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021178	2496 N State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021179	2549 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021180	2598 N. State Street	Building - Commercial Shop	Historic	Not Eligible	Adjacent/ Outside
P-36-021181	2613 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021182	2645 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021183	2655 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021184	2665 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021185	2675 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021186	2695 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021187	2725 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021188	2765 N. State Street	Building - Residence	Historic	Not Eligible	Adjacent/ Outside
P-36-021189	2785 N. State Street	Building - Commercial Shop	Historic	Not Eligible	Adjacent/ Outside
P-36-021190	2790 N. State Street	Building - Commercial Shop	Historic	Not Eligible	Adjacent/ Outside
P-36-021191	2809 N. State Street	Building - Residence	Historic	Not Eligible	Outside

P-36-021192	2865 N. State Street	Building - Residence	Historic	Not Eligible	Outside
P-36-021193	2879 N. State Street	Building - Residence	Historic	Not Eligible	Outside
P-36-021194	2895 N. State Street	Building - Residence	Historic	Not Eligible	Outside
P-36-021195	2945 N. State Street	Farm Complex	Historic	Not Eligible	Outside
P-36-021196	2975 N. State Street	Building - Residence	Historic	Not Eligible	Outside
P-36-021197	3001 N. State Street	Building - Residence	Historic	Not Eligible	Outside
P-36-021198	3057 N. State Street	Building - Residence	Historic	Not Eligible	Outside
P-36-021199	3069 N. State Street	Building - Residence	Historic	Not Eligible	Outside
P-36-031932	Muscoy No. 4 (Tract 2353, Lots 1-49)	District	Historic	Not Eligible	Outside

Built Environment Resources Directory (BERD) Review. The review of the BERD indicates that there are no resources that have been listed in or determined eligible for listing in the NRHP or CRHR within the Project area.

Impact Analysis

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No Impact. No historical resources (i.e., resources that have been listed in or determined eligible for listing in the CRHR, as defined in PRC *§15064.5)* are situated within the Project area. Therefore, there will be no impact to historical resources from the proposed Project.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant with Mitigation Incorporated. No archaeological resources have been recorded within the Project area. Therefore, there will be no impact to known archaeological resources from the proposed Project. However, Native American consultation conducted by the County indicates that the Project is near areas known to be sensitive for precontact resources. The proximity of such resources to the Project area suggests that there is a potential for unknown, buried archaeological resources to exist below depths of previous disturbance.

The anticipated excavation depth for most work for the Project is 18 inches below ground surface (bgs), with some excavation for streetlights extending up to 48 inches bgs. The Project area is entirely paved and has likely sustained disturbances to a depth of at least 12 to 36 inches bgs from past construction of the roadway and installation of existing utility lines. Below the depths of previous disturbance, however, there is the potential for intact, subsurface archaeological materials to exist.

If buried archaeological deposits are extant, they could be subject to impacts from construction activities. Implementation of **Mitigation Measures CR-1 through CR-4** would mitigate any potential inadvertent impacts to subsurface archaeological sites.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant with Mitigation Incorporated. No cemeteries are located within, or adjacent to, the Project area and no precontact archaeological sites have been recorded within 0.5 miles of the Project area; however, the Project is near archaeologically sensitive areas. The Project area is entirely paved and has likely sustained disturbances to a depth of at least 12 to 36 inches bgs from past construction of the roadway and installation of existing utility lines. Below the depths of previous disturbance, however, there is the potential for intact, subsurface archaeological materials and buried human remains to exist.

If buried human remains are extant, they could be subject to impacts from construction activities. Implementation of **Mitigation Measure CR-5** would mitigate any potential inadvertent impacts to unknown, buried human remains.

Mitigation Measures:

CR-1 Cultural Resources Monitoring and Treatment Plan (CRMTP)

Prior to project initiation, a CRMTP shall be prepared by a qualified archaeologist who meets the U.S. Secretary of Interior's (SOI) standards for Archaeology. The CRMTP shall identify the types of subsurface cultural resources that could be encountered during construction and describe monitoring protocols to be followed to avoid inadvertent impacts to such resources. The CRMPT shall define the qualifications and responsibilities of the archaeological monitor and SOI-qualified Principal Investigator. The CRMPT shall clearly describe the types and depths of excavation activities that will require archaeological monitoring and define the conditions under which archaeological monitoring could be reduced or halted, as determined by the SOI-qualified Principal Investigator in coordination with the County. The CRMTP shall specify reporting requirements, including preparation of daily monitoring logs, and shall describe the procedures to follow in the event of a discovery of cultural materials and/or human remains, including evaluation of CRHR eligibility of the find. The CRMTP shall be submitted to the County for review and forwarded by the County to the Yuhaaviatam of San Manuel Nation (YSMN, also known as the San Manuel Band of Mission Indians) for review and comment. The CRMTP shall be approved by the County prior to the initiation of construction activities.

CR-2 Worker Environmental Awareness Program (WEAP) Training

Prior to the start of construction, a qualified archaeologist who meets SOI standards for Archaeology shall be retained to develop WEAP training materials to be presented to all contractors conducting project-related ground disturbing activities. The WEAP training materials shall include information about the types of archaeological resources that could be encountered, the laws and regulations regarding archaeological resources, and the protocols to follow in the event of an inadvertent discovery. The WEAP training shall be delivered by the SOI-qualified archaeologist or their designee to all construction personnel prior to the initiation of ground-disturbing activities. Tribal representatives from YSMN shall be invited to participate in the WEAP training and notified of the training at least 10 days in advance.

CR-3 Archaeological Monitoring

Archaeological monitoring shall be conducted during all ground-disturbing construction activities that occur below depths of previous disturbance, as defined in the CRMTP. The archaeological monitor(s) shall have at least three (3) years of experience conducting archaeological fieldwork in California and shall implement monitoring procedures as defined in the CRMTP, including preparation of daily monitoring logs. The archaeological monitor(s) shall be supervised by a SOI-qualified Principal Investigator who shall review and approve the daily logs. A sufficient number of archaeological monitors shall be present to ensure that simultaneous ground-disturbing activities within native (i.e., undisturbed, non-fill) sediments receive adequate monitoring coverage, in accordance with the specifications of the CRMTP.

CR-4 Treatment of Archaeological Discoveries

Should archaeological material be encountered during project-related ground disturbance, all work in the vicinity of the discovery shall be halted. A 60-foot Environmentally Sensitive Area (ESA) around the discovery shall be demarcated and work shall be allowed to resume elsewhere. The County shall be notified immediately, and the SOI-qualified Principal Investigator shall be contacted to assess the discovery and evaluate whether it constitutes a historical resource or a unique archaeological resource as defined by CEQA. The Principal Investigator shall implement the treatment protocols described in the CRMTP, including evaluation of the resource for CRHR eligibility. Should the discovery be precontact in age, consultation with the YSMN regarding evaluation and treatment of the find shall occur.

CR-5 Treatment of Discoveries of Human Remains

Should human remains and/or funerary objects be encountered during project-related ground disturbance, all work within 100 feet of the discovery shall be halted and redirected elsewhere. The San Bernardino County Coroner shall be contacted immediately to determine the origin and disposition of the remains pursuant to Public Resources Code Section 5097.98. A qualified archaeologist shall also be contacted to assess the discovery and coordinate consultation with the appropriate agencies. If the remains are determined to be precontact in age, the Coroner shall contact the NAHC within 24 hours of the determination in accordance with Section 5097.98 of the California Public Resources Code, and Section 7050.5 of the California Health and Safety Code, as applicable. The NAHC shall identify a Most Likely Descendent (MLD) who shall be provided an opportunity to inspect the discovery and provide recommendations for the proper treatment of the remains and any associated funerary objects.

Cultural Resources Impact Conclusions:

No impacts to historical resources, archaeological resources, or human remains are anticipated. Implementation of **Mitigation Measures CR-1 through CR-5** would mitigate any potential inadvertent impacts to unknown, subsurface archaeological sites and/or human remains.

6. ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

Environmental Setting

The Project is situated in the unincorporated community of Muscoy, San Bernardino County, northwest of the City of San Bernardino. The Project is located within low-density residential and commercial/light industrial development and will consist of the addition of new curbs, gutters, and sidewalk ramps, as well as widening of asphalt pavement, removal of asphalt, curbs, gutters, and driveways, painting of traffic stripes, and installation of traffic signs and streetlighting.

Impact Analysis

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?

Less Than Significant. The proposed Project involves widening State Street to include a double left-turn lane. This modification aims to decrease the number of vehicles idling while waiting to turn left, furthermore there will be no overall vehicle capacity. Construction activities will necessitate the temporary use of equipment powered by carbon-based fuels. However, adherence to South Coast Air Quality Management District (SCAQMD) regulations, coupled with the maintenance of equipment for optimal performance, will minimize fuel consumption during the temporary construction phase. Consequently, the Project is anticipated to have a less than significant impact on energy consumption, and no mitigation measures are deemed necessary.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impacts. The Proposed Project involves widening State Street to include a double left-turn lane. Construction of the improvements to State Street would enhance vehicle flow and would not conflict with any state or local plan for renewable energy or energy efficiency. No impact would occur, and no mitigation is required.

Energy Impact Conclusions:

Energy resource consumption impacts are less than significant. The Project would have no impact on state or local energy plans.

7. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, death involving?				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii. Strong seismic ground shaking?			X	
iii. Seismic-related ground failure, including liquefaction?				X
iv. Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X

(Check if project is located in the Geologic Hazards or Palaeontologic Resources Overlay District):

Environmental Setting

The Project is situated in the unincorporated community of Muscoy, San Bernardino County, northwest of the City of San Bernardino. The Project is located within low-density residential and commercial/light industrial development and will consist of the addition of new curbs, gutters, and sidewalk ramps, as well as widening of asphalt pavement, removal of asphalt, curbs, gutters, and driveways, painting of traffic stripes, and installation of traffic signs and streetlighting.

Impact Analysis

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less Than Significant. The Project is not located on the Alquist Priolo Fault; however, it is adjacent (approximately 400ft. to 2500 ft moving north). to a section of the Alquist Priolo Fault (County 2025c). No habitable structures are proposed as part of the Project. The County will follow its design and construction standards. Therefore, the Project would have a less than significant impact, and no mitigation is recommended.

ii. Strong seismic ground shaking?

Less Than Significant. No permanent or temporary habitable structures are proposed as part of the Project and exposure of people or structures in the Project area during a seismic event is not likely. However, the Project area has a high potential to be subject to the effects of seismic ground shaking that results from an earthquake. The Project is not located on the Alquist Priolo Fault; however, it is adjacent (approximately 400ft. to 2500 ft moving north). to a section of the Alquist Priolo Fault (County 2025c). The County will follow its design and construction standards. Therefore, the Project would have a less than significant impact, and no mitigation is recommended

iii. Seismic related ground failure, including liquefaction?

No Impact. Based on San Bernardino County HZ-1 Earthquake Fault Zones Maps (County 2025d), the Project area does not have the potential for liquefaction. Since the Project does not include any permanent or temporary habitable structures, the risk of people or structures in the area being exposed to liquefaction during an earthquake is low. No impact is anticipated, and therefore, no mitigation measures are necessary.

iv. Landslides?

No Impact. The Project area is not subject to landslides (County 2025d). No impact would occur.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Construction may cause soil erosion, but this impact will be minimized by implementing a Storm Water Pollution and Prevention Plan (SWPPP). The SWPPP will include temporary Best Management Practices (BMPs) to manage wind and water erosion during and shortly after construction. As a result, no significant negative impacts are expected, and no mitigation is necessary.

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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

No Impact. The Project area is not subject to landslides (County 2025d). No impact would occur.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Impact. The proposed State Street Widening Project does not require temporary or permanent residential occupation. Consequently, there are no risks associated with expansive soils. This absence of risk means no impact is anticipated, and therefore, no mitigation measures are necessary.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The Proposed Project does not include the use of septic tanks. No impacts are identified or anticipated, and no mitigation measures are required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact. The Project will provide widening, curb, gutter, and sidewalks in a developed community and will remain within the previously disturbed Project location footprint. As a result, no impact is expected, and no mitigation measures are required.

Geology and Soils Impact Conclusions:

Less than significant impacts are anticipated, and no mitigation measures are required.

8. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Environmental Setting

Overview of the Existing Air Quality Environment

The Project site is in the western portion of San Bernardino County, California, which is part of the Basin and is under the jurisdiction of the SCAQMD.

Air quality in the planning area is not only affected by various emission sources (e.g., mobile and industry), but also by atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall). The combination of topography, low mixing height, abundant sunshine, and emissions transported by prevailing winds from the second-largest urban area in the United States gives the Basin some of the worst air pollution problems in the nation. The Project area is at the northeastern edge of the Basin at an elevation of approximately 1,300 feet above sea level, which is at the upper mixing height of the Basin. Due to the elevation and location at the northeastern edge of the Basin, the Project area is prone to the highest ozone concentrations within the Basin.

Surrounding Land Uses in the Project Vicinity

The Project site is bordered by single-family residential, commercial, and light industrial land uses.

REGULATORY SETTING

Federal Regulations

Pursuant to the Federal CAA of 1970, the EPA established the NAAQS. The NAAQS was established for six major pollutants, termed “criteria” pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established AAQS, or criteria, for outdoor concentrations to protect public health.

California Regulations

In 1967, the State Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus (i.e., the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board) to establish the CARB. Since its formation, the CARB has worked with the public, the business sector, and local governments to find solutions to the State’s air pollution problems.

California adopted the CCAA in 1988. CARB administers the CAAQS for the 10 air pollutants designated in the CCAA. These 10 State air pollutants are the six criteria pollutants designated by the CAA as well as four others: visibility-reducing particulates, H_2S, sulfates, and vinyl chloride.

Regional Air Quality Planning Framework

The 1976 Lewis Air Quality Management Act established SCAQMD and other air districts throughout the State. The CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the federal standards in nonattainment areas of the state.

CARB is responsible for incorporating AQMPs for local air basins into a SIP for EPA approval. Significant authority for air quality control within them has been given to local air districts that regulate stationary-source emissions and develop local nonattainment plans.

Regional Air Quality Management Plan

SCAQMD and the SCAG are responsible for formulating and implementing the AQMP for the Basin. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. SCAQMD prepares a new AQMP every three years, updating the previous plan and 20-year horizon.

The latest plan is the 2022 AQMP (SCAQMD 2022), which incorporates the latest scientific and technological information and planning assumptions, including the 2020 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories which also benefits reduction of GHG emissions. Key elements of the 2022 AQMP pertaining to GHG emissions include:

- Specifically addresses decarbonization and climate policy development and its role in achieving the 2015 Ozone standard.
- Calculation and credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation)
- A strategy with fair-share emission reductions at the federal, State, and local levels
- Investment in strategies and technologies meeting multiple air quality and climate objectives.
- Identification of new partnerships and significant funding for incentives to accelerate deployment of zero and near-zero technologies
- Attainment of the 1-hour Ozone standard by 2022 with no reliance on “black box” future technology (CAA Section 182(e)(5) measures). While not directly correlated to GHG emissions, the measures rely heavily on zero emission technologies that will also significantly reduce GHG emissions.

SCAQMD adopts rules and regulations to implement portions of the AQMP. Several of these rules may apply to project construction or operations impacting reduction of GHG emissions.

Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate new development projects within the Basin, such as this Project. Instead, SCAQMD published the *CEQA Air Quality Handbook* (SCAQMD 1993) to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential GHG and air quality impacts of projects proposed in the Basin. The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures that can be used in conducting GHG analyses in environmental impact reports and were used extensively in the preparation of this analysis. SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook.*

While the replacement *Air Quality Analysis Guidance Handbook* is being updated, supplemental guidance/information on the SCAQMD website includes: (1) EMFAC on-road vehicle air pollutant and GHG emission factors, (2) GHG analysis guidance, (3) mitigation measures and control efficiencies, (5) off-road mobile source air pollutant and GHG emission factors, and (8) updated SCAQMD Air Quality Significance

Thresholds. SCAQMD also recommends using approved models to calculate emissions from land use projects, such as the CalEEMod. These recommendations were followed in the preparation of this analysis.

County of San Bernardino GHG Reduction Plan

The County completed a GHG Emissions Reduction Plan Update in June 2021 (County of San Bernardino 2021), which sets forth an emissions reduction targets, emissions reduction measures, and action steps to assist the County to demonstrate consistency with California's Global Warming Solutions Act (Senate Bill 32). Together with the GHG ERP, the County adopted the GHG ERP (County of San Bernardino 2021) in 2021. The ERP procedures need to be followed to evaluate GHG impacts and determine significance for CEQA purposes. All projects need to apply the GHG performance standards identified in the ERP and comply with State requirements.

THRESHOLDS OF SIGNIFICANCE

SCAQMD has established daily emissions thresholds for construction and operation of a proposed project in the Basin. The emissions thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health within an adequate margin of safety (SCAQMD 2017), these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

Regional Emissions Thresholds

Table 8-1 lists the CEQA significance thresholds for construction and operational emissions established for the Basin.

Table 8-1: Regional Thresholds for Construction and Operational Emissions

	Pollutant Emissions Threshold (lbs/day)					
Emissions Source	VOC	NOx	CO	PM_{10}	$PM_{2.5}$	SOx
Construction	75	100	550	150	55	150
Operations	55	55	550	150	55	150

Source: SCAQMD. Air Quality Significance Thresholds. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf (accessed May 2025).

CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District
SOx = sulfur oxides
VOC = volatile organic compounds

Projects in the Basin with construction- or operation-related emissions that exceed any of their respective emission thresholds would be considered significant under SCAQMD guidelines. These thresholds, which SCAQMD developed and that apply throughout the Basin, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and cumulative impact.

Localized Significance Thresholds

SCAQMD published its *Final Localized Significance Threshold Methodology* in June 2003 and updated it in July 2008 (SCAQMD 2008), recommending that all air quality analyses include an assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of the NAAQS or the

CAAQS for CO, NO_2, PM_{10} and $PM_{2.5}$, as shown in previously referenced Table 8-1. LSTs are based on the ambient concentrations of that pollutant within the project Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For this project, the appropriate SRA is the East San Bernardino Valley area (SRA 35).

The LST Methodology uses look-up tables based on site acreage to determine the significance of emissions for CEQA purposes. Based on the SCAQMD recommended methodology and the construction equipment planned, no more than one-acre would be disturbed on any one day; thus, the one-acre LSTs have been used for construction emissions. On-site operational emissions would occur from stationary and mobile sources. Because the project operation area would be less than one-acre, the one-acre thresholds would apply during project operations.

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. As described above, the closest residences are within 20 feet (six meters) from the southern boundary of construction. SCAQMD LST Methodology specifies, “Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.” Therefore, the following emissions thresholds apply during project construction and operation:

- Construction LST (two acre, 25 meters, East San Bernardino Valley):
  - 170 pounds per day (lbs/day) of NOx.
  - 1,174 lbs/day of CO.
  - 7 lbs/day of PM_{10}.
  - 5 lbs/day of $PM_{2.5}$.
- Operation LST (two acre, 25 meters, East San Bernardino Valley):
  - 170 lbs/day of NOx.
  - 1,174 lbs/day of CO.
  - 2 lb/day of PM_{10}.
  - 2 lb/day of $PM_{2.5}$.

GHG Emissions Thresholds

State CEQA Guidelines Section 15064(b) provides that the “determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data,” and further, states that an “ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting.”

Appendix G of the CEQA Guidelines includes significance thresholds for GHG emissions. A project would normally have a significant effect on the environment if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Currently, there is no statewide GHG emissions threshold that has been used to determine the potential GHG emissions impacts of a project. Threshold methodology and thresholds are still being developed and revised by air districts in the State.

The lead agency for the project is San Bernardino County, which has adopted its GHG Emissions Reduction Plan Update and GHG ERP (County of San Bernardino 2021) in 2021. The ERP procedures need to be

followed to evaluate GHG impacts and determine significance for CEQA purposes. All projects need to apply the GHG performance standards identified in the ERP and comply with State requirements. For projects exceeding the review standard of 3,000 MT CO2e per year, the use of Screening Tables or a project-specific technical analysis to quantify and mitigate project emissions is required. If the GHG emissions from the project are less than 3,000 MT CO2e per year and the project would apply GHG performance standards and State requirements, project-level and cumulative GHG emissions would be less than significant.

Impact Analysis

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

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

Less Than Significant. In evaluating the Project's GHG emissions impact, this analysis tiers from the San Bernardino County GHG Reduction Plan Update.

The County's GHG Emissions Reduction Plan Update includes the Performance Standard that will reduce 7,891 Metric Tons of Carbon Dioxide Equivalents (MT CO2e) per year from new development by 2030. The County's Development Review Process (DRP) procedures for evaluating GHG impacts and determining significance for CEQA purposes are streamlined by utilizing: (1) applying a uniform set of performance standards to all development projects; and (2) utilizing the GHG Reduction Plan Screening Tables to mitigate project GHG emissions. Projects will have the option of preparing a project-specific technical analysis to quantify and mitigate GHG emissions. A review standard of 3,000 MTCO2e per year is used to identify projects that require the use of the Screening Tables.

