

Avenue 48 Widening Project

County of Riverside, California

Draft Initial Study with Proposed Mitigated Negative Declaration



Prepared by the
County of Riverside



June 2019

General Information about this Document

What's in this document:

The County of Riverside has prepared this Initial Study, which examines the potential environmental impacts of the proposed project located in the City of Coachella, the City of Indio, and in unincorporated Riverside County, California. The document describes the project being proposed, the existing environment that could be affected by the project, the potential impacts from the project, and the proposed avoidance, minimization and/or mitigation measures.

What you should do:

Please read this Initial Study. Additional copies of this document as well as the technical studies are available for review at the following locations during normal business hours:

- Riverside County Transportation Department, 3525 14th Street, Riverside, CA 92501
- Coachella Branch Library, 1538 Seventh Street, Coachella, CA 92236
- Indio Branch Library, 200 Civic Center Mall, Indio, CA 92201

An electronic copy of the Initial Study may be viewed online at the following website: <https://rcprojects.org/ave48/>. The public circulation period begins June 5, 2019 and ends July 8, 2019.

We welcome your comments. If you have any comments regarding the proposed project, please send your written comments and/or request to the County of Riverside no later than July 8, 2019.

Submit comments via postal mail to the County of Riverside at the following address no later than July 8, 2019 to:

Mohamed Eissa
Assistant Transportation Planner
Transportation Department-Environmental Division
3525 14th Street
Riverside, CA 92501

A Public Meeting is scheduled for this project on June 20, 2019. The Public Meeting will provide an opportunity for you to ask questions and provide comment regarding the project. Please drop in anytime between 6:00 p.m. to 7:30 p.m. at Martin Van Buren Elementary School Multipurpose Room, 47733 Van Buren St., Indio, CA 92201 to provide your feedback! In compliance with the Americans with Disabilities Act, persons with disabilities may request reasonable accommodations, including auxiliary aids and services at no cost to participate in the meeting by contacting Mohamed Eissa at (951) 955-1506 or MEissa@rivco.org at least three business days before the scheduled event. This document is available in alternate formats upon request.

What happens next:

After comments are received from the public and reviewing agencies, the County of Riverside may: (1) give environmental approval to the proposed project, (2) undertake additional environmental studies, (3) abandon the project, or (4) decide to modify the proposed project under consideration based on comments received. If the project is given environmental approval and funding is appropriated, the County could design and construct all or part of the project.

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Draft Mitigated Negative Declaration

Project Proponent:	County of Riverside Transportation Department 3525 14th Street Riverside, CA 92501
Project Title:	Avenue 48 Widening Project
Project Location:	The project is located along Avenue 48 beginning approximately 600 feet west of Van Buren Street extending eastward to Indio Boulevard, for a total distance of approximately 0.5 mile, in the City of Coachella, the City of Indio, and in unincorporated County of Riverside.
Project Description:	The County of Riverside, in cooperation with the City of Coachella and the City of Indio, propose to widen Avenue 48 from two lanes to five lanes between Van Buren Street to Dillon Road, a distance of approximately 0.3 mile, to accommodate one additional westbound lane and two additional eastbound lanes with a raised concrete median – this widening would result in the acquisition of additional right-of-way. In addition, six-foot-wide sidewalks and five-foot-wide bicycle lanes would be constructed in the eastbound and westbound directions of Avenue 48. The proposed project would also include the re-striping of pavement along an approximately 600-foot-long section of Avenue 48 west of Van Buren Street and along an approximately 500-foot-long section of Avenue 48 east of Dillon Road extending to Indio Boulevard. A signal would also be constructed at the intersection of Luzon Street and Avenue 48, and the existing signal at the intersection of Dillon Road and Avenue 48 would be modified to accommodate the new improvements.
Findings	Pursuant to the provisions of the California Environmental Quality Act (CEQA), the County of Riverside has determined that the proposed Project would not have a significant effect on the environment. Following an Initial Study and assessment of possible adverse impacts, the proposed Project was determined not to have a significant impact on the environment with the inclusion of mitigation measures, which reduces potential adverse impacts to less than significant levels. Therefore, the County of Riverside has prepared a Mitigated Negative Declaration with mitigation measures in accordance with the provisions of CEQA.
Mitigation Measures:	Refer to the Sections 3.1 through 3.20 of this Initial Study, and to Appendix F (Mitigation Monitoring and Reporting Program).

A copy of the Initial Study is available for review at the following locations: Riverside County Transportation Department, 3525 14th Street, Riverside, 92501; Coachella Branch Library, 1538 Seventh Street, Coachella, CA 92236, Indio Branch Library, 200 Civic Center Mall, Indio, CA 92201, and at the Riverside County Transportation Department website: <https://rcprojects.org/ave48/>.

Signature: Mohamed Eissa Date: 06/03/2019
 Mohamed Eissa
 Assistant Transportation Planner
 Riverside County Transportation Department

Signature: Mary Zambon Date: 6/3/2019
 Mary Zambon
 Transportation Project Manager
 Riverside County Transportation Department

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Appendix C: Cultural Resources Records Search
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LIST OF TECHNICAL STUDIES – VOLUME 2 (BOUND SEPARATELY)

- Air Quality/Greenhouse Gas Emissions Technical Memorandum
- Habitat Assessment and Coachella Valley Multiple Species Habitat Conservation Plan Consistency Analysis
- Cultural Resource Assessment
- Phase I Environmental Site Assessment
- Transportation Improvement Project NPDES Data Form
- Noise Study Report

ACRONYMS AND ABBREVIATIONS

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AB	Assembly Bill
ACMs	asbestos-containing materials
ADA	American with Disabilities Act
ADT	average daily trips
ALUC	Airport Land Use Commission
ANSI	American National Standards Institute
AQMP	Air Quality Management Plan
ASTM	American Society for Testing and Materials
Basin	South Coast Air Basin
bgs	below ground surface
BMP	Best Management Practice
$^{\circ}\text{C}$	Celsius
CAAQS	California Ambient Air Quality Standards
Cal/EPA	California Environmental Protection Agency
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCP	Construction Contingency Plan
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEESP	California Long-Term Energy Efficiency Strategic Plan
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
CH_4	Methane
CHRIS	California Historical Resources Information System
City	City of Coachella
CNDDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2eq	carbon dioxide equivalent
County	County of Riverside Transportation Department
CREC	Conditional Recognized Environmental Condition
CRHR	California Register of Historic Resources
CRIT	Colorado River Indian Tribes
CRMP	Cultural Resource Mitigation Monitoring Plan
CVAG	Coachella Valley Association of Governments
CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
CWA	Clean Water Act
dB	decibels

dba	A-weighted decibels
DBESP	Determination of Biologically Equivalent or Superior Preservation
DEH	County of Riverside Department of Environmental Health
DPR	Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
EAPs	Energy Action Plans
EDR	Environmental Data Resources, Inc.
EIC	Eastern Information Center
EIR	Environmental Impact Report
EMFAC	Emissions Factors Model
EO	Executive Order
ESA	Endangered Species Act
°F	Fahrenheit
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
GHG	greenhouse gas
GIS	Geographic Information System
GLO	General Land Office
HFC	hydrofluorocarbons
HREC	Historical Recognized Environmental Condition
I-10	Interstate 10
ICU	intersection capacity utilization
IPCC	Intergovernmental Panel on Climate Change
IRP	Installation Restoration Program
IS/MND	Initial Study/Mitigated Negative Declaration
JPR	Joint Project Review
LCFS	Low Carbon Fuel Standard
LBP	lead based paints
L _{dn}	day-night average noise level
L _{eq}	equivalent continuous sound level
LOS	level of service
LST	local significance threshold
LUFT	leaking underground fuel tank
LUST	leaking underground storage tank
M	magnitude
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendant
MND	Mitigated Negative Declaration
MPH	miles per hour
MRZs	Mineral Resource Zones
MS4s	municipal separate storm sewer system
MSHCP	Multiple Species Habitat Conservation Plan
msl	mean sea level
MT	metric tons
MTCO ₂	Metric tons of carbon dioxide
MTCO _{2eq}	Metric tons of carbon dioxide equivalent
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards

NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NHTSA	National Highway Traffic Safety Administration
NO ₂	nitrogen dioxide
NOI	Notice of Intent
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
O ₃	ozone
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
OUs	operable units
P _b	lead
PCBs	Polychlorinated biphenyls
PFC	perfluorocarbons
PM ₁₀	particulate matter up to 10 microns
PM _{2.5}	particulate matter up to 2.5 microns
ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PRC	California Public Resource Code
RACT	Reasonably Available Control Technology
RCFD	Riverside County Fire Department
RCPG	Regional Comprehensive Plan and Guide
ROG	reactive organic gas
ROW	right-of-way
RPS	Renewable Portfolio Standard
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SF ₆	sulfur hexafluoride
SIP	State Implementation Plan
SLF	sacred land file
SMARTS	Storm Water Multiple Application and Report Tracking System
SO ₂	sulfur dioxide
SO _x	sulfur oxide
SP	service population
SR-111	State Route 111
SR-86	State Route 86
SRA	source receptor area
SSAB	Salton Sea Air Basin
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
THPO	Tribal Preservation Officer
TCP	Traffic Control Plan
TPH	Total Petroleum Hydrocarbons
U.S.	United States

USACE	United States Army Corps of Engineers
U.S.C.	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
USTs	underground storage tanks
VMT	vehicle-miles traveled
VOC	volatile organic compounds

1.0 INTRODUCTION

1.1 Overview

The County of Riverside Transportation Department (County), in cooperation with the City of Coachella and the City of Indio, propose to widen Avenue 48 from two lanes to five lanes between Van Buren Street to Dillon Road, a distance of approximately 0.3 mile, to accommodate one additional westbound lane and two additional eastbound lanes with a raised concrete median (hereinafter referred to as “project”). In addition, six-foot-wide sidewalks and five-foot-wide bicycle lanes would be constructed in the eastbound and westbound directions of Avenue 48. The proposed project would also include the re-striping of pavement along an approximately 600-foot-long section of Avenue 48 west of Van Buren Street and along an approximately 500-foot-long section of Avenue 48 east of Dillon Road extending to Indio Boulevard. In addition to the roadway improvements, street lights, fences, walls, utility meters, power poles, signs, planters, and mailboxes would be relocated. Driveways and parking may be affected for some businesses and residences within the project limits adjacent to Avenue 48. A signal would also be constructed at the intersection of Luzon Street and Avenue 48. In addition, the signal at the intersection of Dillon Road and Avenue 48 would be modified to accommodate the new improvements. The proposed improvements would be coordinated with the property owners to minimize impacts. Appropriate construction signage would be utilized to ensure public safety and ease of traffic flow during construction activities.

The County has entered into a funding agreement with Coachella Valley Association of Governments (CVAG) for preparation of the project development work, environmental studies, environmental documentation, and preliminary engineering design.

1.2 Purpose

Pursuant to Section 15063(c) of the California Environmental Quality Act (CEQA) Guidelines, the County, as the Lead Agency, is required to undertake the preparation of an Initial Study to determine if the proposed action would have a significant effect on the environment. The purpose of the Initial Study is to: (1) provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or a Negative Declaration; (2) enable the Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration; (3) assist in the preparation of an EIR, if one is required; (4) facilitate environmental assessment early in the design of a project; and (5) provide documentation of the factual basis for the finding in the Negative Declaration that a project will not have a significant effect on the environment; (6) eliminate unnecessary EIRs; and (7) determine whether a previously prepared EIR could be used with the project. This Initial Study is an informational document providing an environmental basis for subsequent discretionary actions that may be required from other responsible agencies.

1.3 Statutory Requirements and Authority

The CEQA statute is codified at California Public Resources Code Section 21000 et seq., whereas the CEQA Guidelines are codified at the California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000 et seq. The CEQA Guidelines Section 15063(d) identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include: (1) a description of the proposed project, including the location of the project; (2) an identification of the environmental setting; (3) an identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries; (4) a discussion of ways to mitigate significant effects identified, if any; (5) an examination of whether the proposed project is compatible with existing zoning, plans, and

other applicable land use controls; and (6) the name of the person or persons who prepared or participated in the preparation of the Initial Study.

The mitigation measures included in this Initial Study/Mitigated Negative Declaration (IS/MND) are designed to reduce or eliminate the potentially significant environmental impacts described herein. Where a mitigation measure described in this document has been previously incorporated into the project, either as a specific feature of design or as a mitigation measure, this is noted in the discussion. Mitigation measures are structured in accordance with the criteria in Section 15370 of the CEQA Guidelines.

1.4 Scope of the Initial Study

This Initial Study evaluates the proposed project's effects on the following resource topics:

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

1.5 Impact Terminology

The following terminology is used to describe the level of significance of impacts:

- A finding of no impact is appropriate if the analysis concludes that the project would not affect the particular topic area in any way.
- An impact is considered less than significant if the analysis concludes that it would cause no substantial adverse change to the environment and requires no mitigation.
- An impact is considered less than significant with mitigation incorporated if the analysis concludes that it would cause no substantial adverse change to the environment with the inclusion of environmental commitments or other enforceable measures that have been agreed to by the applicant.
- An impact is considered potentially significant if the analysis concludes that it could have a substantial adverse effect on the environment. For the proposed project, no impacts were determined to be potentially significant.

1.6 Project Permits and Approvals

The proposed project may require subsequent oversight, approvals, or permits from other public agencies in order to be implemented. Other such agencies are referred to as “Responsible Agencies” and “Trustee Agencies.” Pursuant to Sections 15381 and 15386 of the CEQA Guidelines, as amended, Responsible Agencies and Trustee Agencies are defined as follows:

- **Responsible Agency** is a public agency that proposes to carry out or approve a project, for which a lead agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, the term “responsible agency” includes all public agencies other than the lead agency that have discretionary approval power over the project (Section 15381).
- **Trustee Agency** is a state agency having jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State of California (Section 15386).

The County is the CEQA Lead Agency and the Cities of Indio and Coachella are the Responsible Agencies under CEQA, as they are the public agencies which may use this CEQA document, along with other information that may be presented during the project review process, for associated permits or approvals.

No jurisdictional drainage and/or wetland features were observed within the project boundaries. Therefore, the proposed project would not result in impacts to United States Army Corps of Engineers (USACE) or the California Department of Fish and Wildlife (CDFW) jurisdictional areas and no regulatory approvals would be required from these agencies.

The project site is located within the jurisdiction of the Colorado River Regional Water Quality Control Board (RWQCB), Region 7. Because project-related construction would disturb more than one acre of ground, the County would be required to electronically file a Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB), as required by Section 402 of the CWA, Adopted Order 2009-0009-DWQ Construction General Permit (as amended by 2012-006-DWQ; NPDES No. CAS000002), and by the California Porter-Cologne Water Quality Protection Act, as amended 2016.

The County would secure the necessary permits to authorize construction of the proposed project. Potential permits and approvals for the project are listed below:

State Water Resources Control Board

- National Pollution Discharge Elimination System (NPDES) General Construction Permit (including Storm Water Pollution Prevention Plan)

1.7 Initial Study Organization and Contents

This Initial Study is organized into five separate sections that are identified as follows:

Section 1.0, Introduction – Introduces the project, its purpose and statutory basis for the document.

Section 2.0, Project Description – Describes the location, objectives, and principal elements of the project.

Section 3.0, Environmental Evaluation – Contains analyses and evidence employed by the Lead Agency to arrive at the determination required in the CEQA Environmental Checklist.

Section 4.0, List of Preparers – A list of persons who contributed to the preparation of the IS/MND.

Section 5.0, References – A list of references utilized for the preparation of the IS/MND.

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2.0 PROJECT DESCRIPTION

2.1 Project Location

As shown in Figure 2-1, Regional Location, and Figure 2-2, Site Vicinity, the project site is located along Avenue 48 beginning approximately 600 feet west of Van Buren Street extending eastward to Indio Boulevard, for a total distance of approximately 0.5 mile, in the City of Coachella, the City of Indio, and in unincorporated County of Riverside. The project site is situated within developing areas of the City of Coachella, the City of Indio, and the County; to the west of Indio Boulevard and State Route 86 (SR-86); south of Interstate 10 (I-10); and northwest of the Salton Sea. The roadway is surrounded by single-family residential, commercial, retail/restaurant, institutional uses, and vacant land.

2.2 Project Objectives

The proposed project would alleviate congestion and improve traffic operations through the project area. The additional eastbound and westbound travel lanes are expected to enhance the level of service (LOS) and relieve traffic congestion in the area. Avenue 48 is an east-west major arterial road that is commonly traveled. It carries over 12,000 vehicles per day and can commonly experience traffic delays and congestion. The road connects the City of Coachella, the City of Indio, and the unincorporated area of the County of Riverside. Widening the lanes would relieve traffic congestion on Avenue 48 while improving vehicular traffic circulation and access for motorists, residents, businesses, emergency service providers, nearby institutions such as schools, and public transportation. The project would be consistent with the County's and the City of Coachella's and City of Indio's General Plans to meet current and future traffic demands and improve the traffic operations for this corridor.

2.3 Proposed Project

The County, in cooperation with the City of Coachella and the City of Indio, propose to widen Avenue 48 from two lanes to five lanes between Van Buren Street to Dillon Road, a distance of approximately 0.3 mile, to accommodate one additional westbound lane and two additional eastbound lanes with a raised concrete median. In addition, six-foot-wide sidewalks and five-foot-wide bicycle lanes would be constructed in the eastbound and westbound directions of Avenue 48. The proposed project would also include the re-striping of pavement along an approximately 600-foot-long section of Avenue 48 west of Van Buren Street and along an approximately 500-foot-long section of Avenue 48 east of Dillon Road extending to Indio Boulevard. In addition to the roadway improvements, street lights, fences, walls, utility meters, power poles, signs, planters, and mailboxes would be relocated. Driveways and parking may be affected for some businesses and residences within the project limits adjacent to Avenue 48. A signal would also be constructed at the intersection of Luzon Street and Avenue 48. In addition, the signal at the intersection of Dillon Road and Avenue 48 would be modified to accommodate the new improvements (refer to Figure 2-3). The proposed improvements would be coordinated with the property owners to minimize impacts. Appropriate construction signage would be utilized to ensure public safety and ease of traffic flow during construction activities.

The County has entered into a funding agreement with CVAG for preparation of the development work, environmental studies, environmental documentation, and preliminary engineering design.

Project construction would occur within the existing roadway right-of-way (ROW) of Avenue 48 between Van Buren Street and Dillon Road, with the exception of five partial parcel acquisitions: one at the northeast corner of the intersection of Avenue 48 and Van Buren Street (APN 603-073-017); one at the northeast corner of the intersection of Avenue 48 and Bataan Street (APN 603-082-006); two at the southwest and southeast corners of the intersection of Avenue 48 and Luzon Street (APNs 603-220-062 and 603-220-066); and one at the southwest corner of the intersection of Avenue 48 and Dillon Road (APN 603-220-064). No full parcel acquisitions would be required as part of the project. Refer to Table 2-1 for the potential partial ROW acquisitions along Avenue 48.

TABLE 2-1 POTENTIAL PARTIAL RIGHT-OF-WAY ACQUISITIONS

ASSESSOR PARCEL NUMBER	PARTIAL RIGHT-OF-WAY ACQUISITION (ACRE)
603-073-017	0.002
603-082-006	0.023
603-220-062	0.008
603-220-066	0.048
603-220-064	0.004


2.4 Project Construction

Construction of the proposed project is anticipated to occur over a six-month period – project construction is depending on availability of funding. Project construction associated with the road widening would include demolition, grading, paving, and roadway construction. Construction equipment would include excavators, concrete/industrial saws, rubber-tired dozers, graders, rollers, scrapers, paving equipment, forklifts, cranes, welders, generator sets, and air compressors.

Temporary lane closures and striping would occur during project construction; however, two-way travel along Avenue 48 through the project corridor would be maintained during construction activities with at least one travel lane open in each direction at all times. During final design, construction and traffic management plans would be prepared to minimize disruption to the public.



Legend

 Project Location

Background Image: USDA NAIP Imagery, 2016.


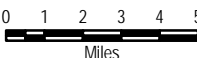
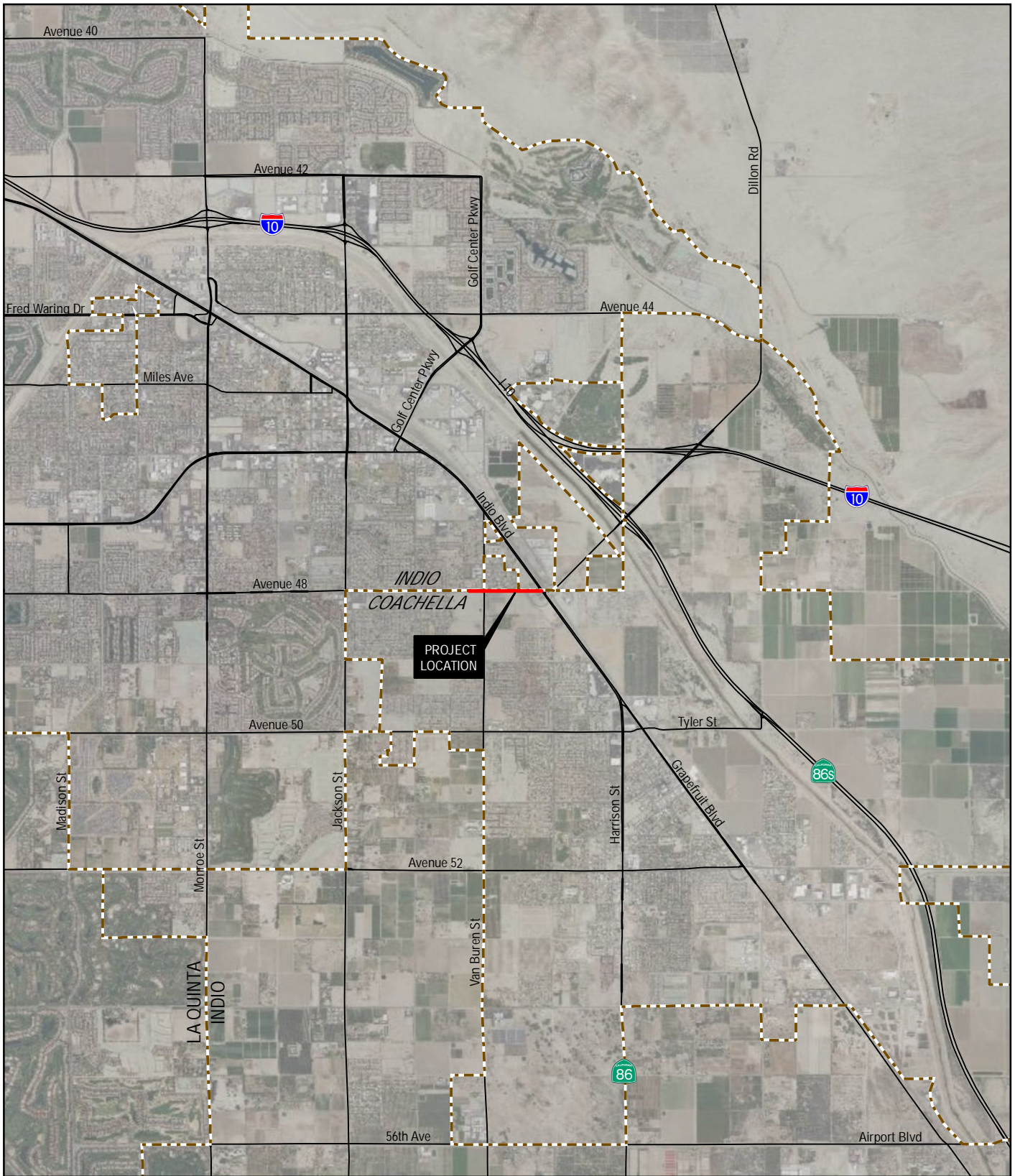


 0 1 2 3 4 5
 Miles

FIGURE 2-1
REGIONAL LOCATION

COUNTY OF RIVERSIDE
AVENUE 48
WIDENING PROJECT


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Legend

- Project Location
- City Boundary

Background Image:
USDA NAIP Imagery, 2016.



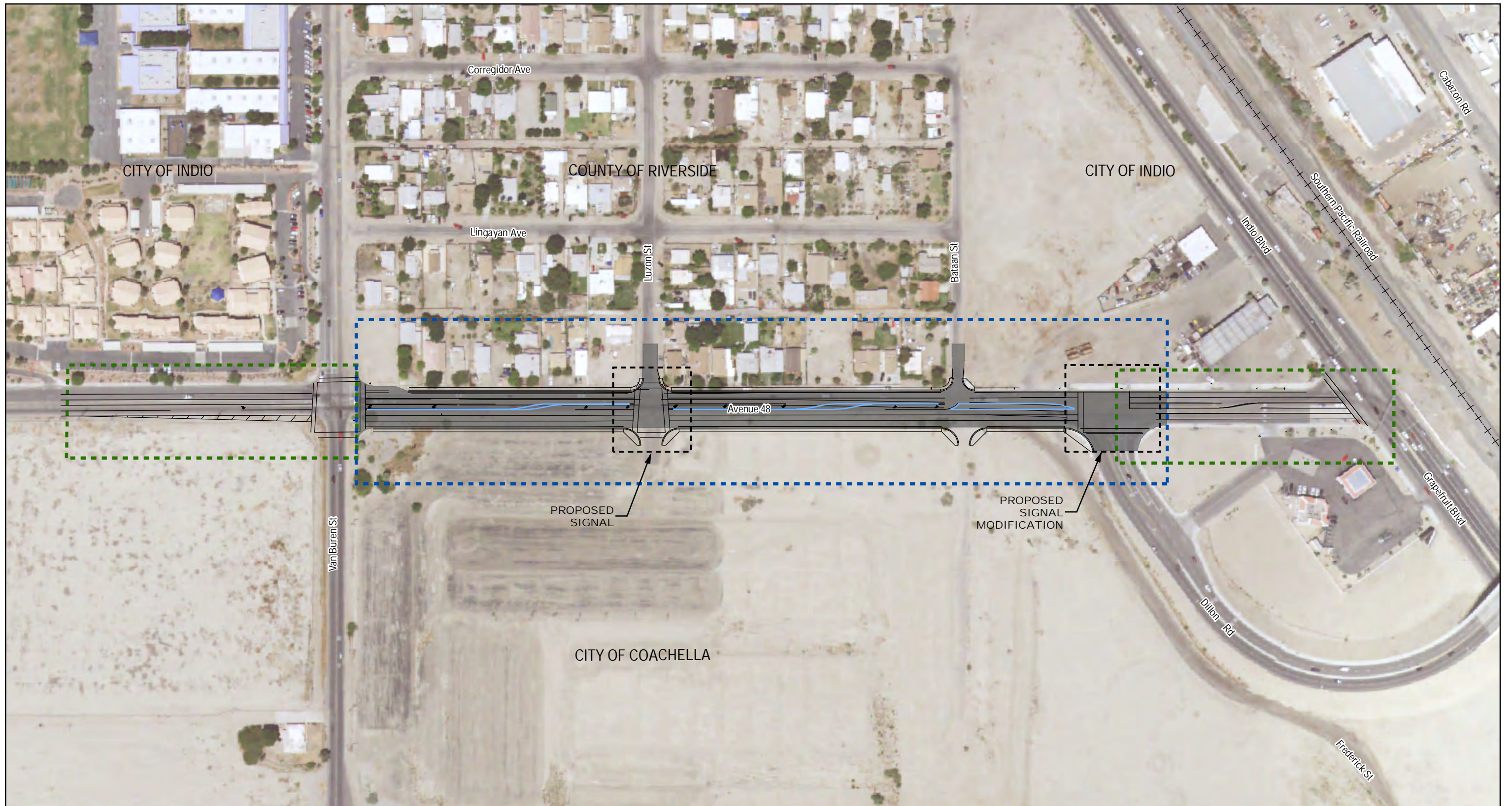


0 1
Miles

FIGURE 2-2
SITE VICINITY

COUNTY OF RIVERSIDE
AVENUE 48
WIDENING PROJECT

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- LEGEND
- RAISED MEDIAN
 - RE-STRIPE
 - WIDENING
 - APPROXIMATE PAVEMENT LIMITS

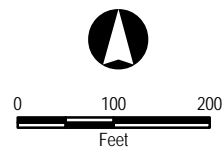


FIGURE 2-3
PROJECT FEATURES

COUNTY OF RIVERSIDE
AVENUE 48
WIDENING PROJECT

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3.0 ENVIRONMENTAL EVALUATION

The following analysis of potential project impacts is based on the Environmental Checklist and available information, including technical reports and conceptual design plans. A brief explanation for each question in the Environmental Checklist is provided to adequately support each impact determination. The answers take into account the whole of the action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. Where determined that an impact is potentially significant, mitigation measures have been incorporated to reduce the impacts to less than significant levels (refer to Appendix F, Mitigation Monitoring and Reporting Program). The environmental resources potentially affected by the proposed project are presented below and organized according to the format of the checklist.

3.1 Aesthetics

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.1.1 Affected Environment

The proposed project is located along Avenue 48, between Van Buren Street eastward to Dillon Road, approximately 0.5 mile, in the City of Coachella, the City of Indio, and in unincorporated County of Riverside. The City of Coachella and the City of Indio are desert communities located in the eastern portion of Coachella Valley. Coachella Valley is defined as a low and relatively flat desert basin bounded by mountainous terrain. The mountain ranges surrounding the project area include the Santa Rosa and San Jacinto Mountains to the southwest and west, and the Little San Bernardino Mountains to the north and northeast. The surrounding mountains range from 3,000 to 9,000 feet, with peaks ranging to over 111,000 feet (San Gorgonio peak) the Chocolate Mountains (up to 2,988 feet) are located more than 10 miles to the southeast of the City of Coachella and do not contribute aesthetically to the project area (City of Coachella 2014). The predominant aesthetic and scenic resources of the project area are open spaces to the east (Little San Bernardino Mountains “Bajada” and Mecca Hills), the distant mountain ranges to the west (San Jacinto and Santa Rosa Mountains), and the agricultural open spaces along the west side of the

All-American Canal (which forms the base of the Mecca Hills in the southeast sphere). There are several natural rock outcroppings in the hillside areas that provide a native desert appearance as viewed from the Valley floor. The viewsheds from the upper portions of the Indio Hills and Mecca Hills towards the south include views of the Salton Sea (City of Coachella 2014).

The project site is situated within developing areas of the City of Coachella, the City of Indio, and the County, to the west of Indio Boulevard, west of SR-86, and south of I-10. The roadway is surrounded by single-family residential, commercial, retail/restaurant, institutional uses, and vacant land. Avenue 48 is specified as a major arterial roadway running east-west. It becomes Dillon Road after crossing over SR-86 and continues east to I-10. Avenue 48 provides key access to SR-86 and I-10 for the County, the City of Coachella, and the City of Indio.

3.1.2 Impact Assessment

Would the Project:

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

No Impact. The proposed project would not obstruct any scenic views from the surrounding area, nor is the project located adjacent to or near any officially-designated scenic vistas; therefore, no impacts to a scenic vista would occur and no mitigation is required.

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

No Impact. Based on review of the General Plans for the City of Coachella, the City of Indio, the County, and the Caltrans website, there are currently no state-designated scenic highways within the project area (Caltrans 2018). In addition, there are no unique or scenic resources, including trees and rock outcroppings, within or adjacent to the project site. SR-111, located in the vicinity of the project site to east, is designated as an “Eligible State Scenic Highway – Not Officially Designated” (Caltrans 2018); however, the proposed project would not affect the characteristics of SR-111 that qualify it as an Eligible State Scenic Highway. Therefore, no impacts would occur to designated scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway, and no mitigation is required.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. A project is considered to have a significant aesthetic impact if consequent features of the project design are incompatible with and/or obstruct views of regional and project viewsheds. The proposed project site is located within relatively urban and developing area in the City of Coachella, the City of Indio, and the County.

The visual character of the proposed project will be compatible with the existing visual character of the project area. The widening of Avenue 48 would result in similar visual conditions compared to a no-project scenario. The road widening would continue along the current alignment of the existing facility, and remain consistent with the existing visual character. The visual quality of the existing corridor would remain consistent with pre-construction conditions, and would not be significantly altered by the proposed project. The visual character and quality of the proposed project would be similar to the existing visual character and quality of the project area. Because the project does not substantially change

the existing land uses and adds a minor amount of new paved surfaces along an existing roadway alignment, the visual character within and adjacent to the project the area would not change substantially. The project would not conflict with applicable zoning and other regulations governing scenic quality.

Construction of the proposed project would temporarily change views experienced by drivers, pedestrians, and other people in the project area since construction equipment would be visible from neighboring areas; however, these impacts are temporary and therefore not considered substantial. Overall visual impacts resulting from the proposed project are anticipated to be less than significant, and therefore no mitigation is 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. The proposed project would result in the installation of a new signal at the intersection of Luzon Street and Avenue 48; however, the introduction of one new signal would not create a substantial light source. No new street lighting is proposed; only relocated. Should nighttime construction become necessary, construction-related lighting would be directed downward and toward the work area, oriented away from adjacent land uses and consist of the minimal wattage necessary. Substantial permanent changes to the existing visual character and quality, including light and glare in the project area, are not anticipated to occur, and light and glare impacts would be less than significant.

The proposed project is located approximately 45 miles northeast of the Palomar Observatory; because of the project's proximity to the Palomar Observatory Planning area, project-related night lighting (e.g., lighting used during construction) would be subject to the requirements of Riverside County Ordinance No. 665 regulating light pollution. Impacts would be considered less than significant with adherence to the County's requirements regarding County Ordinance No. 665.

3.1.3 Mitigation Measures

No mitigation measures are proposed.

3.2 Agricultural and Forest Resources

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment project and the Forest Legacy Assessment project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.</p> <p>Would the Project:</p>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.2.1 Regulatory Environment

Williamson Act – The California Legislature passed the California Land Conservation Act of 1965, better known as the Williamson Act, to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. Under the Williamson Act, private landowners contract with counties and cities to voluntarily restrict their land to agricultural and compatible open-space uses. The vehicle for these agreements is a rolling term 10-year contract (i.e., unless either party

files a "notice of nonrenewal," the contract is automatically renewed). In return, restricted parcels are assessed for property tax purposes at a rate consistent with their actual use, rather than potential market value. A majority of the funding for County and local implementation of the Williamson Act provisions is provided by the State. State subvention of revenue was recently reduced significantly and so counties were given options in regards to Williamson Act contracts under recent changes to State law [Senate Bill (SB) 863].

The Farmland Mapping and Monitoring Program – The Farmland Mapping and Monitoring Program (FMMP), within the California Department of Conservation (CDC), maps activity from the U.S. Department of Agriculture (USDA) on a continuing basis. The FMMP produces maps and statistical data used for analyzing impacts on California's agricultural resources (CDC, 2016). The FMMP's Important Farmland Map for Riverside County includes six farmland categories, as follows:

Prime Farmland – The best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Unique Farmland – Consists of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

Farmland of Local Importance – Cultivated farmland having soils which meet the criteria for prime or statewide, except that the land is not presently irrigated.

Farmland of Local Potential – Consists of prime or statewide soils which are presently not irrigated or cultivated.

Grazing Land – Land on which the existing vegetation is suited to the grazing of livestock.

Other Land – Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

3.2.2 Affected Environment

The project vicinity is predominantly surrounded by residential and commercial properties, primarily comprised of developed and disturbed lands. The project area has been heavily disturbed from development, grading activities, and anthropogenic disturbances. As a result, undisturbed native plant communities are no longer present within the project area. Vegetation occurring within the project area includes ornamental/landscaped plant species associated with the existing residential/commercial developments, and non-native and ruderal/weedy plant species within the disturbed areas.

3.2.3 Impact Assessment

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?**

No Impact. No Prime Farmland or Unique Farmland has been designated within or adjacent to the project area. The 2016 CDC's FMMP designates the vacant land adjacent to and south of the project site as "Farmland of Local Importance" (CDC 2016). The City of Coachella's Agricultural Resources section of the General Plan (Figure 4.2-1, Important Farmland in Coachella) also designates this area as "Farmland of Local Importance" (City of Coachella 2015). However, the City of Coachella General Plan Map designates this area as Low Density Residential and General Commercial. Because the City of Coachella has designated this land for residential and commercial development, and given the existing soil conditions, lack of crops, and lack of agriculture-use zoning, the FMMP-designated parcels are precluded from meeting the definition of "Farmland of Statewide Importance." Therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (farmland) to non-agricultural use. Therefore, no impact in this regard would occur and no mitigation is required.

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

No Impact. There are no agricultural land uses or property under Williamson Act contract on or adjacent to the project site. The proposed project would not conflict with existing zoning for agricultural use of a Williamson Contract. Therefore, no impacts would occur 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 site does not contain designated forest land or timberland as defined in *Public Resources Code* (Sections 12220[g] and 4526, respectively) and would not result in the loss of forest land or the conversion of forest land to non-forest use. Therefore, no impacts to forest land or timberland would result from project implementation, and no mitigation is required.

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

No Impact. The project site is an existing roadway surrounded by single-family residential, commercial, retail/restaurant, institutional uses, and vacant land. There are no areas zoned as forest land or timberland within or adjacent to the project boundaries. The proposed project would not conflict with existing zoning for forest land or timberland. Therefore, no impact would occur and no mitigation is required.

- e) **Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?**

No Impact. The proposed project would not result in the conversion of farmland to non-agricultural uses and there are no forest lands or timberland on the project site or in the vicinity of the proposed project. No impact would occur and no mitigation is required.

3.2.4 Mitigation Measures

No mitigation measures are proposed.

3.3 Air Quality

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Where available, the significance criteria established by the applicable air quality management district 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Information in this section is based on the *Avenue 48 Widening Project –Air Quality / Greenhouse Gas Emissions Technical Memorandum* prepared by Michael Baker International (2018a).

3.3.1 Regulatory Environment

Federal Clean Air Act

The Federal Clean Air Act (FCAA) (1977 amendments - 42 United States Code [U.S.C.] §7401 *et. seq.*) states that the federal government is prohibited from engaging in, supporting, providing financial assistance for, licensing, permitting, or approving any activity that does not conform to an applicable State Implementation Plan (SIP). Federal actions relating to transportation plans, programs, and projects developed, funded, or approved under 23 U.S.C. of the Federal Transit Act (40 U.S.C. §1601 *et. seq.*) are covered under separate regulations for transportation conformity.

In the 1990 FCAA amendments, the United States Environmental Protection Agency (USEPA) included provisions requiring federal agencies to ensure that actions undertaken in nonattainment or attainment-maintenance areas are consistent with applicable SIPs. The process of determining whether or not a federal action is consistent with an applicable SIP is called conformity.

The General Conformity Rule applies only to federal actions that result in emissions of “nonattainment or maintenance pollutants,” or their precursors, in federally designated nonattainment or maintenance areas. The General Conformity Rule establishes a process to demonstrate that federal actions would be consistent with applicable SIPs and would not cause or contribute to new violations of the National Ambient Air Quality Standards (NAAQS), increase the frequency or severity of existing violations of the NAAQS, or delay the timely attainment of the NAAQS. The emissions thresholds that trigger requirements of the conformity rule for federal actions emitting nonattainment or maintenance pollutants, or their precursors are defined in 40 CFR § 93.153(b). The General Conformity Rule does not apply to

federal actions in areas designated as nonattainment of only the California Ambient Air Quality Standards (CAAQS).

California Clean Air Act

The California Air Resources Board (CARB) administers air quality policy in California. The CAAQS were established in 1969 pursuant to the Mulford-Carrell Act. These standards are generally more stringent and apply to more pollutants than the NAAQS (i.e., visibility reducing particulates, hydrogen sulfide, and sulfates). The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an air quality management plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for preparation of the SIP for the state of California.

CARB also administers the state's mobile source emissions control program and oversees air quality programs established by state statute, such as Assembly Bill (AB) 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987.

California State Implementation Plan

The 1990 amendments to the FCAA set new deadlines for attainment based on the severity of the pollution problem and launched a comprehensive planning process for attaining the NAAQS. The promulgation of the national eight-hour ozone standard and the fine particulate matter up to 2.5 microns (PM_{2.5}) standards in 1997 resulted in additional statewide air quality planning efforts. In response to new federal regulations, SIPs also began to address ways to improve visibility in national parks and wilderness areas.

SIPs are not single documents, but rather a compilation of new and previously submitted plans, programs, district rules, state regulations and federal controls. Many of California's SIPs rely on the same core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations, and limits on emissions from consumer products. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the EPA for approval and publication in the Federal Register. The CFR Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items which are included in the California SIP.

South Coast Air Quality Management District

The SCAQMD's *2016 Air Quality Management Plan for the South Coast Air Basin* (2016 AQMP) is a regional blueprint for achieving air quality standards and healthful air in the South Coast Air Basin (Basin) and those portions of the Salton Sea Air Basin (SSAB) that are under SCAQMD's jurisdiction. The 2016 AQMP represents a new approach, focusing on available, proven, and cost-effective alternatives to traditional strategies, while seeking to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gases (GHGs) and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The most effective way to reduce air pollution impacts is to reduce emissions from mobile sources. The AQMP relies on a regional and multi-level partnership of governmental agencies at the federal, state, regional, and local level. These agencies (USEPA, CARB, local governments, Southern California Association of Governments [SCAG] and the SCAQMD) are the primary agencies that implement the AQMP programs. The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including SCAG's latest *Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS), updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. The 2016 AQMP includes integrated strategies and measures to meet the NAAQS. The 2016 AQMP was adopted by the SCAQMD Governing Board on March 3, 2017.

The AQMP identifies candidate control measures to reduce fugitive dust from the five major sources. Specifically, SCAQMD Rules 402 and 403 require that air pollutant emissions shall not be a nuisance off-site, and that fugitive dust be controlled with the best available control measures to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the proposed project. The applicability of the control measures depends on site-specific factors, including wind conditions, soil type, crop type, and condition of the surrounding area. Based on the candidate control measures and input from SCAG, within the AQMP, the SCAQMD recommends control measures, which include but are not limited to the following: requiring watering of all active construction projects; requiring the chemical treatment of unattended construction areas; prohibiting all construction grading activities on days when the wind gusts exceed or are forecast to exceed 25 miles per hour (mph); requiring construction trucks to maintain at least two feet of freeboard; requiring all trucks hauling dirt, sand, soil, or other loose dirt material to be covered; and encouraging the planting of vegetative ground cover as soon as possible on construction sites. Should the recommended measures fail to achieve the level of control specified in the AQMP, the AQMP also provides supplementary (contingency) control measures including minimal track-out, curb and gutter/storm drain improvements, chemical stabilization of unpaved road shoulders, control of emissions from agricultural activities, and control of emissions from turf overseeding activities.

Management of Air Quality Criteria Pollutants

Pursuant to the FCAA, the USEPA has established NAAQS for the following air pollutants: carbon monoxide, ozone, nitrogen dioxide, sulfur dioxide, particulate matter less than 10 and 2.5 microns in diameter, and lead. These pollutants are referred to as criteria pollutants because numerical criteria have been established for each pollutant, which define acceptable levels of exposure. A discussion of each criteria pollutant is provided below.

Carbon Monoxide (CO). CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions.

CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of carbon monoxide.

Ozone (O₃). Ozone occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" ozone layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays. "Bad" ozone is a photochemical pollutant, and needs volatile organic compounds (VOCs), nitrogen oxides (NO_x), and sunlight to form; therefore, VOCs and NO_x are ozone precursors. To reduce ozone concentrations, it is necessary to control the emissions of these ozone precursors. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While ozone in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level ozone (in the troposphere) can adversely affect the human respiratory system and other tissues. Ozone is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of ozone. Short-term exposure (lasting for a few hours) to ozone at

elevated levels can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO₂). Nitrogen oxides are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone, and react in the atmosphere to form acid rain. NO₂ (often used interchangeably with NO_x) is a reddish-brown gas that can cause breathing difficulties at elevated levels. Peak readings of NO₂ occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations). NO₂ can irritate and damage the lungs, and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO₂ concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO₂ may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM₁₀). PM₁₀ refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM₁₀ arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM₁₀ scatters light and significantly reduces visibility. In addition, these particulates penetrate into lungs and can potentially damage the respiratory tract. On June 19, 2003, the CARB adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill [SB] 25).

Fine Particulate Matter (PM_{2.5}). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and federal PM_{2.5} standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the USEPA announced new PM_{2.5} standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the USEPA, the United States Supreme Court reversed this decision and upheld the USEPA's new standards. On January 5, 2005, the USEPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for federal PM_{2.5} standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Sulfur Dioxide (SO₂). SO₂ is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. Sulfur dioxide is often used interchangeably with sulfur oxide (SO_x) and lead. Exposure of a few minutes to low levels of SO₂ can result in airway constriction in some asthmatics.

The USEPA has revised the NAAQS several times since their original implementation and will continue to do so as the health effects of exposure to air pollution are better understood. As previously stated, states with air quality that did not achieve the NAAQS were required to develop and maintain SIPs. These plans constitute a federally enforceable definition of the state's approach (or "plan") and schedule for the attainment of the NAAQS. Air quality management areas were designated as "attainment," "nonattainment," or "unclassified" for individual pollutants depending on whether or not they achieve the applicable NAAQS and CAAQS for each pollutant. It is important to note that because the NAAQS and CAAQS differ in many cases, it is possible for an area to be designated attainment by the USEPA (meets NAAQS) and nonattainment by CARB (does not meet CAAQS) for the same pollutant. The NAAQS and the CAAQS are summarized in Table 3-1.

TABLE 3-1 NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

POLLUTANT	AVERAGING TIME	CALIFORNIA STANDARDS ¹		FEDERAL STANDARDS ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	--	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM ₁₀)	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		--		
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³	15 µg/m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	None	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		--		
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	Same as Primary Standard	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)		
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	--	Ultraviolet Fluorescence; Spectrophotometry (ParaosaniSline Method)
	3 Hour	--		--	0.5 ppm (1,300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas)	--	
	Annual Arithmetic Mean	--		0.30 ppm (for certain areas)	--	
Lead ^{12,13} (P _b)	30 Day Average	1.5 µg/m ³	Atomic Absorption	--	--	High Volume Sampler and Atomic Absorption
	Calendar Quarter	--		1.5 µg/m ³	Same as Primary Standard	
	Rolling 3- Month Average ¹⁰	--		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	Extinction coefficient of 0.23 per kilometer – visibility of ten miles or more (0.07 – 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			

POLLUTANT	AVERAGING TIME	CALIFORNIA STANDARDS ¹		FEDERAL STANDARDS ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			
<p>1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter – PM₁₀, PM_{2.5}, and visibility reducing particles, are values that are not to be exceeded. All other are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.</p> <p>2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 micrograms per cubic meter (µg/m³) is equal to or less than one. For PM_{2.5}, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact USEPA for further clarification and current federal policies.</p> <p>3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to parts per million (ppm) by volume, or micromoles of pollutant per mole of gas.</p> <p>4. Any equivalent procedure which can be shown to the satisfaction of CARB to give equivalent results at or near the level of the air quality standard may be used.</p> <p>5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.</p> <p>6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.</p> <p>7. Reference method as described by the USEPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the USEPA.</p> <p>8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.</p> <p>9. On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.</p> <p>10. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).</p> <p>11. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.</p> <p>12. CARB has identified lead and vinyl chloride as “toxic air contaminants” with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.</p> <p>13. National lead standard, rolling 3-month average: final rule signed October 15, 2008.</p> <p>14. In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.</p>						

Source: California Air Resources Board, Ambient Air Quality Standards (May 4, 2016), <https://www.arb.ca.gov/research/aaqs/aaqs2.pdf>, accessed March 7, 2018.