For Projects that are below 3,000 MTCO2e per year are considered less than significant and consistent with the County's GHG Emissions Reduction Plan Update if they incorporate into the Project the following criteria:

- Waste stream reduction: The contractor(s) shall provide to the County with a description of the - construction demolition material (such as removed concrete and asphalt) that is suitable to be recycled during project construction.
- Vehicle Trip Reduction: The Contractor(s) shall provide all construction workers County approved informational materials about the need to reduce vehicle trips and the program elements this project is implementing. Such elements may include participation in established ride-sharing programs, creating a new ride-share employee vanpool, and/or providing a web site or message board for coordinating rides.
- Landscape Equipment: the developer shall require in the landscape maintenance contract and/or in onsite procedures that a minimum of 20% of the landscape maintenance equipment shall be electric-powered **(not applicable to the proposed project**).
- Meet Title 24 Energy Efficiency requirements (which will require LED streetlights). Project generated total GHG emissions are calculated at 588 MT CO2e during construction.

Following the SCAQMD methodology, GHG emissions associated with construction activities are divided by 25 years which is the anticipated economic life of the Project. Using this methodology, the amortized construction emissions are 23.52 MT CO2e per year which is added to the long-term operational emissions of 1,444 and totals 1,467.52 which is below the 3,000 MTCO2e review standard. Therefore, with the applicable criteria shown in the bullet points above incorporated into the project, the project is consistent with the County's GHG Reduction Plan Update and GHG emissions are considered less than significant.

Greenhouse Gas Emissions Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

9. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
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?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly, to a significant risk loss, injury or death involving wildland fires?				X

Environmental Setting

The Project is situated in the unincorporated community of Muscoy, San Bernardino County, northwest of the City of San Bernardino. The Project is located within low-density residential and commercial/light industrial development and will consist of the addition of new curbs, gutters, and sidewalk ramps, as well as widening of asphalt pavement, removal of asphalt, curbs, gutters, and driveways, painting of traffic stripes, and installation of traffic signs and streetlighting.

Impact Analysis

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. The Project's construction would include the use, storage, transport, and disposal of common hazardous materials in limited quantities. These materials would consist of gasoline,

diesel fuel, oils, solvents, and other similar substances. All materials used during construction will be managed in accordance with State and local regulations and BMPs. As such, impacts are expected to be less than significant, and no mitigation measures are required.

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?

Less than Significant Impact. The Project would include the use, storage, transport, and disposal of common hazardous materials in limited quantities. Implementation of industry-standard BMPs regarding storage and handling of these materials will prevent release of these materials into the environment therefore, the use of these materials is not expected to result in any significant impacts, and no mitigation measures are required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than Significant Impact. The Project involves the use, storage, transport, and disposal of common hazardous materials in limited amounts. While Manual A Salinas Creative Arts Elementary is located slightly beyond the quarter-mile threshold, the Project will employ industry-standard BMPs for the storage and handling of these materials. These measures will prevent their release into the environment. Consequently, the use of these materials is not anticipated to cause any significant impact, and no mitigation is necessary.

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?

No Impact. The Project site is not located on any hazardous materials sites listed under Government Code Section 65962.5 (Department of Toxic Substances and Control 2025). Consequently, no impacts were identified or are expected, and therefore, no mitigation measures are necessary.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The Project site is situated approximately six miles southeast of San Bernardino International Airport. The Project is well outside the Airport Safety Review Area (County 2025e). The Project would not pose a safety hazard for residents or workers within the Project area. As a result, no impacts are anticipated, and no mitigation measures are required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The Project site lacks critical facilities or emergency evacuation routes (County 2025f). Although State Street may experience partial construction detours potentially hindering emergency evacuations, any road closures will be temporary and brief during construction. Detours can be implemented using cross streets near the Project. Consequently, no impacts are expected, and no mitigation is necessary.

g) Expose people or structure, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The Project is not located in lands classified as very high, high, or moderate fire hazard severity zones (County 2025g). The Project consists of road repair and stormwater facility improvements constructed at or below grade. It does not include any features that would increase the risk of wildfire. Therefore, the Project would have no impact, and no mitigation measures are required.

Hazards and Hazardous Materials Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

10. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X
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;			X	
II. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on – or off-site;			X	
III. Create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff; or			X	
IV. Impede or redirect flood flows?				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a water quality control plan or substantial groundwater management plan?				X

Environmental Setting

The Project is situated in the unincorporated community of Muscoy, San Bernardino County, northwest of the City of San Bernardino. The Project is located within low-density residential and commercial/light industrial development and will consist of the addition of new curbs, gutters, and sidewalk ramps, as well as widening of asphalt pavement, removal of asphalt, curbs, gutters, and driveways, painting of traffic stripes, and installation of traffic signs and streetlighting.

Impact Analysis

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant Impact. The Project will not use groundwater for construction. However, construction activities could increase downstream sediment transport, especially during storm events. To address potential impacts on surface water quality, the contractor will need to develop SWPPP and have it approved before construction starts. The Regional Water Quality Control Board has issued a county-wide NPDES Storm Water Permit that requires project-specific measures for compliance. The SWPPP will detail BMPs to minimize construction-related effects on surface water quality. This will result in a less than significant impact, and therefore, no mitigation is necessary.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. Groundwater resources would not be required to implement the Project. No impacts would occur, and no mitigation is required.

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.

Less Than Significant Impact. Construction activities have the potential to increase erosion on or off-site. With the implementation of SWPPP would minimize erosion, especially during storm events. This will result in a less than significant impact, and therefore, no mitigation is necessary.

II. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site.

Less Than Significant Impact. The Project will increase the surface area at the site. However, BMPs are to include minimization of the impervious footprint and potentially promoting surface infiltration. This will result in a less than significant impact, and therefore, no mitigation is necessary.

III. Create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff; or

Less Than Significant Impact. The Project will increase the surface area at the site. However, this increase in the surface area will not alter the existing stormwater drainage system within the area. Furthermore, the surface increase should not alter the system's ability to manage storm flow up to a 100-year flood event. This will result in a less than significant impact, and therefore, no mitigation is necessary.

IV. Impede or redirect flood flows?

No Impact. The intent of this Project is to improve the current roadway system and not change the drainage system. The Project will not alter the existing drainage pattern; moreover, it will maintain the existing ability to manage storm flow up to a 100-year flood event. No impact would occur, and no mitigation is required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. The Project Site is not located within a tsunami hazard area or a FEMA 100-year floodplain. The Proposed Project is road widening with no known existing flooding issues. The Project's SWPPP would incorporate BMPs to prevent project-related pollutants from impacting surface waters. As a result, no impacts are identified or anticipated, and no mitigation measures are required.

e) *Conflict with or obstruct implementation of a water quality control plan or substantial groundwater management plan?*

No Impact. The Project would implement SWPPP that would incorporate BMPs to prevent project-related pollutants from impacting surface or ground waters. As a result, no impacts are identified or anticipated, and no mitigation measures are required.

Hydrology and Water Quality Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

11. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?			X	
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?				X

Environmental Setting

The Project is situated in the unincorporated community of Muscoy, San Bernardino County, northwest of the City of San Bernardino. The Project is located within low-density residential and commercial/light industrial development and will consist of the addition of new curbs, gutters, and sidewalk ramps, as well as widening of asphalt pavement, removal of asphalt, curbs, gutters, and driveways, painting of traffic stripes, and installation of traffic signs and streetlighting.

Impact Analysis

a) Physically divide an established community?

Less Than Significant. The proposed road improvements would not divide an established community; however, they would widen the existing roadway. Construction activities would be temporary and short-term. Impacts would be less than significant, and no mitigation measures are required.

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?

No Impact. This Initial Study demonstrates that the Project would not result in any significant environmental impacts. No impacts are identified or anticipated, and no mitigation measures are required.

Land Use and Planning Impact Conclusions:

No impacts are identified or anticipated, and no mitigation measures are required.

12. MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
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?				X

Environmental Setting

The Project is situated in the unincorporated community of Muscoy, San Bernardino County, northwest of the City of San Bernardino. The Project is located within low-density residential and commercial/light industrial development and will consist of the addition of new curbs, gutters, and sidewalk ramps, as well as widening of asphalt pavement, removal of asphalt, curbs, gutters, and driveways, painting of traffic stripes, and installation of traffic signs and streetlighting.

Impact Analysis

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. The Project site is located in a low-density residential and commercial/light industrial development area within the Community Planning Area of Muscoy. The Project is located within a known Mineral Resource Zone (MRZ) (County 2025i). However, due to the surrounding land uses and linear nature of the Proposed Project, mineral resource extraction would not be compatible with the proposed areas of disturbance. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

Mineral Resources Impact Conclusions:

No impacts are identified or anticipated, and no mitigation measures are required.

13. NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generation of excessive groundborne vibration of groundborne noise levels?			X	
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?				X

Project Location and Description

The Project site is in the western portion of San Bernardino County within the community of Muscoy. The County has designed the Project to conform with the General Plan Transportation & Mobility Element Policy Maps. The roadway ultimate classification is that of a Major Highway – SBC Std. Plan 101, four lane highway with intersections at grade and control access. To minimize right-of way take and encroachment into typical residential structure setback requirements, as well as to address current and projected emerging mobility needs, proposed work involves widening of the roadway west its existing centerline to accommodate improvements for approximately 0.61 miles on State Street from Adams Street to Darby Street. The interim geometric section and improvements posed west of the centerline affords the inclusion of a 12-foot median that obliges left turn movement at intersections and midblock access to individual parcels, a 12-foot travel lane - southbound, an eight-foot shoulder to accommodate on-street parking and refuse pickup, and a six-foot parkway to accommodate sidewalk and driveway approaches. Provisions for the inclusion of ADA compliant curb ramps, curb and gutter and street lighting are also addressed. Existing improvements easterly of the centerline for the interim condition will remain largely as is. Anticipated maximum excavation depth for most work is 18-inches.

Existing Setting

Overview of the Existing Noise Environment

The Project site is bordered by single-family, commercial, and light industrial land uses. Roadway noise is the dominant source of noise in the Project area.

The State of California defines sensitive receptors as those land uses that require serenity or are otherwise adversely affected by noise events or conditions. Schools, libraries, churches, hospitals, single and multiple-family residential, including transient lodging, motels and hotel uses make up the majority of these areas.

Surrounding Land Uses in the Project Vicinity

The surrounding land uses are dominated by older single-family residential homes, interspersed with neighborhood commercial, retail tire and repair, truck storage yards, and other miscellaneous commercial and light industrial uses.

Overview of the Existing Noise Levels in the Project Area

Ambient noise levels were last measured on State Street between Adams Street and Darby Street on Monday April 28, 2025, between the hours of 4:04 pm and 6:12 pm. Table 13-1 provides a summary of the short-term ambient noise data. The dominant noise sources were from vehicles traveling along State Street and other surrounding roadways.

Table 13-1: Ambient Noise Levels in Project Vicinity (dBA)

Daytime Noise Levels (April 2025)					
Site Location	Time Started	Leq	Lmax	Lmin	L (50)
State Street at Adams Street	4:04 pm	65.0	78.5	57.3	59.7
State Street at Porter Street.	4:38 pm	62.8	75.0	49.9	58.2
State Street at Darby Street	5: 52 pm	64.6	70.2	50.2	58.8

Source: MHC April 2025.

Regulatory Setting

Federal Regulations

The criteria for environmental impacts from ground-borne vibration and noise are based on the maximum levels for a single event. Table 13-2 lists the potential vibration building damage criteria associated with construction activities, as suggested in the *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018). Federal Traffic Administration (FTA) guidelines show that a vibration level of up to 102 VdB (equivalent to 0.5 in/sec in PPV [FTA 2018]) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For non-engineered-timber and masonry buildings, the construction building vibration damage criterion is 94 VdB (0.2 in/sec in PPV).

Table 13-2: Construction Vibration Damage Criteria

Building Category	PPV (in/sec)	Approximate Lv (VdB)
Reinforced concrete, steel, or timber (no plaster)	0.50	102
Engineered concrete and masonry (no plaster)	0.30	98
Non-engineered timber and masonry buildings	0.20	94
Buildings extremely susceptible to vibration damage	0.12	90

Source: Transit Noise and Vibration Impact Assessment Manual (FTA 2018)

County of San Bernardino Countywide Plan

The County of San Bernardino Countywide Plan (Policy Plan) serves as the County's General Plan and was adopted in October 2020. The County's Policy Plan's Hazards Element provides goals and policies that are intended to protect life, property, and commerce from impacts associated with natural hazards, human-generated hazards, and increased risk due to climate change. The noise related goals and policies from the Hazards Element that are applicable to the proposed project are presented below:

> Policy HZ-2.8: Proximity to noise generating uses. We limit or restrict new noise sensitive land uses in proximity to existing conforming noise generating uses and planned industrial areas.

Policy HZ-2.9: Control sound at the Source. We prioritize noise mitigation measures to control sound at the source before buffers, sound walls, and other perimeter measures.

County of San Bernardino Development Code

Section 83.01.080(c) of the County Development Code establishes the noise standards for stationary noise sources that affect adjacent properties. Table 13-3 provides the County's noise standards based on the affected land use and the time period. The noise metric used for stationary sources is defined as noise levels that cannot be exceeded for certain percentages of time, or Ln.

Section 83.01.080(g)(3) of the County Code limits temporary construction, maintenance, repair, or demolition activities to between the hours of 7:00 a.m. and 7:00 p.m., except Sundays and Federal holidays.

Table 13-3: County of San Bernardino Standards for Stationary Noise Sources (dBA)

Affected Land Use (Receiving Noise)	Time Period	L_{50} (30 min)	L_{25} (15 min)	L_8 (5 min)	L_2 (1 min)	Lmax (Anytime)
Residential	7am to 10pm	55	60	65	70	75
	10pm to 7am	45	50	55	60	65

Source: County of San Bernardino, County Development Code Table 83-2.

Table 13-4: County of San Bernardino Noise Standards for Mobile Noise Sources (dBA)

Land Use		CNEL dBA	
Category	Type	Interior	Exterior
Residential	Single and multi-family, duplex, mobile homes	45	60

Source: County of San Bernardino, County Development Code Table 83-3

Section 83.01.090 of the County Code requires that no ground vibration shall be allowed that can be felt without the aid of instruments at or beyond the lot line, nor shall any vibration be allowed which produces a particle velocity greater than or equal to two-tenths (0.2) in/sec measured at or beyond the lot line. In addition, vibration generated from temporary construction, maintenance, repair, or demolition activities between 7:00 a.m. and 7:00 p.m. is exempt, except Sundays and Federal holidays.

IMPACTS

Short-Term Construction Noise Impacts

Two types of short-term noise impacts could occur during construction on the Project site. First, construction crew commutes and the transport of construction equipment and materials to the site for the Project would incrementally increase noise levels on roads leading to the site. The pieces of heavy equipment for construction activities will be moved on site, will remain for the duration of construction. Although there would be a relatively high single-event noise exposure potential causing intermittent noise nuisance (passing trucks at 50 ft would generate up to a maximum of 78 dBA), the effect on longer-term (hourly or daily) ambient noise levels would be small because the hourly/daily construction-related vehicle trips are small when compared to existing hourly/daily traffic volume on State Street and surrounding roadways.

Construction-related traffic would increase noise by up to 0.8 dBA on State Street. A noise level increase of less than three dBA would not be perceptible to the human ear in an outdoor environment. Therefore, no

short-term, construction-related noise impacts associated with worker commute and equipment transport to the Project site would occur, and no noise reduction measures are required.

The second type of short-term noise impact is related to noise generated during roadway preparation, including grading, paving, cement pouring during installation of curbs, gutters, and sidewalks, and architectural coating (i.e., painting lines) on the newly paved roadway. Construction is undertaken in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases change the character of the noise generated on a Project site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 13-5 lists the maximum noise levels (L_{max}) recommended for noise impact assessments for typical construction equipment included in the *FHWA Highway Construction Noise Handbook* (FHWA 2006), based on a distance of 50 ft between the equipment and a noise receptor.

Typical noise levels range up to 88 dBA L_{max} at 50 ft during the noisiest construction phases. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as back fillers, bulldozers, draglines, and front-end loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders.

Table 13-5: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor[1]	Maximum Noise Level (L_{max}) at 50 ft[2].
Backhoe	40	80
Ground Compactor	20	80
Crane	40	80
Dozer	16	85
Dump Truck	40	85
Excavator	40	84
Flatbed Truck	40	85
Forklift	20	84
Front End Loader	40	80
Grader	40	85
Impact Pile Driver	20	95
Jackhammer	20	85
Pickup Truck	40	55
Pneumatic Tools	50	85
Pump	50	77
Roller	20	85
Scraper	40	85
Tractor	40	84
Welder	40	73

Source: FHWA Highway Construction Noise Handbook, Table 9.1 (FHWA 2006).

Project construction is expected to require the use of graders and water trucks/pickup trucks. Noise associated with the use of each type of construction equipment for the site preparation phase is estimated to be between 55 dBA L_{max} and 85 dBA L_{max} at a distance of 50 ft from the active construction area. As shown in Table 13-5, the maximum noise level generated by each grader is assumed to be approximately 85 dBA L_{max} at 50 ft. The maximum noise level generated by water trucks/pickup trucks is approximately 55 dBA L_{max} at 50 ft from these vehicles. Each doubling of the sound sources with equal strength increases the noise level by three dBA. If

each piece of construction equipment operates at some distance from the other equipment, the worst-case combined noise level during this phase of construction would be 88 dBA L_{max} at a distance of 50 ft from the active construction area. Based on a usage factor of 40 percent, the worst-case combined noise level during this phase of construction would be 84 dBA L_{eq} at a distance of 50 ft from the active construction area.

Modeled unmitigated construction noise levels reach up to 73 dBA L_{eq} at the nearest residential property line along State Street. Construction noise sources are regulated within Section 83.01.080(g)(3) of the County of San Bernardino's Development Code which prohibits construction activities other than between the hours of 7:00 AM and 7:00 PM, except Sundays and Federal holidays. Therefore, the County of San Bernardino has not adopted a numerical threshold that identifies what a substantial increase would be. For purposes of this analysis Federal Transit Administration (FTA), daytime construction noise levels should not exceed 80 dBA Leq for an 8-hour period at residential uses.

Project construction will not occur outside of the hours outlined as "exempt" in County of San Bernardino Development Code Section 83.01.080(g)(3) and will not exceed the FTA construction thresholds at existing nearby residential uses. Therefore, construction of the Project will not result in or generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance.

Impacts associated with construction noise would be less than significant and no mitigation is required.

Short-Term Construction Vibration Impacts

This construction vibration impact analysis discusses the level of human annoyance using vibration levels in VdB and assesses the potential for building damage using vibration levels in PPV (in/sec). Vibration levels calculated in RMS velocity are best for characterizing human response to building vibration, whereas vibration levels in PPV are best for characterizing damage potential. As shown in Table 13-6, the FTA guidelines indicate that a vibration level up to 102 VdB (equivalent to 0.5 PPV [in/sec]) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage (FTA 2018). For a nonengineered-timber and masonry building, the construction vibration damage criterion is 94 VdB (0.2 PPV [in/sec]). For a fragile building, the construction vibration damage criterion is 90 VdB (0.12 PPV [in/sec]).

Table 13-6 shows the reference vibration levels at a distance of 25 ft for each type of standard construction equipment from the *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018). Outdoor site preparation for the Project is expected to require the use of a large bulldozer and loaded trucks, which would generate ground-borne vibration of up to 87 VdB (0.089 PPV [in/sec]) and 86 VdB (0.076 PPV [in/sec] when measured at 25 ft, respectively.

The greatest vibration levels are anticipated to occur during the site preparation and paving phases.

Table 13-6: Vibration Source Amplitudes for Construction Equipment

Equipment	**Reference PPV/L_v at 25 ft.**	
	PPV	**L_v (VdB)**
Impact Pile Driver	0.664	104
Sonic Pile Driver	0.170	93
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large Dozers[1]	0.089	87
Cason Drilling	0.089	87

Loaded Truck[1]	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Source: Transit Noise and Vibration Impact Assessment Manual (FTA 2018)

[1] Equipment shown in bold are expected to be used on site.

The formula for vibration transmission is provided below:

LvdB (D) = LvdB (25 ft) - 30 Log (D/25)

$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

Table 13-7 lists the projected vibration levels from various construction equipment expected to be used on the Project site to the closest buildings in the Project vicinity. As shown in Table 13-7, the closest structure (residential) to the east and west of the Project construction boundary, approximately 50 ft away, would experience vibration levels of up to 84 VdB (0.045 PPV [in/sec]). This vibration level would be a temporary annoyance because vibration levels would exceed the FTA community annoyance threshold of 78 VdB for residential uses during daytime hours. However, this vibration level does not have the potential to result in any building damage because the building was observed to be constructed of nonengineered-timber and masonry and the vibration level would not exceed the FTA vibration damage threshold of 94 VdB (0.2 PPV [in/sec]).