Air Quality Thresholds

Under CEQA, the SCAQMD is an expert commenting agency on air quality within its jurisdiction or impacting its jurisdiction. Under the FCAA, the SCAQMD has adopted federal attainment plans for O₃ and PM₁₀. The SCAQMD reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any Federal attainment plan.

The *CEQA Air Quality Handbook* also provides significance thresholds for both construction and operation of projects within the SCAQMD jurisdictional boundaries. If the SCAQMD thresholds are exceeded, a potentially significant impact could result. However, ultimately the lead agency determines the thresholds of significance for impacts. If a project proposes development in excess of the established thresholds, as outlined in Table 3-2, a significant air quality impact may occur and additional analysis is warranted to fully assess the significance of impacts.

TABLE 3-2 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT EMISSIONS THRESHOLDS

PHASE	POLLUTANT (LBS/DAY)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Construction	75	100	550	150	150	55
Operational	55	55	550	150	150	55

lbs/day = pounds per day; ROG = reactive organic gases; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = particulate matter up to 10 microns; PM_{2.5} = particulate matter up to 2.5 microns.

Source: Michael Baker International 2018a.

Local Carbon Monoxide Standards

In addition, the significance of localized project impacts depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards, as follows:

- If the project causes an exceedance of either the State one-hour or eight-hour CO concentrations, the project would be considered to have a significant local impact.
- If ambient levels already exceed a State or federal standard, then project emissions would be considered significant if they increase one-hour CO concentrations by 1.0 parts per million (ppm) or more, or eight-hour CO concentrations by 0.45 ppm or more.

Localized Significance Thresholds

Localized Significance Thresholds (LSTs) were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative. The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated July 2008) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level proposed projects. The SCAQMD provides the LST lookup tables for one-, two-, and five-acre projects emitting CO, NO_x, or PM₁₀. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres in size should perform air quality dispersion modeling to assess impacts to nearby sensitive receptors.

Cumulative Emissions Thresholds

The 2016 AQMP was prepared to accommodate growth, meet State and Federal air quality standards, and minimize the fiscal impact that pollution control measures have on the local economy. According to the SCAQMD *CEQA Air Quality Handbook*, project-related emissions that fall below the established construction and operational thresholds should be considered less than significant unless there is pertinent information to the contrary. If a project exceeds these emission thresholds, the SCAQMD *CEQA Air Quality Handbook* states that the significance of a project's contribution to cumulative impacts should be determined based on whether the rate of growth in average daily trips exceeds the rate of growth in population.

3.3.2 Affected Environment

The project site lies within the northeastern portion of the SSAB, which is under the jurisdiction of the SCAQMD and CARB. The SCAQMD sets and enforces air pollutant regulations for stationary sources in the SSAB, while CARB is charged with controlling motor vehicle emissions. The SSAB is composed of the eastern portions of Riverside County, and all of Imperial County.

The southeastern edge of the SSAB is bounded by the Colorado River. The western boundary follows the ridge line of a series of high mountain ranges: the San Gabriel, San Bernardino, and San Jacinto ranges, which form both a physical and climatological barrier between the Salton Sea and South Coast Air Basins. The SSAB, including the Coachella Valley, has a desert climate characterized by low annual rainfall, low humidity, hot days, and very cool nights. The mean annual precipitation in the Coachella Valley averages approximately three inches, most of which occurs between October and January. Temperature in the area varies greatly between summer and winter, ranging from 30 degrees Fahrenheit (°F) in winter to over 100°F in the summer. Relative humidity is generally low in the summer, with particularly dry afternoons. These clear, dry conditions result in intense solar radiation that, combined with high temperatures, is highly conducive to photochemical smog formation.

Wind direction and speed (which in turn affect atmospheric stability) are the most important climatological elements affecting the ambient air quality within the project area. The on-shore dominant daytime wind pattern (from the west) occurs between 12:00 p.m. and 7:00 p.m., following the peak travel period (6:00 a.m. to 9:00 a.m.) in the Los Angeles/Orange County area. Consequently, during periods of low inversions and low wind speeds, the photochemical smog formed in these areas is transported downwind into Riverside County and San Bernardino County. Within the vicinity of the project site the wind direction is generally in a southeast direction. The Coachella Valley rarely experiences the summer temperature inversions that frequently “cap” polluted air layers in the Los Angeles basin area. However, inversions can form during cold nights with mild winds (typically during winter months), but are usually removed during daytime heating. When these desert inversions form, they may trap pollutants near low level emission sources such as freeways or parking lots.

Attainment Status

The SSAB is an unclassified/attainment area for CO, NO₂, SO₂, and PM_{2.5} for both State and federal standards. The SSAB is a nonattainment area for O₃ and PM₁₀ under both State and federal standards; refer to Table 3-3.

TABLE 3-3 SALTON SEA AIR BASIN AIR QUALITY ATTAINMENT STATUS

POLLUTANT	STATE	FEDERAL
Carbon Monoxide (CO)	Attainment	Unclassified/Attainment
Ozone (O ₃) (1-hour standard)	Extreme Nonattainment	Revoked June 2005
Ozone (O ₃) (8-hour standard)	Nonattainment	Severe 15 Nonattainment
Nitrogen Dioxide (NO ₂)	Attainment	Unclassified/Attainment
Sulfur Dioxide (SO ₂)	Attainment	Unclassified
Particulate Matter <10 microns (PM ₁₀)	Nonattainment	Serious Nonattainment ¹
Particulate Matter <2.5 microns (PM _{2.5})	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	Attainment	--
Hydrogen Sulfides	Unclassified	--
Visibility Reducing Particles	Unclassified	--
Notes:		
1. The USEPA eliminated the annual PM ₁₀ standard in its final rule revision in October 2006.		

Source: Michael Baker International 2018a.

Sensitive Receptors

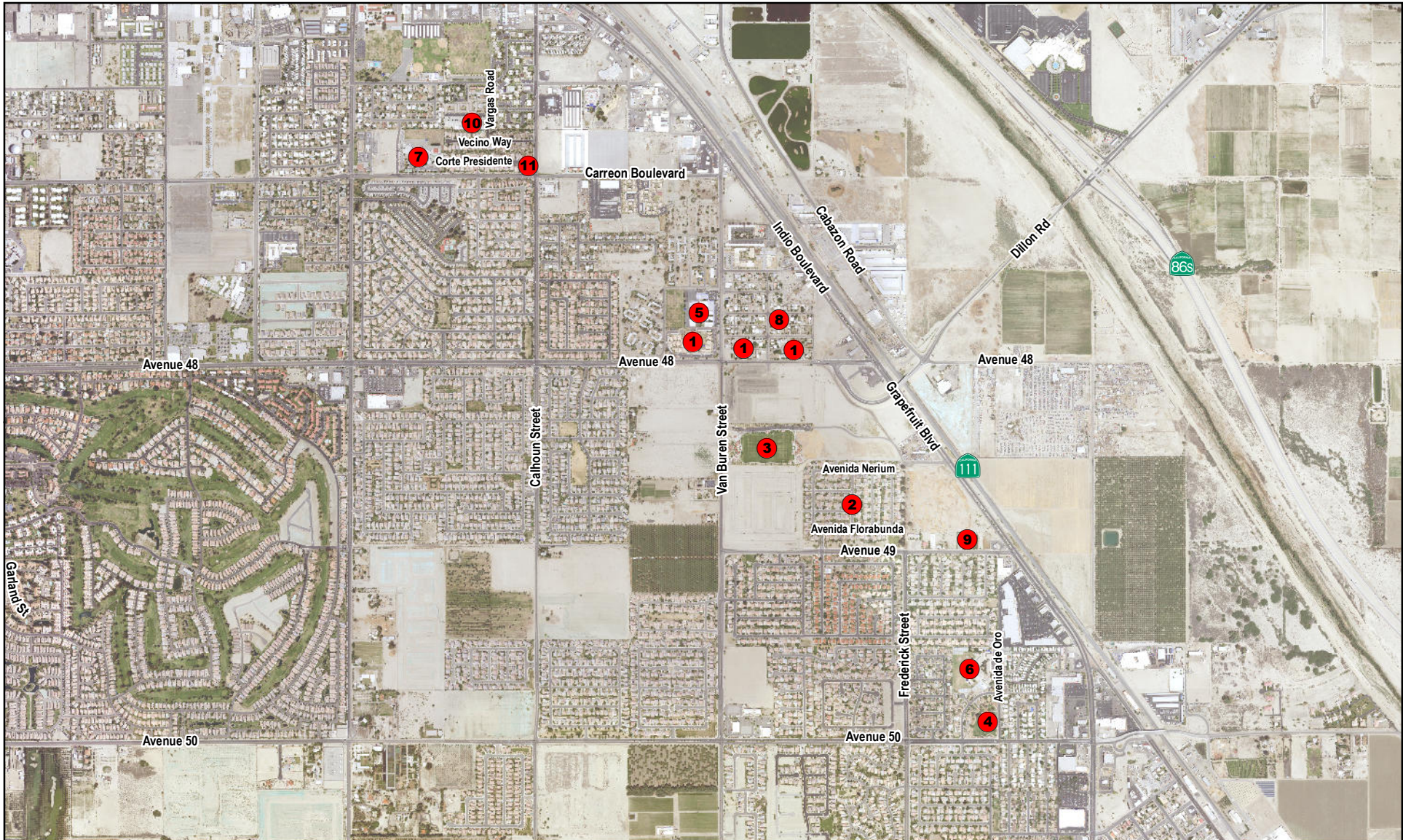
Sensitive receptors are more susceptible to the effects of air pollution than the general public. Sensitive receptors that are in proximity to localized sources of toxics and CO are of particular concern. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. The following types of people are most likely to be adversely affected by air pollution, as identified by CARB: children under 14, elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. Locations that may contain a high concentration of these sensitive population groups are called sensitive receptors and include residential areas, hospitals, day-care facilities, elder-care facilities, elementary schools, and parks. Existing sensitive receptors located in the project vicinity surrounding the roadway include single-family residential uses, parks, schools, and places of worship. Sensitive receptors are listed in Table 3-4 and shown in Figure 3-1.

TABLE 3-4 SENSITIVE RECEPTORS

TYPE	NAME	DISTANCE FROM PROJECT SITE (FEET) ¹	DIRECTION FROM PROJECT SITE	LOCATION	CORRESPONDING # ON FIGURE 3-1
Residential	Residential Uses	Adjoining	North	Residential neighborhood north of Avenue 48	1
		1,398	South	Residential neighborhood south of Avenue 48	2
Parks	Rancho Las Flores, City of Coachella Park	999	South	Avenue 48, Coachella, CA 92236	3
	De Oro Park	5,262	Southeast	Coachella, CA 92236	4
Schools	Martin Van Buren Elementary School	478	North	47733 Van Buren Street, Indio, CA 92201	5
	Cesar Chavez Elementary School	4,226	Southeast	49601 Avenida De Oro, Coachella, CA 92236	6
	Theodore Roosevelt Elementary	4,417	Northwest	83200 Dr. Carreon Blvd., Indio, CA 92201	7
Places of Worship	New Seasons Church	560	North	84155 Corregidor Avenue, Indio, CA 92201	8
	Islamic Society of Coachella	2,846	Southeast	84650 Avenue 49, Coachella, CA 92236	9
	First Assembly of God	3,452	Northwest	46601 Vargas Road, Indio, CA 92201	10
	Apostolic Church of Indio	4,328	Northwest	46923 Calhoun Street, Indio, CA 92201	11

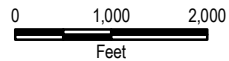
Note: Distances are measured from the exterior project boundary only and not from individual activity areas within the interior of the project site.

Source: Michael Baker International 2018a.



Legend

● Sensitive Air Quality Receptor



**FIGURE 3-1
SENSITIVE AIR QUALITY
RECEPTORS**

COUNTY OF RIVERSIDE
AVENUE 48
WIDENING PROJECT

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3.3.3 Impact Assessment

Would the Project:

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

Less Than Significant Impact With Mitigation. According to the *CEQA Air Quality Handbook*, in order to determine consistency with the SCAQMD AQMP the following two criteria (i.e., Criterion 1 and Criterion 2, as described below) must be addressed.

Criterion 1

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

- a) *Would the project result in an increase in the frequency or severity of existing air quality violations?*

Since the consistency criteria identified under the first criterion pertain to pollutant concentrations, rather than to total regional emissions, an analysis of the project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating project consistency. As discussed in Checklist Response 3.3.3 (c) below, localized concentrations of CO, NO_x, PM₁₀ and PM_{2.5} during project construction would not exceed the SCAQMD's LSTs. In addition, the project would not generate new vehicle trips and therefore would not warrant a CO hotspot analysis. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations. It is noted that because reactive organic gases (ROG) are not a criteria pollutant, there is no ambient standard or localized threshold for ROGs. Due to the role ROG plays in O₃ formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.

- b) *Would the project cause or contribute to new air quality violations?*

As discussed in Checklist Response 3.3.3 (c) below, the proposed project would result in emissions that would be below the SCAQMD thresholds. Therefore, the proposed project would not have the potential to cause or affect a violation of the ambient air quality standards.

- c) *Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?*

As discussed below, the project's short-term construction and long-term operational emissions for CO, NO_x, ROG, PM₁₀ and PM_{2.5} would not exceed the applicable SCAQMD thresholds. In addition, the project's localized construction-related emissions would be below SCAQMD LSTs, resulting in a less than significant impact to sensitive receptors (discussed in Checklist Response 3.3.3 (c) below). Therefore, the proposed project would not delay the timely attainment of air quality standards or 2016 AQMP emissions reductions.

Criterion 2

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the Basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the AQMP. Determining whether or not a project exceeds the assumptions reflected in the AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

- a) *Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?*

A project is consistent with the AQMP in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. In the case of the 2016 AQMP, four sources of data form the basis for the projections of air pollutant emissions: the *City of Coachella General Plan*, *County of Riverside General Plan*, SCAG's *Growth Management Chapter of the Regional Comprehensive Plan and Guide (RCPG)*, and SCAG's *2016-2040 RTP/SCS*. The RTP/SCS also provides socioeconomic forecast projections of regional population growth.

The proposed project involves widening Avenue 48 within the City of Coachella, the City of Indio, and the County of Riverside, which is not considered a trip generating land use. According to the *City of Coachella General Plan Mobility Element*, Avenue 48 is designated as a major arterial with enhanced bicycle facilities which could have a ROW up to 132 feet, including up to six travel lanes, a sidewalk and bike lane in each direction of the roadway, and a median. Arterial streets are designed for through traffic to which access from abutting properties is limited. They provide the highest traffic carrying capacity in the roadway system with the highest speeds and limited interference with traffic flow by driveways. The proposed project would provide three additional travel lanes (one additional westbound lane and two additional eastbound lanes with a raised concrete center median) within the project limits. The project would relieve traffic congestion, increase mobility, and accommodate existing traffic conditions in the area, consistent with the *City of Coachella General Plan Mobility Element* and the *County of Riverside General Plan Circulation Element*. Therefore, the proposed project would be considered consistent with the current City and County *General Plans*. Furthermore, the project does not involve any uses that would increase population beyond what is considered in the *City of Coachella General Plan* and *County of Riverside General Plan* and, therefore, would not affect City-wide and County-wide plans for population growth at the project site. Thus, the proposed project is consistent with the types, intensity, and patterns of land use envisioned for the site vicinity in the RCPG. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to both the City of Coachella and the City of Indio; these are used by SCAG in all phases of implementation and review. Additionally, as SCAQMD has incorporated these same projections into the 2016 AQMP, it can be concluded that the proposed project would be consistent with the projections.

- b) *Would the project implement all feasible air quality mitigation measures?*

The project would be required to comply with applicable emission reduction measures identified by SCAQMD and FCAA. These measures have been included as Mitigation Measures AQ-1 through AQ-2. The project therefore meets this 2016 AQMP consistency criterion.

- c) *Would the project be consistent with the land use planning strategies set forth in the AQMP?*

The proposed project would serve to implement various City of Coachella (General Plan Goal 11, and Policies 11.1, 11.3, 11.8, 11.9, 11.10, 11.20, and 11.21), County of Riverside (General Plan Policies AQ1.1 through AQ1.10, AQ2.1 through 2.3, AQ12.2 and AQ12.3, AQ16.16.1 and 16.3) and SCAG's RTP/SCS (e.g., use watering trucks to minimize dust) policies. The proposed project is located within a developed portion of the City of Coachella and the County of Riverside, and would relieve traffic congestion in the area and allow for more efficient mobility. The project site is located along Avenue 48 in the vicinity of residential, commercial, and institutional uses.

In conclusion, the determination of AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the Basin. The proposed project would not result in a long-term impact on the region’s ability to meet State and federal air quality standards. As discussed above, the proposed project’s long-term influence would also be consistent with the goals and policies of the 2016 AQMP and is, therefore, considered consistent with the SCAQMD’s 2016 AQMP.

Short-Term Construction Emissions

Future construction of the project site would generate short-term air quality impacts. The project involves construction activities associated with demolition, grading, paving, and roadway construction. The project would be constructed over approximately six months. Construction equipment would include excavators, concrete/industrial saws, rubber-tired dozers, graders, rollers, pavers, paving equipment, tractors/loaders/backhoes, and air compressors. Exhaust emission factors for typical diesel-powered heavy equipment are based on the California Emissions Estimator Model (CalEEMod) program defaults. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported on- or off-site. The analysis of daily construction emissions has been prepared utilizing CalEEMod (refer to the Air Quality/Greenhouse Gas Emissions Technical Memorandum for the CalEEMod outputs and results). Table 3-5 presents the anticipated daily short-term construction emissions.

TABLE 3-5 CONSTRUCTION-RELATED AIR EMISSIONS

CONSTRUCTION EMISSIONS	POLLUTANT (POUNDS/DAY) ¹					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
2019						
Unmitigated Emissions	3.59	36.34	22.56	0.04	7.88	4.72
Mitigated Emissions ²	3.59	36.34	22.56	0.04	4.37	2.81
<i>SCAQMD Thresholds</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
<i>Is Threshold Exceeded After Mitigation?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
ROG = reactive organic gases; NO _x = nitrogen oxides; CO = carbon monoxide; SO ₂ = sulfur dioxide; PM ₁₀ = particulate matter up to 10 microns; PM _{2.5} = particulate matter up to 2.5 microns Notes: 1. Emissions were calculated using the California Emissions Estimator Model, as recommended by the SCAQMD. 2. The reduction/credits for construction emission mitigations are based on mitigation included in CalEEMod and as typically required by the SCAQMD through Rule 403. The mitigation includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 mph. Refer to Appendix A, <i>Air Quality/Greenhouse Gas Emissions Data</i> .						

Source: Michael Baker International 2018a.

Emitted pollutants would include ROG, CO, NO_x, PM₁₀, and PM_{2.5}. ROG emissions would be the greatest during the demolition phase of construction. The largest amount of CO and NO_x emissions would occur during the demolition phase. PM₁₀ and PM_{2.5} emissions would occur from fugitive dust (due to earthwork and excavation) and from construction equipment exhaust. The majority of PM₁₀ and PM_{2.5} emissions would be generated by fugitive dust from earthwork activities. Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to and from the site.

As indicated in Table 3-5, construction-related emissions would not exceed the established SCAQMD thresholds for criteria pollutants. During construction activities, the project would also be required to comply with standard SCAQMD regulations, such as Rule 402 (Nuisance) and Rule 403 (Dust Control) in compliance with Mitigation Measure AQ-1. In addition, the project would be required to implement Reasonably Available Control Technology (RACT) for construction equipment, as the SSAB is designated nonattainment for PM₁₀. Implementation of Mitigation Measures AQ-1 through AQ-3 would ensure compliance with standard SCAQMD and federal regulations, resulting in a less than significant short-term air quality impact.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the CARB in 1986. Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed.

According to the United States Geological Survey (USGS), Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California, there are no reported natural occurrences of asbestos found within the project area. Additionally, according to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, serpentinite and ultramafic rocks are not known to occur within the project area. Furthermore, implementation of the proposed project would not involve the demolition of any structures associated with asbestos-containing materials (ACMs). Therefore, there would be no impact in this regard.

Long-Term (Operational) Emissions

Long-term air quality impacts would consist of mobile source emissions generated from project-related traffic. The proposed project would provide three additional travel lanes within the Avenue 48 project limits (one additional westbound lane and two additional eastbound lanes) to relieve traffic congestion, increase mobility, and accommodate existing traffic conditions in the area. However, the proposed improvements would also attract additional traffic. Table 3-6 depicts the average daily traffic (ADT) volumes along the project corridor during Existing (2017), Opening Year (2019), and Horizon Year (2038) Without Project and With Project conditions. As indicated in Table 3-6, Avenue 48 would experience ADT growth without the project between the existing and 2038 analysis years due to general growth in the area. With implementation of the project, Avenue 48 would experience additional traffic due to the proposed additional travel lanes in 2038. Although additional trips would occur along Avenue 48 after project implementation due to general growth in the area, the project would relieve existing and forecast traffic congestion in the project area. The project is not considered a trip-generating land use, and overall vehicular traffic circulation would improve for motorists, residents, businesses, emergency service providers, nearby institutions such as schools, and public transportation.

TABLE 3-6 AVENUE 48 AVERAGE DAILY TRAFFIC

AVENUE 48 ROADWAY SEGMENT	TOTAL ADT	PERCENT TRUCKS	TRUCK ADT
Existing Conditions (2017)			
Van Buren Street to Dillon Road	11,893	3.80%	452
Dillon Road to Indio Blvd.	12,205	3.80%	464
Total	24,098	--	916
Opening Year (2019)¹			
Van Buren Street to Dillon Road	12,272	3.80%	466
Dillon Road to Indio Blvd.	12,739	3.80%	484
Total	26,011	--	950
Horizon Year (2038) Without Project			
Van Buren Street to Dillon Road	22,780	1.90%	433
Dillon Road to Indio Blvd. Indio Blvd.	35,458	5.90%	2,092
Total	58,238	--	2,525
Horizon Year (2038) With Project			
Van Buren Street to Dillon Road	29,403	1.80%	529
Dillon Road to Indio Blvd.	41,140	5.20%	2,139
Total	70,543	--	2,669
- Net Change from Build to No Build	12,305	--	144
Notes:			
1. Opening Year With Project and Without Project traffic volumes would be the same.			

Source: Michael Baker International 2018a.

Table 3-6 also depicts the percentage of trucks and truck daily volumes that would travel along Avenue 48. Table 3-6 indicates that truck volumes would increase in the Horizon Year primarily due to increases in overall traffic and general growth in the area. In the Horizon Year, truck volumes would decrease along Avenue 48 between Van Buren Street and Dillon Road. However, truck volumes would increase along Avenue 48 between Dillon Road and Indio Boulevard. When comparing Horizon Year 2038 Without Project and With Project conditions, the percentage of trucks would decrease. However, the overall ADT and number of trucks would increase by 12,305 and 144 ADT, respectively, due to the added roadway capacity. It should be noted that the total number of daily trucks during Horizon Year With Project conditions would be 2,669, which is far below the 10,000 daily truck screening level used by Caltrans for particulate matter hotspots.

Table 3-7 depicts the air quality emissions associated with the traffic volumes during the Existing (2017), Opening Year (2019), and Horizon Year (2038) Without Project, and Horizon Year (2038) With Project scenarios. As indicated in Table 3-7, operational emissions would not exceed SCAQMD thresholds. Additionally, the proposed roadway improvement would not generate any stationary source emissions. Therefore, impacts in this regard would be less than significant.

TABLE 3-7 OPERATIONAL (MOBILE) EMISSIONS

OPERATIONAL SCENARIO	POLLUTANT (POUNDS/DAY) ¹					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Existing Conditions (2017)	0.60	5.67	17.04	0.05	0.64	0.28
Opening Year (2019) ²	0.52	4.81	15.09	0.06	0.65	0.28
Horizon Year (2038) Without Project	0.91	3.35	19.13	0.08	1.28	0.52
Horizon Year (2038) With Project ³	1.14	4.18	23.83	0.10	1.60	0.65
<i>SCAQMD Thresholds</i>	55	55	550	150	150	55
<i>Is Threshold Exceeded After Mitigation?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
ROG = reactive organic gases; NO _x = nitrogen oxides; CO = carbon monoxide; SO ₂ = sulfur dioxide; PM ₁₀ = particulate matter up to 10 microns; PM _{2.5} = particulate matter up to 2.5 microns Notes: 1. Emissions were calculated using EMFAC2014. 2. Opening Year With Project and Without Project traffic volumes would be the same. 3. Year 2038 With Project emissions include a total net increase of 12,305 ADT, and a net increase of 144 ADT for trucks. Refer to Appendix A, <i>Air Quality/Greenhouse Gas Emissions Data</i> .						

Source: Michael Baker International 2018a.

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 Impact With Mitigation.

Cumulative Construction Impacts

As discussed above in Checklist Response 3.3.3 (a), the project’s short-term construction and long-term operational emissions for CO, NO_x, ROG, PM₁₀, and PM_{2.5} would not exceed the applicable SCAQMD thresholds. With respect to cumulative Basin-wide conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the 2016 AQMP pursuant to FCAA mandates. As such, the proposed project would comply with SCAQMD Rule 403 requirements, and implement all feasible mitigation measures (Mitigation Measures AQ-1 and AQ-2). Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the proposed project. In addition, the proposed project would comply with adopted 2016 AQMP emissions control measures. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects throughout the Basin, which would include related projects.

Compliance with SCAQMD rules and regulations would minimize the project’s construction-related emissions and ensure that impacts are reduced to a less than significant level. Thus, it can be reasonably inferred that the project-related construction emissions, in combination with those from other projects in the area, would not substantially deteriorate the local air quality. Impacts would be less than significant with implementation of Mitigation Measures AQ-1 and AQ-2.

Cumulative Long-Term Impacts

As discussed previously, the proposed project would not result in long-term air quality impacts, as the proposed roadway widening is not considered a trip generating land use and the project would improve traffic conditions in the study area in cooperation with the *City of Coachella General Plan Mobility Element* and the *County of Riverside Circulation Element*. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project

basis. Emission reduction technology, strategies, and plans are constantly being developed. As a result, the proposed project would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant. Therefore, cumulative operational impacts associated with implementation of the proposed project would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentration?

Less Than Significant Impact With Mitigation. As noted above, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Sensitive receptors closest to the project site include the adjoining residential uses to the north, additionally the next closest sensitive receptor, Martin Van Buren Elementary School is located approximately 480 feet north of the roadway respectively, and New Seasons Church is approximately 560 feet north of the roadway. In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing LSTs for construction operational impacts. It is noted that LSTs are applicable to stationary sources only. The project consists of roadway improvements; therefore, only localized construction emissions have been analyzed below.

Localized Significance Thresholds

Localized Construction Emissions

LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level proposed projects. The SCAQMD provides the LST lookup tables for one, two, and five acre projects emitting CO, NO_x, PM_{2.5}, or PM₁₀. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The localized analysis relative to vehicle trips is presented under the Carbon Monoxide Hotspot analysis below. The SCAQMD recommends that any project over five acres should perform air quality dispersion modeling to assess impacts to nearby sensitive receptors. The SCAQMD monitors air quality at 37 monitoring stations throughout the Basin. Each monitoring station is located within a Source Receptor Area (SRA). The communities within an SRA are expected to have similar climatology and ambient air pollutant concentrations. The project is located within SRA 30, Coachella Valley.

The SCAQMD guidance on applying CalEEMod to LSTs specifies the amount of acres a particular piece of equipment would likely disturb per day. The project would disturb approximately five acres; therefore, the LSTs for the largest acreage (five acres) were conservatively utilized for the construction LST analysis. It should be noted that an operational LST analysis was not prepared, as the project would not result in stationary source operational emissions. The closest sensitive receptors to the project site are residential uses adjoining the project site to the north, a school which is approximately 478 feet (or 146 meters) away from the project site and lastly, a church which is located approximately 560 feet (or 171 meters) from the project site. These sensitive land uses may be potentially affected by air pollutant emissions generated during on-site construction activities. LSTs are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. As the nearest sensitive uses are directly adjacent to the project site, the LST values for 25 meters were conservatively utilized.

Table 3-8 shows the construction-related emissions for NO_x, CO, PM₁₀, and PM_{2.5} compared to the LSTs for SRA 30, Coachella Valley. As shown in Table 3-8, construction emissions would not exceed the LSTs. Therefore, localized significance impacts from construction would be less than significant with implementation of Mitigation Measures AQ-1 and AQ-2.

TABLE 3-8 LOCALIZED SIGNIFICANCE OF EMISSIONS

SOURCE	POLLUTANT (POUNDS/DAY)			
	NO _x	CO	PM ₁₀	PM _{2.5}
2019				
Total On-Site Construction Emissions ^{1,2}	35.78	22.10	4.00	2.70
<i>Localized Significance Threshold³</i>	270	2,292	14	8
<i>Thresholds Exceeded?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Notes:				
1. The Demolition Phase represents the worst-case scenario for NO _x and CO.				
2. The Grading Phase represents the worst-case scenario for PM ₁₀ and PM _{2.5} .				
3. The Localized Significance Threshold was determined using Appendix C of the SCAQMD <i>Final Localized Significant Threshold Methodology</i> guidance document for pollutants NO _x , CO, PM ₁₀ , and PM _{2.5} . The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction (5-acre threshold was conservatively used), the distance to sensitive receptors, and the source receptor area (SRA 30).				
Refer to Appendix A, <i>Air Quality/Greenhouse Gas Emissions Data</i> .				

Source: Michael Baker International 2018a.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, and the elderly). The SCAQMD requires a quantified assessment of CO hotspots when a project increases the volume-to-capacity ratio (also called the intersection capacity utilization [ICU]) by 0.02 (two percent) for any intersection with an existing level of service LOS D or worse. Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersections.

As noted previously, the project involves widening Avenue 48 and would not generate new vehicle trips. Although additional trips would occur as a result of the project, the proposed roadway improvements would relieve existing and forecasted traffic congestion in the project area consistent with the *City of Coachella General Plan Mobility Element* and the *County of Riverside Circulation Element*. Therefore, it would not increase the ICU of nearby intersections to warrant a CO hotspot analysis.

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

Less Than Significant Impact With Mitigation. According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified by the SCAQMD as being associated with odors.

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust and asphalt paving. Construction-related odors would be short-term in nature and cease upon project completion. In addition, Mitigation Measures AQ-1 and AQ-2 would further reduce

construction emissions. As such, any impacts to existing adjacent land uses would be short-term and would be less than significant.

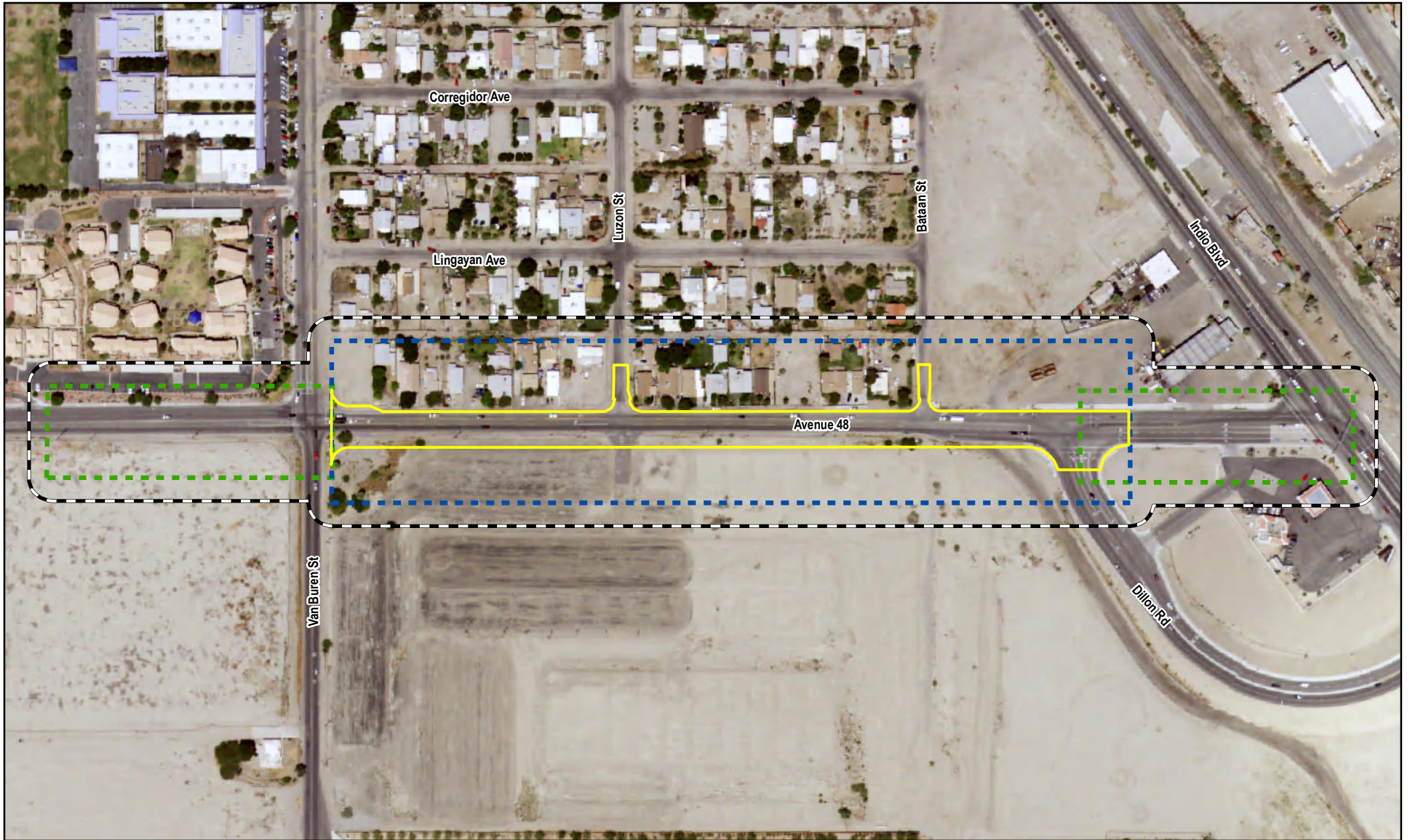
3.3.4 Mitigation Measures





- AQ-1** The construction contractor shall comply with Caltrans' Standard Specifications Section 14-9.03 Dust Control of Caltrans' Standard Specifications (2010). Construction of the project would also comply with the South Coast Air Quality Management District's Rule 403-Fugitive Dust.
- AQ-2** The construction contractor shall comply with Section 7-1.02 Emissions Reduction and Section 18 Dust Palliative of Caltrans' Standard Specifications (2010).
- AQ-3** The Wind Erosion Control BMP (WE-1) from Caltrans' Construction Site Best Management Practices Manual will be implemented as follows:
- Water shall be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will ensure even distribution.
 - All distribution equipment shall be equipped with a positive means of shutoff.
 - Unless water is applied by means of pipelines, at least one mobile unit shall be available at all times to apply water or dust palliative to the project.
 - If reclaimed water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Regional Water Quality Control Board requirements. Non-potable water shall not be conveyed in tanks or drain pipes that will be used to convey potable water and there shall be no connection between potable and non-potable supplies. Non-potable tanks, pipes and other conveyances shall be marked "NON-POTABLE WATER – DO NOT DRINK."
 - Materials applied as temporary soil stabilizers and soil binders will also provide wind erosion control benefits.

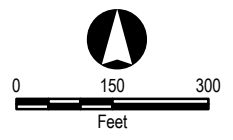
3.4 Biological Resources

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The information in this section is based on the *Habitat Assessment and Coachella Valley Multiple Species Habitat Conservation Plan Consistency Analysis*, prepared by Michael Baker International, Inc. (2018b) and the associated biological field surveys conducted in July 2017 to inventory and evaluate the condition of the habitat within the “survey area” (refer to Figure 3-2). The habitat assessment was conducted to characterize existing on-site conditions and assess the potential for occurrence of special-status plant and wildlife species within the survey area project. The habitat assessment was augmented by a review of the California Natural Diversity Database (CNDDDB), Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP), and other electronic databases to assess the potential for special-status plant and animal species within the survey area.



- Legend**
-  Survey Area
 -  Road Widening Area
 -  Road Re-Stripe Area
 -  Approximate Pavement Limits



**FIGURE 3-2
BIOLOGICAL
SURVEY AREA**

COUNTY OF RIVERSIDE
AVENUE 48
WIDENING PROJECT

Source: Michael Baker International, 2018

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3.4.1 Affected Environment

On-site and surrounding land uses (e.g., residential and commercial development on the north side of Avenue 48) have eliminated naturally occurring habitats within the survey area, thereby reducing the suitability of the habitat to support special-status plant and wildlife species. The survey area has been heavily disturbed from development and anthropogenic disturbances. As a result, undisturbed native plant communities are no longer present within the survey area.

Topography and Soils

The project site is located at an approximate elevation of 40 feet below mean sea level (msl) and generally slopes from west to east. The project site is relatively flat with no areas of significant topographic relief. Based on the NRCS USDA Web Soil Survey, the project site is underlain by the following soil units: Gilman silt loam (0 to 2 percent slopes) and Indo very fine sandy loam (refer to Figure 3-3). Surface soils within the existing roadway ROW have been mechanically disturbed from existing development and no longer provide native soils that have the potential to support special-status plant species.

Vegetation

The survey area supports land cover types that would be classified as disturbed and developed. As a result, no plant communities would be affected from project activities. Disturbed areas refer to unpaved or dirt areas that are routinely exposed to anthropogenic disturbances and typically do not support native vegetation or comprise a plant community. Surface soils within these areas are generally devoid of vegetation and have been heavily disturbed/compacted from existing land uses. Disturbed areas on-site generally encompass the vacant fields on the southwest portion of the survey area, undeveloped lots adjacent to the residential and commercial developments, and the road shoulder of Avenue 48. Developed areas generally encompass all buildings, as well as paved, impervious surfaces. Within the survey area, developed areas encompass the residential and commercial developments within the survey area, and the paved roads (e.g., Van Buren Street, Avenue 48, and Dillon Road).

Vegetation occurring within the survey area includes ornamental/landscaped plant species associated with the existing residential developments, and non-native and ruderal/weedy plant species within the disturbed areas. Plants species observed within the disturbed areas within the survey area include tumbleweed (*Salsola tragus*), prickly lettuce (*Lactuca serriola*), puncture vine (*Tribulus terrestris*), red brome (*Bromus madritensis*), horseweed (*Erigeron bonariensis*), salt cedar (*Tamarix ramosissima*), common sunflower (*Helianthus annuus*), big saltbush (*Atriplex lentiformis*), and Palmer's pigweed (*Amaranthus palmeri*) (refer to Figure 3-4).

Wildlife Corridors and Linkages

The project site is not located within any Conservation Areas, Preserves, Cores, or Linkages identified in the CVMSHCP (refer to Figure 3-5).

3.4.2 Impact Assessment

Would the Project:

- a) **Have a substantial adverse effect, either directly or indirectly 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 Impact With Mitigation. The CNDDDB Rarefind 5 and the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California were

queried for reported locations of special-status plant and wildlife species as well as special-status plant communities in the Indio USGS 7.5-minute quadrangle, which encompasses the project site and survey area. The literature search identified nine special-status plant species and 14 special-status wildlife species as having potential to occur within the Indio USGS 7.5-minute quadrangle. No special-status plant communities have been recorded in the Indio USGS 7.5-minute quadrangle. Special-status plant and wildlife species were evaluated for their potential to occur within the survey area based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity of the project site are presented in Appendix B of this IS/MND.

Special-Status Plant Species

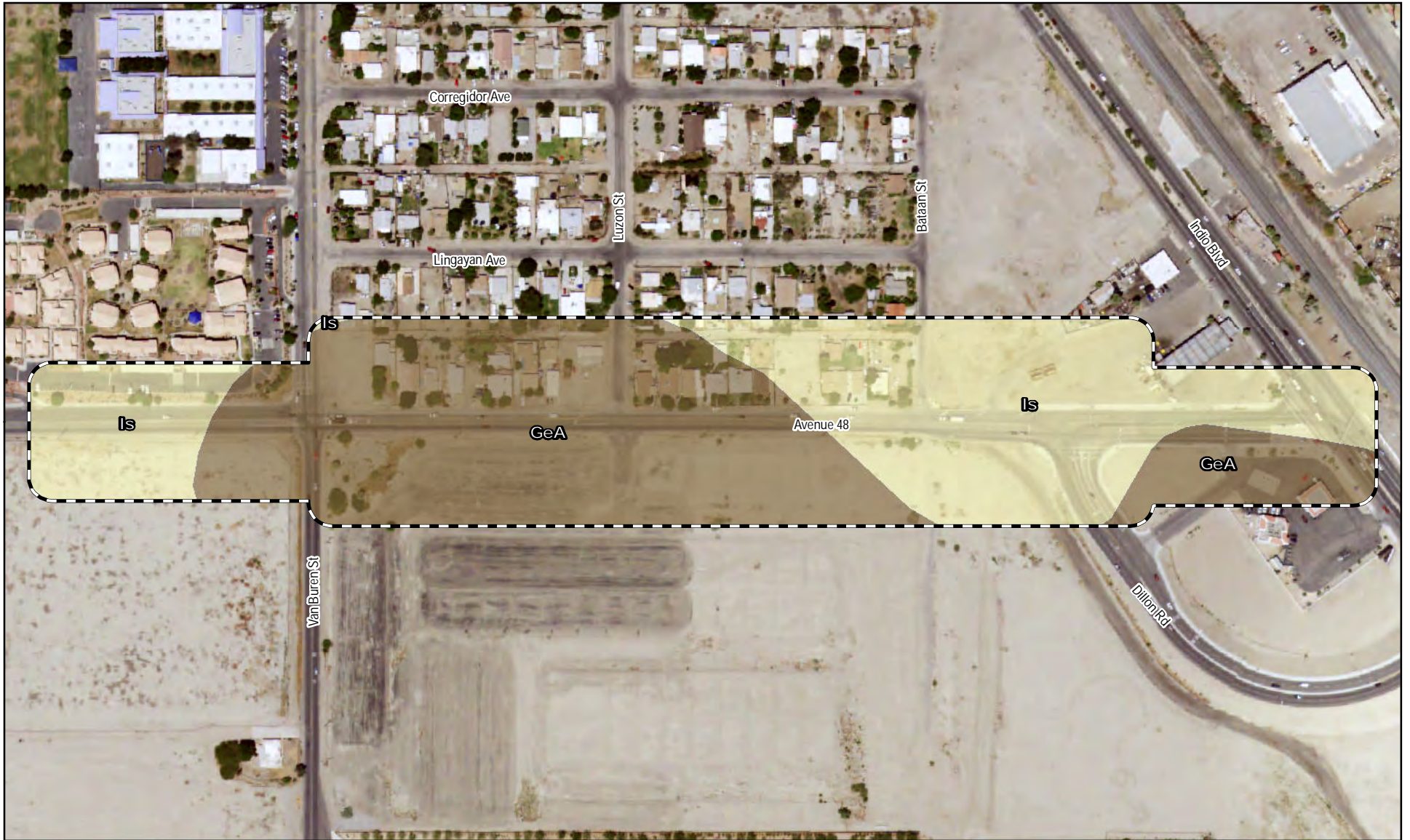
Nine special-status plant species have been recorded in the CNDDDB and CNPS in the Indio USGS 7.5-minute quadrangle (refer to Appendix B). No special-status plant species were observed on-site during the habitat assessment. On-site and surrounding land uses have eliminated naturally occurring habitats within the survey area, reducing the suitability of the habitat to support special-status plant species. Surface soils within the survey area have been mechanically disturbed from existing development and no longer provide native soils that have the potential to support special-status plant species. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that no special-status plant species are expected to occur within the survey area.

Special-Status Wildlife Species




Fourteen special-status wildlife species have been recorded in the CNDDDB and other electronic databases in the Indio USGS 7.5-minute quadrangle (refer to Appendix B). No special-status wildlife species were observed on-site during the habitat assessment. The survey area consists of existing developed and heavily disturbed areas that have been subject to a high level of anthropogenic disturbances. These disturbances have eliminated the natural plant communities that once occurred on-site resulting in a majority of the survey area consisting of ornamental landscaped plant species associated with existing developments and heavily disturbed areas. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that no special-status wildlife species are expected to occur within the survey area.

Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.3, 3511, and 3513) prohibit the take, possession, or destruction of birds, their nests or eggs). Project construction may temporarily affect the movement of migratory bird species and their breeding success. Their active nests could be directly or indirectly impacted such that nest abandonment resulting in death of eggs or young occurs. Disturbance from construction activities, such as noise, human presence, and habitat alteration due to the trimming of trees and clearing of native vegetation, could affect the nesting habits of the special-status and migratory bird species. Implementation of the avoidance and minimization measures as described in Mitigation Measure BIO-1 would ensure that impacts to migratory bird species would be less than significant.

Although it was determined that burrowing owl is presumed absent from the study area, because burrowing owls are a species that is known for its ability to move into and out of areas across seasons and years, it is recommended that a pre-construction burrowing owl clearance survey be conducted prior to any ground disturbance or vegetation removal activities to ensure that burrowing owls remain absent and impacts do not occur to any occupied burrows that may be located on or within 500 feet of the project site. Implementation of the avoidance and minimization measures as described in Mitigation Measure BIO-2 would ensure that impacts to burrowing owl would be less than significant.