All other building structures surrounding the Project site would experience vibration levels of 74 VdB (0.019 PPV [in/sec]) or lower. This vibration level would be barely perceptible and would not result in community annoyance. In addition, this vibration level would not have the potential to result in building damage because these buildings were observed to be constructed of nonengineered-timber and masonry, and the vibration level would not exceed the FTA vibration damage threshold of 94 VdB (0.2 PPV [in/sec]). Therefore, no construction vibration impacts would occur during Project construction, and no vibration reduction measures are required.

Table 13-7: Vibration Source Amplitudes for Construction Equipment

Land Use	Direction	Equipment / Activity	Reference Vibration Level (VdB) at 25 ft.	Reference Vibration Level (PPV [in/sec]) at 25 ft.	Distance	Maximum Vibration Level (VdB)	Maximum Vibration Level (PVPV)
Residential	West	Loaded Trucks	87	0.089	50	84	0.045
		Large Excavators	86	0.076	50	83	0.038
Residential	West	Loaded Trucks	87	0.089	50	84	0.045
		Pavers	86	0.076	50	83	0.038
Residential	East	Loaded Trucks	87	0.089	70	74	0.019
		Large Excavators	86	0.076	70	73	0.016
Residential	East	Loaded Trucks	87	0.089	170	62	0.005
		Pavers	86	0.076	170	61	0.004

Source: Compiled by MHC (May 2025)

Long-Term Traffic Noise Impacts

The FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used to evaluate traffic related noise conditions along street segments in the Project vicinity. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry, to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resulting noise levels are weighted and

summed over 24-hour periods to determine the CNEL values. The Existing (2025) without and with Project ADT volumes were estimated from the County's Trip Counts on State Street North of Highland Avenue, which were taken in March 2012. The ADT at that time was 10,387.

In order to provide current ADE estimates, a trip growth factor of 0.02 percent per year was applied to estimate existing traffic volumes in 2025 (13-year change). The estimated ADT in 2025 is 13,088. The standard vehicle mix for Southern California roadways was used for traffic on State Street under the without-Project scenario. Table 13-8 lists the traffic noise levels for the Existing (2025) without and with Project scenarios. These noise levels represent the worst-case scenario, which assumes that no shielding is provided between the traffic and the location where the noise contours are drawn. The specific assumptions used in developing these noise levels and the model printouts are provided in Appendix A.

Table 13-8: Existing (2025) Traffic Noise Levels Without and With Project

Roadway Segment	Without Project Traffic Conditions					With Roadway Improvements Traffic Conditions					
	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Increase from Baseline Conditions
State Street	13,088[1]	< 50	58.0	74.4	66.9	13,742[1]	< 50	59.1	75.8	67.2	0.3

Source: Compiled by MHC (May 2025)

[1] ADT for 2025 was estimated using the County's 2012 counts. Without Project assumes 0.02 percent per year growth in traffic. With Project includes an additional 5 percent increase in through traffic due to roadway improvements.

Table 13-8 shows that the Project-related traffic noise increase on State Street would increase by less than 1 dBA. The detailed noise calculations are provided in Appendix A. This noise level increase is below the 3 dBA threshold and would not be perceptible to the human ear in an outdoor environment. Therefore, no off-site traffic noise impacts would occur, and no noise reduction measures are required (Hendrix 2025).

Impact Analysis

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant. Per the noise memorandum by Michael Hendrix May 23, 2025, there will be two types of short-term noise that could occur during construction at the Project site. The first type of noise associated with the Project will be the construction crew commutes, the transport of construction equipment, and materials to the site. The second type of noise associated with the Project will be generated during roadway preparation, grading, paving, cement pouring during installation of curbs, gutters, and sidewalks, and architectural coating (i.e., painting lines) on the newly paved roadway.

Construction-related traffic would increase noise by up to 0.8 dBA on State Street. A noise level increase of less than three dBA would not be perceptible to the human ear in an outdoor environment. Therefore, no short-term, construction-related noise impacts associated with worker commute and equipment transport to the Project site would occur, and no noise reduction measures are required.

Typical construction noise levels range up to 88 dBA L_{max} at 50 ft during the noisiest construction phases. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment

includes excavating machinery such as back fillers, bulldozers, draglines, and front-end loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Project construction is expected to require the use of graders and water trucks/pickup trucks. Noise associated with the use of each type of construction equipment for the site preparation phase is estimated to be between 55 dBA L_{max} and 85 dBA L_{max} at a distance of 50 ft from the active construction area.

Modeled unmitigated construction noise levels reach up to 73 dBA L_{eq} at the nearest residential property line along State Street. Construction noise sources are regulated within Section 83.01.080(g)(3) of the County of San Bernardino's Development Code which prohibits construction activities other than between the hours of 7:00 AM and 7:00 PM, except Sundays and Federal holidays. Therefore, the County of San Bernardino has not adopted a numerical threshold that identifies what a substantial increase would be. For purposes of this analysis Federal Transit Administration (FTA), daytime construction noise levels should not exceed 80 dBA L_{eq} for an 8-hour period at residential uses.

Project construction will not occur outside of the hours outlined as "exempt" in County of San Bernardino Development Code Section 83.01.080(g)(3) and will not exceed the FTA construction thresholds at existing nearby residential uses. Therefore, construction of the Project will not result in or generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance.

Impacts associated with construction noise would be less than significant and no mitigation is required.

b) Generation of excessive groundborne vibration of groundborne noise levels?

Less Than Significant. Per the noise memorandum by Michael Hendrix May 23, 2025, outdoor site preparation for the Project is expected to require the use of a large bulldozer and loaded trucks, which would generate ground-borne vibration of up to 87 VdB (0.089 PPV [in/sec]) and 86 VdB (0.076 PPV [in/sec] when measured at 25 ft, respectively. The greatest vibration levels are anticipated to occur during the site preparation and paving phases.

The closest structure (residential) to the east and west of the Project construction boundary, approximately 50 ft away, would experience vibration levels of up to 84 VdB (0.045 PPV [in/sec]). This vibration level would be a temporary annoyance because vibration levels would exceed the Federal Transit Administration (FTA) community annoyance threshold of 78 VdB for residential uses during daytime hours. However, this vibration level does not have the potential to result in any building damage because the building was observed to be constructed of nonengineered-timber and masonry and the vibration level would not exceed the FTA vibration damage threshold of 94 VdB (0.2 PPV [in/sec]).

All other building structures surrounding the Project site would experience vibration levels of 74 VdB (0.019 PPV [in/sec]) or lower. This vibration level would be barely perceptible and would not result in community annoyance. In addition, this vibration level would not have the potential to result in building damage because these buildings were observed to be constructed of nonengineered-timber and masonry, and the vibration level would not exceed the FTA vibration damage threshold of 94 VdB (0.2 PPV [in/sec]). Therefore, impacts associated with construction vibration would be less than significant during Project construction, and no vibration reduction measures are required.

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?

No Impact. San Bernardino International Airport is more than four miles southeast of the Project area. No impacts would occur, and no mitigation is required.

Noise Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

14. POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Environmental Setting

The Project is situated in the unincorporated community of Muscoy, San Bernardino County, northwest of the City of San Bernardino. The Project is located within low-density residential and commercial/light industrial development and will consist of the addition of new curbs, gutters, and sidewalk ramps, as well as widening of asphalt pavement, removal of asphalt, curbs, gutters, and driveways, painting of traffic stripes, and installation of traffic signs and streetlighting.

Impact Analysis

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)?

No Impact. The proposed Project intends to widen the roadway and add sidewalks, curbs, and gutters along State Street. These improvements aim to serve the existing population and will not increase service capacity or create new jobs. Therefore, the Project is not expected to induce population growth, and no impacts are anticipated or identified. As a result, no mitigation measures are required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project would improve existing public works infrastructure to serve the community. It would not displace existing people or housing. As a result, no impacts are identified or anticipated, and no mitigation measures are required.

Population and Housing Impact Conclusions:

No impacts are identified or anticipated, and no mitigation measures are required.

15. PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?				X
ii. Police protection?				X
iii. Schools?				X
iv. Recreation/Parks?				X
v. Other public facilities?				X

Environmental Setting

The Project is situated in the unincorporated community of Muscoy, San Bernardino County, northwest of the City of San Bernardino. The Project is located within low-density residential and commercial/light industrial development and will consist of the addition of new curbs, gutters, and sidewalk ramps, as well as widening of asphalt pavement, removal of asphalt, curbs, gutters, and driveways, painting of traffic stripes, and installation of traffic signs and streetlighting.

Impact Analysis

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection, Police protection, Schools, Recreation/Parks, Other public facilities?

No Impact. The Project consists of improvements to existing public works infrastructure. As a result, the Project would not cause an increase in the residential or employee population. Construction activities would be temporary and short-term. Therefore, the Project would not result in the need for additional public facilities, such as schools, recreation/parks, fire protection, police protection, and other public facilities. No impacts are identified or anticipated; therefore, no mitigation measures are required.

Public Services Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

16. RECREATION

	Potentially Significant 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?				X
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?				X

Environmental Setting

The Project is located in the unincorporated community of Muscoy, San Bernardino County, northwest of the City of San Bernardino. It is situated within San Bernardino County's developed area. The nearest park, Delmann Heights Park, is approximately 0.5 miles east of the Project site and cannot be directly accessed from the Project area.

Impact Analysis

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?

No Impact. The Project would only improve existing public works infrastructure. It would not result in population growth or would increase the use of existing parks or other recreational facilities. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

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?

No Impact. The Project would improve existing public works infrastructure. It does not include recreational facilities and would not require the construction or expansion of recreational facilities. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

Recreation Impact Conclusions:

No impacts are identified or anticipated, and no mitigation measures are required.

17. TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?				X
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?			X	

Environmental Setting

The Project is situated in the unincorporated community of Muscoy, San Bernardino County, northwest of the City of San Bernardino. The Project is located within low-density residential and commercial/light industrial development and will consist of the addition of new curbs, gutters, and sidewalk ramps, as well as widening of asphalt pavement, removal of asphalt, curbs, gutters, and driveways, painting of traffic stripes, and installation of traffic signs and streetlighting.

Impact Analysis

a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

No Impact. The County has designed the Project to conform with the General Plan Transportation & Mobility Element Policy Maps. The roadway ultimate classification is that of a Major Highway – SBC Std. Plan 101, four lane highway with intersections at grade and control access.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant. A technical memorandum presents a VMT Screening Assessment for the proposed State Street Widening within unincorporated San Bernardino County (Fehr and Peers 2025). The roadway will remain a two-lane Major Highway with no increase in vehicular capacity since the proposed changes do not include any additional through lanes and are specifically designed to improve the existing roadway. The County and Caltrans guidelines use the LCI's Technical Advisory on Evaluating Transportation Impacts in CEQA as the source for creating analysis guidelines and conclude that projects with a less-than-significant transportation impact screen from VMT analysis. Based on the screening criteria in the TAC, this Project meets the screening requirements as it fits the criteria for Project Types Not Likely to Lead to a Measurable and Substantial Increase in Vehicle Travel and that the transportation impacts of the Project would be less-than-significant. As a result, no further VMT analysis will be performed as part of this assessment.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Project does not require the construction of a new road, however, it will modification the existing roadway. The Project is on a linear alignment and will not introduce geometric hazards or incompatible uses to the design. Therefore, no impacts would occur from the geometric hazards or incompatible uses and no mitigation is required.

d) *Result in inadequate emergency access?*

Less Than Significant. A small amount of traffic associated with construction workers would be generated at the beginning and end of each workday. However, the work would be conducted on the Project site and would not block existing roads or emergency access routes in the area. Notification of the period of any road closure or required detours would be provided to emergency service providers and the existing surrounding road network is sufficient to provide adequate emergency access. Impacts would be less than significant, and no mitigation is required.

Transportation Impact Conclusions:

No mitigation measures are required because no significant adverse impacts were identified or anticipated.

18. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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, lace, 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:				
a) Listed or eligible for listing in California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X
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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

Environmental Setting

A search of the Sacred Lands File (SLF) was requested from the Native American Heritage Commission (NAHC) on April 24, 2025. The NAHC responded on April 25, 2025, and indicated that the results of the SLF search were positive. No information on the nature or location of the positive result was provided; however, the NAHC provided a list of Native American contacts and suggested contacting the Tribes for more information.

Native American consultation under Assembly Bill (AB) 52 for the Project was conducted by the County with three Native American Tribes who had previously submitted general consultation request letters pursuant to Section 21080.3.1(d) of the Public Resources Code:

- Soboba Band of Luiseňo Indians
- The Yuhaaviatam of San Manuel Nation (YSMN, also known as San Manuel Band of Mission Indians)
- Gabrieleno Band of Mission Indians-Kizh Nation

On January 21, 2025, the County sent Project notification letters to each of the three tribes. The letters provided a brief description of the Project, a map of the Project location, the County representative's contact information, and a notification that the Tribe has 30 days to request consultation. The 30-day response period concluded on February 21, 2025.

As a result of the initial notification letters, the San Bernardino County received the following responses:

- No response or request to consult was received from the Soboba Band of Luiseňo Indians.
- The Gabrieleno Band of Mission Indians-Kizh Nation responded that they wished to consult, but did not provide their availability to the County. The County sent the Gabrieleno Band of Mission Indians-Kizh Nation the 65% plans on March 10, 2025, and have heard nothing further from them. This document (IS/MND) will be mailed to the Gabrieleno Band of Mission Indians-Kizh Nation for review and comment.
- The YSMN provided the following response: "Thank you for contacting the Yuhaaviatam of San Manuel Nation (formerly the San Manuel Band of Mission Indians) regarding the above referenced Project. YSMN appreciates the opportunity to review the Project documentation, which was received by our Cultural Resources Management Department on January 21, 2025, pursuant to CEQA (AB 52) and CA PRC 21080.3.1. The Project area is located within Serrano ancestral territory and, therefore, is of interest

to the Tribe." The YSMN further stated that the Project is near known sensitive areas and provided language to be made a part of the project/permit/plan conditions.

At the request of the YSMN, their suggested language has been incorporated into Mitigation Measures CR-1 through CR-5 and TCR-1 in this IS/MND and shall be implemented to ensure potential impacts to cultural resources and tribal cultural resources are reduced to the extent feasible.

Impact Analysis

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)?

No Impact. No resources that have been listed in or determined eligible for listing in the CRHR are located within the Project area. Tribal consultation under AB 52 has not identified any Tribal Cultural Resources within the Project area. Therefore, there would be no impact to such resources from the Project.

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?

Less Than Significant with Mitigation Incorporation. No resources that have been determined by a lead agency to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 are located within the Project area. The search of the SLF by the NAHC was positive but no information on the location or nature of the find was provided. Tribal consultation under AB 52 has not identified any Tribal Cultural Resources within the Project area. During Native American consultation under AB 52, the YSMN stated that the Project is near known sensitive areas, suggesting that there is a potential for unknown, buried resources to exist within the Project area. Therefore, the Project is less than significant with mitigation.

If buried cultural materials are extant, they could be subject to impacts from construction activities. Implementation of **Mitigation Measures CR-1 and CR-4 and TCR-1** would mitigate any potential inadvertent impacts to Tribal Cultural Resources. In addition, implementation of **Mitigation Measure CR-5** would mitigate any potential inadvertent impacts to human remains and funerary objects.

Mitigation Measures:

CR-1 through CR- 5 (see Section 5)

TCR-1 Treatment of Potential Tribal Cultural Resources

Should precontact-era cultural material be encountered during project-related ground disturbance, all work in the vicinity of the discovery shall be halted. A 60-foot Environmentally Sensitive Area (ESA) around the discovery shall be demarcated and work shall be allowed to resume elsewhere. The SOI-qualified Principal Investigator shall develop and implement a research design to evaluate the resources under CEQA criteria in coordination with the County and YSMN. All three parties shall confer regarding the resource's archaeological significance, its potential as a Tribal Cultural Resource, and avoidance measures, or appropriate treatment if avoidance is not possible. Collection of any cultural resource(s) shall be conducted with the presence of a Tribal monitor representing YSMN, unless otherwise decided by YSMN. All collected artifacts shall be temporarily curated on-site. Recovered cultural materials shall be reburied on site as close to the original find location as possible. However, if reburial within or near the original location is not feasible, an alternate location for reburial shall be identified by the County in coordination with YSMN and the landowner. Reburial shall not occur until all ground-disturbing activities have been completed, all monitoring has ceased, all artifact recordation and cataloging has been completed, and a final monitoring report documenting the find has been prepared and reviewed by the County and YSMN. All reburials shall be subject to

a reburial agreement among the County, landowner, and YSMN that outlines the reburial location and process, as well as measures and provisions to protect the reburial area from future impacts. If avoidance, preservation in place, and on-site reburial are not feasible, the landowner shall relinquish all ownership rights to the cultural material and the County shall confer with YSMN to identify any American Association of Museums-accredited facility within San Bernardino County that can accession the materials into their permanent collections and provide for the proper care of these objects in accordance with the 1993 California Curation Guidelines. A Curation Agreement shall be developed with the identified repository facility and the County that legally and physically transfers the collections and associated records to the facility. The agreement shall stipulate the payment of fees necessary for permanent curation of the collections and associated records and the obligation of the County to pay those fees. All draft records and reports containing the significance and treatment findings and data recovery results shall be prepared by the SOI-qualified Principal Investigator and submitted to the County and YSMN for review and comment. Upon approval of all parties, the final reports and site records shall be submitted to the County, YSMN, and the CHRIS Information Center.

Tribal Cultural Resources Conclusions:

No impacts to Tribal Cultural Resources are anticipated. Implementation of **Mitigation Measures CR-1 through CR-5 and TCR-1** would mitigate any potential inadvertent impacts to unknown, subsurface resources and human remains.

19. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?				X
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?				X
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?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Environmental Setting

The Project is situated in the unincorporated community of Muscoy, San Bernardino County, northwest of the City of San Bernardino. The Project is located within low-density residential and commercial/light industrial development and will consist of the addition of new curbs, gutters, and sidewalk ramps, as well as widening of asphalt pavement, removal of asphalt, curbs, gutters, and driveways, painting of traffic stripes, and installation of traffic signs and streetlighting.

Impact Analysis

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?

Less than Significant Impact. The improvements are for approximately 0.61 miles on State Street from Adams Street to Darby Street. The improvements posed westerly of the centerline affords the inclusion of a 12-foot median that obliges left turn movement at intersections and midblock access to individual parcels, a 12-foot through travel lane - southbound, an eight-foot shoulder to accommodate on-street parking and refuse pickup, and a six-foot parkway to accommodate sidewalk and driveway approaches. Therefore, the impacts would be less than significant, and no mitigation is required.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

No Impact. The Project may require water during construction for dust control. This water demand would be temporary and negligible. The Proposed Project would not require water post-construction. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

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?

No Impact. The Project would not generate wastewater or require service by a wastewater treatment provider. No impacts are identified or anticipated, and no mitigation measures are required.

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?

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact. The Project will widen State Street. This construction will generate solid waste, including concrete and asphalt. However, concrete and asphalt will be transported to recycling facilities, resulting in less than significant impacts.

Utilities and Service Systems Impact Conclusions

No mitigation measures are required because no significant adverse impacts were identified or anticipated.

20. WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project?				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
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?				X
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?				X
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?				X

Environmental Setting

The Project is situated in the unincorporated community of Muscoy, San Bernardino County, northwest of the City of San Bernardino. The Project is located within low-density residential and commercial/light industrial development and will consist of the addition of new curbs, gutters, and sidewalk ramps, as well as widening of asphalt pavement, removal of asphalt, curbs, gutters, and driveways, painting of traffic stripes, and installation of traffic signs and streetlighting.

Impact Analysis

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. San Bernardino County Fire Station #75 serves Muscoy, and response times are 4 to 6 minutes, which is generally within NFPA standards (County 2025). This portion of State Street between Adams Street and Darby Street would be partially blocked during construction with easily accessible detours provided. The contractor would determine final material staging areas. Detours would be provided for any road closures that would be short-term and temporary. Therefore, less than significant impacts have been identified or anticipated, and no mitigation measures are required.

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?

No Impact. The Project is not situated in lands classified as very high, high, or moderate fire hazard severity zones (County 2025b). The proposed improvements will widen State Street and does not include features that would exacerbate wildfire risks. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

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?

No Impact. The Project is not situated in lands classified as very high, high, or moderate fire hazard severity zones (County 2025b). The proposed improvements will widen State Street and does not include features that would exacerbate wildfire risks. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

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?

No Impact. The Project entails widening pavement and replacing the gutter and curb with new sidewalks along State Street. It is situated outside of a FEMA 500-year floodplain and not located in lands classified as very high, high, or moderate fire hazard severity zones (County 2025b). Additionally, the Project Site is not within an area identified as having potential for seismic slope instability, near any known landslides, in the path of any known or potential landslides, or downstream of any known flood zones. The Project does not include structures and would not expose people to flooding or landslides, no impacts are identified or anticipated, and no mitigation measures are required.

Wildfire Impact Conclusions:

No mitigation measures are required as no impacts were identified or are anticipated.

21. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant 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?		X		
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)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

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?

Less Than Significant with Mitigation Incorporated. As concluded in the Air Quality section, the Short-Term Regional Construction Emissions Table (Table 3-2) and the Construction Localized Impacts Analysis Table (Table 3-3) show that PM_{10} and $PM_{2.5}$ at with mitigation daily regional construction emissions and localized emissions would not exceed the daily thresholds or localized significance thresholds established by SCAQMD; thus, during construction, there would be no regional or localized impacts. With the implementation of Mitigation Measure AQ-1 the thresholds established by SCAQMD will not be exceeded.

Per the Biological Resource section, no special-status plant or wildlife species listed in the three-mile CNDDB search are expected to occur at the Project site. However, the vegetation within and adjacent to the Project site could offer suitable nesting and foraging habitat for nesting bird species. Implementation of Mitigation Measure BIO-1 would ensure potential impacts to nesting birds remain less than significant. Several small mammal species have potential to occur in the area based on the CNDDB searches. Although these species are not expected to occur in the immediate Project site, implementation of Mitigation Measure BIO-2 would ensure potential impacts to burrowing small mammals that may be present in the surrounding areas remain less than significant.

The results of the records search at SCCIC indicate that 29 cultural resources have been recorded within 0.5 miles of the Project area. Although 19 of the resources are located adjacent to the Project area, none of the 29 resources overlap the Project area.

All 29 resources identified by the SCCIC consist of historic-age (i.e., 50 years old or older) buildings or structures. One of the resources (P-36-031932) is a historic district of residential tracts known as Muscoy Tract No. 4. The houses within this tract were evaluated for eligibility to the NRHP and CRHR in 1989 and recommended as not eligible. Another resource (P-36-021195) consists of an abandoned farm complex with four standing structures. The farm was evaluated for eligibility for listing to the NRHP and CRHR in 2010 and recommended as not eligible. The remaining 27 resources all consist of residential or commercial buildings constructed between 1924 and 1960. All 27 resources have been recommended as not eligible for the NRHP and CRHR.

The SCCIC records indicate that no precontact resources have been recorded within 0.5 miles of the Project area. However, as described in more detail in *Section 18 Tribal Cultural Resources*, Native American consultation conducted by the County indicates that the Project is near areas known to be sensitive for precontact resources. No information on the location and types of resources has been provided.

On January 21, 2025, the County mailed notification pursuant to AB 52. The County sent Project notification letters to each of the three tribes: Soboba Band of Luiseño Indians, The Yuhaaviatam of San Manuel Nation (YSMN, also known as San Manuel Band of Mission Indians), and Gabrieleno Band of Mission Indians-Kizh Nation. The letters provided a brief description of the proposed Project, a map of the Project location, the County representative's contact information, and a notification that the Tribe has 30 days to request consultation. The 30-day response period concluded on February 21, 2025.

The YSMN provided the following response: "Thank you for contacting the Yuhaaviatam of San Manuel Nation (formerly the San Manuel Band of Mission Indians) regarding the above referenced Project. YSMN appreciates the opportunity to review the Project documentation, which was received by our Cultural Resources Management Department on January 21, 2025, pursuant to CEQA (AB 52) and CA PRC 21080.3.1. The Project area is located within Serrano ancestral territory and, therefore, is of interest to the Tribe." The YSMN further stated that the Project is near known sensitive areas and provided language to be made a part of the project/permit/plan conditions.

At the request of the YSMN, their suggested language has been incorporated into Mitigation Measures CR-1 through CR-5 and TCR-1 in this CEQA document and shall be implemented to ensure potential impacts to cultural resources and tribal cultural resources are reduced to the extent feasible.

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)?

Less Than Significant. The Project has the potential to have cumulative impacts to air quality and greenhouse gases. However, as discussed in Section 3 (Air Quality) and Section 8 (Greenhouse Gas Emissions), these impacts would be temporary during construction and would be less than significant.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant. The Project may have indirect minor short-term effects on human beings during construction. However, in the long term, the Project would have a beneficial impact because the improved flood control channel would reduce the potential for flooding in the surrounding area. No substantial adverse effects on human beings would occur. Therefore, less than significant impacts have been identified or anticipated, and no mitigation measures are required.

SECTION 5 – SUMMARY OF MITIGATION MEASURES

The following mitigation measures were identified to reduce impacts to less than significant:

AIR QUALITY:

AQ-1 During excavation and earth moving activities all exposed earthen areas shall be watered at least twice daily. In addition, track in/track out devices shall be incorporated into the construction site and all paved roadways leading into/out of the construction area shall be swept at least twice per day.

BIOLOGICAL RESOURCES:

BIO-1 To avoid potential impacts to nesting birds (common and special status) during the nesting season (February 1- September 15), a qualified Avian Biologist shall conduct pre-construction Nesting Bird Surveys prior to commencement of any Project activities. If no active nests are found, no further action will be required. If an active nest is found, the qualified biologist will identify and flag a no-disturbance buffer around the nest which will be based upon the species, level of disturbance, and expected fledge date. The nests and no-disturbance buffers shall be checked weekly by a qualified biological monitor until Project activities end or until young have fledged the nest or the nest is deemed inactive.

BIO-2 To avoid potential impacts to burrowing mammals (special status), any small mammal burrows observed during Project activities should be avoided by at least 50 feet.

CULTURAL RESOURCE:

CR-1 Cultural Resources Monitoring and Treatment Plan (CRMTP)

Prior to Project initiation, a CRMTP shall be prepared by a qualified archaeologist who meets the U.S. Secretary of Interior's (SOI) standards for Archaeology. The CRMTP shall identify the types of subsurface cultural resources that could be encountered during construction and describe monitoring protocols to be followed to avoid inadvertent impacts to such resources. The CRMPT shall define the qualifications and responsibilities of the archaeological monitor and SOI-qualified Principal Investigator. The CRMPT shall clearly describe the types and depths of excavation activities that will require archaeological monitoring and define the conditions under which archaeological monitoring could be reduced or halted, as determined by the SOI-qualified Principal Investigator in coordination with the County. The CRMTP shall specify reporting requirements, including preparation of daily monitoring logs, and shall describe the procedures to follow in the event of a discovery of cultural materials and/or human remains, including evaluation of CRHR eligibility of the find. The CRMTP shall be submitted to the County for review and forwarded by the County to the Yuhaaviatam of San Manuel Nation (YSMN, also known as the San Manuel Band of Mission Indians) for review and comment. The CRMTP shall be approved by the County prior to the initiation of construction activities.

CR-2 Worker Environmental Awareness Program (WEAP) Training

Prior to the start of construction, a qualified archaeologist who meets SOI standards for Archaeology shall be retained to develop WEAP training materials to be presented to all contractors conducting project-related ground disturbing activities. The WEAP training materials shall include information about the types of archaeological resources that could be encountered, the laws and regulations regarding archaeological resources, and the protocols to follow in the event of an inadvertent discovery. The WEAP training shall be delivered by the SOI-qualified archaeologist or their designee to all construction personnel prior to the initiation of ground-disturbing activities. Tribal representatives from YSMN shall be invited to participate in the WEAP training and notified of the training at least 10 days in advance.

CR-3 Archaeological Monitoring

Archaeological monitoring shall be conducted during all ground-disturbing construction activities that occur below depths of previous disturbance, as defined in the CRMTP. The archaeological monitor(s) shall have at least three (3) years of experience conducting archaeological fieldwork in California and shall implement monitoring procedures as defined in the CRMTP, including preparation of daily monitoring logs. The archaeological monitor(s) shall be supervised by a SOI-qualified Principal Investigator who shall review and approve the daily logs. A sufficient number of archaeological monitors shall be present to ensure that simultaneous ground-disturbing activities within native (i.e., undisturbed, non-fill) sediments receive adequate monitoring coverage, in accordance with the specifications of the CRMTP.

CR-4 Treatment of Archaeological Discoveries

Should archaeological material be encountered during project-related ground disturbance, all work in the vicinity of the discovery shall be halted. A 60-foot Environmentally Sensitive Area (ESA) around the discovery shall be demarcated and work shall be allowed to resume elsewhere. The County shall be notified immediately, and the SOI-qualified Principal Investigator shall be contacted to assess the discovery and evaluate whether it constitutes a historical resource or a unique archaeological resource as defined by CEQA. The Principal Investigator shall implement the treatment protocols described in the CRMTP, including evaluation of the resource for CRHR eligibility. Should the discovery be precontact in age, consultation with the YSMN regarding evaluation and treatment of the find shall occur.

CR-5 Treatment of Discoveries of Human Remains

Should human remains and/or funerary objects be encountered during project-related ground disturbance, all work within 100 feet of the discovery shall be halted and redirected elsewhere. The San Bernardino County Coroner shall be contacted immediately to determine the origin and disposition of the remains pursuant to Public Resources Code Section 5097.98. A qualified archaeologist shall also be contacted to assess the discovery and coordinate consultation with the appropriate agencies. If the remains are determined to be precontact in age, the Coroner shall contact the NAHC within 24 hours of the determination in accordance with Section 5097.98 of the California Public Resources Code, and Section 7050.5 of the California Health and Safety Code, as applicable. The NAHC shall identify a Most Likely Descendent (MLD) who shall be

provided an opportunity to inspect the discovery and provide recommendations for the proper treatment of the remains and any associated funerary objects.

TRIBAL CULTURAL RESOURCES:

CR-1 through CR- 5 (see Section 5)

TCR-1 Treatment of Potential Tribal Cultural Resources

Should precontact-era cultural material be encountered during project-related ground disturbance, all work in the vicinity of the discovery shall be halted. A 60-foot Environmentally Sensitive Area (ESA) around the discovery shall be demarcated and work shall be allowed to resume elsewhere. The SOI-qualified Principal Investigator shall develop and implement a research design to evaluate the resource under CEQA criteria in coordination with the County and YSMN. All three parties shall confer regarding the resource's archaeological significance, its potential as a Tribal Cultural Resource, and avoidance measures, or appropriate treatment if avoidance is not possible. Collection of any cultural resource(s) shall be conducted with the presence of a Tribal monitor representing YSMN, unless otherwise decided by YSMN. All collected artifacts shall be temporarily curated on-site. Recovered cultural materials shall be reburied on site as close to the original find location as possible. However, if reburial within or near the original location is not feasible, an alternate location for reburial shall be identified by the County in coordination with YSMN and the landowner. Reburial shall not occur until all ground-disturbing activities have been completed, all monitoring has ceased, all artifact recordation and cataloging has been completed, and a final monitoring report documenting the find has been prepared and reviewed by the County and YSMN. All reburials shall be subject to a reburial agreement among the County, landowner, and YSMN that outlines the reburial location and process, as well as measures and provisions to protect the reburial area from future impacts. If avoidance, preservation in place, and on-site reburial are not feasible, the landowner shall relinquish all ownership rights to the cultural material and the County shall confer with YSMN to identify any American Association of Museums-accredited facility within San Bernardino County that can accession the materials into their permanent collections and provide for the proper care of these objects in accordance with the 1993 California Curation Guidelines. A Curation Agreement shall be developed with the identified repository facility and the County that legally and physically transfers the collections and associated records to the facility. The agreement shall stipulate the payment of fees necessary for permanent curation of the collections and associated records and the obligation of the County to pay those fees. All draft records and reports containing the significance and treatment findings and data recovery results shall be prepared by the SOI-qualified Principal Investigator and submitted to the County and YSMN for review and comment. Upon approval of all parties, the final reports and site records shall be submitted to the County, YSMN, and the CHRIS Information Center.

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SECTION 7 - APPENDICES

Appendix 1: Air Quality and Greenhouse Gas Emissions Analysis for the State Street Road Widening Project

Appendix 2: Biological Resources

Appendix 3: Noise Analysis for State Street Road Widening Project

Appendix 4: State Street VMT Screening Memorandum

MEMORANDUM

DATE: May 30, 2025

TO: Mark Hopkins, Project Manager, SummitWest Environmental

FROM: Michael Hendrix

SUBJECT: Air Quality and Greenhouse Gas Emissions Analysis for the State Street Road Widening Project

Michael Hendrix Consulting (MHC) is pleased to provide you with this air quality and greenhouse gas (GHG) emissions analysis for the State Street Road Widening Project, in the unincorporated community of Muscoy, San Bernardino County, California. The following sections summarize the analysis.

INTRODUCTION

This air quality and GHG emissions analysis has been prepared to evaluate the potential air quality and GHG emissions impacts and identify mitigation measures associated with the road widening Project along Street between Adams Street and Darby Street. This report is intended to satisfy County of San Bernardino (County) requirements for a project-specific air quality and GHG emissions impact analysis by examining the short-term and long-term impacts on regional air quality, localized air pollutant impacts on sensitive uses adjacent to the project site, and evaluate conformity with the County's GHG Reduction Plan.

The project is located within the South Coast Air Basin within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). As such this analysis will also evaluate project consistency with the SCAQMD's 2022 Air Quality Management Plan (AQMP).

PROJECT LOCATION AND DESCRIPTION

The Project site is in the western portion of San Bernardino County within the community of Muscoy.

The proposed project has been designed by the County to conform with the General Plan Transportation & Mobility Element Policy Maps. The roadway ultimate classification is that of a Major Highway – SBC Std. Plan 101, four lane highway with intersections at grade and control access. To minimize right-of-way, take and encroachment into typical residential structure setback requirements, proposed work which addresses current and projected emerging mobility needs involves widening of the roadway westerly of its existing centerline to accommodate improvements for approximately 0.61 miles on State Street from Adams Street to Darby Street. The interim geometric section and improvements posed west of the centerline affords the inclusion of a 12-foot median that obliges left turn movement at intersections and midblock access to individual parcels, a 12-foot through travel lane - southbound, an 8-foot shoulder to accommodate on-street parking and refuse pickup, and a 6-foot parkway to accommodate sidewalk and driveway approaches.

Provisions for the inclusion of ADA compliant curb ramps, curb and gutter and street lighting are also addressed. Existing improvements easterly of the centerline for the interim condition will remain largely as is. Anticipated maximum excavation depth for most work is 18-inches.

EXISTING SETTING

Overview of the Existing Air Quality Environment

The project site is in the western portion of San Bernardino County, California, which is part of the South Coast Air Basin (Basin) and is under the jurisdiction of the SCAQMD.

Air quality in the planning area is not only affected by various emission sources (e.g., mobile and industry), but also by atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall). The combination of topography, low mixing height, abundant sunshine, and emissions transported by prevailing winds from the second-largest urban area in the United States gives the Basin some of the worst air pollution problems in the nation. The Project area is at the northeastern edge of the Basin at an elevation of approximately 1,300 feet above sea level, which is at the upper mixing height of the Basin. Due to the elevation and location at the northeastern edge of the Basin, the project area is prone to the highest ozone concentrations within the Basin.

Surrounding Land Uses in the Project Vicinity

The Project site is bordered by single-family, commercial, and light industrial land uses.

REGULATORY SETTING

Federal Regulations

Pursuant to the Federal Clean Air Act (CAA) of 1970, the Environmental Protection Agency (EPA) established the National Ambient Air Quality Standards (NAAQS). The NAAQS was established for six major pollutants, termed “criteria” pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established ambient air quality standards (AAQS), or criteria, for outdoor concentrations to protect public health.

California Regulations

In 1967, the State Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus (i.e., the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board) to establish the California Air Resources Board (CARB). Since its formation, the CARB has worked with the public, the business sector, and local governments to find solutions to the State’s air pollution problems.

California adopted the CCAA in 1988. CARB administers the CAAQS for the 10 air pollutants designated in the CCAA. These 10 State air pollutants are the six criteria pollutants designated by the CAA as well as four others: visibility-reducing particulates, H_2S, sulfates, and vinyl chloride.

Regional Air Quality Planning Framework

The 1976 Lewis Air Quality Management Act established SCAQMD and other air districts throughout the State. The CAA Amendments of 1977 required that each state adopt an implementation plan

outlining pollution control measures to attain the federal standards in nonattainment areas of the state.

CARB is responsible for incorporating Air Quality Management Plans (AQMPs) for local air basins into a State Implementation Plan (SIP) for EPA approval. Significant authority for air quality control within them has been given to local air districts that regulate stationary-source emissions and develop local nonattainment plans.

Regional Air Quality Management Plan

SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the AQMP for the Basin. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. SCAQMD prepares a new AQMP every three years, updating the previous plan and 20-year horizon.

The latest plan is the 2022 AQMP (SCAQMD 2022), which incorporates the latest scientific and technological information and planning assumptions, including the 2020 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories which also benefits reduction of GHG emissions. Key elements of the 2022 AQMP pertaining to GHG emissions include:

- Specifically addresses decarbonization and climate policy development and its role in achieving the 2015 Ozone standard.
- Calculation and credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation)
- A strategy with fair-share emission reductions at the federal, State, and local levels
- Investment in strategies and technologies meeting multiple air quality and climate objectives
- Identification of new partnerships and significant funding for incentives to accelerate deployment of zero and near-zero technologies
- Attainment of the 1-hour Ozone standard by 2022 with no reliance on “black box” future technology (CAA Section 182(e)(5) measures). While not directly correlated to GHG emissions, the measures rely heavily on zero emission technologies that will also significantly reduce GHG emissions.

SCAQMD adopts rules and regulations to implement portions of the AQMP. Several of these rules may apply to project construction or operations impacting reduction of GHG emissions.

Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate new development projects within the Basin, such as project. Instead, SCAQMD published the *CEQA Air Quality Handbook* (SCAQMD 1993) to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential GHG and air quality impacts of projects proposed in the Basin. The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures that can be used in conducting GHG analyses in

environmental impact reports and were used extensively in the preparation of this analysis. SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*.

While the replacement *Air Quality Analysis Guidance Handbook* is being updated, supplemental guidance/information on the SCAQMD website includes: (1) Emission FACtors (EMFAC) on-road vehicle air pollutant and GHG emission factors, (2) GHG analysis guidance, (3) mitigation measures and control efficiencies, (5) off-road mobile source air pollutant and GHG emission factors, and (8) updated SCAQMD Air Quality Significance Thresholds. SCAQMD also recommends using approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod). These recommendations were followed in the preparation of this analysis.

County of San Bernardino GHG Reduction Plan

The County completed a GHG Emissions Reduction Plan Update in June 2021 (County of San Bernardino 2021), which sets forth an emissions reduction targets, emissions reduction measures, and action steps to assist the County to demonstrate consistency with California's Global Warming Solutions Act (Senate Bill 32). Together with the GHG Emissions Reduction Plan, the County adopted the GHG DRP (County of San Bernardino 2021) in 2021. The DRP procedures need to be followed to evaluate GHG impacts and determine significance for CEQA purposes. All projects need to apply the GHG performance standards identified in the DRP and comply with State requirements.

THRESHOLDS OF SIGNIFICANCE

SCAQMD has established daily emissions thresholds for construction and operation of a proposed project in the Basin. The emissions thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health within an adequate margin of safety (SCAQMD 2017), these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

Regional Emissions Thresholds

Table 1 lists the CEQA significance thresholds for construction and operational emissions established for the Basin.

Table 1: Regional Thresholds for Construction and Operational Emissions

Emissions Source	Pollutant Emissions Threshold (lbs/day)					
	VOC	NOx	CO	PM_{10}	$PM_{2.5}$	SOx
Construction	75	100	550	150	55	150
Operations	55	55	550	150	55	150

Source: SCAQMD. Air Quality Significance Thresholds. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf (accessed May 2025).

CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District
SOx = sulfur oxides
VOC = volatile organic compounds

Projects in the Basin with construction- or operation-related emissions that exceed any of their respective emission thresholds would be considered significant under SCAQMD guidelines. These thresholds, which SCAQMD developed and that apply throughout the Basin, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and cumulative impact

Localized Significance Thresholds

SCAQMD published its *Final Localized Significance Threshold Methodology* in June 2003 and updated it in July 2008 (SCAQMD 2008), recommending that all air quality analyses include an assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of the NAAQS or the CAAQS for CO, NO_2, PM_{10} and $PM_{2.5}$, as shown in previously referenced Table A. LSTs are based on the ambient concentrations of that pollutant within the project Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For this project, the appropriate SRA is the East San Bernardino Valley area (SRA 35).

The LST Methodology uses look-up tables based on site acreage to determine the significance of emissions for CEQA purposes. Based on the SCAQMD recommended methodology and the construction equipment planned, no more than 1 acre would be disturbed on any one day; thus, the 1-acre LSTs have been used for construction emissions. On-site operational emissions would occur from stationary and mobile sources. Because the project operation area would be less than 1 acre, the 1-acre thresholds would apply during project operations.