Legend

-  Survey Area
-  GeA Gilman Silt Loam, 0 to 2% Slopes
-  Is Indio Very Fine Sandy Loam

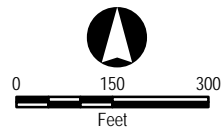
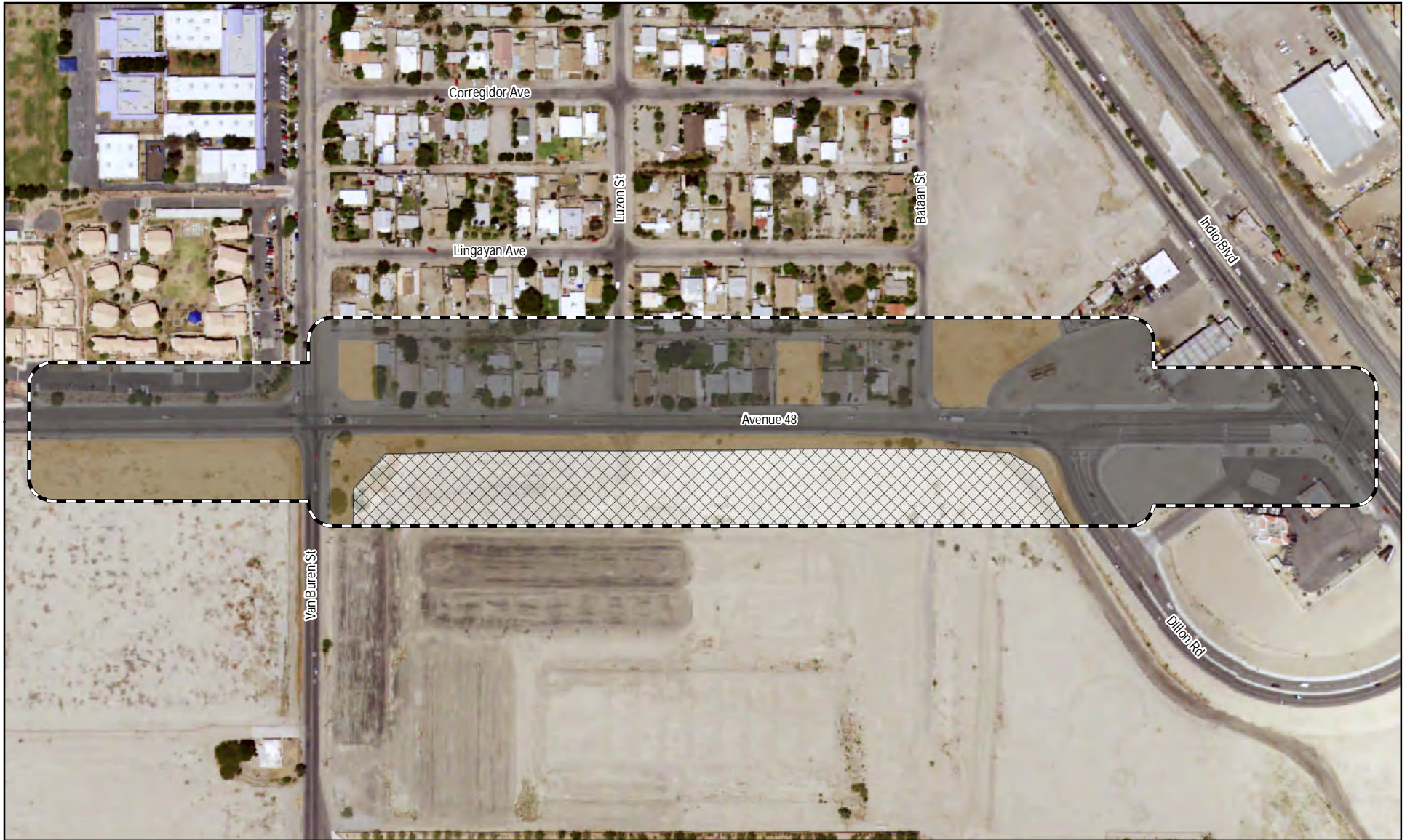






FIGURE 3-3
SOILS

COUNTY OF RIVERSIDE
AVENUE 48
WIDENING PROJECT

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Legend

-  Survey Area
-  Disturbed (4.7 Acres)
-  Developed (15.8 Acres)
-  Currently Under Development (5.4 Acres)

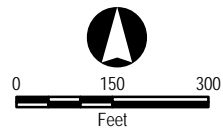
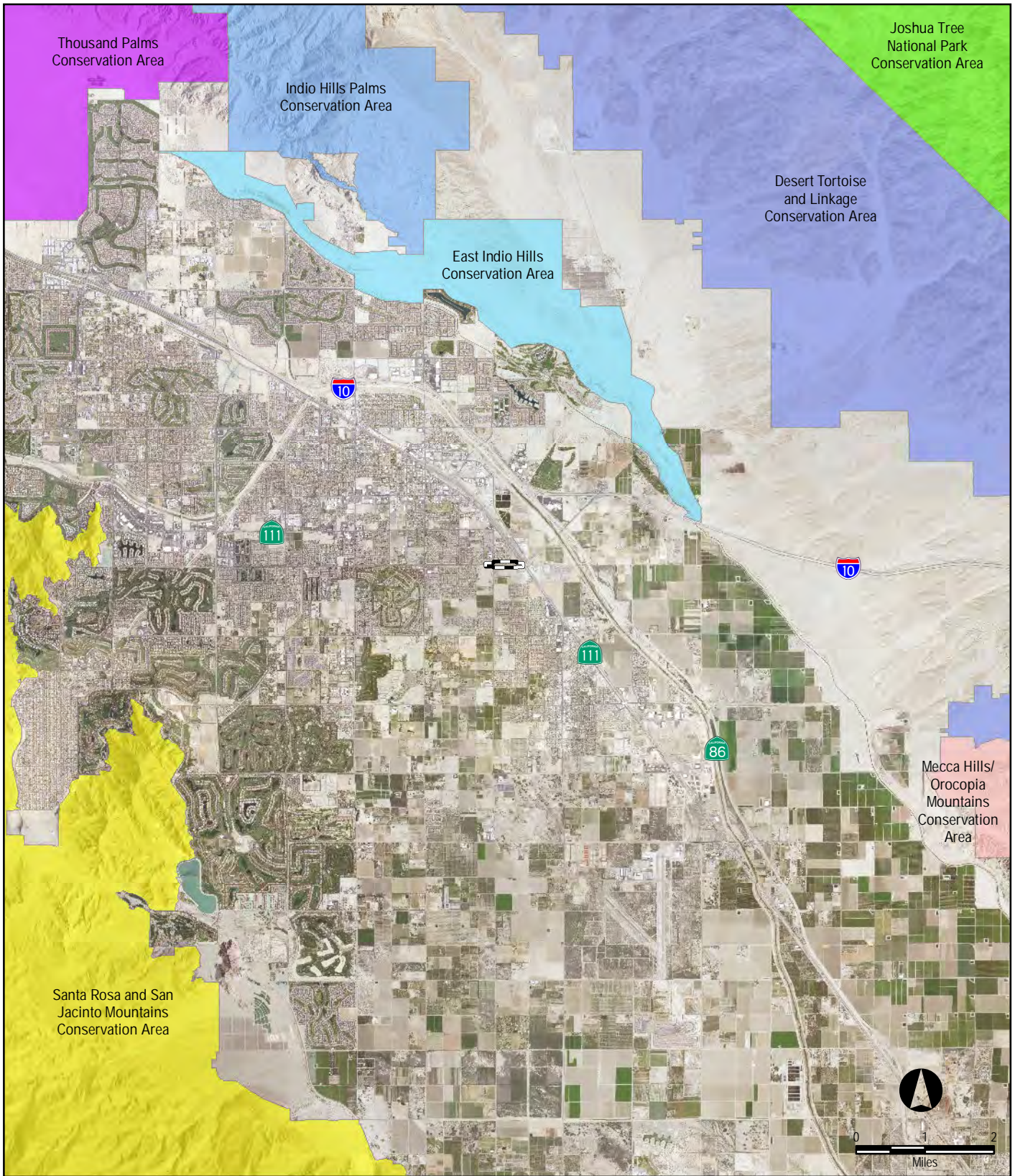


FIGURE 3-4
VEGETATION

COUNTY OF RIVERSIDE
AVENUE 48
WIDENING PROJECT

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Legend	
	Survey Area
	Desert Tortoise and Linkage Conservation Area
	East Indio Hills Conservation Area
	Indio Hills Palms Conservation Area
	Joshua Tree National Park Conservation Area
	Mecca Hills/Orocopia Mountains Conservation Area
	Santa Rosa and San Jacinto Mountains Conservation Area
	Thousand Palms Conservation Area

FIGURE 3-5
CVMSHCP
CONSERVATION AREAS

COUNTY OF RIVERSIDE
 AVENUE 48
 WIDENING PROJECT

Source: Michael Baker International, 2018

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Special-Status Plant Communities

According to the CNDDDB, no special-status plant communities have been reported in the Indio USGS 7.5-minute quadrangle. Based on the results of the field survey, no native plant communities or special-status plant communities occur within the survey area. The survey area supports land cover types that would be classified as disturbed and developed. Vegetation occurring within the survey area includes ornamental/landscaped plant species associated with the existing residential developments, and non-native and ruderal/weedy plant species within the disturbed areas.

Critical Habitat

The project site is not located within federally-designated Critical Habitat (refer to Figure 3-6, Critical Habitat). The closest designated Critical Habitat is located approximately 5.7 miles southwest of the project site for Peninsular bighorn sheep (*Ovis canadensis nelsoni*).

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. No jurisdictional drainages and/or wetland features were observed within the survey area during the habitat assessment. Therefore, implementation of the proposed project would not result in impacts to USACE, RWQCB, or CDFW jurisdictional areas, including riparian habitat or other sensitive natural communities, and regulatory approvals would not be required. No impact would occur and no mitigation is 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. No state or federally-protected wetlands occur within the project area. Therefore, the proposed project would not impact such features and no mitigation is 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?

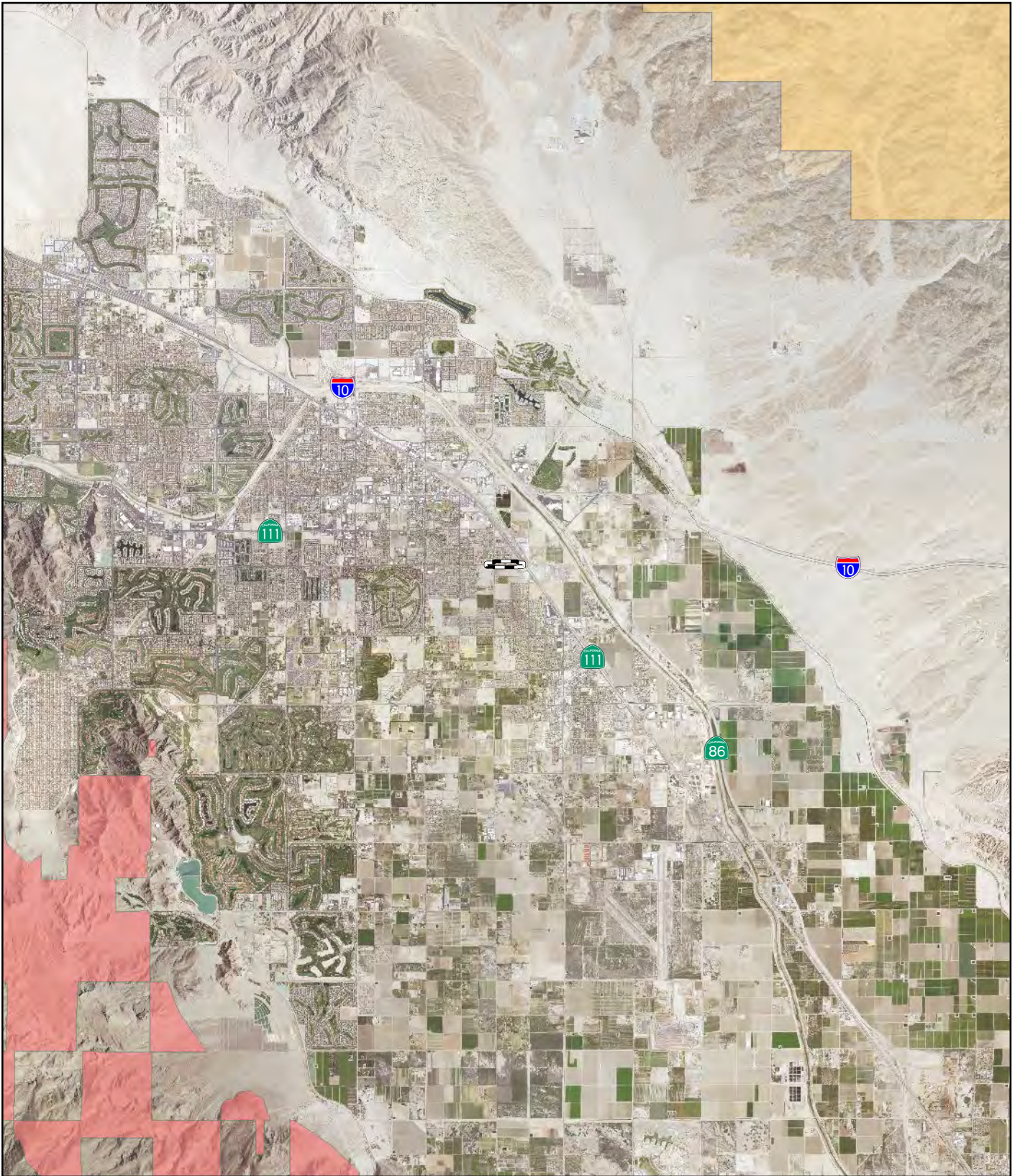
No Impact. The survey area is bordered by existing development and undeveloped (vacant) parcels which have removed natural plant communities from the surrounding area. As a result, implementation of the proposed project would not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area. Furthermore, the project site is not located within any Conservation Areas, Preserves, Cores, or Linkages identified in the CVMSHCP (refer to Figure 3-5). Therefore, there would be no impacts associated with the movement of wildlife species, migratory corridors, or native wildlife nursery sites, and no mitigation is required.

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




No Impact. The proposed project would not conflict with any local policies or ordinances protecting biological resources; therefore, no mitigation is required in this regard.

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?

Less Than Significant Impact. The proposed project is located within the boundaries of the CVMSHCP Area, but is not located within any Conservation Areas, Preserves, Cores, or Linkages. The proposed project is listed as a “Covered Activity” under the CVMSHCP, and therefore is consistent with the biological goals and objectives of the CVMSHCP. Therefore, potential impacts are considered less than significant and no mitigation is required.



Legend

-  Survey Area
-  Desert Tortoise (*Gopherus agassizii*)
-  Peninsular bighorn sheep (*Ovis canadensis nelsoni*)

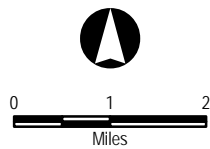


FIGURE 3-6
CRITICAL HABITAT

COUNTY OF RIVERSIDE
AVENUE 48
WIDENING PROJECT

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3.4.3 Mitigation Measures

BIO-1 In order to comply with the MBTA, and relevant sections of the California Fish and Game Code (e.g., Sections 3503, 3503.3, 3511, 3513), if construction occurs between February 1st and August 31st, within three days of the start of any vegetation removal or ground disturbing activities a qualified biologist shall conduct a pre-construction clearance survey for nesting birds to ensure that no nesting birds would be disturbed during construction. The qualified biologist conducting the clearance survey shall document a negative survey with a brief letter report indicating that no impacts to active avian nests or burrows would occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a 300-foot buffer around the active nest. For listed and raptor species, this buffer should be expanded to 500 feet. A biological monitor shall be present to delineate the boundaries of the buffer area and monitor the active nest to ensure that nesting behavior is not adversely affected by construction activities as determined by the biologist. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

BIO-2 A pre-construction burrowing owl clearance survey shall be conducted to confirm that burrowing owls remain absent and impacts to any occupied burrows that may be located on or within 500 feet of the development footprint do not occur. Two pre-construction clearance surveys shall be conducted 14 to 30 days and 24 hours prior to any vegetation removal or ground-disturbing activities.

BIO-3 Best Management Practices (BMPs) will be incorporated into project design and project management to minimize impacts on the environment including the release of pollutants (oils, fuels, etc.). All Temporary BMPs will remain in place until vegetation has been restored to pre-project conditions:

- The area of construction and disturbance would be limited to as small an area as feasible to reduce erosion and sedimentation.
- Measures would be implemented during land-disturbing activities to reduce erosion and sedimentation. These measures may include mulches, soil binders and erosion control. Blankets, silt fencing, fiber rolls, temporary berms, sediment desilting basins, sediment traps, and check dams.
- Existing vegetation would be protected where feasible to reduce erosion and sedimentation. Vegetation would be preserved by installing temporary fencing, or other protection devices, around areas to be protected.
- Exposed soils would be covered by loose bulk materials or other materials to reduce erosion and runoff during rainfall events.
- Exposed soils would be stabilized, through watering or other measures, to prevent the movement of dust at the project site caused by wind and construction activities such as traffic and grading activities.
- All construction roadway areas would be properly protected to prevent excess erosion, sedimentation, and water pollution.
- All erosion control measures and storm water control measures would be properly maintained until the site has returned to a pre-construction state.
- All disturbed areas would be restored to pre-construction contours and revegetated, either through hydroseeding or other means, with native species.
- All construction materials would be hauled off-site after completion of construction.

- BIO-4** The contractor shall dispose of all food-related trash in closed containers, and shall remove it from the project area each day during the construction period. Construction personnel will not feed or otherwise attract wildlife to the project area.
- BIO-5** The contractor will not apply rodenticides or herbicides in the project area during construction activities.
- BIO-6** Pre-construction environmental awareness training will be provided to all construction workers.
- BIO-7** If any wildlife is encountered during the course of construction, said wildlife will be allowed to leave the construction area unharmed.
- BIO-8** Prior to arrival at the project site and prior to leaving the project site, construction equipment that may contain invasive plants and/or seeds will be cleaned to reduce the spreading of noxious weeds.

3.5 Cultural Resources

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The information in this section is based on the *Cultural Resource Assessment for the Riverside County Transportation Department’s Avenue 48 Widening Project, Cities of Coachella and Indio, Riverside County, California* prepared by Applied EarthWorks, Inc. (2018).

The project’s impact area was established as the area that may be potentially directly and indirectly affected by the proposed project-related improvements (refer to Figure 3-7). The direct impact area includes the work limits and encompasses areas of construction associated with the proposed project. The vertical limits of the direct impact area associated with the project are generally expected to extend a maximum of approximately ten feet below the surface of the current grade; this maximum depth is associated with relocation of utility lines, one signal pole, and one street light pole. It is anticipated that all but the deepest excavations would be confined to previously disturbed sediments associated with existing Avenue 48 and project-area utilities.

The indirect area of impact takes into account areas where there is a potential to indirectly affect cultural resources through the introduction of visual, auditory, or atmospheric elements. While most of the proposed project components are at or below grade, it is anticipated that the maximum height of improvements (i.e., signal and street light poles) associated with the project would extend to approximately 35 feet in height. Given that the signal and street light poles are being relocated from their current location, the proposed project would not introduce any new significant visual intrusions into the area that could otherwise potentially constitute an indirect effect. As such, the impact area can be limited to the project’s footprint of 7.9 acres.

An intensive pedestrian survey of the project’s impact area (7.9 acres) was performed by Ken Moslak of Applied EarthWorks on September 7, 2017. The survey of the project area was conducted by walking parallel transects spaced at 10- to 15-meter (33- to 50-foot) intervals, when possible. The purpose of the survey was to identify the various conditions of the project area including the extent of hardscape, the overall degree of ground disturbance, and the character and nature of the area. All areas likely to contain or exhibit archaeologically or historically sensitive cultural resources were inspected carefully to ensure that visible, potentially significant cultural resources were discovered and documented. Additionally, the surveyor investigated any unusual landforms, contours, soil changes, features (e.g., road cuts, drainages), and other potential cultural site markers.

For purposes of this IS/MND, *cultural resources* are defined as any location that contains material culture greater than 45 years old. *Built-environment resources* are those that are associated with buildings (e.g., house, barns, or sheds), structures (e.g., roads, canals, or transmission lines), and objects (e.g., boundary markers). *Archaeological resources* consist of the physical remains of past human activity. An *archaeological site* is generally a locus of previous human activity at which the preponderance of evidence suggests repeated and patterned use over time, or multiple classes of activities. In contrast, an *isolated find* refers to one or more culturally modified and transportable objects representing a single activity, loci, or event that is not found in the context of a site as defined above. Finally, a *prehistoric resource* refers to a cultural resource that was used by Native Americans prior to direct contact with non-indigenous peoples; a *historical resource* includes cultural resources associated with non-indigenous peoples, as well as those used by Native Americans, after direct contact with non-indigenous peoples. In order for the material culture to be considered important and/or significant from an archaeological perspective, the material culture should retain some degree of integrity, as the contextual information is paramount in providing valuable insight and/or advancements in our understanding of prehistoric and historical human culture.

3.5.1 Affected Environment and Cultural Context

The project area is situated east of the Peninsular Ranges in the northern portion of the Coachella Valley at the western edge of the Colorado Desert. The Coachella Valley is bordered to the southwest by the San Jacinto and Santa Rosa mountains (part of the Peninsular Ranges) and to the northeast by the low, rolling Indio and Mecca Hills. From the steep slopes of the San Jacintos surmounted by San Jacinto 10,804 feet above msl, the desert floor descends sharply at less than two miles eastward to sea level at the City of Indio, approximately two miles from where the project is located.

Records Search Results

A cultural literature and records search was conducted at the Eastern Information Center (EIC) of the California Historical Resources Information System (CHRIS) on February 10, 2017. This search included the project area with an additional one-mile radius buffer that extended out from the project boundary (referred to as the project “study area”). The objective of this records search was to identify prehistoric and historic period archaeological and built-environment resources that had been previously recorded within the study area during prior cultural resource investigations. Results of the EIC record search are provided in Appendix A of the *Cultural Resources Assessment*.

Additional sources consulted during the archaeological literature and records search include the National Register of Historic Places (NRHP), the Office of Historic Preservation Archaeological Determinations of Eligibility, and the Office of Historic Preservation Directory of Properties in the Historic Property Data File. There are no listed historic properties, historical resources, or historic landmarks recorded within the project study area.

Previously Conducted Cultural Resource Studies

Results of the records search indicate that 51 investigations have been conducted previously within a one-mile radius of the project study area (refer to Appendix C). Five of the previous investigations (e.g., RI-4577, RI-4828, RI-4829, RI-4830, and RI-5452) intersected portions of the proposed project area. As a result, approximately 70 percent of the project impact area has been investigated by previous studies.

Previously Recorded Cultural Resources

The archaeological records search indicated that 52 cultural resources have been identified previously within a one-mile radius of the project study area (refer to Appendix C). These cultural resources are made up of 31 prehistoric archaeological resources, seven historic-period archaeological resources, five multicomponent archaeological resources (containing both prehistoric and historic-period components), and nine built-environment resources. None of these previously documented resources are located within the project area.



Legend



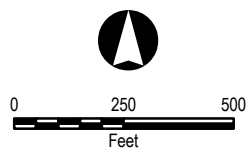
-  Project Boundary
-  Project Impact Area

FIGURE 3-7
CULTURAL RESOURCES
PROJECT IMPACT AREA

COUNTY OF RIVERSIDE
 AVENUE 48
 WIDENING PROJECT



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The prehistoric archaeological sites found in the vicinity are primarily ceramic scatters, ceramic and lithic scatters, or ceramic and habitation debris scatters. The five multi-component sites consist of ceramic scatters or ceramic and lithic scatters that contain historical refuse. None of the prehistoric archaeological resources are located within or immediately adjacent to the project area.

The historic-period archaeological resources in the vicinity of the project area include early twentieth century refuse scatters, the remains of an orchard and irrigation system, house foundations, and a well. The built-environment resources are largely composed of residential and commercial buildings, the Whitewater Channel, the Southern Pacific Railroad, and Dillon Road. Although none of the historic-period resources or the built-environment resources are located within the project area, the historical alignment of Dillon Road (33-008410) terminates at Indio Boulevard just east of the project area. In addition, a historical multi-family residence, the Fred Young Farm Labor Center (33-017933), is located approximately 350 feet west of the project area on the north side of Avenue 48. Significance evaluations conducted on these historical built-environment resources indicate that neither is eligible for listing on the California Register.