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. As described above, the closest residences are within 20 feet (6 meters) from the southern boundary of construction. SCAQMD LST Methodology specifies, “Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.” Therefore, the following emissions thresholds apply during project construction and operation:

- Construction LST (2 acre, 25 meters, East San Bernardino Valley):
    - 170 pounds per day (lbs/day) of NOx.
    - 1,174 lbs/day of CO.
    - 7 lbs/day of PM_{10}.
    - 5 lbs/day of $PM_{2.5}$.
- Operation LST (2 acre, 25 meters, East San Bernardino Valley):
    - 170 lbs/day of NOx.
    - 1,174 lbs/day of CO.
    - 2 lb/day of PM_{10}.
    - 2 lb/day of $PM_{2.5}$.

GHG Emissions Thresholds

State CEQA Guidelines Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further, states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."

Appendix G of the *CEQA Guidelines* includes significance thresholds for GHG emissions. A project would normally have a significant effect on the environment if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Currently, there is no statewide GHG emissions threshold that has been used to determine the potential GHG emissions impacts of a project. Threshold methodology and thresholds are still being developed and revised by air districts in the State.

The lead agency for the project is San Bernardino County, which has adopted its GHG Emissions Reduction Plan Update and GHG DRP (County of San Bernardino 2021) in 2021. The DRP procedures need to be followed to evaluate GHG impacts and determine significance for CEQA purposes. All projects need to apply the GHG performance standards identified in the DRP and comply with State requirements. For projects exceeding the review standard of 3,000 MT CO_2e per year, the use of Screening Tables or a project-specific technical analysis to quantify and mitigate project emissions is required. If the GHG emissions from the project are less than 3,000 MT CO_2e per year and the project would apply GHG performance standards and State requirements, project-level and cumulative GHG emissions would be less than significant.

IMPACTS

Calculations of air pollutant and GHG emissions in the following analysis were conducted using the California Emissions Estimator Model Version 2022.1.1.29 (CALEEMod2022).

Short-Term Construction Impacts

Construction activities produce combustion emissions from various sources (construction equipment, heavy-duty haul trucks, and motor vehicles transporting the construction crew). Exhaust emissions from construction activities envisioned on site would vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions.

The most recent version of CalEEMod (Version 2022.1.1.29) was used to develop the construction equipment inventory and calculate the construction emissions. The emissions shown in Table 2 are the combination of the on-site and off-site emissions from the CalEEMod output tables. No exceedances of any criteria pollutants are expected. The CalEEMod output is included in Appendix A.

Table 2: Short-Term Regional Construction Emissions

Construction Phase	Total Regional Pollutant Emissions (lbs/day)							
	VOC	**NOx**	**CO**	**SOx**	**PM_{10}**		**$PM_{2.5}$**	
Site Preparation	0.46	4.04	4.49	>0.01	0.21		0.20	
Excavation/Trenching	3.50	29.90	36.60	0.07	1.31		1.20	
Installation/Construction	1.79	16.00	19.70	0.04	1.59		0.57	
Paving	0.81	7.53	11.70	0.02	0.30		0.28	
Architectural Coating	0.41	0.00	0.00	0.00	0.00		0.00	
Peak Daily (Unmitigated)	**3.67**	**30.20**	**39.5**	**0.07**	**5.55**		**1.73**	
Peak Daily (Mitigated)	**3.67**	**30.20**	**39.5**	**0.07**	**1.98**		**0.28**	
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**150**		**55**	
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**		**No**	

Source: Compiled by MHC (May 2025).

CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SOx = sulfur oxides
VOC = volatile organic compounds

Short-term Construction Localized Impacts Analysis

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. Table 3 shows that the construction emission rates would exceed the LSTs for PM-10. With mitigation (watering unpaved areas during construction twice a day) PM-10 is reduced to less than 4 pounds per day. With Mitigation incorporated into the Project all LSTs are below the below the LST threshold. Table 3 also shows that the emissions of the pollutants on the peak day of construction would result in concentrations of pollutants at the nearest residences that are all below SCAQMD thresholds of significance. Note that the LST was set at 2-acres while total acreage is 2.81. The LST look up tables are set for 1, 2 and 5 acres and since the 2-acre LST look up table is closest to the site size, it was used. Note that lower acreage sites have lower thresholds, so using the LST look up table is a more conservative approach.

Table 3: Construction Localized Impacts Analysis

Emissions Sources	NOx	CO	PM_{10}	$PM_{2.5}$
Construction Emissions (Unmitigated)	30.20	39.5	5.55	1.73
Construction Emissions (Mitigated)	30.20	39.5	1.98	0.28
LST	**170**	1,174	**5.00**	**4.00**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Compiled by MHC (May 2025).

Note: Source Receptor Area 33 – Southwest San Bernardino Vally, 1 acre, 25 meters.

CO = carbon monoxide
lbs/day = pounds per day
LST = localized significance threshold
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Odors from Construction Activities

Heavy-duty equipment in the project area during construction would emit odors, primarily from the equipment exhaust. However, the construction activity would cease to occur after construction is completed. No other sources of objectionable odors have been identified for the proposed project, and no mitigation measures are required.

SCAQMD Rule 402 regarding nuisances states: "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." The proposed uses are not anticipated to emit any objectionable odors. Therefore, objectionable odors posing a health risk to potential on-site and existing off-site uses would not occur as a result of the proposed project.

Construction Period Mitigation

AQ-MM-1: During excavation and earth moving activities all exposed earthen areas shall be watered at least twice daily. In addition, track in/track out devices shall be incorporated into the construction site and all paved roadways leading into/out of the construction area shall be swept at least twice per day.

Construction Emissions Conclusions

Previously referenced Tables 2 and 3 show that with mitigation daily regional construction emissions and localized emissions would not exceed the daily thresholds or localized significance thresholds established by SCAQMD; thus, during construction, there would be no regional or localized impacts.

Long-Term Operational Impacts

Long-term air pollutant emission impacts are those associated with stationary sources and mobile sources involving any project-related changes. The proposed project would result in a modest net increases in mobile-source emissions associated with increased traffic.

An assumed five percent increase in vehicle trips was used in CalEEMod. Long term emissions also include electricity use for new street lights and periodic roadway maintenance including surface coating and line painting.

Table 4 shows long-term operational emissions associated with the proposed project. Area sources include architectural coatings during roadway maintenance. Note that energy use (i.e. electricity) for street lighting only shows as GHG emissions because local criteria pollutants associated with electricity generation are not emitted near the site.

Table 4: Opening Year Regional Operational Emissions

Source	Pollutant Emissions, lbs/day					
	VOC	**NOx**	**CO**	**SOx**	**PM_{10}**	**$PM_{2.5}$**
Area	0.15	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	<0.00	0.00	0.00
Mobile	2.73	3.55	2.76	0.08	7.91	2.06
Total Project Emissions	2.88	3.55	2.76	0.08	7.91	2.06
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by MHC (May 2025).

CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SOx = sulfur oxides
VOC = volatile organic compounds

Long-term Operational Localized Impacts Analysis

Table 5 shows the calculated emissions for the proposed operational activities compared with the appropriate LSTs. By design, the localized impacts analysis only includes on-site sources; however, the CalEEMod outputs do not separate on-site and off-site emissions for mobile sources. To account for this, the emissions shown in Table 5 include all of the new mobile sources (i.e. 655 trips per day), traveling the 0.61 miles of roadway improvements which is an estimate of the amount of project-related new vehicle traffic that would occur on the widened roadway.

Table 5: Operational Localized Impacts Analysis

Emissions Sources	NOx	CO	PM_{10}	$PM_{2.5}$
Operational Emissions	0.13	0.10	0.28	0.07
LST	170	1,174		**2**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Compiled by MHC (May 2025)

Note: Source Receptor Area – Central San Bernardino Mountains, 5 acre, 25 meters.

CO = carbon monoxide
lbs/day = pounds per day
LST = localized significance threshold
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Odors from Operational Activities

Vehicle use and periodic roadway maintenance will release localized odors; however, such odors in general would be confined mainly to the project site and would readily dissipate. Therefore, objectionable odors affecting a substantial number of people would not occur as a result of the project. The impacts associated with odors would be less than significant and no mitigation measures are required.

AIR QUALITY MANAGEMENT PLAN CONSISTENCY

A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the air quality plans. A consistency determination fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review due to the air quality plan strategy being based on projections from local General Plans.

The AQMP is based on regional growth projections developed by SCAG. The proposed project is the widening of an existing roadway. Thus, the proposed project would not be defined as a regionally significant project under CEQA; therefore, it does not meet SCAG's Intergovernmental Review criteria. The proposed project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be less than significant.

GREENHOUSE GAS EMISSIONS

In evaluating the Project's GHG emissions impact, this analysis tiers from the San Bernadino County GHG Reduction Plan Update.

The County's GHG Emissions Reduction Plan Update includes the Performance Standard that will reduce 7,891 Metric Tons of Carbon Dioxide Equivalents (MT CO2e) per year from new development by 2030. The Counties Development Review Process (DRP) procedures for evaluating GHG impacts and determining significance for CEQA purposes is streamlined by utilizing (1) applying a uniform set of performance standards to all development projects, and (2) utilizing the GHG Reduction Plan Screening Tables to mitigate project GHG emissions. Projects will have the option of preparing a project-specific technical analysis to quantify and mitigate GHG emissions. A review standard of 3,000 MTCO2e per year is used to identify projects that require the use of the Screening Tables.

For Projects that are below 3,000 MTCO2e per year are considered less than significant and consistent with the County's GHG Emissions Reduction Plan Update if they incorporate into the Project the following criteria:

- Waste stream reduction: The contractor(s) shall provide to the County a description of the -construction demolition material (such as removed concrete and asphalt) that is suitable to be recycled during project construction.
- Vehicle Trip Reduction: The Contractor(s) shall provide to all construction workers County approved informational materials about the need to reduce vehicle trips and the program elements this project is implementing. Such elements may include: participation in established ride-sharing programs, creating a new ride-share employee vanpool, and/or providing a web site or message board for coordinating rides.

- Landscape Equipment: the developer shall require in the landscape maintenance contract and/or in onsite procedures that a minimum of 20% of the landscape maintenance equipment shall be electric-powered (**not applicable to the proposed project**).
- Meet Title 24 Energy Efficiency requirements (which will require LED streetlights).

Project generated total GHG emissions are calculated at 588 MT CO2e during construction. Following the SCAQMD methodology, GHG emissions associated with construction activities are divided by 25 years which is the anticipated economic life of the Project. Using this methodology, the amortized construction emissions are 23.52 MT CO2e per year which is added to the long-term operational emissions of 1,444 and totals 1,467.52 which is below the 3,000 MTCO2e review standard. Therefore, with the applicable criteria shown in the bullet points above incorporated into the project, the project is consistent with the County's GHG Reduction Plan Update and GHG emissions are considered less than significant.

ATTACHMNET A:

CALEEMOD Version 2022.1.1.29

Output Reports

State Street Widening Project Detailed Report

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1.1. Basic Project Information

Data Field	Value
Project Name	State Street Widening Project
Construction Start Date	1/5/2026
Lead Agency	San Bernardino County Public Works
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	8.40
Location	Muscoy, CA 92407, USA
County	San Bernardino-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5344
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Road Widening	0.61	Mile	2.81	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.36	3.67	30.1	39.5	0.07	1.31	4.24	5.55	1.20	0.53	1.73	—	8,228	8,228	0.34	0.09	1.97	8,263
Mit.	4.36	3.67	30.1	39.5	0.07	1.31	1.98	3.29	1.20	0.28	1.48	—	8,228	8,228	0.34	0.09	1.97	8,263
% Reduced	—	—	—	—	—	—	53%	41%	—	46%	14%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.35	3.66	30.2	38.7	0.07	1.31	4.24	5.55	1.20	0.53	1.73	—	8,182	8,182	0.32	0.09	0.05	8,216
Mit.	4.35	3.66	30.2	38.7	0.07	1.31	1.98	3.29	1.20	0.28	1.48	—	8,182	8,182	0.32	0.09	0.05	8,216
% Reduced	—	—	—	—	—	—	53%	41%	—	46%	14%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.92	1.62	13.1	17.3	0.03	0.55	1.71	2.26	0.51	0.22	0.73	—	3,550	3,550	0.14	0.04	0.42	3,565

Mit.	1.92	1.62	13.1	17.3	0.03	0.55	0.83	1.38	0.51	0.12	0.63	—	3,550	3,550	0.14	0.04	0.42	3,565
% Reduced	—	—	—	—	—	—	52%	39%	—	44%	13%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.35	0.30	2.39	3.16	0.01	0.10	0.31	0.41	0.09	0.04	0.13	—	588	588	0.02	0.01	0.07	590
Mit.	0.35	0.30	2.39	3.16	0.01	0.10	0.15	0.25	0.09	0.02	0.12	—	588	588	0.02	0.01	0.07	590
% Reduced	—	—	—	—	—	—	52%	39%	—	44%	13%	—	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	100	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	Yes	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	—	No	No	No	No	Yes	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	100	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	Yes	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	—	No	No	No	No	Yes	—	No	—	—	No	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.36	3.67	30.1	39.5	0.07	1.31	4.24	5.55	1.20	0.53	1.73	—	8,228	8,228	0.34	0.09	1.97	8,263

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.35	3.66	30.2	38.7	0.07	1.31	4.24	5.55	1.20	0.53	1.73	—	8,182	8,182	0.32	0.09	0.05	8,216
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.92	1.62	13.1	17.3	0.03	0.55	1.71	2.26	0.51	0.22	0.73	—	3,550	3,550	0.14	0.04	0.42	3,565
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.35	0.30	2.39	3.16	0.01	0.10	0.31	0.41	0.09	0.04	0.13	—	588	588	0.02	0.01	0.07	590

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.36	3.67	30.1	39.5	0.07	1.31	1.98	3.29	1.20	0.28	1.48	—	8,228	8,228	0.34	0.09	1.97	8,263
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.35	3.66	30.2	38.7	0.07	1.31	1.98	3.29	1.20	0.28	1.48	—	8,182	8,182	0.32	0.09	0.05	8,216
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.92	1.62	13.1	17.3	0.03	0.55	0.83	1.38	0.51	0.12	0.63	—	3,550	3,550	0.14	0.04	0.42	3,565
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.35	0.30	2.39	3.16	0.01	0.10	0.15	0.25	0.09	0.02	0.12	—	588	588	0.02	0.01	0.07	590

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	0.46	4.04	4.49	0.01	0.21	—	0.21	0.20	—	0.20	—	632	632	0.03	0.01	—	634
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.27	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.6	41.6	< 0.005	< 0.005	—	41.7
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.88	6.88	< 0.005	< 0.005	—	6.90
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	127	127	< 0.005	< 0.005	0.01	128
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.49	8.49	< 0.005	< 0.005	< 0.005	8.92
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.44	8.44	< 0.005	< 0.005	0.01	8.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.56	0.56	< 0.005	< 0.005	< 0.005	0.59
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.40	1.40	< 0.005	< 0.005	< 0.005	1.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.10

3.2. Linear, Grubbing & Land Clearing (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	0.46	4.04	4.49	0.01	0.21	—	0.21	0.20	—	0.20	—	632	632	0.03	0.01	—	634
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.27	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.6	41.6	< 0.005	< 0.005	—	41.7
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.88	6.88	< 0.005	< 0.005	—	6.90
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	127	127	< 0.005	< 0.005	0.01	128
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.49	8.49	< 0.005	< 0.005	< 0.005	8.92
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.44	8.44	< 0.005	< 0.005	0.01	8.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.56	0.56	< 0.005	< 0.005	< 0.005	0.59
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.40	1.40	< 0.005	< 0.005	< 0.005	1.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.10

3.3. Linear, Grading & Excavation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.16	3.50	29.9	36.6	0.07	1.31	—	1.31	1.20	—	1.20	—	7,644	7,644	0.31	0.06	—	7,670
Dust From Material Movement	—	—	—	—	—	—	3.71	3.71	—	0.40	0.40	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.16	3.50	29.9	36.6	0.07	1.31	—	1.31	1.20	—	1.20	—	7,644	7,644	0.31	0.06	—	7,670
Dust From Material Movement	—	—	—	—	—	—	3.71	3.71	—	0.40	0.40	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.04	8.86	10.8	0.02	0.39	—	0.39	0.36	—	0.36	—	2,262	2,262	0.09	0.02	—	2,269
Dust From Material Movement	—	—	—	—	—	—	1.10	1.10	—	0.12	0.12	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.19	1.62	1.97	< 0.005	0.07	—	0.07	0.06	—	0.06	—	374	374	0.02	< 0.005	—	376
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.16	2.88	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	552	552	0.02	0.02	1.89	560
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.3	30.3	< 0.005	< 0.005	0.08	31.9
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.32
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.18	2.18	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	506	506	0.01	0.02	0.05	512
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.4	30.4	< 0.005	< 0.005	< 0.005	31.8
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.32
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.68	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	152	152	< 0.005	0.01	0.24	154
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.98	8.98	< 0.005	< 0.005	0.01	9.42
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.37	0.37	< 0.005	< 0.005	< 0.005	0.39
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.2	25.2	< 0.005	< 0.005	0.04	25.5

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.49	1.49	< 0.005	< 0.005	< 0.005	1.56
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06

3.4. Linear, Grading & Excavation (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.16	3.50	29.9	36.6	0.07	1.31	—	1.31	1.20	—	1.20	—	7,644	7,644	0.31	0.06	—	7,670
Dust From Material Movement	—	—	—	—	—	—	1.45	1.45	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.16	3.50	29.9	36.6	0.07	1.31	—	1.31	1.20	—	1.20	—	7,644	7,644	0.31	0.06	—	7,670
Dust From Material Movement	—	—	—	—	—	—	1.45	1.45	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	1.23	1.04	8.86	10.8	0.02	0.39	—	0.39	0.36	—	0.36	—	2,262	2,262	0.09	0.02	—	2,269
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.22	0.19	1.62	1.97	< 0.005	0.07	—	0.07	0.06	—	0.06	—	374	374	0.02	< 0.005	—	376
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.16	2.88	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	552	552	0.02	0.02	1.89	560
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.3	30.3	< 0.005	< 0.005	0.08	31.9
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.32
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.18	2.18	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	506	506	0.01	0.02	0.05	512
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.4	30.4	< 0.005	< 0.005	< 0.005	31.8
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.32
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.68	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	152	152	< 0.005	0.01	0.24	154

Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.98	8.98	< 0.005	< 0.005	0.01	9.42
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.37	0.37	< 0.005	< 0.005	< 0.005	0.39
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.2	25.2	< 0.005	< 0.005	0.04	25.5
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.49	1.49	< 0.005	< 0.005	< 0.005	1.56
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06

3.5. Linear, Drainage, Utilities, & Sub-Grade (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.14	1.79	16.0	19.7	0.04	0.62	—	0.62	0.57	—	0.57	—	4,089	4,089	0.17	0.03	—	4,103
Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.17	0.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.14	1.79	16.0	19.7	0.04	0.62	—	0.62	0.57	—	0.57	—	4,089	4,089	0.17	0.03	—	4,103

Dust From Material Movement	—	—	—	—	—	—	1.59	1.59	—	0.17	0.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	0.35	3.15	3.89	0.01	0.12	—	0.12	0.11	—	0.11	—	807	807	0.03	0.01	—	809
Dust From Material Movement	—	—	—	—	—	—	0.31	0.31	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.57	0.71	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.11	1.98	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	380	380	0.02	0.01	1.30	385
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.12	1.50	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	348	348	0.01	0.01	0.03	352
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.03	0.31	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	69.6	69.6	< 0.005	< 0.005	0.11	70.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.02	11.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Linear, Drainage, Utilities, & Sub-Grade (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.14	1.79	16.0	19.7	0.04	0.62	—	0.62	0.57	—	0.57	—	4,089	4,089	0.17	0.03	—	4,103
Dust From Material Movement	—	—	—	—	—	—	0.62	0.62	—	0.07	0.07	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.14	1.79	16.0	19.7	0.04	0.62	—	0.62	0.57	—	0.57	—	4,089	4,089	0.17	0.03	—	4,103
Dust From Material Movement	—	—	—	—	—	—	0.62	0.62	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	0.35	3.15	3.89	0.01	0.12	—	0.12	0.11	—	0.11	—	807	807	0.03	0.01	—	809
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.57	0.71	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.11	1.98	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	380	380	0.02	0.01	1.30	385
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.12	1.50	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	348	348	0.01	0.01	0.03	352
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.03	0.31	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	69.6	69.6	< 0.005	< 0.005	0.11	70.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.02	11.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Linear, Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	0.81	7.53	11.7	0.02	0.30	—	0.30	0.28	—	0.28	—	1,768	1,768	0.07	0.01	—	1,774
Architectural Coatings	0.41	0.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.74	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	174	174	0.01	< 0.005	—	175
Architectural Coatings	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.14	0.21	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	28.9	28.9	< 0.005	< 0.005	—	29.0
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.09	1.09	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	253	253	< 0.005	0.01	0.02	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.3	25.3	< 0.005	< 0.005	0.04	25.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.19	4.19	< 0.005	< 0.005	0.01	4.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Linear, Paving (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.97	0.81	7.53	11.7	0.02	0.30	—	0.30	0.28	—	0.28	—	1,768	1,768	0.07	0.01	—	1,774
Architectural Coatings	0.41	0.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.74	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	174	174	0.01	< 0.005	—	175
Architectural Coatings	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.14	0.21	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	28.9	28.9	< 0.005	< 0.005	—	29.0
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.09	1.09	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	253	253	< 0.005	0.01	0.02	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.3	25.3	< 0.005	< 0.005	0.04	25.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.19	4.19	< 0.005	< 0.005	0.01	4.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	1/5/2026	2/5/2026	5.00	24.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	2/8/2026	7/9/2026	5.00	108	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	7/10/2026	10/18/2026	5.00	72.0	installation of streetlights
Linear, Paving	Linear, Paving	10/19/2026	12/8/2026	5.00	36.0	final paving and coating

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	2.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	2.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43

Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	10.0	18.5	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	10.2	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.13	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	40.0	18.5	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	10.2	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.02	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—

Linear, Drainage, Utilities, & Sub-Grade	Worker	27.5	18.5	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	10.2	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	20.0	18.5	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	10.2	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	10.0	18.5	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	10.2	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.13	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	40.0	18.5	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	10.2	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.02	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	27.5	18.5	LDA,LDT1,LDT2

Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	10.2	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	20.0	18.5	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	10.2	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Linear, Paving	0.00	0.00	0.00	0.00	3,221

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Linear, Grubbing & Land Clearing	0.00	10.0	2.81	1.00	—
Linear, Grading & Excavation	10.0	—	2.81	0.00	—

Linear, Drainage, Utilities, & Sub-Grade	—	—	2.81	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Road Widening	2.81	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	117	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.6	annual days of extreme heat
Extreme Precipitation	6.20	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	14.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	99.1
AQ-PM	60.6
AQ-DPM	74.3
Drinking Water	50.3
Lead Risk Housing	98.6
Pesticides	0.00
Toxic Releases	61.3
Traffic	37.6
Effect Indicators	—
CleanUp Sites	87.7
Groundwater	0.00
Haz Waste Facilities/Generators	43.3
Impaired Water Bodies	0.00
Solid Waste	54.8

Sensitive Population	—
Asthma	76.2
Cardio-vascular	85.1
Low Birth Weights	84.8
Socioeconomic Factor Indicators	—
Education	95.9
Housing	88.3
Linguistic	93.3
Poverty	97.1
Unemployment	99.1

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	4.606698319
Employed	3.58013602
Median HI	13.13999743
Education	—
Bachelor's or higher	2.207108944
High school enrollment	100
Preschool enrollment	13.38380598
Transportation	—
Auto Access	86.34672142
Active commuting	41.55010907
Social	—
2-parent households	62.59463621
Voting	2.014628513

Neighborhood	—
Alcohol availability	50.25022456
Park access	11.77980239
Retail density	17.66970358
Supermarket access	15.38560246
Tree canopy	6.890799435
Housing	—
Homeownership	47.73514693
Housing habitability	9.829334018
Low-inc homeowner severe housing cost burden	38.43192609
Low-inc renter severe housing cost burden	0.911074041
Uncrowded housing	3.849608623
Health Outcomes	—
Insured adults	5.761580906
Arthritis	39.1
Asthma ER Admissions	13.2
High Blood Pressure	50.4
Cancer (excluding skin)	89.7
Asthma	4.5
Coronary Heart Disease	23.5
Chronic Obstructive Pulmonary Disease	9.6
Diagnosed Diabetes	8.1
Life Expectancy at Birth	31.9
Cognitively Disabled	36.6
Physically Disabled	27.7
Heart Attack ER Admissions	16.6
Mental Health Not Good	3.4
Chronic Kidney Disease	20.1

Obesity	5.4
Pedestrian Injuries	88.0
Physical Health Not Good	4.0
Stroke	13.0
Health Risk Behaviors	—
Binge Drinking	69.8
Current Smoker	3.8
No Leisure Time for Physical Activity	5.4
Climate Change Exposures	—
Wildfire Risk	25.4
SLR Inundation Area	0.0
Children	6.0
Elderly	88.2
English Speaking	41.0
Foreign-born	63.6
Outdoor Workers	31.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	86.4
Traffic Density	68.3
Traffic Access	23.0
Other Indices	—
Hardship	98.6
Other Decision Support	—
2016 Voting	3.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	95.0

Healthy Places Index Score for Project Location (b)	4.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	San Bernardino Muscoy

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Adding details to construction phasing
Construction: Demolition	includes any removal during initial grubbing of area for road widening
Construction: Architectural Coatings	Added lane line painting

State Street Widening Project Operational Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	State Street Widening Project Operational
Construction Start Date	1/5/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	8.40
Location	N State St & Darby St, Muscoy, CA 92407, USA
County	San Bernardino-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5345
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Parking Lot	2.81	Acre	2.81	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.11	2.73	3.24	32.6	0.09	0.06	7.90	7.96	0.05	2.01	2.06	0.00	9,202	9,202	0.36	0.38	28.3	9,353
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.94	2.57	3.48	26.6	0.08	0.06	7.90	7.96	0.05	2.01	2.06	0.00	8,633	8,633	0.36	0.39	0.73	8,760
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.93	2.55	3.55	27.6	0.08	0.06	7.86	7.91	0.05	2.00	2.05	0.00	8,722	8,722	0.36	0.40	12.2	8,861
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.53	0.47	0.65	5.05	0.02	0.01	1.43	1.44	0.01	0.36	0.37	0.00	1,444	1,444	0.06	0.07	2.02	1,467

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.09	2.71	3.24	32.6	0.09	0.06	7.90	7.96	0.05	2.01	2.06	—	9,046	9,046	0.35	0.38	28.3	9,196

Area	0.02	0.02	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	156	156	0.01	< 0.005	—	157
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	3.11	2.73	3.24	32.6	0.09	0.06	7.90	7.96	0.05	2.01	2.06	0.00	9,202	9,202	0.36	0.38	28.3	9,353
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.92	2.55	3.48	26.6	0.08	0.06	7.90	7.96	0.05	2.01	2.06	—	8,477	8,477	0.35	0.39	0.73	8,603
Area	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	156	156	0.01	< 0.005	—	157
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	2.94	2.57	3.48	26.6	0.08	0.06	7.90	7.96	0.05	2.01	2.06	0.00	8,633	8,633	0.36	0.39	0.73	8,760
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.91	2.53	3.55	27.6	0.08	0.06	7.86	7.91	0.05	2.00	2.05	—	8,565	8,565	0.35	0.40	12.2	8,704
Area	0.02	0.02	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	156	156	0.01	< 0.005	—	157
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	2.93	2.55	3.55	27.6	0.08	0.06	7.86	7.91	0.05	2.00	2.05	0.00	8,722	8,722	0.36	0.40	12.2	8,861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.53	0.46	0.65	5.05	0.02	0.01	1.43	1.44	0.01	0.36	0.37	—	1,418	1,418	0.06	0.07	2.02	1,441
Area	< 0.005	< 0.005	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	25.9	25.9	< 0.005	< 0.005	—	26.0
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.53	0.47	0.65	5.05	0.02	0.01	1.43	1.44	0.01	0.36	0.37	0.00	1,444	1,444	0.06	0.07	2.02	1,467

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	156	156	0.01	< 0.005	—	157
Total	—	—	—	—	—	—	—	—	—	—	—	—	156	156	0.01	< 0.005	—	157
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	156	156	0.01	< 0.005	—	157
Total	—	—	—	—	—	—	—	—	—	—	—	—	156	156	0.01	< 0.005	—	157
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	25.9	25.9	< 0.005	< 0.005	—	26.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	25.9	25.9	< 0.005	< 0.005	—	26.0

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	655	655	655	239,075	11,135	11,135	11,135	4,064,275

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	0.00	0.00	7,344

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Parking Lot	107,226	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.6	annual days of extreme heat
Extreme Precipitation	6.20	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	14.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	100
AQ-PM	61.5
AQ-DPM	80.3

Drinking Water	54.0
Lead Risk Housing	97.2
Pesticides	0.00
Toxic Releases	61.9
Traffic	56.2
Effect Indicators	—
CleanUp Sites	86.4
Groundwater	0.00
Haz Waste Facilities/Generators	8.76
Impaired Water Bodies	0.00
Solid Waste	52.9
Sensitive Population	—
Asthma	81.3
Cardio-vascular	87.2
Low Birth Weights	55.4
Socioeconomic Factor Indicators	—
Education	91.6
Housing	90.2
Linguistic	74.4
Poverty	92.1
Unemployment	95.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	4.79917875
Employed	7.070447838

Median HI	19.05556268
Education	—
Bachelor's or higher	5.017323239
High school enrollment	25.31759271
Preschool enrollment	26.78044399
Transportation	—
Auto Access	11.18952906
Active commuting	2.373925318
Social	—
2-parent households	36.55844989
Voting	3.644296163
Neighborhood	—
Alcohol availability	42.47401514
Park access	30.79686898
Retail density	16.68163737
Supermarket access	10.40677531
Tree canopy	12.72937251
Housing	—
Homeownership	46.92672912
Housing habitability	12.83202874
Low-inc homeowner severe housing cost burden	5.389452072
Low-inc renter severe housing cost burden	38.6629026
Uncrowded housing	4.131913255
Health Outcomes	—
Insured adults	4.157577313
Arthritis	40.2
Asthma ER Admissions	16.5
High Blood Pressure	44.4

Cancer (excluding skin)	89.7
Asthma	4.5
Coronary Heart Disease	28.5
Chronic Obstructive Pulmonary Disease	11.3
Diagnosed Diabetes	9.5
Life Expectancy at Birth	4.4
Cognitively Disabled	70.6
Physically Disabled	42.3
Heart Attack ER Admissions	24.2
Mental Health Not Good	4.1
Chronic Kidney Disease	20.1
Obesity	8.7
Pedestrian Injuries	19.6
Physical Health Not Good	5.0
Stroke	13.0
Health Risk Behaviors	—
Binge Drinking	81.4
Current Smoker	5.4
No Leisure Time for Physical Activity	5.2
Climate Change Exposures	—
Wildfire Risk	5.5
SLR Inundation Area	0.0
Children	6.0
Elderly	86.8
English Speaking	30.5
Foreign-born	72.4
Outdoor Workers	18.8
Climate Change Adaptive Capacity	—

Impervious Surface Cover	76.5
Traffic Density	57.6
Traffic Access	23.0
Other Indices	—
Hardship	98.0
Other Decision Support	—
2016 Voting	4.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	92.0
Healthy Places Index Score for Project Location (b)	2.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	San Bernardino Muscoy

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

BIOLOGICAL RESOURCES REPORT
STATE STREET WIDENING
SAN BERNARDINO AREA

Prepared by: Karen Carter, Ecological Resource Specialist
San Bernardino County
Department of Public Works
Environmental Management Division
(909) 387-7955

Date: December 26, 2024
USGS Quad: San Bernardino North Quadrangle
DPW WO#: H15233

Project Description

The project consists of widening the west side of State Street between Adams Street to Darby Street. Project activities include construction of new curb, gutter, sidewalk ramps and widening asphalt pavement, removal of asphalt, curb and gutter and driveways, and painting of traffic stripes and installation of traffic signs.

Environmental Issues and Endangered Species Review

The project is located within dense residential and commercial development. The principle vegetation type consists of nonnative ornamental trees and shrubs. There is potential for sensitive species to occur adjacent to the project site. A review of the California Natural Diversity Database (CNDDB attached) was performed. While it revealed that the San Bernardino North quadrangle contains several federally and State listed endangered or threatened species, none of these species are recorded within the project site. A review of iPaC (attached) also resulted in the absence of USFWS designated Critical Habitat. It has been determined that the project site cannot support these species, as it is highly disturbed due to development.

Site Review

The vegetation within and immediately adjacent to the project area are dominated by nonnative ornamental vegetation. While this vegetation type is not suitable for the species listed above, the vegetation in the area could support numerous nesting bird species during nesting bird season.

Determination

I have determined that project related activities will not impact any sensitive habitat and/or species. However, to ensure no impacts to species the following actions should be taken;

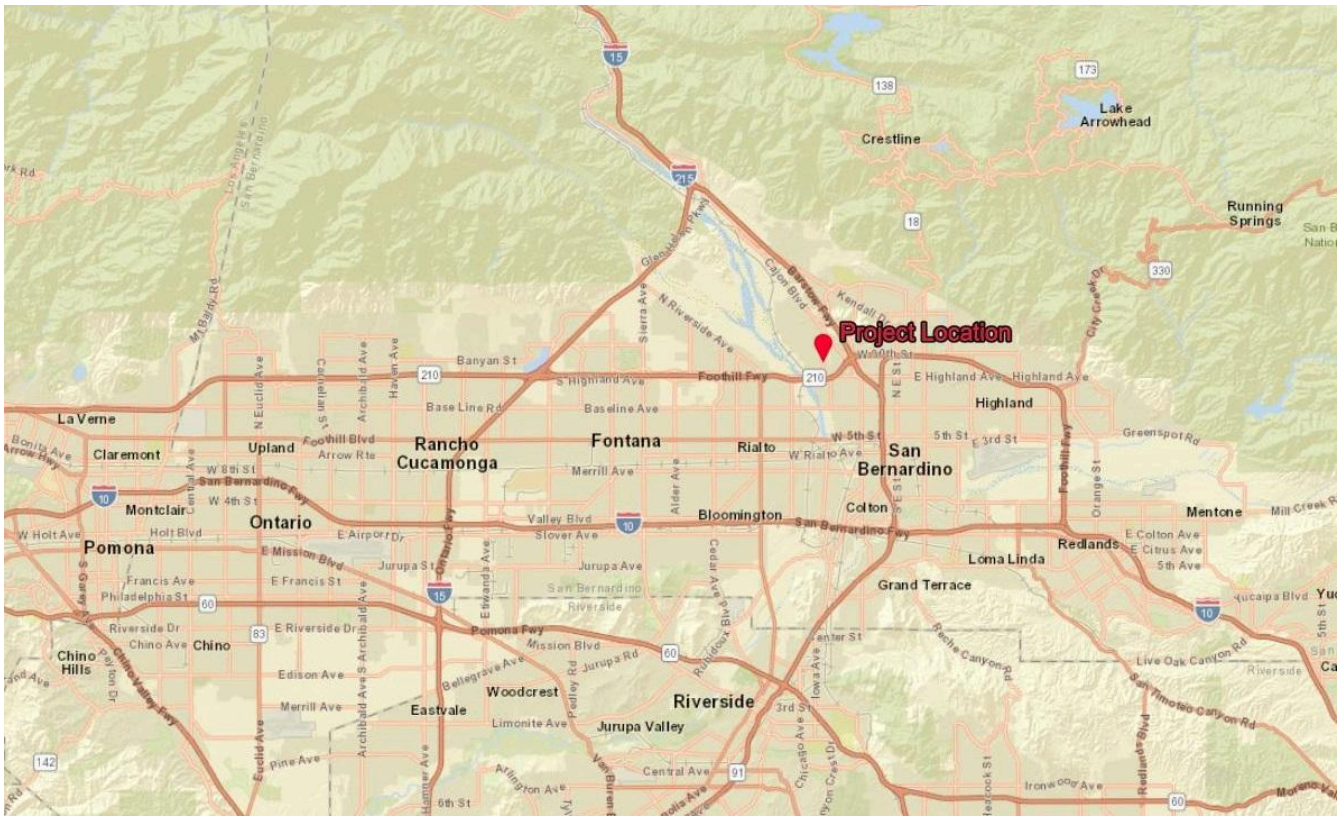
1. If work occurs during the nesting bird season (March 1 – August 31), a pre-construction nesting bird survey must be conducted no more than three days prior to the start of work;
2. If active nests are detected, appropriate avoidance buffers will be established and work activities within the vicinity of the nest will be monitored.

3. Tree/vegetation trimming or removal should be done outside of nesting bird season (September 1 – February 28).

ATTACHMENTS

Attachment 1 – Regional Site Map
Attachment 2 – Project Location Map
Attachment 3 – California Natural Diversity Database Report and Occurrence Probability Table
Attachment 4 – iPaC Results

ATTACHMENT 1 – REGIONAL SITE MAP



ATTACHMENT 2 – PROJECT LOCATION MAP

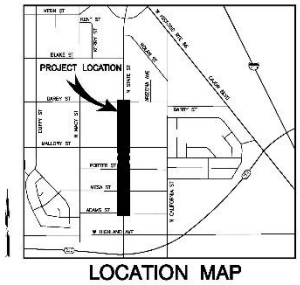
SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

SAN BERNARDINO COUNTY PUBLIC WORKS

TRANSPORTATION
PLANS FOR CONSTRUCTION ON
STATE STREET WIDENING
LIMITS
ADAMS STREET TO DARBY STREET

WORK ORDER NO. H15233 ROAD NO. 772650-010

LENGTH = 0.61 MILES



LOCATION MAP
NOT TO SCALE

SAN BERNARDINO COUNTY

APPROVED BY: _____ _____
NOEL CASTILLO, P.E., DIRECTOR OF PUBLIC WORKS R.C.E. 76344 DATE

PRELIMINARY
35% REVIEW

FIELD CHANGES

FILE NO. 772650-010

FILE NO. 772650-010

ATTACHMENT 3 – CALIFORNIA DEPARTMENT OF FISH AND GAME NATURAL DIVERSITY DATABASE REPORT AND OCCURRENCE PROBABILITY

Table for San Bernardino North Quadrangle

Common Name	Scientific Name	Habitat	Status	Occurrence Probability
Plants				
Black bog-rush	*Schoenus nigricans*	Marsh & swamp, Wetland	Fed: None CA: None CNPS: 2B.2	**Not present:** The project site and/or immediate area does not support suitable habitat
California satintail	*Imperata brevifolia*	Coastal scrub, chaparral, riparian scrub, mojavean desert scrub, meadows and seeps (alkali), riparian scrub.	Fed: None CA: None CNPS: 2B.1	**Not present:** The project site and/or immediate area does not support suitable habitat
Hot springs fimbristylis	*Fimbristylis thermalis*	Meadows and seeps (alkaline)	Fed: None CA: None CNPS: 2B.2	**Not present:** The project site and/or immediate area does not support suitable habitat
Marsh sandwort	*Arenaria paludicola*	Freshwater marsh, marsh & swamp,wetland	Fed: Endangered CA: Endangered CNPS: 1B.1	**Not present:** The project site and/or immediate area does not support suitable habitat.
Nevin's barberry	*Berberis nevinii*	Chaparral, cismontane woodland, coastal scrub, riparian scrub	Fed: Endangered CA: Endangered CNPS: 1B.1	**Not present:** The project site and/or immediate area does not support suitable habitat
Palmer's mariposa-lily	*Calochortus palmeri var. palmeri*	Meadows and seeps, chaparral, lower montane coniferous forest	Fed: None CA: None CNPS: 1B.2	**Not present:** The project site and/or immediate area does not support suitable habitat
Parish's bush-mallow	*Malacothamnus parishii*	Chaparral, coastal sage scrub	Fed: None CA: None CNPS: 1A	**Unlikely:** The project site and/or immediate area does not support suitable habitat.