Archival Map Research

A review of historical maps indicates that the recorded segment of Avenue 48 first appears in 1941 and was designated as a secondary highway. Historic aerials from 1953 show Avenue 48 as a one-lane road. Between 1953 and 1972, the road was widened from one to two lanes. Finally, between 2005 and 2009 Dillon Road was realigned to intersect Avenue 48 west of Indio Boulevard. A review of the 1956 Coachella, California, and the 1956 Indio, California, topographic quadrangles revealed that by the mid-1950s, a number of structures (likely residences) have been built along Avenue 48 between Van Buren Street and Bataan Street immediately adjacent to the project area.

3.5.2 Impact Assessment

Would the Project:

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

Less Than Significant Impact With Mitigation.

Archaeological Resources Evaluation

The Cultural Resource Assessment identified no archaeological resources within the project area. However, the lack of surface evidence of archaeological resources does not preclude their subsurface existence. Record search data indicate a number of prehistoric and historic-period archaeological sites have been recorded within one-mile of the project boundary. As such, intact subsurface archaeological deposits may be encountered during construction activities. It is therefore recommended that a qualified archaeological monitor be present during project-related ground-disturbing activities in undisturbed native sediments. With implementation of Mitigation Measures CUL-1 and CUL-2 impacts to cultural resources would be less than significant.

Historic Resources Evaluation

No prehistoric or historic-period archaeological resources were encountered during the intensive field survey.

Several historical buildings appearing to date to the 1950s and 1960s were observed during the survey along the north side of Avenue 48; however, the proposed project would not directly impact the referenced buildings. To ensure that no landscape features (e.g., walls, fences, or other decorative

structural elements) associated with these historical buildings (residences) would be directly impacted by the proposed project, historical aerials were examined by a properly qualified Architectural Historian. This review identified no landscape features within the project area that date to the historic period. As the project involves the widening of an existing street with most improvements occurring at or below grade, no long-term indirect visual or auditory impacts are anticipated to these historical residences. Given that no historical buildings or landscape features would be directly or indirectly impacted by the project, none of the residences were documented or evaluated as part of the *Cultural Resource Assessment*.

Only properties which meet the established criteria, as set out below, may be listed on or formally determined eligible for listing on the California Register of Historic Resources (CRHR). The Final Text of the CEQA Guidelines Revisions 15064.5 *Determining the Significance of Impacts to Archaeological and Historical Resources* defines a "historical resource" as any resource: (1) listed in or determined eligible for the CRHR by the State Historical Resources Commission; or (2) a resource included in a local register which meets the requirements of Section 5024.1(g) of the Public Resources Code; or (3) any object, building, structure, site, area, place, record, or manuscript which is determined to be significant by the lead agency, including those which meet the criteria for listing on the CRHR that:

- 1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- 2) Is associated with the lives of persons important in our past;
- 3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- 4) Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, the cultural resource must also possess integrity of location, design, setting, materials, workmanship, feeling, and association.

The recorded segment of Avenue 48 does not appear to meet any of the criteria for listing on the CRHR. Archival research indicates that this segment of Avenue 48 was one of many roads constructed in Coachella during the early to mid-twentieth century. No information was found to suggest that this road was important to the development of Coachella, the Coachella Valley, Southern California, or the United States. Therefore, the recorded segment of Avenue 48 does not appear eligible for the CRHR under Criterion 1. Research has yielded no information to suggest that the road was constructed by, or is specifically associated with, a person important to local, state, or national history. Therefore, the recorded segment of Avenue 48 does not appear eligible for the CRHR under Criterion 2. This segment of Avenue 48 has been continuously modified over time due to use and maintenance, and as a result, is similar to most modern roads in the area. The materials and methods used to build Avenue 48 appear to be typical for the region and time period. In addition, the road is not an impressive or unique feat of engineering. Therefore, the recorded segment of Avenue 48 does not appear eligible for the CRHR under Criterion 3. Finally, this segment of Avenue 48 is unlikely to yield information important to prehistory or history and, as such, does not appear eligible for the CRHR under Criterion 4.

b) Cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations Section 15064.5?

Less Than Significant Impact With Mitigation. With implementation of Mitigation Measures CUL-1 and CUL-2 impacts to cultural resources would be less than significant. Please also refer to Checklist Response 3.5.2 (a), above.

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

Less Than Significant Impact With Mitigation. The project site does not exhibit a formal cemetery and is not adjacent to any known formal cemeteries. The project site and vicinity have been surveyed for archaeological resources and no human remains interred outside formal cemeteries were detected during the survey. Given the disturbed nature of the project site, it is unlikely project construction would disturb any buried human remains. However, if human remains are discovered during construction, State Health and Safety Code Section 7050.5 (b) states that further disturbances and activities must cease in the area of the suspected human remains, and the County Coroner contacted and permitted to examine the remains. If the Coroner determines that the remains are of Native American origin, the Coroner must then notify the Native American Heritage Commission (NAHC) of the existence of the find within 24 hours. Pursuant to California Public Resource Code (PRC) Section 5097.98, the NAHC would then notify the Most Likely Descendant (MLD) of the discovery. The MLD has 48 hours of being granted access to the site to complete their inspection and make recommendations or preferences for treatment. The disposition of the remains shall be overseen by the MLD to determine the most appropriate means of treating the human remains and any associated grave artifacts. Mitigation Measure CUL-3 would ensure impacts to buried cultural resources inadvertently discovered during construction would be less than significant.

3.5.3 Mitigation Measures

- CUL-1** Prior to construction, cultural resource awareness and sensitivity training shall be provided to all construction crew members by a Secretary of Interior Standards qualified archaeologist and representative(s) from appropriate Native American Tribe(s) to ensure that the crew members are aware of the need for cultural resource monitoring, the monitoring protocol, and the work cessation and notification protocol.
- CUL-2** Secretary of Interior Standards qualified monitor and Native American monitor from an appropriate Native American Tribe(s) shall monitor all ground-disturbing activities that extend into undisturbed native soils. In conjunction with the archaeological monitor, the Native American monitor shall have the authority to temporarily divert, redirect or halt the ground disturbance activities to allow identification, evaluation, and potential recovery of cultural resources. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be suspended 100 feet around the resource(s). The archaeological monitor, a representative of the appropriate Native American Tribe(s), and the Riverside County Transportation Department shall confer regarding the appropriate treatment and mitigation of the discovered resource(s). Work shall not resume in the area until mitigation has been completed or it has been determined that the archaeological resource(s) is not significant.
- CUL-3** If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner would notify the NAHC, which would determine and notify an MLD. With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

3.6 Energy

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.6.1 Affected Environment

The proposed project is located within developing areas of the Cities of Coachella and Indio and the County of Riverside, and would relieve traffic congestion in the area to allow for more efficient mobility. The project site is located along Avenue 48 and surrounded by single-family residential, commercial, retail/restaurant, institutional uses, and vacant land use.

3.6.2 Impact Assessment

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?

Less Than Significant Impact. The proposed project involves widening Avenue 48 within the City of Coachella, the City of Indio, and the County of Riverside, which is not considered a trip generating land use. The proposed project would relieve traffic congestion, increase mobility, and accommodate existing traffic conditions in the area, consistent with the *City of Coachella General Plan Mobility Element* and the *County of Riverside General Plan Circulation Element*. Therefore, the proposed project would be considered consistent with the current City and County General Plans. The proposed project would not create a new source of energy consumption during operation. During project construction, there would be a temporary consumption of energy resources due to the movement and operation of equipment and materials; however, the duration is limited and the area of construction is minimal. Compliance with federal, state, and local regulations, including current emission standards and related fuel efficiencies which limit idling times, maintaining construction equipment, and recycling construction debris, would reduce short-term energy demand during project construction to the extent feasible. Because the project involves widening an existing roadway, there are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than standard construction practices. Therefore, the project would have a less than significant impact relative to the consumption of energy resources.

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

No Impact. Both the County of Riverside and City of Coachella have adopted a Climate Action Plan (CAP). The City of Indio does not have a CAP but has a Sustainability Best Practice Activities Plan. Riverside County CAP adopted a target of reducing GHG emissions to 15 percent below existing levels

within the County of Riverside by 2020. The City of Coachella CAP has an emissions reduction target of 15 percent below 2010 levels in 2020 and a reduction target of 49 percent below 2010 levels in 2035. The City's CAP builds on the 2013 General Plan Update, quantifying emissions from the build-out of the General Plan and includes additional policies and implementation actions to help Coachella further reduce emissions.

The City of Indio Sustainability Best Practice Activities document identifies and tracks Indio's best practice activities completed and counted as part of their participation in the climate change and sustainability recognition program, the Beacon Program. The Beacon Program is a statewide program recognizing cities and counties that are working to reduce greenhouse gas emissions, save energy and adopt policies and programs that promote sustainability.

The proposed project involves widening Avenue 48 from two lanes to five lanes and would relieve traffic and congestion by improving vehicular traffic circulation and access for motorists, residents, businesses, emergency service providers, nearby institutions such as schools, and public transportation. The proposed project would not conflict with the Riverside County CAP and the City of Coachella CAP as the project does not change the County's and City's land use designations and would not increase population beyond that considered in the General Plans. As noted in Table 3-11, the proposed project would implement project design features consistent with the CAPs and relevant General Plan policies. Therefore, implementation of the proposed project would not conflict with or obstruct state or local plans, policies, or regulations adopted related to renewable energy or energy efficiency.

3.6.3 Mitigation Measures

No mitigation measures are proposed.

3.7 Geology and Soils

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the Project:				
a) Directly or indirectly cause 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.7.1 Affected Environment

The project site is located within the Western Coachella Valley which is traversed by several active and potentially active fault zones. Because the project area is located in a seismically active southern California region, the project area would likely experience strong seismic ground shaking during a seismic event. According to the City of Coachella General Plan, Figure 3-9, Faults and Historical (1800 - 2011) Seismicity Map (City of Coachella 2015), and the Western Coachella Valley Area Plan, Figure 13, Seismic Hazards (County of Riverside 2017), the project site is not located within a designated Alquist-Priolo Earthquake Fault Zone. However, several faults are located in proximity to the project site. The potential for damage resulting from seismic-related events exists within the City of Coachella, the

City of Indio, and the County of Riverside. Seismic hazards include ground shaking, ground failure, ground displacement, and liquefaction.

Regional Faults

No known faults traverse the project area; however, the following three significant faults are located in proximity to the project site and traverse the City of Coachella in a northwest to southeast direction (City of Coachella 2015b), and could potentially affect the project area:

San Andreas Fault: Located approximately three miles east of the City of Coachella, the San Andreas Fault Zone is a major structural feature that forms at the boundary between the North American and Pacific tectonic plates. It extends from the Salton Sea in Southern California to north of Point Arena along the northern California coast, where the fault trace extends out into the Pacific Ocean. In the south, the San Gabriel Mountains roughly denote the path of the San Andreas Fault. This fault has a maximum movement magnitude of 6.8 to 7.9.

The San Jacinto Fault: Located approximately 22 miles southwest of the City of Coachella. This fault zone is divided from north to south into: San Bernardino section, San Jacinto Valley section, Anza section, Coyote Creek section, Borrego Mountain section, Superstition Hills section, and Superstition Mountain section. This fault has a maximum movement magnitude of 7.2.

The Elsinore Fault: Located approximately 40 miles southwest of the City of Coachella. The Whittier-Elsinore Fault is a major strike-slip fault zone that is part of the San Andreas Fault system. The fault has been divided into sections, from north to south: Whittier section, Chino section, Glen Ivy section, Temecula section, Julian section, Coyote Mountain section, and Laguna Salada section. This fault has a maximum movement magnitude of 7.1.

Soils

The USDA Soil Conservation Service Soil Survey Maps were searched for available soils within the project site. Soils present at the subject site are listed below (Michael Baker International 2018c):

Gilman silt loam, 0 to 2 percent slopes (GeA): The landform for this is alluvial fans and the parent material is alluvium. The Gilman silt loam, 0 to 2 percent slopes, is well drained with more than 80 inches depth to the water table. Runoff class is low. The flooding frequency is rare and no ponding frequency is associated with this soil.

Indio very fine sandy loam (Is): The landform for this soil is alluvial fans and the parent material is alluvium. The Indio very fine sandy loam is moderately well drained, with more than 80 inches depth to the water table. The runoff class is low. There is no flooding frequency or ponding frequency associated with this soil.

3.7.2 Impact Assessment

Would the Project:

a) **Directly or indirectly cause 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.**

and;

ii. **Strong seismic ground shaking?**

No Impact. As noted above, the project site is not located within a designated Alquist-Priolo Earthquake Fault Zone. However, the project site is located in a seismically active region within the influence of several fault systems that are considered to be active or potentially active. The closest active faults in the project area include the San Andres, San Jacinto and Elsinore faults described above. The project site, like much of southern California, would be subject to ground shaking in the event of an earthquake; however, the project does not propose construction of any habitable structures. Therefore, the potential for seismic ground shaking would not represent a significant new hazard to people or structures. The proposed project would be designed and constructed to meet current applicable engineering standards related to compliance with pertinent seismic safety requirements; therefore, project impacts related to seismic ground shaking would not directly or indirectly impact people or structures and no mitigation is required.

iii. **Seismic-related ground failure, including liquefaction?**

Less Than Significant Impact. Liquefaction is a process by which sediments below the water table temporarily lose strength and behave as a liquid rather than a solid. In the liquefied condition, soil may deform enough to cause damage to buildings and other structures. Seismic shaking is the most common cause of liquefaction. Liquefaction occurs in loose sands and silts in areas with high groundwater levels. According to the City of Coachella General Plan EIR, Figure 4.5-4, Ground Shaking Risk (City of Coachella 2014), and the Western Coachella Valley Area Plan, Figure 13, Seismic Hazards (County of Riverside 2017), the project site is located within an area identified as a “High” for liquefaction susceptibility. The potential for liquefaction depends on the levels of shaking, groundwater conditions, the relative density of the soils, and the age of the geologic units. While the project site has been identified as being within a high liquefaction zone, the project will be designed to adhere to pertinent standard engineering practices and design criteria relative to seismic hazards related to liquefaction. The project would not expose people or structures to seismic-related ground failure impacts, therefore, impacts associated with seismic-related ground failure, including liquefaction, would be less than significant and no mitigation is required.

iv. **Landslides?**

No Impact. Seismically-induced landslides tend to occur in areas with weak soil and rock on sloping terrain. As illustrated in the City of Coachella General Plan EIR, Figure 4.5-6, Landslide Risk (City of Coachella 2014) and the Western Coachella Valley Area Plan Figure 14, Steep Slope (County of Riverside 2017), the project site and immediate surrounding area are relatively level with a low potential for landslides. Development of the project would not create large slopes on the project site. Therefore, implementation of the proposed project would not expose people or structures to substantial adverse effects involving landslides. No significant impacts would occur and no mitigation is required.

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

Less Than Significant Impact. The proposed project involves widening of an existing roadway. During construction soils and sediment would be graded, excavated, removed from the site, recompact, and filled, which would expose areas of soil to wind and water erosion. The project would comply with National Pollutant Discharge Elimination System (NPDES) requirements for control of discharges of sediments and other pollutants during construction. A Stormwater Pollution Prevention Plan (SWPPP) would be prepared and submitted to the State Water Resources Control Board. A SWPPP specifies Best Management Practice's (BMPs) that would prevent construction-related pollutants from contacting stormwater with the intent of keeping products of erosion from moving off-site into receiving waters. Typical measures to prevent wind and water erosion may include, but are not limited to, application of water during earthwork activities, flattened cut and fill slopes, sand bags, straw wattles, and no work on high wind days. The project would obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit). The SWPPP would also require preparation of an Erosion and Sediment Control Plan.

The project site is relatively flat, with little variation in topography. The existing area of impervious surface within the project limits is approximately 4.9 acres, whereas the area of impervious surface after project improvements is estimated to be approximately 6.4 acres. Therefore, the proposed project is anticipated to result in a total increase of approximately 1.5 acres of net new impervious surface as compared to existing conditions. Alteration to the project site would not result in substantial changes in topography or create erosion or unstable conditions. Since the site would continue to have primarily impervious surfaces and since the soil would not be exposed following completion of the project, the potential for erosion and/or unstable conditions is remote during operation.

Compliance with existing state, regional, and local regulations, NPDES permit requirements, implementation of project-specific BMPs identified in the SWPPP, and monitoring of construction and subsequent post-construction phase BMPs, would ensure that project impacts with respect to topsoil loss and soil erosion would be less than significant and no mitigation is required.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. As discussed in Checklist Responses 3.6.2 (a) iii above, the project site is designated as being located in an area as "High" liquefaction susceptibility. As discussed in Checklist Response 3.6.2 (a) iv above, the project site is not located in an area subject to on- or off-site landslides. Land subsidence is the gradual, local setting or shrinking of the earth's surface with little or no horizontal motion. Subsidence may also be caused by liquefaction, groundwater withdrawal, oil or gas withdrawal, and hydroconsolidation. During very large earthquakes, it is possible for subsidence or seismically induced settlement to occur in loose granular soils in flat or gently sloped portions of areas as the result of intense ground shaking. The City of Coachella is considered to have active subsidence, and this can be a long-term hazard to existing and future development (Riverside County 2014a). Liquefaction and subsidence would be addressed during engineering design for the project and all earthwork would be performed in accordance with the current and pertinent engineering; therefore, impacts associated with unstable geologic units or soil, would be less than significant and no mitigation is required.

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

No Impact. As described above in Section 3.6.1, the USDA Soil Conservation Service Soil Survey Maps indicate that there are no expansive soil types in the project area. Therefore, no impacts would occur related to expansive soils and no mitigation is required.

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

No Impact. The proposed project does not include the development of housing or other uses that would require either septic tanks or alternative wastewater systems. No impacts would occur and no mitigation is required.

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

Less Than Significant Impact. Given the extensive ground disturbance in the project area and development of Avenue 48, any superficial paleontological resources that may have existed at one time have likely been previously unearthed by past development activities. The project area is in an area designated as “Undetermined Sensitivity” in the City of Coachella General Plan Draft EIR (City of Coachella 2017a). During construction, excavation would be approximately five feet below the current grade with the exception of the new signal pole and relocated street light pole, requiring excavation to an anticipated maximum depth of 10 feet. It is anticipated that all but the deepest excavations would be confined to previously disturbed sediments associated with existing utilities and the construction and maintenance of Avenue 48. Due to the extensive disturbances caused by commercial, residential, and transportation corridor development within the project area, there is a low potential for paleontological resources to be encountered during project construction. Therefore, impacts related to paleontological resources or unique geological features would be less than significant, and no mitigation is required.

3.7.3 Mitigation Measures

No mitigation measures are proposed.

3.8 Greenhouse Gas Emissions

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Information in this section is based on the *Avenue 48 Widening Project – Air Quality / Greenhouse Gas Emissions Technical Memorandum* prepared by Michael Baker International (2018a).

3.8.1 Regulatory Environment

Federal

To date, no national standards have been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007. The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020, and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

United States Environmental Protection Agency Endangerment Finding. The USEPA authority to regulate GHG emissions stems from the United States Supreme Court decision in *Massachusetts v. USEPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court’s ruling, the USEPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO₂, CH₄, nitrous oxide [N₂O], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF₆]) constitute a threat to

public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and the USEPA's assessment of the scientific evidence that form the basis for the USEPA's regulatory actions.

Federal Vehicle Standards. In response to the United States Supreme Court ruling discussed above, the George W. Bush Administration issued Executive Order 13432 in 2007 directing the USEPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the USEPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012-2016.

In 2010, President Barack Obama issued a memorandum directing the Department of Transportation, Department of Energy, USEPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO₂ in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking. On January 12, 2017, the USEPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO₂ emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the USEPA, this regulatory program would reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines.

In August 2016, the USEPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program would apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO₂ emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program.

Clean Power Plan and New Source Performance Standards for Electric Generating Units. On October 23, 2015, the USEPA published a final rule (effective December 22, 2015) establishing the carbon pollution emission guidelines for existing stationary sources: electric utility generating units (80 FR 64510–64660), also known as the Clean Power Plan. These guidelines prescribe how states must develop plans to reduce GHG emissions from existing fossil-fuel-fired electric generating units. The guidelines establish CO₂ emission performance rates representing the best system of emission reduction for two subcategories of existing fossil-fuel-fired electric generating units: (1) fossil-fuel-fired electric utility steam-generating units and (2) stationary combustion turbines. Concurrently, the USEPA published a final rule (effective October 23, 2015) establishing standards of performance for GHG emissions from new, modified, and reconstructed stationary sources: electric utility generating units (80 FR 64661–65120). The rule prescribes CO₂ emission standards for newly constructed, modified, and reconstructed affected fossil-fuel-fired electric utility generating units. The United States Supreme Court stayed implementation of the Clean Power Plan pending resolution of several lawsuits. Additionally, in March 2017, President Trump directed the USEPA Administrator to review the Clean Power Plan in order to determine whether it is consistent with current executive policies concerning GHG emissions, climate change, and energy.

Presidential Executive Order 13783. Presidential Executive Order 13783, Promoting Energy Independence and Economic Growth (March 28, 2017), orders all federal agencies to apply cost-benefit analyses to regulations of GHG emissions and evaluations of the social cost of carbon, nitrous oxide, and methane.

State

Various statewide and local initiatives to reduce the state's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

Executive Order S-1-07. Executive Order S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least 10 percent by 2020. This order also directs CARB to determine whether this Low Carbon Fuel Standard could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (Cal/EPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of Cal/EPA created the California Climate Action Team, made up of members from various State agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through State incentive and regulatory programs.

Executive Order S-13-08. Executive Order S-13-08 seeks to enhance the State's management of climate impacts including sea level rise, increased temperatures, shifting precipitation, and extreme weather events by facilitating the development of State's first climate adaptation strategy. This will result in consistent guidance from experts on how to address climate change impacts in the state of California.

Executive Order S-14-08. Executive Order S-14-08 expands the State's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the "Renewable Electricity Standard" on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Executive Order S-20-04. Executive Order S-20-04, the California Green Building Initiative, (signed into law on December 14, 2004), establishes a goal of reducing energy use in State-owned buildings by 20 percent from a 2003 baseline by 2015. It also encourages the private commercial sector to set the same goal. The initiative places the California Energy Commission (CEC) in charge of developing a building

efficiency benchmarking system, commissioning and retro-commissioning (commissioning for existing commercial buildings) guidelines, and developing and refining building energy efficiency standards under Title 24 to meet this goal.

Executive Order S-21-09. Executive Order S-21-09, 33 percent Renewable Energy for California, directs CARB to adopt regulations to increase California's Renewable Portfolio Standard (RPS) to 33 percent by 2020. This builds upon SB 1078 (2002) which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006) which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

Assembly Bill 32 (AB 32) - California Global Warming Solutions Act of 2006. California passed the California Global Warming Solutions Act of 2006 (AB 32; *California Health and Safety Code* Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Assembly Bill 1493. AB 1493 (also known as the Pavley Bill) requires that CARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHG emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State."

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) in 2004 by adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 and adoption of 13 CCR Section 1961.1 require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty weight classes for passenger vehicles (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily to transport people), beginning with the 2009 model year. Emissions limits are reduced further in each model year through 2016. When fully phased in, the near-term standards will result in a reduction of about 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term standards will result in a reduction of about 30 percent.

Assembly Bill 3018. AB 3018 established the Green Collar Jobs Council) under the California Workforce Investment Board. The Green Collar Jobs Council will develop a comprehensive approach to address California's emerging workforce needs associated with the emerging green economy.