Table for San Bernardino North Quadrangle

Common Name	Scientific Name	Habitat	Status	Occurrence Probability
Parish's desert-thorn	*Lycium parishii*	Coastal scrub, Sonoran desert scrub	Fed: None CA: None CNPS: 2B.3	**Unlikely:** The project site and/or immediate area does not support suitable habitat.
Parry's spineflower	*Chorizanthe parryi var. parryi*	Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland	Fed: None CA: None CNPS: 1B.1	**Unlikely:** The project site and/or immediate area does not support suitable habitat.
Plummer's mariposa-lily	*Calochortus plummerae*	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest	Fed: None CA: None CNPS: 4.2	**Unlikely:** The project site and/or immediate area does not support suitable habitat.
Salt marsh bird's-beak	*Chloropyron maritimum ssp. maritimum*	Marshes and swamps, coastal dunes	Fed: Endangered CA: Endangered CNPS: 1B.2	**Not present:** The project site and/or immediate area does not support suitable habitat
San Bernardino aster	*Symphyotrichum defoliatum*	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland	Fed: None CA: None CNPS: 1B.2	**Not present:** The project site and/or immediate area does not support suitable habitat
San Bernardino Mountains owl's-clover	*Castilleja lasiorhyncha*	Meadows and seeps, pebble plain, upper montane coniferous forest, chaparral, riparian woodland	Fed: None CA: None CNPS: 1B.2	**Not present:** The project site and/or immediate area does not support suitable habitat
Santa Ana River woollystar	*Eriastrum densifolium ssp. sanctorum*	Coastal scrub, chaparral	Fed: Endangered CA: Endangered CNPS: 1B.1	**Not present:** The project site and/or immediate area does not support suitable habitat

Table for San Bernardino North Quadrangle

Common Name	Scientific Name	Habitat	Status	Occurrence Probability
Slender-horned spineflower	*Dodecahema leptoceras*	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub)	Fed: Endangered CA: Endangered CNPS: 1B.1	**Not present:** The project site and/or immediate area does not support suitable habitat
Smooth tarplant	*Centromadia pungens ssp. laevis*	Valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland	Fed: None CA: None CNPS: 1B.1	**Not present:** The project site and/or immediate area does not support suitable habitat
Southern jewelflower	*Streptanthus campestris*	Chaparral, lower montane coniferous forest, pinyon and juniper woodland	Fed: None CA: None CNPS: 2B.2	**Not present:** The project site and/or immediate area does not support suitable habitat
thread-leaved brodiaea	*Brodiaea filifolia*	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools	Fed: Threatened CA: Endangered CNPS: 1B.1	**Not present:** The project site and/or immediate area does not support suitable habitat
Invertebrates				
Crotch bumble bee	*Bombus crotchii*	Coastal California east to the Sierra-Cascade crest and south into Mexico	Fed: None CA: Candidate Endangered	**Unlikely:** The project site and/or immediate area does not support suitable habitat
American bumble bee	*Bombus pensylvanicus*	Coastal prairie, Great Basin grassland, valley and foothill grassland	Fed: None CA: None	**Unlikely:** The project site and/or immediate area does not support suitable habitat
Andrew's marble butterfly	*Euchloe hyantis andrewsi*	Lower montane coniferous forest	Fed: None CA: None	**Not present:** The project site and/or immediate area does not support suitable habitat
Quino checkerspot butterfly	*Euphydryas editha quino*	Chaparral, Coastal scrub	Fed: Endangered CA: None	**Not present:** The project site and/or immediate area does not support suitable habitat

Table for San Bernardino North Quadrangle

Common Name	Scientific Name	Habitat	Status	Occurrence Probability
White cuckoo bee	*Neolarra alba*	Known only from localities in Southern California.	Fed: None CA: None	**Unlikely:** The project site and/or immediate area does not support suitable habitat.
Amphibians and Reptiles				
California glossy snake	*Arizona elegans occidentalis*	Broadleaved upland forest, chaparral, coastal dunes, coastal scrub	Fed: None CA: SCC	**Unlikely:** The project site and/or immediate area does not support suitable habitat.
Coast horned lizard	*Phrynosoma blainvillii*	Chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, desert wash, pinon & juniper woodlands, riparian scrub, riparian woodland, valley & foothill grassland	Fed: None CA: SCC	**Not present:** The project site and/or immediate area does not support suitable habitat
Coastal whiptail	*Aspidoscelis tigris stejnegeri*	Deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas	Fed: None CA: SCC	**Not present:** The project site and/or immediate area does not support suitable habitat
Orange-throated whiptail	*Aspidoscelis hyperythra*	Chaparral, cismontane woodland, coastal scrub	Fed: None CA: None	**Not present:** The project site and/or immediate area does not support suitable habitat
San Bernardino ringneck snake	*Diadophis punctatus modestus*	Most common in open, relatively rocky areas. Often in somewhat moist microhabitats near intermittent streams	Fed: None CA: None	**Not present:** The project site and/or immediate area does not support suitable habitat
San Gabriel slender salamander	*Batrachoseps gabrieli*	Talus slope	Fed: None CA: None	**Not present:** The project site and/or immediate area does not support suitable habitat

Table for San Bernardino North Quadrangle

Common Name	Scientific Name	Habitat	Status	Occurrence Probability
Southern California legless lizard	*Anniella stebbinsi*	Broadleaved upland forest, chaparral, coastal dunes, coastal scrub	Fed: None CA: SSC	**Unlikely:** The project site and/or immediate area does not support suitable habitat.
Southern mountain yellow-legged frog	*Rana muscosa*	Aquatic	Fed: Endangered CA: Endangered	**Not present:** The project site and/or immediate area does not support suitable habitat
Southern rubber boa	*Charina umbratica*	Meadow & seep, Riparian forest, Riparian woodland, Upper montane coniferous forest, Wetland	Fed: None CA: Threatened	**Not present:** The project site and/or immediate area does not support suitable habitat
Two-striped gartersnake	*Thamnophis hammondii*	Marsh & swamp, riparian scrub, riparian woodland, wetland	Fed: None CA: SSC	**Not present:** The project site and/or immediate area does not support suitable habitat
Western spadefoot	*Spea hammondii*	Cismontane woodland, coastal scrub, valley & foothill grassland, vernal pool, wetland	Fed: None CA: SSC	**Not present:** The project site and/or immediate area does not support suitable habitat
Mammals				
Los Angeles pocket mouse	*Perognathus longimembris brevinasus*	Coastal scrub	Fed: None CA: SSC	**Not present:** The project site and/or immediate area does not support suitable habitat
Northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	Chaparral, coastal scrub	Fed: None CA: SSC	**Not present:** The project site and/or immediate area does not support suitable habitat

Table for San Bernardino North Quadrangle

Common Name	Scientific Name	Habitat	Status	Occurrence Probability
Pocketed free-tailed bat	*Nyctinomops femorosaccus*	Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian.	Fed: None CA: SSC	**Unlikely:** The project site and/or immediate area does not support suitable habitat.
San Bernardino flying squirrel	*Glaucomys oregonensis californicus*	Broadleaved upland forest, Lower montane coniferous forest	Fed: None CA: SSC	**Not present:** The project site and/or immediate area does not support suitable habitat
San Bernardino kangaroo rat	*Dipodomys merriami parvus*	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains.	Fed: Endangered CA: SSC	**Not present:** The project site and/or immediate area does not support suitable habitat
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	Intermediate canopy stages of shrub habitats and open shrub, herbaceous and tree, herbaceous edges.	Fed: None CA: SSC	**Not present:** The project site and/or immediate area does not support suitable habitat
San Diego desert woodrat	*Neotoma lepida intermedia*	Coastal scrub	Fed: None CA: SSC	**Not present:** The project site and/or immediate area does not support suitable habitat
Western yellow bat	*Lasiurus xanthinus*	Desert wash	Fed: None CA: SSC	**Unlikely:** The project site and/or immediate area does not support suitable habitat.
Birds				
California horned lark	*Eremophila alpestris actia*	Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	Fed: None CA: None	**Unlikely:** The project site and/or immediate area does not support suitable habitat.

Table for San Bernardino North Quadrangle

Common Name	Scientific Name	Habitat	Status	Occurrence Probability
Coastal California gnatcatcher	*Polioptila californica californica*	Coastal bluff scrub, coastal scrub	Fed: Threatened CA: SSC	**Unlikely:** The project site and/or immediate area does not support suitable habitat.
Least Bell's vireo	*Vireo bellii pusillus*	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft.	Fed: Endangered CA: Endangered	**Not present:** The project site and/or immediate area does not support suitable habitat
Merlin	*Falco columbarius*	Resident in Southern California coastal sage scrub and sparse mixed chaparral.	Fed: None CA: None	**Unlikely:** The project site and/or immediate area does not support suitable habitat.
Southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	Chaparral, coastal scrub	Fed: None CA: WL	**Unlikely:** The project site and/or immediate area does not support suitable habitat.
Yellow warbler	*Setophaga petechia*	Riparian forest, Riparian scrub, Riparian woodland	Fed: None CA: SSC	**Not present:** The project site and/or immediate area does not support suitable habitat

ATTACHMENT 4 – iPaC Results

IPaC Information for Planning and Consultation **U.S. Fish & Wildlife Service**

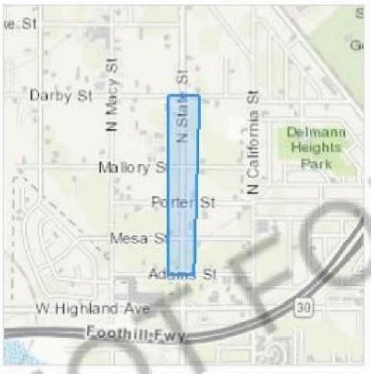
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Bernardino County, California



NOT FOR CONSULTATION

Local office

Carlsbad Fish And Wildlife Office

(760) 431-9440
(760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

NOT FOR CONSULTATION

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. 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.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
San Bernardino Merriam's Kangaroo Rat Dipodomys merriami parvus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2060	Endangered

Birds

NAME	STATUS
Coastal California Gnatcatcher Polioptila californica californica Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo Vireo bellii pusillus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5945	Endangered

NOT FOR CONSULTATION

Reptiles

NAME	STATUS
Southwestern Pond Turtle Actinemys pallida Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4768	Proposed Threatened

Amphibians

NAME	STATUS
Western Spadefoot Spea hammondii Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

Fishes

NAME	STATUS
Santa Ana Speckled Dace Rhinichthys gabrielino No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4124	Proposed Threatened
Santa Ana Sucker Catostomus santaanae There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3785	Threatened

Insects

NAME	STATUS

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NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found There is **proposed** critical habitat for this species. https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

Flowering Plants

NAME	STATUS
Nevin's Barberry Berberis nevinii Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8025	Endangered
Santa Ana River Woolly-star Eriastrum densifolium ssp. sanctorum Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6575	Endangered
Slender-horned Spineflower Dodecahema leptoceras Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4007	Endangered
Thread-leaved Brodiaea Brodiaea filifolia Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6087	Threatened

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Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

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For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is

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the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

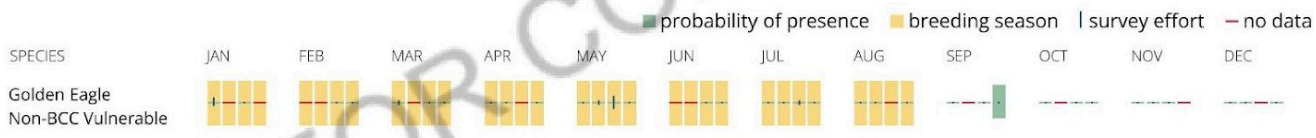
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in

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that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

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- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/ documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Belding's Savannah Sparrow Passerculus sandwichensis beldingi This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15

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Bullock's Oriole Icterus bullockii — Breeds Mar 21 to Jul 25
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

California Gull Larus californicus — Breeds Mar 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/2084

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Spinus lawrencei — Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Northern Harrier Circus hudsonius — Breeds Apr 1 to Sep 15
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8350

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Nuttall's Woodpecker Dryobates nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Santa Barbara Song Sparrow Melospiza melodia graminea — Breeds Mar 1 to Sep 5
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/5513

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is

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the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

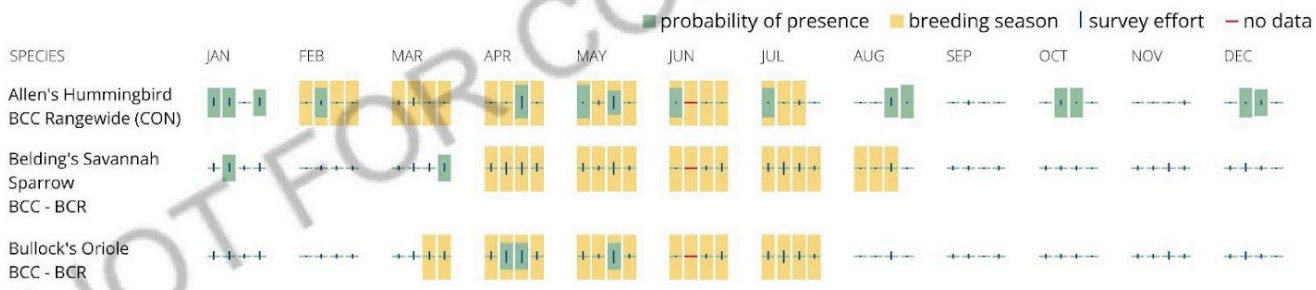
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



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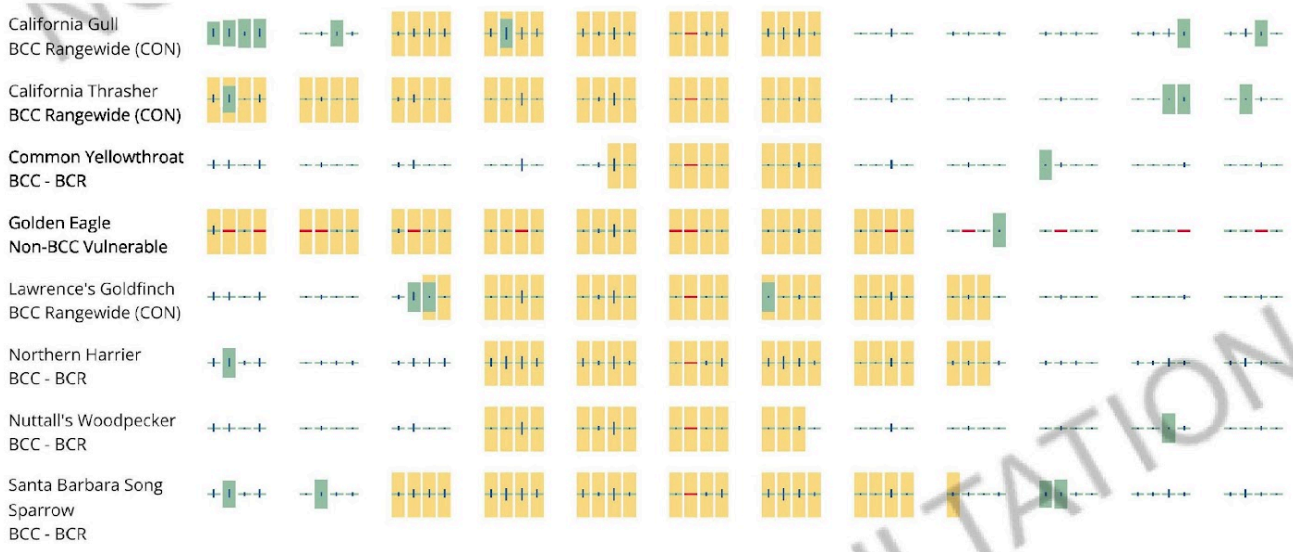

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a

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BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

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Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

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The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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MEMORANDUM

DATE: May 23, 2025

TO: Mark Hopkins, Project Manager, SummitWest Environmental

FROM: Michael Hendrix

SUBJECT: Noise Analysis for State Street Road Widening Project

Michael Hendrix Consulting (MHC) is pleased to provide you with this noise analysis for the State Street Road Widening Project, in the unincorporated community of Muscoy, San Bernardino County, California. The following sections summarize the analysis.

INTRODUCTION

This noise and vibration impact analysis has been prepared to evaluate the potential noise and vibration impacts from and identify reduction measures associated with the road widening Project along Street between Adams Street and Darby Street. This report is intended to satisfy County of San Bernardino (County) requirements for a project-specific noise and vibration impact analysis by examining the short-term and long-term noise and vibration impacts on sensitive uses adjacent to the project site and evaluating reduction measures required by the proposed project.

PROJECT LOCATION AND DESCRIPTION

The Project site is in the western portion of San Bernardino County within the community of Muscoy.

The proposed project has been designed by the County to conform with the General Plan Transportation & Mobility Element Policy Maps. The roadway ultimate classification is that of a Major Highway – SBC Std. Plan 101, four lane highway with intersections at grade and control access. To minimize right-of-way, take and encroachment into typical residential structure setback requirements, proposed work which addresses current and projected emerging mobility needs involves widening of the roadway westerly of its existing centerline to accommodate improvements for approximately 0.61 miles on State Street from Adams Street to Darby Street. The interim geometric section and improvements posed west of the centerline affords the inclusion of a 12-foot median that obliges left turn movement at intersections and midblock access to individual parcels, a 12-foot through travel lane - southbound, an 8-foot shoulder to accommodate on-street parking and refuse pickup, and a 6-foot parkway to accommodate sidewalk and driveway approaches. Provisions for the inclusion of ADA compliant curb ramps, curb and gutter and street lighting are also addressed. Existing improvements easterly of the centerline for the interim condition will remain largely as is. Anticipated maximum excavation depth for most work is 18-inches.

EXISTING SETTING

Overview of the Existing Noise Environment

The Project site is bordered by single-family, commercial, and light industrial land uses. Roadway noise is the dominant source of noise in the project area.

The State of California defines sensitive receptors as those land uses that require serenity or are otherwise adversely affected by noise events or conditions. Schools, libraries, churches, hospitals, single and multiple-family residential, including transient lodging, motels and hotel uses make up the majority of these areas.

Surrounding Land Uses in the Project Vicinity

The surrounding land uses are dominated by older single-family residential homes, interspersed with neighborhood commercial, retail tire and repair, truck storage yards, and other miscellaneous commercial and light industrial uses.

Overview of the Existing Noise Levels in the Project Area

Ambient noise levels were last measured on State Street between Adams Street and Darby Street on Monday April 28, 2025 between the hours of 4:04pm and 6:12pm. Table 1 provides a summary of the short-term ambient noise data. The dominant noise sources were from vehicles traveling along State Street and other surrounding roadways.

Table 1: Ambient Noise Levels in Project Vicinity (dBA)

Daytime Noise Levels (April 2025)					
Site Location	Time Started	Leq	Lmax	Lmin	L(50)
State Street at Adams Street	4:04pm	65.0	78.5	57.3	59.7
State Street at Porter Street.	4:38pm	62.8	75.0	49.9	58.2
State Street at Darby Street	5: 52pm	64.6	70.2	50.2	58.8

Source: MHC April 2025.

REGULATORY SETTING

Federal Regulations

The criteria for environmental impacts from ground-borne vibration and noise are based on the maximum levels for a single event. Table E lists the potential vibration building damage criteria associated with construction activities, as suggested in the *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018). Federal Traffic Administration (FTA) guidelines show that a vibration level of up to 102 VdB (equivalent to 0.5 in/sec in PPV [FTA 2018]) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For nonengineered-timber and masonry buildings, the construction building vibration damage criterion is 94 VdB (0.2 in/sec in PPV).

Table 2: Construction Vibration Damage Criteria

Building Category	PPV (in/sec)	Approximate Lv (VdB)
Reinforced concrete, steel or timber (no plaster)	0.50	102
Engineered concrete and masonry (no plaster)	0.30	98
Nonengineered timber and masonry buildings	0.20	94
Buildings extremely susceptible to vibration damage	0.12	90

Source: Transit Noise and Vibration Impact Assessment Manual (FTA 2018)

County of San Bernardino Countywide Plan

The County of San Bernardino Countywide Plan (Policy Plan) serves as the County's General Plan and was adopted in October 2020. The County's Policy Plan's Hazards Element provides goals and policies that are intended to protect life, property, and commerce from impacts associated with natural hazards, human-generated hazards, and increased risk due to climate change. The noise related goals and policies from the Hazards Element that are applicable to the proposed project are presented below:

Policy HZ-2.8 Proximity to noise generating uses. We limit or restrict new noise sensitive land uses in proximity to existing conforming noise generating uses and planned industrial areas.

Policy HZ-2.9 Control sound at the Source. We prioritize noise mitigation measures to control sound at the source before buffers, sound walls, and other perimeter measures.

County of San Bernardino Development Code

Section 83.01.080(c) of the County Development Code establishes the noise standards for stationary noise sources that affect adjacent properties. Table 3 provides the County's noise standards based on the affected land use and the time period. The noise metric used for stationary sources is defined as noise levels that cannot be exceeded for certain percentages of time, or Ln.

Section 83.01.080(g)(3) of the County Code limits temporary construction, maintenance, repair, or demolition activities to between the hours of 7:00 a.m. and 7:00 p.m., except Sundays and Federal holidays.

Table 3: County of San Bernardino Standards for Stationary Noise Sources (dBA)

Affected Land Use (Receiving Noise)	Time Period	L_{50} (30 min)	L_{25} (15 min)	L_8 (5 min)	L_2 (1 min)	Lmax (Anytime)
Residential	7am to 10pm	55	60	65	70	75
	10pm to 7am	45	50	55	60	65

Source: County of San Bernardino, County Development Code Table 83-2.

Table 4: County of San Bernardino Noise Standards for Mobile Noise Sources (dBA)

Land Use		CNEL dBA	
Category	Type	Interior	Exterior
Residential	Single and Multi-family, duplex, mobile homes	45	60

Source: County of San Bernardino, County Development Code Table 83-3

Section 83.01.090 of the County Code requires that no ground vibration shall be allowed that can be felt without the aid of instruments at or beyond the lot line, nor shall any vibration be allowed which produces a particle velocity greater than or equal to two-tenths (0.2) in/sec measured at or beyond the lot line. In addition, vibration generated from temporary construction, maintenance, repair, or demolition activities between 7:00 a.m. and 7:00 p.m. is exempt, except Sundays and Federal holidays.

IMPACTS

Short-Term Construction Noise Impacts

Two types of short-term noise impacts could occur during construction on the project site. First, construction crew commutes and the transport of construction equipment and materials to the site for the proposed project would incrementally increase noise levels on roads leading to the site. The pieces of heavy equipment for construction activities will be moved on site, will remain for the duration of construction. Although there would be a relatively high single-event noise exposure potential causing intermittent noise nuisance (passing trucks at 50 ft would generate up to a maximum of 78 dBA), the effect on longer-term (hourly or daily) ambient noise levels would be small because the hourly/daily construction-related vehicle trips are small when compared to existing hourly/daily traffic volume on State Street and surrounding roadways.
Construction-related traffic would increase noise by up to 0.8 dBA on State Street. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, no short-term, construction-related noise impacts associated with worker commute and equipment transport to the project site would occur, and no noise reduction measures are required.