Senate Bill 97. SB 97, signed in August 2007 (Chapter 185, Statutes of 2007; PRC Sections 21083.05 and 21097), acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directs the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions (or the effects of GHG emissions), as required by CEQA.

California Air Resources Board Scoping Plan

On December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap to achieve the California GHG reductions required by AB 32 through subsequently enacted regulations. CARB's Scoping Plan contains the main strategies California would implement to reduce the projected 2020 "Business as Usual" emissions to 1990 levels, as required by AB 32. These strategies are intended to reduce carbon dioxide equivalent (CO₂eq) emissions by 174 million metric tons (MT). This reduction of

42 million MT CO₂eq, or almost 10 percent from 2002 to 2004 average emissions, would be required despite the population and economic growth forecasted through 2020.

CARB's Scoping Plan calculates 2020 BAU emissions as those expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. When CARB's Scoping Plan process was initiated, 2004 was the most recent year for which actual data was available. The measures described in CARB's Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32. On February 10, 2014, CARB released the draft proposed first update. On May 22, 2014, CARB approved the First Update to the AB 32 Scoping Plan. The update also defines CARB's climate change priorities for the next five years, and sets the groundwork to each long-term goal set forth in Executive Orders S-3-05 and B-15-2012. Lastly, the update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the initial Scoping Plan, and evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities in water, waste, natural resources, clean energy, transportation, and land use.

Local

City of Indio Sustainability Best Practice Activities

The City of Indio Sustainability Best Practice Activities document identifies and tracks Indio's best practice activities completed and counted as part of their participation in the climate change and sustainability recognition program, the Beacon Program. The Beacon Program is a statewide program recognizing cities and counties that are working to reduce greenhouse gas emissions, save energy and adopt policies and programs that promote sustainability. The municipal measure identified in the Sustainability Best Practice Activities document includes practices related to energy efficiency and conservation, water and wastewater systems, green building, waste reduction and recycling, climate friendly purchasing, renewable energy and low-carbon fuels, efficient transportation, land use and community design, open space and offsetting carbon emissions, and promoting community and individual action.

City of Coachella Climate Action Plan

On April 22, 2015, the City of Coachella adopted a CAP in conjunction with a General Plan Update as a roadmap for achieving community-wide GHG emissions reductions. Coachella's CAP is a proactive step toward addressing the climate challenge to protect our children and grandchildren before climate change becomes irreversible. The CAP builds on the 2013 General Plan Update, quantifying emissions from the build-out of the General Plan and includes additional policies and implementation actions to help Coachella further reduce emissions. It also includes strategies to protect public health and make the community more resilient to climate change. Coachella's CAP is designed to provide clear policy guidance to the City staff and decision makers on how to reduce GHG emissions. It identifies a pathway to reduce emissions within a range of voluntary, state-level emissions reduction targets. This path includes strategies for improving connectivity and land use patterns, transportation modes and systems, incorporating energy efficiency standards, increasing the City's renewable energy supply, and reducing waste and consumption.

Riverside County Climate Action Plan

The County of Riverside adopted a CAP on December 8, 2015. Consistent with the CARB Scoping Plan, the CAP adopted a target of reducing GHG emissions down to 15 percent below existing levels within the County of Riverside by 2020. The CAP also provides the specific criteria that new development must follow to ensure that the reduction measures associated with new development are implemented and the

reduction target is met. Additionally, it provides a set of community-wide GHG emissions inventories that are anticipated without the reduction measures, and reduced levels of 2020 GHG emissions, which demonstrates how the implementation of reduction measures achieves the reduction target. The County provides various methods for determining project-level consistency with the CAP, including screening tables and a threshold of 3,000 metric tons of carbon dioxide equivalent (MTCO₂eq). The screening tables provide guidance in measuring GHG reductions attributable to certain design and construction measures incorporated into development projects, while the 3,000 MTCO₂eq threshold is provided for smaller projects that would not be able to provide the reductions expected from the screening tables or alternate emission analysis method.

South Coast Air Quality Management District Thresholds

The SCAQMD has formed a GHG CEQA Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. As of the last CEQA Significance Threshold Working Group meeting (Meeting No. 15) held in September 2010, the SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency.

With the tiered approach, the project is compared with the requirements of each tier sequentially and would not result in a significant impact if it complies with any tier. Tier 1 excludes projects that are specifically exempt from SB 97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals. Tier 3 excludes projects with annual emissions lower than a screening threshold. For all non-industrial projects, the SCAQMD is proposing a screening threshold of 3,000 MTCO₂eq per year. SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact.

Tier 4 consists of three decision tree options. Under the Tier 4 first option, the project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. Under the Tier 4 second option the project would be excluded if it had early compliance with AB 32 through early implementation of CARB's Scoping Plan measures. Under the Tier 4 third option, the project would be excluded if it was below an efficiency-based threshold of 4.8 MTCO₂eq per service population (SP) per year. Tier 5 would exclude projects that implement offsite mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level.

GHG efficiency metrics are utilized as thresholds to assess the GHG efficiency of a project on a per capita basis or on a "service population" basis (the sum of the number of jobs and the number of residents provided by a project) such that the project would allow for consistency with the goals of AB 32 (i.e., 1990 GHG emissions levels by 2020 and 2035). GHG efficiency thresholds can be determined by dividing the GHG emissions inventory goal of the State, by the estimated 2035 population and employment. This method allows highly efficient projects with higher mass emissions to meet the overall reduction goals of AB 32, and is appropriate, because the threshold can be applied evenly to all project types (residential or commercial/retail only and mixed use).

For the proposed project, the 3,000 MTCO₂eq per year threshold is used as the significance threshold, in addition to the qualitative thresholds of significance set forth below from Section VII of Appendix G to the CEQA Guidelines. This threshold is consistent with the recently adopted County CAP as well as the proposed SCAQMD non-industrial screening threshold.

3.8.2 Affected Environment

Emissions of GHGs related to human activity include the following constituents: CO₂, CH₄, N₂O, NO_x, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 –tetrafluoroethane), and HFC-152a (difluoroethane). Methane (CH₄) is also an important GHG that potentially contributes to global climate change. California is a substantial contributor of global GHGs, emitting over 400 million tons of carbon dioxide (CO₂) per year. Climate studies indicate that California is likely to see an increase of three to four degrees °F over the next century. According to CARB’s *California’s 2017 Climate Change Scoping Plan* (California Air Resources Board 2017), the transportation sector contributes 37 percent of the GHG emissions in California. GHGs are global in their effect, which is to increase the earth’s ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission.

3.8.3 Impact Assessment

Would the Project:

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

Less Than Significant Impact.

Construction-Related Emissions

Project-related GHG emissions would result from construction activities over the construction period, and would include direct emissions of CO₂, N₂O, and CH₄ from the operation of construction equipment. Transport of materials and construction workers to and from the project site would also result in GHG emissions. Construction activities would be short-term in duration and would cease upon project completion. Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 30 years), then added to the operational emissions. Table 3-9 presents the estimated CO₂, CH₄, and N₂O emissions of the proposed project. The CalEEMod outputs are contained within the Appendix A, Air Quality/Greenhouse Gas Emissions Data. As shown in Table 3-9, the proposed project would result in 214.50 MTCO₂eq (7.15 MTCO₂eq when amortized over 30 years), which is well below SCAQMD’s 3,000 MTCO₂eq/year screening threshold.

TABLE 3-9 ESTIMATED CONSTRUCTION RELATED GREENHOUSE GAS EMISSIONS

SOURCE	CO ₂	CH ₄		N ₂ O		TOTAL METRIC TONS OF CO ₂ eq
	Metric Tons/yr	Metric Tons/yr	Metric Tons of CO ₂ eq ¹	Metric Tons/yr	Metric Tons of CO ₂ eq ¹	
Construction Emissions						
Total emissions	212.94	0.06	1.50	0.00	0.00	214.50
Total emissions (amortized over 30 years)	7.10	0.00	0.05	0.00	0.00	7.15
Notes:						
1. CO ₂ Equivalent values calculated using the USEPA Website, <i>Greenhouse Gas Equivalencies Calculator</i> , http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator , accessed May 2018.						
2. Totals may be slightly off due to rounding. Due to rounding, the results given by the equation calculations used in the Greenhouse Gas Equivalencies Calculator may not return the exact results shown in CalEEMod.						

Source: Michael Baker International 2018b.

Operation-Related Emissions

Although the project involves roadway improvements and does not propose a trip-generating land use, the transportation-related GHG emissions associated with the existing, forecast year 2038 Without Project and With Project scenarios have been calculated based on EMFAC2014 Emission Factors. The proposed project would result in improvements to Avenue 48 in order to make it consistent with the City of Coachella’s General Plan Mobility Element and the County of Riverside Circulation Element and relieve existing and forecast traffic congestion in the project area.

Table 3-10 compares the existing and future annual vehicle miles traveled (VMT) and GHG emissions. Based on traffic data provided by County of Riverside Transportation Department (August 2018), the existing annual VMT in the project area is approximately 1,747,766, while the annual VMT in the project area would be 3,788,627 for the forecast year 2038 without and 4,721,239 for the forecast year 2038 with project scenarios. The VMT between the forecast year without and with project scenarios is 932,612. The VMT between the existing and future scenarios is attributed to projected economic and population growth in the area, and is not a direct result of project implementation.

As depicted in Table 3-10, the resulting net emissions between the existing and the forecast year 2038 With Project scenario would be 793 metric tons of carbon dioxide (MTCO₂), (800.15 MTCO₂ per year with amortized construction emissions), which is well below the 3,000 MTCO₂eq/year GHG emissions threshold adopted by the County of Riverside and proposed by the SCAQMD. Therefore, as the project would relieve congestion and improve roadway operations, and would not directly generate new trips or GHG emissions, GHG impacts would be less than significant.

TABLE 3-10 VEHICLE MILES TRAVELED AND GREENHOUSE GAS EMISSIONS

SCENARIO	ANNUAL VMT ¹	EMISSIONS (METRIC TONS PER YEAR) ^{2, 3}
		CO ₂
Construction (total of 133.26 MTCO ₂ eq amortized over 30 years)	N/A	7.15
Existing (2017)	1,747,766	741
Opening Year (2019) ⁴	1,808,758	737
Forecast Year 2038 Without Project	3,788,627	1,231
Forecast Year 2038 With Project	4,721,239	1,534
<i>Net Difference Between the Existing and the Forecast Year 2038 With Project Scenarios</i>	2,973,473	793
<i>Net Difference Between the Forecast Year 2038 Without and With Project Scenarios</i>	932,612	303
VMT = Vehicle Miles Traveled; CO ₂ = carbon dioxide; N/A = Not Applicable Notes: 1. VMT is based on traffic data provided by the Riverside County Transportation and Land Management Agency, August 2, 2018. 2. Emissions calculated using EMFAC2014. 3. Totals may be slightly off due to rounding. 4. Opening Year With Project and Without Project traffic volumes would be the same.		

Source: Michael Baker International 2018b.

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

No Impact. Both the County of Riverside and the City of Coachella have adopted CAPs. The City of Indio has a Sustainability Best Practice Activities plan, but does not have a qualified CAP. The Riverside County CAP established goals and policies that incorporate environmental responsibility into its daily management of residential, commercial and industrial growth, education, energy and water use, air quality, transportation, waste reduction, economic development and open space and natural habitats by completing GHG inventories of community-wide and municipal sources and establishing a GHG reduction target of 15 percent decrease from 2008 levels, consistent with AB 32. The City of Coachella CAP has an emissions reduction target of 15 percent below 2010 levels in 2020 and a reduction target of 49 percent below 2010 levels in 2035. The CAP analyzes policies from the General Plan that reduce energy use, vehicle miles traveled, resource consumption, and GHG emissions, comparing the emissions to voluntary statewide emissions targets outlined in the CARB Scoping Plan and Executive Order S-03-05.

Table 3-11 discusses the project’s consistency with the applicable policies that would contribute to GHG reductions and sustainable practices in the County and City of Coachella. The City of Indio has a Sustainability Best Practice Activities plan, but does not have any measures that are applicable to the proposed project.

TABLE 3-11 CONSISTENCY WITH CLIMATE ACTION PLANS

CAP GREENHOUSE GAS REDUCTION MEASURE	PROJECT CONSISTENCY
Riverside County Climate Action Plan¹	
Measure R2-T5: Roadway Improvements including Signal Synchronization and Transportation Flow Management.	Consistent. The project proposes the widening of the existing roadway, which would require traffic signal coordination and result in improvement of traffic flow and smoother traffic movement with minimal stops/idling.
City of Coachella General Plan² and Climate Action Plan³	
Pedestrian Connectivity. Provide pedestrian connections to the external pedestrian network.	Consistent. The project includes sidewalks where none currently exist. Additionally, the road connects the City of Coachella, the City of Indio, and the unincorporated area of the County of Riverside. The proposed project would improve circulation for motorists, public transportation vehicles, and pedestrians.
Adequate Sidewalks. Provide side sidewalks on both sides of streets in neighborhoods.	Consistent. The project design includes sidewalks on both sides of the roadway.
Traffic Calming. Apply traffic calming techniques to residential streets to limit cut-through traffic and speeding on roadway streets.	Consistent. Refer to Response to Riverside County CAP Measure R2-T5.
Sources: 1. County of Riverside Transportation and Land Management Agency and Planning Department, <i>County of Riverside Climate Action Plan</i> , December 2015. 2. City of Coachella, <i>City of Coachella General Plan Update 2035</i> , April 22, 2015. 3. City of Coachella, <i>City of Coachella Climate Action Plan</i> , April 22, 2015.	

Source: Michael Baker International 2018b.

The proposed project involves widening Avenue 48 from two lanes to five lanes and would relieve traffic and congestion by improving vehicular traffic circulation and access for motorists, residents, businesses, emergency service providers, nearby institutions such as schools, and public transportation. The proposed project would not conflict with the Riverside County CAP and the City of Coachella CAP as the project does not change the County's and City's land use designations and would not increase population beyond that considered in the General Plans. As noted above, the proposed project would implement project design features consistent with the CAPs and relevant General Plan policies. In addition, the project would be subject to applicable Federal, State, and local regulatory requirements, further reducing project-related GHG emissions. The project would not conflict with or impede implementation of reduction goals identified in AB 32 and other strategies to help reduce GHG emissions. Therefore, implementation of the proposed project would not affect any plans, policies, or regulations adopted for the purpose of reducing GHG emissions. No impact would be anticipated in this regard.

3.8.4 Mitigation Measures

No mitigation measures are proposed.

3.9 Hazards and Hazardous Materials

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Information in this section is based on the *Phase I Environmental Site Assessment* (Phase I ESA) prepared by Michael Baker International (2018c).

3.9.1 Affected Environment

The Phase I ESA was prepared in accordance with the standard practice set forth in ASTM International (ASTM) E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The purpose of the Phase I ESA was to identify Recognized Environmental Conditions (RECs) at the project area. RECs are defined in ASTM E 1527-13 Standard Practice as “the presence or likely presence of any hazardous substance or petroleum products in, on, or at a property: (1.) due to any release to the environment; (2.) under conditions indicative of a release to the environment; or (3.) under conditions that pose a material threat of a future release to the environment.”

As a result of the review of pertinent regulatory records and files conducted in conjunction with preparation of the Phase I ESA (2018c), on- and off-site, adjoining, and adjacent properties representing potential regulatory sites of concern were identified and evaluated with respect to the sites potentially representing a REC on/near the project area. Table 3-12 lists the regulatory sites of concern, their location with respect to the project area, and the finding related to whether or not each respective site represents a REC on/near the project area (for a complete list of sites identified and their status, refer to Appendix B of the *Phase I Environmental Site Assessment* [2018c]). As shown in Table 3-12, the Phase I ESA prepared for the proposed project revealed no evidence of RECs in connection with the project site.

TABLE 3-12 IDENTIFIED REGULATORY SITES OF POTENTIAL CONCERN

SITE NAME/ADDRESS	DIRECTION FROM PROJECT SITE	SITE STATUS	CONCLUSION / FINDING
Van Buren Street and Avenue 48	On-Site	Reported in the CHMIRS database on October 27, 1989. Chemical of concern and containment not reported.	No REC
EZ Serve Truck Stop E-Z Serve #100858 Mc Adams Truck & Diesel SR & DH Corporation 84425 Indio Boulevard Indio, CA 92201	Adjoining the eastern portion of the subject site to the north	Reported historical gasoline service station from 1991 to 2014. Reported LUST leaked gasoline to groundwater. Case was referred to the Water Board and closed on September 9, 2014. Reported in the HIST CORTESE database. Reported in the UST database with a total of three tanks.	No REC
Indio Coachella Truck TRML ARCO Facility No. 05826 ARCO AM/PM Prestige Stat #5364 ARCO AM/PM #83022 48055 Highway 111 Coachella, CA 92236	Adjoining the eastern portion of the subject site to the south	Reported in the Cortese database. HAZNET waste categories include unspecified organic liquid mixture. Disposal method reported as recycler. Reported small quantity generator with no violations found. Reported in the FINDS database. Four USTs reported in SWEEPS UST database used for M.V. fuel. Reported LUST leaked gasoline to groundwater. Cased closed on April 21, 2011. Reported in the HIST CORTESE database. Reported NPDES permit certified on June 11, 2013.	No REC
U.S. Auto Salvage (U.S. Metals) US Metals Inc. 84481 Cabazon Road Indio, CA 92201	Adjacent 286 feet to the northeast	Reported in the ENVIROSTOR database as active as of September 4, 2014. Potential contaminants of concern include: arsenic, PCBs, TPH-Motor oil, and lead. Reported in the VCP database as part of the DTSC Site Cleanup Program with a past use of recycling scrap metal. The site is currently in the CEQA Initial Study/ Environmental Impact Report phase. Reported in the HAULERS (Registered Waste Tire Haulers Listing) database. A one ton cylinder half full of chlorine gas was punctured resulting in a small release in 2010 and reported in the CHMIRS database. Reported recycling facility as of 2005	No REC

Source: Michael Baker International 2018c.

As it relates specifically to U.S. Auto Salvage as listed above in Table 3-12, upon completing the file review conducted in conjunction with preparation of the Phase I ESA it was confirmed that the releases to this property were to soil only. Given that this property is located approximately 286 feet away from the project area, this is too far for soil vapor migration. Furthermore, there is not known release to groundwater at this off-site facility/business. Thus, and based on the file review conducted in support of

the Phase I ESA, this off-site property has a low potential for affecting groundwater/soil gas at the project site.

3.9.2 Impact Assessment

Would the Project:

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 proposed project would not increase the transport, use, or disposal of hazardous materials. Project-related construction activities would be short-term and would involve limited transport, storage, use and disposal of hazardous materials associated with construction. Materials used in the construction of the project are not acutely hazardous, and all storage, handling, and disposal of these materials are regulated by the Department of Toxic Substances Control (DTSC), the USEPA, and the Occupational Safety and Health Administration (OSHA). Adherence by the construction contractor to these agencies' regulations would reduce hazards associated with the routine transport, use, and/or disposal of hazardous materials from construction to a less than significant level; therefore, impacts in this regard are considered less than significant and no mitigation is 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 With Mitigation. The Phase I ESA did identify the presence of lead-based paints (LBPs) in traffic striping materials and polychlorinated biphenyls (PCBs) potentially present in pole-mounted transformers, which may be disturbed during project construction.

LBPs were commonly used in traffic striping materials before the discontinued use of lead chromate pigment in traffic striping/markings materials and hot-melt thermoplastic stripe materials (discontinued in 1996 and 2004, respectively). Traffic striping was observed along Avenue 48, Dillon Road, Van Buren Street, Luzon Street, Bataan Street, and Indio Boulevard during the May 16, 2018 site visit. Therefore, LBPs may be present within traffic striping. However, traffic striping was noted to be in good condition. As the on-site striping materials is currently contained, and no visible evidence to suggest the release of LBPs into the environment was observed. However, disturbance of traffic striping materials may occur during construction of the proposed project. Implementation of Mitigation Measure HAZ-1 would ensure that disturbance of traffic striping materials is conducted pursuant to Caltrans Standard Special Provisions pertaining to testing and proper removal.

PCBs were used in electrical transformers manufactured between 1929 and 1977. Utility companies have replaced most PCB containing transformers over the past 20 years, and transformers are not considered an environmental concern unless they are leaking. Multiple pole-mounted electrical transformers were observed along Avenue 48, within the project site boundary. Implementation of the proposed project could result in the removal/relocation of these transformers. These pole-mounted transformers appear to be in fair condition and no evidence of di-electric fluid or staining was observed. No leaking transformers were identified during the site survey. However, the pole-mounted transformers present on-site could contain PCB material. Construction of the project could require the removal/relocation of these transformers. Implementation of Mitigation Measure HAZ-2 would ensure the proper handling/removal of transformers during site disturbance activities.

There is the potential to encounter unknown hazardous materials in soils during site disturbance activities, which present a concern to workers and the public during construction. However, implementation of

Mitigation Measure HAZ-3 would ensure the proper handling/removal of a previously unknown hazardous materials should any be encountered during construction activities.

Given the above, impacts related to the project creating 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 are considered less than significant with implementation of Mitigation Measures HAZ-1 through HAZ-3.

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. Martin Van Buren Elementary School is located within one-quarter of a mile of the project site. As discussed in Checklist Responses 3.9.2 (a) and (b), construction activities would be short-term and would involve limited transport, storage, use and disposal of hazardous materials associated with construction. The project involves widening an existing roadway and does not include the development of any uses that would involve the use, storage, or transport of hazardous materials and would not result in hazardous emissions or require the handling of acutely hazardous materials. Adherence to local, state, and federal regulations would reduce impacts to a less than significant level and no mitigation is required.

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. Based on the records search conducted in support of this analysis, it was determined that the project site is not included on a list of hazardous materials sites listed pursuant to Government Code Section 65962.5. Therefore, no impact would result in this regard and no mitigation is required.

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

No Impact. The project site is not within an airport land use plan, or within two miles of a public airport or public use airport. The nearest airport to the project site is the Jacqueline Cochran Regional Airport, where the runway is located approximately 4.95 miles to the southeast of the project site. Therefore, the proposed project would not result in a safety hazard or excessive noise (refer to Section 3.13 for the noise analysis) for people residing or working in the project area. No impact would occur, and no mitigation is required.

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

Less Than Significant Impact. As discussed in Checklist Response 3.17.2, Transportation, temporary lane closures and striping would occur during project construction; however, two-way travel along Avenue 48 through the project corridor would be maintained during construction activities with at least one travel lane open in each direction at all times. A Traffic Control Plan (TCP) would be prepared and may include, but not be limited to, designated construction routes, designated construction parking areas, appropriate detours, safety precautions, and the use of changeable message signs. Therefore, the proposed project is not anticipated to interfere with an adopted emergency response plan or emergency evacuation plan; impacts would be less than significant and no further mitigation is required.

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

No Impact. The project site is not located within a wildfire severity zone as shown on the Western Coachella Valley Area Plan, Figure 12, Wildfire Susceptibility (County of Riverside 2017). Because the project involves widening an existing roadway in developed areas of the City of Coachella, the City of Indio, and the County, it is anticipated to have a low probability for causing a wildland fire. The project does not include habitable structures; therefore, the project would not expose people or structures, either directly or indirectly, to a significant risk involving wildland fires. Therefore, no impact would occur in this regard and no mitigation is required.