The second type of short-term noise impact is related to noise generated during roadway preparation, grading, paving, cement pouring during installation of curbs, gutters, and sidewalks, and architectural coating (i.e. painting lines) on the newly paved roadway. Construction is undertaken in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases change the character of the noise generated on a project site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table L lists the maximum noise levels (Lmax) recommended for noise impact assessments for typical construction equipment included in the *FHWA Highway Construction Noise Handbook* (FHWA 2006), based on a distance of 50 ft between the equipment and a noise receptor.

Typical noise levels range up to 88 dBA Lmax at 50 ft during the noisiest construction phases. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front-end loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders.

Table 5: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor[1]	Maximum Noise Level (L_{max}) at 50 ft[2].
Backhoe	40	80
Ground Compactor	20	80
Crane	40	80
Dozer	16	85
Dump Truck	40	85
Excavator	40	84
Flatbed Truck	40	85
Forklift	20	84
Front End Loader	40	80
Grader	40	85
Impact Pile Driver	20	95
Jackhammer	20	85
Pickup Truck	40	55
Pneumatic Tools	50	85
Pump	50	77
Roller	20	85
Scraper	40	85
Tractor	40	84
Welder	40	73

Source: FHWA Highway Construction Noise Handbook, Table 9.1 (FHWA 2006).

Project construction is expected to require the use of graders and water trucks/pickup trucks. Noise associated with the use of each type of construction equipment for the site preparation phase is estimated to be between 55 dBA Lmax and 85 dBA Lmax at a distance of 50 ft from the active construction area. As shown in Table L, the maximum noise level generated by each grader is assumed to be approximately 85 dBA Lmax at 50 ft. The maximum noise level generated by water trucks/pickup trucks is approximately 55 dBA Lmax at 50 ft from these vehicles. Each doubling of the sound sources with equal strength increases the noise level by 3 dBA. If each piece of construction equipment operates at some distance from the other equipment, the worst-case combined noise level during this phase of construction would be 88 dBA Lmax at a distance of 50 ft from the active construction area. Based on a usage factor of 40 percent, the worst-case combined noise level during this phase of construction would be 84 dBA Leq at a distance of 50 ft from the active construction area.

Modeled unmitigated construction noise levels reach up to 73 dBA Leq at the nearest residential property line along State Street. Construction noise sources are regulated within Section 83.01.080(g)(3) of the County of San Bernardino's Development Code which prohibits construction activities other than between the hours of 7:00 AM and 7:00 PM, except Sundays and Federal holidays. Therefore, the County of San Bernardino has not adopted a numerical threshold that identifies what a substantial increase would be. For purposes of this analysis Federal Transit Administration (FTA), daytime construction noise levels should not exceed 80 dBA Leq for an 8-hour period at residential uses.

Project construction will not occur outside of the hours outlined as "exempt" in County of San Bernardino Development Code Section 83.01.080(g)(3) and will not exceed the FTA construction thresholds at existing nearby residential uses. Therefore, construction of the proposed project will not result in or generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance.

Impacts associated with construction noise would be less than significant and no mitigation is required.

Short-Term Construction Vibration Impacts

This construction vibration impact analysis discusses the level of human annoyance using vibration levels in VdB and assesses the potential for building damage using vibration levels in PPV (in/sec). Vibration levels calculated in RMS velocity are best for characterizing human response to building vibration, whereas vibration levels in PPV are best for characterizing damage potential. As shown in Table E, the FTA guidelines indicate that a vibration level up to 102 VdB (equivalent to 0.5 PPV [in/sec]) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage (FTA 2018). For a nonengineered-timber and masonry building, the construction vibration damage criterion is 94 VdB (0.2 PPV [in/sec]). For a fragile building, the construction vibration damage criterion is 90 VdB (0.12 PPV [in/sec]).

Table 6 shows the reference vibration levels at a distance of 25 ft for each type of standard construction equipment from the *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018). Outdoor site preparation for the proposed project is expected to require the use of a large bulldozer and loaded trucks, which would generate ground-borne vibration of up to 87 VdB (0.089 PPV [in/sec]) and 86 VdB (0.076 PPV [in/sec] when measured at 25 ft, respectively. The greatest vibration levels are anticipated to occur during the site preparation and paving phases.

Table 6: Vibration Source Amplitudes for Construction Equipment

Equipment	**Reference PPV/L_v at 25 ft.**	
	PPV	**L_V (VdB)**
Impact Pile Driver	0.664	104
Sonic Pile Driver	0.170	93
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large Dozers[1]	0.089	87
Cason Drilling	0.089	87
Loaded Truck[1]	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Source: Transit Noise and Vibration Impact Assessment Manual (FTA 2018)

[1] Equipment shown in bold are expected to be used on site.

The formula for vibration transmission is provided below:

$$LvdB\ (D) = LvdB\ (25\ ft) - 30\ Log\ (D/25)$$

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

Table 7 lists the projected vibration levels from various construction equipment expected to be used on the project site to the closest buildings in the project vicinity. As shown in Table 7, the closest structure (residential) to the east and west of the project construction boundary, approximately 50 ft away, would experience vibration levels of up to 84 VdB (0.045 PPV [in/sec]). This vibration level would be a temporary annoyance because vibration levels would exceed the FTA community annoyance threshold of 78 VdB for residential uses during daytime hours. However, this vibration level does not have the potential to result in any building damage because the building was observed to be constructed of nonengineered-timber and masonry and the vibration level would not exceed the FTA vibration damage threshold of 94 VdB (0.2 PPV [in/sec]).

All other building structures surrounding the project site would experience vibration levels of 74 VdB (0.019 PPV [in/sec]) or lower. This vibration level would be barely perceptible and would not result in community annoyance. In addition, this vibration level would not have the potential to result in building damage because these buildings were observed to be constructed of nonengineered-timber and masonry, and the vibration level would not exceed the FTA vibration damage threshold of 94 VdB (0.2 PPV [in/sec]). Therefore, no construction vibration impacts would occur during project construction, and no vibration reduction measures are required.

Table 7: Vibration Source Amplitudes for Construction Equipment

Land Use	Direction	Equipment/Activity	Reference Vibration Level (VdB) at 25 ft.	Reference Vibration Level (PPV [in/sec]) at 25 ft.	Distance	Maximum Vibration Level (VdB)	Maximum Vibration Level (PVPV)
Residential	West	Loaded Trucks	87	0.089	50	84	0.045
		Large Excavators	86	0.076	50	83	0.038
Residential	West	Loaded Trucks	87	0.089	50	84	0.045
		Pavers	86	0.076	50	83	0.038
Residential	East	Loaded Trucks	87	0.089	70	74	0.019
		Large Excavators s	86	0.076	70	73	0.016
Residential	East	Loaded Trucks	87	0.089	170	62	0.005
		Pavers	86	0.076	170	61	0.004

Source: Compiled by MHC (May 2025)

Long-Term Traffic Noise Impacts

The FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used to evaluate traffic related noise conditions along street segments in the project vicinity. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry, to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resulting noise levels are weighted and summed over 24-hour periods to determine the CNEL values. The Existing (2025) without and with project ADT volumes were estimated from the County's Trip Counts on State Street North of Highland Avenue, which were taken in March 2012. The ADT at that time was 10,387.

In order to provide current ADE estimates, a trip growth factor of 0.02 percent per year was applied to estimate existing traffic volumes in 2025 (13-year change). The estimated ADT in 2025 is 13,088. The standard vehicle mix for Southern California roadways was used for traffic on State Street under the without project scenario. Table 8 lists the traffic noise levels for the Existing (2025) without and with project scenarios. These noise levels represent the worst-case scenario, which assumes that no shielding is provided between the traffic and the location where the noise contours are drawn. The specific assumptions used In developing these noise levels and the model printouts are provided in Appendix A.

Table 8: Existing (2025) Traffic Noise Levels Without and With Project

Roadway Segment	Without Project Traffic Conditions					With Roadway Improvements Traffic Conditions					
	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	ADT	Centerline to 70 dBA CNEL (ft)	Centerline to 65 dBA CNEL (ft)	Centerline to 60 dBA CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Increase from Baseline Conditions
State Street	13,088[1]	< 50	58.0	74.4	66.9	13,742[1]	< 50	59.1	75.8	67.2	0.3

Source: Compiled by MHC (May 2025)

[1] ADT for 2025 was estimated using the County's 2012 counts. Without Project assumes 0.02 percent per year growth in traffic. With Project includes an additional 5 percent increase in through traffic due to roadway improvements.

Table 8 shows that the project-related traffic noise increase on State Street would increase by less than 1 dBA. The detailed noise calculations are provided in Appendix A. This noise level increase is below the 3 dBA threshold and would not be perceptible to the human ear in an outdoor environment. Therefore, no off-site traffic noise impacts would occur, and no noise reduction measures are required.

Attachment A: FHWA Highway Traffic Noise Model Printouts

18227 Ranchero Road, Hesperia, California 92345 951.236.1896 www.MichaelHendrixConsulting.com

ATTACHMENT A:

FHWA HIGHWAY TRAFFIC NOISE MODEL PRINTOUTS

TABLE Existing No Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/17/2025
ROADWAY SEGMENT: State Street
NOTES: Existing No Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13088 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 38 SITE CHARACTERISTICS: Soft

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* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.9

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	58.0	74.4	114.2

TABLE Existing With Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/17/2025
ROADWAY SEGMENT: State Street
NOTES: Existing With Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13742 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
AUTOS	88.08	9.34
M-TRUCKS	1.65	0.19
H-TRUCKS	0.66	0.08

ACTIVE HALF-WIDTH (FT): 38 SITE CHARACTERISTICS: Soft

---

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.2

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
0.0	59.1	75.8	121.3

FEHR PEERS

Memorandum

Date: April 24, 2025

To: Mark Hopkins, SummitWest Environmental

From: Paul Hermann P.E.
Uriah Campos

Subject: State Street Widening – Vehicle Miles Travel (VMT) Screening Assessment

OC25-1131

Fehr & Peers has completed a Vehicle Miles Traveled (VMT) Screening Assessment for the proposed State Street Widening (Project) in the unincorporated community of Muscoy in San Bernardino County. Consistent with requirements of Senate Bill 743 (SB 743), the Governor's Office of Land Use and Climate Innovation's (LCI's)[1] *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018), San Bernardino County's *Transportation Impact Study Guidelines(2019),* and the Caltrans *Transportation Analysis Under CEQA (TAC)* (2024), this assessment concludes that the Project shall be screened from VMT under the presumption that it will result in a less-than-significant transportation impact.

Project Description

The County of San Bernardino (County) Department of Public Works (DPW) proposes to widen the west side of State Street between Adams Street to Darby Street. The project would construct new curb and gutter, driveways, ADA ramps, street lights, painted traffic striping, and traffic signs. The project length is approximately 0.61 miles with maximum excavation in spot locations of approximately 48".

The proposed Project has been designed by the County to conform with the General Plan Transportation & Mobility Element Policy Maps. The roadway ultimate classification is a Major Highway – SBC Std. Plan 101, four-lane highway with intersections at grade and control access. To minimize right-of-way (ROW) take and encroachment into typical residential structure setback requirements, the proposed work involves widening of the roadway west of its existing centerline to accommodate improvements. The interim geometric section and improvements posed westerly

[1] Previously referred to as the Governor's Office of Planning and Research (OPR).

of the centerline includes a twelve-foot median that obliges left turn movements at intersections and midblock access to individual parcels, a twelve-foot Southbound through travel lane, an eight-foot shoulder to accommodate on-street parking and refuse pickup, and a six-foot parkway to accommodate sidewalk and driveway approaches. Provisions for the inclusion of ADA compliant curb ramps, curb and gutter and street lighting are also addressed. Existing improvements easterly of the centerline for the interim condition will remain largely as is. The maximum excavation depth for this work will be 48".

VMT Screening Criteria

The County's Transportation Impact Study Guidelines provide guidelines for CEQA assessment and VMT analysis for land use projects. The analysis methodology measures VMT per person/employee as a transportation efficiency metric to compare the project to the remainder of the unincorporated area to identify potential transportation impacts. However, this does not include guidelines or analysis methodologies for transportation improvements projects.

As a result, Fehr & Peers used the State's guidelines to reference with the Caltrans *TAC*, which provides CEQA and VMT Analysis Guidelines for transportation improvement projects. Both the County and Caltrans guidelines are compliant with the LCI's *Technical Advisory on Evaluating Transportation Impacts in CEQA* and ultimately conclude that projects with a less-than-significant impact screen from VMT analysis.

The *TAC* guidelines require that when conducting VMT screening review, practitioners should examine the specific project circumstances to ensure no circumstances lead to an increase in VMT and provide a brief discussion describing why the project is not expected to increase VMT. The Project qualifies for screening based on criteria listed under "Project Types Not Likely to Lead to a Measurable and Substantial Increase in Vehicle Travel", listed below:

i) Project Types Likely to Lead to a Measurable and Substantial Increase in Vehicle Travel

- Addition of through lanes on existing or new highways, including general purpose lanes, HOV lanes, peak period lanes, auxiliary lanes, or lanes through grade-separated interchanges, and other projects adding capacity to the State Highway System.

ii) Project Types Not Likely to Lead to a Measurable and Substantial Increase in Vehicle Travel

- Rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets (e.g., highways; roadways; bridges; culverts; Transportation Management System field elements such as cameras, message signs, detection, or signals; tunnels; transit systems; and assets that serve bicycle and pedestrian facilities) and that do not add additional motor vehicle capacity

- Roadside safety devices or hardware installation such as median barriers and guardrails.
- Roadway shoulder enhancements to provide "breakdown space," dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes
- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, two-way left turn lanes, emergency truck pullovers, or emergency breakdown lanes that are not utilized as through lanes
- Timing of signals to optimize vehicle, bicycle, or pedestrian flow
- Installation or reconfiguration of traffic calming devices
- Removal or relocation of off-street or on-street parking spaces
- Adoption or modification of on-street parking or loading restrictions (including meters, time limits, accessible spaces, and preferential/reserved parking permit programs)
- Addition of traffic wayfinding signage
- Rehabilitation and maintenance projects that do not add motor vehicle capacity
- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way

Although these criteria were developed by Caltrans as part of their *TAC* guidelines, they are based on what types of transportation projects have been shown to induce travel and increase VMT. It is appropriate to apply the same criteria in San Bernardino County as the influences of induced VMT are the same regardless of location.

VMT Screening Assessment

The Project categorizes as a rehabilitation and maintenance project that will improve the condition of the existing roadway by adding a twelve-foot median that obliges left turn movements and on-street parking. The result will consist of two-through travel lanes, one in each direction, and does not add any vehicular capacity to the existing roadway. The San Bernardino Countywide Plan Transportation Existing Conditions Report classifies State Street as a Valley two-lane Major Highway, shown in **Appendix A**. The Project does not change the number of lanes or roadway classification of State Street, resulting in no change in vehicular capacity.

Conclusion

This technical memorandum presents a VMT Screening Assessment for the proposed State Street Widening within unincorporated San Berardino County. The roadway will remain a two-lane Major Highway with no increase in vehicular capacity since the proposed changes do not include any additional through lanes and are specifically designed to improve the existing roadway. The County and Caltrans guidelines use the LCI's *Technical Advisory on Evaluating Transportation Impacts in CEQA* as the source for creating analysis guidelines and conclude that projects with a less-than-significant transportation impact screen from VMT analysis. Based on the screening

criteria in the *TAC*, this Project meets the screening requirements as it fits the criteria for Project Types Not Likely to Lead to a Measurable and Substantial Increase in Vehicle Travel and that the transportation impacts of the project would be **less-than-significant**. As a result, no further VMT analysis will be performed as part of this assessment.

If you have any questions or concerns, please do not hesitate to contact Paul Herrmann (p.herrmann@fehrandpeers.com or 949-308-6318) with questions or comments.

Appendix A

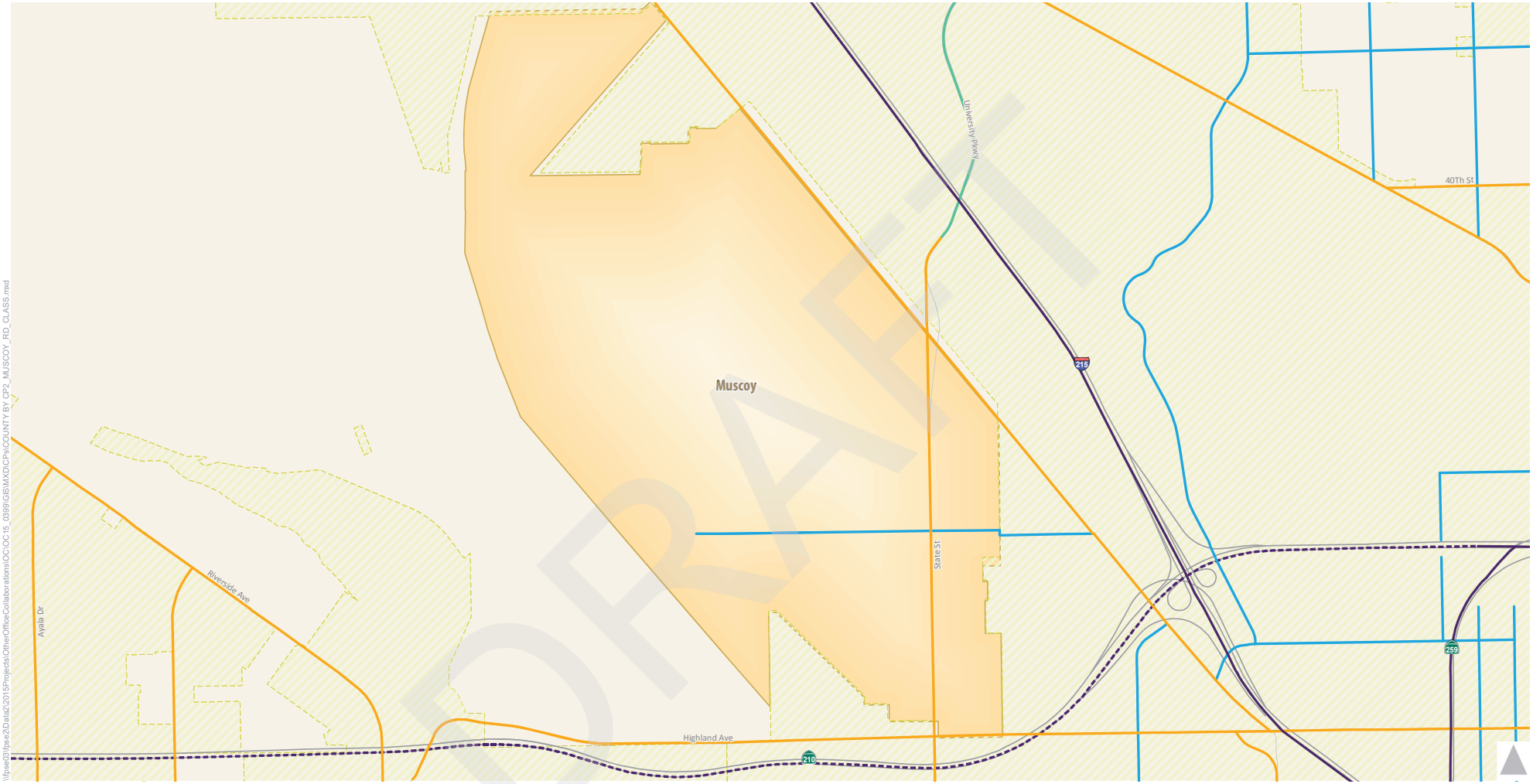

Figure 1.14

Muscoy Community Plan Roadway Designations

TRAFFIC CONGESTION

Regional congestion can be assessed using a variety of approaches. One common approach is Level of Service (LOS), which assigns a letter grade based on quantitative or qualitative performance metrics based on volume and capacity. LOS D is considered to be acceptable at County roadway segments in the Valley and Mountain Regions. LOS C is considered to be acceptable at County roadway segments in the Desert Region. ADT volume thresholds are shown in Table 8. LOS for County roadway segments is shown in Table 9. Roadway segments performing at an unacceptable level of service are shown on Figures 7.1 and 7.2; please note that this assessment did not find any roadway segments performing unacceptably in the Mountain Region.

TABLE 8 – ROADWAY DAILY VOLUME THRESHOLDS

Number of Lanes	Valley[1]	Mountain[2]	Desert[3]
2	14,600	13,600	7,000
4	31,100	29,300	16,400
6	46,800	44,100	25,700

Source: County of San Bernardino General Plan, 2007
1. LOS D Threshold
2. LOS D Threshold
3. LOS C Threshold

DRAFT