3.9.3 Mitigation Measures

- HAZ-1** Should the project require disturbance of traffic striping materials, the testing and removal of these materials shall be conducted consistent with Caltrans Standard Special Provisions for *Remove Traffic Stripe and Pavement Markings*.
- HAZ-2** Any transformer to be relocated/removed during site construction/demolition activities shall be conducted under the purview of the local utility company to identify proper-handling procedures regarding PCBs consistent with Title 22, Division 4.5 of the CCR, and other appropriate regulatory agencies.
- HAZ-3** As is the case for any project that proposes excavation, the potential exists for unknown hazardous contamination to be revealed during project construction. If soil contaminated by hazardous waste is discovered during construction, proper hazardous waste handling and emergency procedures under 40 CFR § 262 and Division 4.5 of Title 22 California Code of Regulations shall be followed.

3.10 Hydrology and Water Quality

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off- site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.10.1 Regulatory Environment

The project site is located within the jurisdiction of the Colorado River RWQCB, Region 7. Project-related construction would disturb more than one acre of ground; therefore, the County would be required to electronically file an Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB) via their Storm Water Multiple Application and Report Tracking System (SMARTS) website, as required by Section 402 of the CWA, Adopted Order 2009-0009-DWQ Construction General Permit (as amended by 2012-006-DWQ; NPDES No. CAS000002), and by the California Porter-Cologne Water Quality Protection Act, as amended 2016. As mandated by the General Construction Permit, the project would develop a SWPPP that would direct how stormwater and accidental non-stormwater discharges would be avoided, minimized, or contained during the course of construction. The SWPPP would be uploaded to the SWRCB's SMARTS website as part of the project's Notice of Intent.

The project site is located in the Western Coachella Valley, which lies within the Whitewater River Watershed region. The Coachella Valley Stormwater Channel is the major receiving water body to the project area and is located approximately 0.85 mile from the project area. The Coachella Valley Stormwater Channel is a segment of the Whitewater River that has been lined with concrete to improve flood protection (Riverside County 2017). The project would comply with the municipal separate storm sewer system (MS4s) in the Whitewater River Basin, permitted under NPDES Permit No. CAS617002 (Board Order No. R7-2013-0011) regarding post-construction discharges from the MS4s. The SWRCB's Municipal Storm Water Program regulates storm water discharges from MS4s throughout California. Storm water permits are required for discharges from an MS4 serving a population of 100,000 or more. USEPA defines an MS4 as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) owned or operated by a State (SWRCB 2018).

The permit requires standard design and post-development BMP guidance to be incorporated into projects for streets, roads, highways, and freeway improvements, under the jurisdiction of the Co-Permittees to reduce the discharge of post-construction pollutants from the projects to the Maximum Extent Practicable. The guidance is provided by Low Impact Development: Guidance and Standards for Transportation projects for the Colorado River Region Riverside County Co-Permittees, and applies to public transportation projects in the area covered by the Colorado River Region MS4 Permit, which involves the construction of new transportation surfaces or the improvement of existing transportation surfaces (including Class I Bikeways and sidewalks).

3.10.2 Impact Assessment

Would the Project:

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

Less Than Significant With Mitigation. The potential impacts of construction activities on water quality focus primarily on sediments, turbidity, and pollutants that adhere to sediments. Construction-related activities that expose and move soils are primarily responsible for sediment releases. Project construction associated with the road widening would include grading, paving, and roadway construction. These project activities could result in wind and rain erosion of the existing onsite soils and could increase the amount of suspended solids contained in storm flows due to erosion of exposed soils. Non-sediment potential contaminants that could enter water runoff from the construction site include paints, solvents, metals, oil, gasoline, petroleum products, concrete-related products, chemicals, and trash. All of these contaminants could contribute to the degradation of water quality. According to the Transportation Improvement Project NPDES Data Form prepared by the County of Riverside (2018), the proposed project's Sediment Risk Factor is 3.72 tons/acre, which equates to a Low Sediment Risk (i.e., less than 15 tons/acre).

Project-related construction would disturb more than one acre of ground; therefore, the County would be required to file a NOI with the SWRCB via their Storm Water Multiple Application and Report Tracking System SMARTS website, as required by Section 402 of the CWA, Adopted Order 2009-0009-DWQ Construction General Permit (as amended by 2012-006-DWQ; NPDES No. CAS000002), and by the California Porter-Cologne Water Quality Protection Act, as amended 2016. As mandated by the General Construction Permit, the project would develop a SWPPP that would direct how stormwater and accidental non-stormwater discharges would be avoided, minimized, or contained during the course of construction. The SWPPP would be uploaded to the SWRCB's SMARTS website as part of the project's Notice of Intent.

The County would file a NOI with the SWRCB 30 days prior to the start of construction for coverage under the state-wide NPDES permit for construction-related discharges. The contractor would prepare a SWPPP that sets forth the BMPs that would be implemented on site. Implementation of the SWPPP within the project site is monitored through site inspections by the County Resident Engineer and County Environmental Compliance Inspectors. Upon completion of all work and the satisfactory stabilization of all disturbed soil area, a Notice of Termination of Construction must be sent to the SWRCB via their SMARTS website. The SWPPP would be required to meet or exceed measures required by the Construction General Permit. As a result, construction of the proposed project would result in less than significant impacts related to water quality standards.

The nearest receiving body of water to the project site is the Whitewater River which flows to the Salton Sea (located approximately 15 miles southeast of the project area). The Whitewater River is included in the most recent CWA Section 303(d) List of impaired water bodies. In 2015 the SWRCB established a statewide water quality objective for trash and a prohibition of trash discharge to surface waters of the State. The County of Riverside determined that it would comply through the installation, operation, and maintenance of Full Capture Systems for all storm drains that capture runoff from High Priority Land Uses within its jurisdiction. This is achieved through preparation of a SWPPP that sets forth the BMPs that would be implemented on site.

The existing area of impervious surface within the project limits is approximately 4.9 acres, whereas the area of impervious surface after project improvements is estimated to be approximately 6.4 acres. Therefore, the proposed project is anticipated to result in a total increase of approximately 1.5 acres of net new impervious surface as compared to existing conditions. Although the rate and quantity of runoff would change due to the increase in the amount of impervious surface area, the project would have a low potential to impact surface water quality. Implementation of Mitigation Measure WAT-1 would ensure that the proposed project would not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality. Therefore, impacts would be less than significant with mitigation incorporated.

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. Following construction, the amount of impervious surface would increase by approximately 20 percent within the project area as a result of the proposed improvements. The addition of paved surfaces (roadway and sidewalk) associated with the project would not substantially decrease groundwater recharge in the area due to the amount of new impervious area that would be constructed relative to the existing impervious roadway. Groundwater is estimated to occur at a depth of approximately 37 feet below ground surface in the project area (Michael Baker International 2018c). The proposed project would not involve the direct withdrawal of groundwater. The proposed project would involve improvements to an existing roadway and would not substantially decrease groundwater supplies or substantially interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin. No impact 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. The proposed project would not substantially alter the existing drainage patterns of the site through the alteration of the course of a stream or river, and would not result in substantial erosion or siltation on- or off-site. As discussed above in Checklist Response 3.10.2 (a), the

proposed project would result in a minimal increase in stormwater flows in the project area. Although the rate and quantity of runoff would change due to the increase in the amount of impervious surface area, the project would have a low potential to impact surface water with incorporation of the above-described post-construction BMPs. However, the relatively minor increase in stormwater runoff is not significant to cause an increase in downstream erosion rates. The project would not substantially alter the existing drainage pattern of the site or area in a manner that would result in a substantial erosion or siltation on- or off-site. A less than significant impact would occur in this regard, and no mitigation is required.

ii) Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

Less Than Significant Impact. The project consists of roadway widening and would not substantially alter the existing on-site drainage patterns or the course of any stream or river. Similar to existing conditions, and following completion of project construction, the project site would consist primarily of impervious surfaces. The anticipated changes to the rate or amount of surface runoff resulting from the project would be captured in the existing storm water conveyance facilities, which would be modified as needed to accommodate the proposed improvements, and would not result in on- or off-site flooding. Therefore, a less than significant impact would occur in this regard and no mitigation is required.

iii) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. The proposed project would not substantially alter the amount of runoff from the site. The anticipated changes to the rate or amount of surface runoff resulting from the proposed project would be captured in existing storm water conveyance facilities and would not exceed the capacity of existing or planned storm water drainage systems. A project SWPPP would be required to address sediment control during project-related construction activities. Also, and as stated above in Checklist Response 3.10.2 (a), feasible post-construction BMPs could include: minimizing road widths, installing full capture trash devices in catch basins, drainage facility inspection and maintenance, MS4 stenciling at inlets, and street sweeping. Incorporation of feasible project-related construction BMPs and post-construction BMPs would reduce impacts to less than significant and no mitigation is required.

iv) Impede or redirect flood flows?

No Impact. According to the Coachella General Plan EIR (Figure 4.7-2), the project site is not located in a 100-year floodplain and will not place housing or other structures in an area that would impede or redirect flows (City of Coachella 2014). According to Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency (FEMA), the site is located in Zone X, which designates areas located within “Moderate” flood hazard zones (labeled Zone B or Zone X) and are the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood (FEMA 2018). The project is not located within a FEMA designated 100-year floodplain and would not substantially alter the existing drainage pattern of the site or area such that the project would impede or redirect flood flows. 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?

Less Than Significant Impact. There are no water bodies in proximity to the project site that would result in hazards from a seiche or tsunami. Furthermore, there are no open areas in the project area that could be the source of mudflow that would affect the project site. As discussed in Checklist Response 3.10.2 (a) above, with implementation of project construction and post-construction BMPs, the project would have a low potential to impact surface and groundwater quality. The anticipated changes to the rate

or amount of surface runoff resulting from the project would be captured in the existing storm water conveyance facilities, which would be modified as needed to accommodate the proposed improvements; therefore, the risk of pollutant release due to project inundation would be less than significant.

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

No Impact. As discussed above, the project is located within the jurisdiction of the Colorado River RWQCB Region 7 and located within Western Coachella Valley, within the Whitewater River Watershed region. The project would comply with the Section 402 of the CWA, Adopted Order 2009-0009-DWQ Construction General Permit (as amended by 2012-006-DWQ; NPDES No. CAS000002), the California Porter-Cologne Water Quality Protection Act, as amended 2016, and the municipal separate storm sewer system (MS4s) in the Whitewater River Basin, permitted under NPDES Permit NO. CAS617002. This permit requires standard design and post-construction BMPs to be incorporated into roadway projects. Therefore, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.10.3 Mitigation Measures

WAT-1 The project will require coverage under the Construction General Permit 2009-0009-DWQ NPDES CAS No. CAS 000002 prior to any ground disturbance activities. The Contractor's SWPPP shall describe the Contractor's plan for managing run-on and runoff during each construction phase. The SWPPP shall describe the BMPs that will be implemented to control erosion, sediment, tracking, construction materials, construction wastes, and non-storm water flows. The SWPPP shall describe installation, operation, inspection, maintenance, and monitoring activities that will be implemented for compliance with the CGP and all applicable federal, state, and local laws, ordinances, statutes, rule and regulations related to the protection of water quality. The project site must be fully stabilized using a combination of native hydroseed mix and/or stabilizing tackifier prior to filing the Notice of Termination.

3.11 Land Use and Planning

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the Project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.11.1 Affected Environment

The project site is located in the City of Coachella, the City of Indio, and the unincorporated County of Riverside. City of Coachella General Plan Map designates land use in the project boundary as Low Density Residential and General Commercial (GC), including the land that is currently under development and adjacent to and south of the project site. The *City of Indio General Plan Land Use Diagram*, dated May 2007 designates land uses in the project area as High Density Residential and Community Commercial (Indio 2007) and the County of Riverside designates land use in unincorporated Riverside County to the north of the project site as Very High Density Residential (County of Riverside 2017).

The project site is situated within developing areas of the City of Coachella, the City of Indio, and the County, adjacent to and west of Indio Boulevard, west of SR-86, and south of I-10. The roadway is surrounded by single-family residential, commercial, retail/restaurant, institutional uses, and vacant land.

3.11.2 Impact Assessment

Would the Project:

a) Physically divide an established community?

No Impact. The proposed project involves widening Avenue 48, an existing roadway. Implementation of the proposed project would not diminish access to adjacent properties, nor would the project physically divide an established community. Therefore, no impact would occur and no mitigation is 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. The project would relieve traffic congestion, increase mobility, and accommodate existing traffic conditions in the area, and the proposed improvements (e.g., roadway cross-section) are consistent with the City of Coachella’s and the City of Indio’s General Plans and the County of Riverside’s General Plan Circulation Element. More specifically, the proposed project, as designed, is consistent with the following roadway classifications per the General Plan for each respective jurisdiction (i.e., County of Riverside and cities of Coachella and Indio):

- County of Riverside: Arterial Highway
- City of Coachella: Major Arterial
- City of Indio: Augmented Major (B)

Therefore, and given the above, no impact would occur and no mitigation is required.

3.11.3 Mitigation Measures

No mitigation measures are proposed.

3.12 Mineral Resources

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.12.1 Affected Environment

The State Mining and Reclamation Act of 1975 identifies and protects California’s mineral resources. The State of California Geological Survey Mineral Resources project provides the most recent and accurate information about mineral resources. Based on an assessment of local and regional mineral deposits, the state of California assigns different Mineral Resource Zones (MRZs). These include:

- **MRZ 1:** Areas where adequate information indicates that no significant mineral deposits are present or likely to be present.
- **MRZ 2:** Areas where significant mineral deposits are present or likely to be present and development should be controlled.
- **MRZ 3:** Areas where the significance of mineral deposits cannot be determined from the available data.

3.12.2 Impact Assessment

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?

No Impact. The City of Coachella General Plan Draft EIR Figure 4.5-9, Mineral Resource Zones in Planning Area, indicates that the project site is located in an area designated as MRZ-1 (City of Coachella 2017a). The Western Coachella Valley Area Plan does not show the project site as being located within a “Mineral Resources” area (County of Riverside 2017). As stated above, the MRZ-1 zone designates areas where adequate information indicates that no significant mineral deposits are present or likely to be present. The proposed project involves the widening of an existing roadway situated within a developed area. Therefore, no impacts to mineral resources would occur and no mitigation is required.

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. There are no mineral resource recovery sites identified on or adjacent to the project area. The proposed project would not result in the loss of availability of a locally-important mineral resource recovery site. No impact would occur, and no mitigation is required.

3.12.3 Mitigation Measures

No mitigation measures are proposed.

3.13 Noise

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Information in this section is based on the *Avenue 48 Widening Project – Noise Study Report* prepared by Michael Baker International (2018d).

3.13.1 Regulatory Environment

California Environmental Quality Act

The *Noise Study Report* was prepared in conformance with CEQA (Public Resources Code 21000-21177) and the CEQA Guidelines (CCR, Title 14, Division 6, Chapter 3, Sections 15000-15387). Under CEQA, the baseline noise level is compared to the build noise level. The assessment entails looking at the setting of the noise impact and then how large or perceptible any noise increase would be in the given area. Key considerations include: the uniqueness of the setting, the sensitive nature of the noise receptors, the magnitude of the noise increase, the number of residences affected, and the absolute noise level.

City of Coachella General Plan Update 2035

The California Government Code requires that a noise element be included in the general plan of each County and City in the state. The *City of Coachella General Plan Update 2035* (City General Plan) Noise Element examines noise sources in the City with a view toward identifying and appraising the potential for noise conflicts and problems and identifies ways to reduce existing and potential noise impacts. The Noise Element provides objectives, policies, and programs to achieve and maintain noise levels compatible with various types of land uses. The Noise Element includes the following goals and policies applicable to the proposed project.

Goal 1 - Land Use Planning and Design: A community where noise compatibility between differing types of land uses is ensured through land use planning and design strategies.

Policies:

1.1 Noise Compatibility. Use the City’s Noise and Land Use Compatibility (refer to Table 3-13, *City of Coachella Noise and Land Use Compatibility*) as a guide for planning and development decisions.

1.2 Noise Analysis and Mitigation. Require projects involving new development or modifications to existing development to implement mitigation measures, where necessary, to reduce noise levels to at least the normally compatible range shown in Table 3-13. Mitigation measures should focus on architectural features, building design and construction, rather than site design features such as excessive setbacks, berms and sound walls, to maintain compatibility with adjacent and surrounding uses.

1.3 Mixed Use. Require mixed-use structures and areas be designed to prevent transfer of noise from commercial uses to residential uses, and ensure a 45 A-weighted decibels (dBA) community noise equivalent level (CNEL) level or lower for all interior living spaces.

1.4 County and Regional Plans. Periodically review county and regional plans for transportation facilities and airport operation, to identify and mitigate the potential impact of noise on future development.

1.5 Airport Land Use Planning. Comply with all applicable policies contained in the Riverside County General Plan Noise Element relating to airport noise, including those policies requiring compliance with the airport land use noise compatibility criteria contained in the airport land use compatibility plan for Jacqueline Cochran Regional Airport; and those policies prohibiting new residential land uses, except construction of single-family dwellings on legal residential lots of record, within the 60 dB CNEL contour of this airport.

1.6 Land Use and Community Design. Except in cases where noise levels are in the clearly incompatible range as shown in Table 3-13, prioritize the building design and character policies in the Land Use and Community Design Element over those in the Noise Element to ensure that new development meets the design vision of the City.

Goal 2 - Stationary Source Noise: A community where excessive noise from stationary sources is minimized.

Policies:

2.1 Noise Ordinance. Minimize noise conflicts between neighboring properties through enforcement of applicable regulations such as the City's noise ordinance.

2.2 Noise Control. Minimize stationary noise impacts on sensitive receptors and noise emanating from construction activities, private developments/residences, landscaping activities, night clubs and bars and special events.

2.3 Entertainment Uses. Require entertainment, restaurants, and bars engage in responsible management and operation to control activities of their patrons on-site, within reasonable and legally justifiable proximity to minimize noise impacts on adjacent residences and other noise-sensitive receptors, require mitigation, as needed, for development of entertainment uses near noise-sensitive receptors.

2.4 Industrial Uses. Require industrial uses engage in responsible operational practices that minimize noise impacts on adjacent residences and other noise-sensitive receptors require mitigation as needed for development of industrial uses near noise sensitive receptors.

TABLE 3-13 CITY OF COACHELLA NOISE AND LAND USE COMPATIBILITY

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE (L _{dn} or CNEL, dBA)			
	Clearly Compatible	Normally Compatible	Normally Incompatible	Clearly Incompatible
Residential - Single Family Residential, Duplex, Multiple Family	50 – 60	60 – 70	70 – 75	75 – 85
Residential - Mobile Homes	50 – 60	60 – 65	65 – 75	75 – 85
Commercial - Hotel, Motel, Transient Lodging	50 – 60	60 – 70	70 – 80	80 – 85
Commercial - Retail, Bank Restaurant, Movie Theater	50 – 70	70 – 80	80 – 85	-
Commercial Industrial – Office Building, Research and Development, Professional Offices, City Office Building	50 - 65	65 – 75	75 - 80	80 – 85
Commercial Institutional – Amphitheater, Concert Hall, Auditorium, Meeting Hall	-	50 – 60	60 - 70	70 – 85
Commercial – Children’s Amusement Park, Miniature Golf Course, Go-cart Track, Equestrian Center, Sports Club	50 – 65	65 - 75	-	75 – 85
Commercial Industrial, Institutional – Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	50 – 70	70 - 85	-	-
Institutional – Hospital, Church, Library, School Classroom	50 – 60	60 – 65	65 – 75	75 - 85
Open Space - Parks	50 – 65	65 – 70	70 – 75	75 - 85
Open Space – Golf Course, Cemeteries, Nature Centers, Wildlife Reserves, Wildlife Habitat	50 – 70	70 – 75	75 – 85	-
Agriculture	50-85	-	-	-
<p>Clearly Compatible – Specified land use is satisfactory, based upon the assumption that any building is of normal conventional construction, without any special noise insulation requirements.</p> <p>Normally Compatible – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, would normally suffice.</p> <p>Normally Incompatible – New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.</p> <p>Clearly Incompatible – New construction or development should generally not be undertaken.</p> <p>* Construction of new residential uses would not be allowed within the 65 dBA CNEL contour for airport use.</p>				

Source: Michael Baker International 2018d.

Goal 3 - Mobile Source Noise: A community where excessive noise from mobile sources is minimized.

Policies:

3.1 Roadway Noise. Where roadway noise exceeds the normally compatible range shown in Table 3-20 of the City’s Land Use/Noise Compatibility Matrix, implement policies listed under Goal 1 to reduce the impacts of roadway noise on noise-sensitive receptors.

3.2 Traffic Calming. Where roadway noise exceeds the normally compatible range shown in Table 3-20 of the City’s Land Use/Noise Compatibility Matrix, consider the implementation of traffic calming measures such as reduced speed limits or roadway design features to reduce noise levels through reduced vehicle speeds and/or diversion of vehicle traffic.

3.3 Railway Noise. Ensure noise from rail lines is taken into account during the land use planning and site development processes.

City of Coachella Municipal Code

Title 7, *Noise Control* of the *Coachella Municipal Code* (City Municipal Code) determines certain noise levels that are detrimental to the public health, safety and welfare and are contrary to the public interest. The provisions control unnecessary, excessive and/or annoying noise in the City and prohibit such noise generated by the sources specified in this chapter. The goal of the City is to minimize noise levels and mitigate the effects of noise to provide a safe and healthy living environment.

Chapter 7.04.030 *Sound Level Limits as Related to Fixed Noise Sources* identifies the provisions for exterior noise standards by land use category; refer to Table 3-14.

TABLE 3-14 CITY OF COACHELLA EXTERIOR NOISE STANDARDS

LAND USE CATEGORY	UNDERLYING ZONE	TIME PERIOD	NOISE LEVEL
Residential	All zones	Day (6:00 a.m. to 10:00 p.m.) Night (10:00 p.m. to 6:00 a.m.)	55 dBA 45 dBA
Commercial	All zones	Day (6:00 a.m. to 10:00 p.m.) Night (10:00 p.m. to 6:00 a.m.)	65 dBA 55 dBA

Source: Michael Baker International 2018d.

- A. *Regardless of whether an objective measurement by sound level meter is involved, it shall be unlawful for any person to make, continue, or cause to be made or continued, within the city limits any disturbing excessive or offensive noise or vibration which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area or that is plainly audible at a distance greater than 50 feet from the sources point for any purpose. The following ten-minute average sound level limits, unless otherwise specifically indicated, shall apply as indicated in the above Table 3-14 as it relates to a fixed noise source or leaf blowers pursuant to Section 7.04.075.*
- B. *If the measured ambient noise level exceeds the applicable limit as noted in the table in subsection (A) of this section, the allowable average sound level shall be the ambient noise level. The ambient noise level shall be measured when the alleged noise violation sources are not operating.*
- C. *The sound level limit between two zoning districts shall be measured at the higher allowable district.*

Chapter 7.04.070, *Construction Activities* indicates that no person shall perform, nor shall any person be employed, nor shall any person cause any other person to be employed to work for which a building

permit is required by the city in any work of construction, erection, demolition, alteration, repair, addition to or improvement of any building, structure, road or improvement to realty except between the hours as set forth as follows:

October 1st through April 30th

Monday - Friday: 6:00 a.m. to 5:30 p.m.

Saturday: 8:00 a.m. to 5:00 p.m.

Sunday: 8:00 a.m. to 5:00 p.m.

Holidays: 8:00 a.m. to 5:00 p.m.

May 1st through September 30th

Monday - Friday: 5:00 a.m. to 7:00 p.m.

Saturday: 8:00 a.m. to 5:00 p.m.

Sunday: 8:00 a.m. to 5:00 p.m.

Holidays: 8:00 a.m. to 5:00 p.m.

Emergency work and/or unusual conditions may cause work to be permitted with the consent of the city manager, or his or her designee, upon recommendation of the building director or the city engineer.

City of Indio 2020 General Plan Noise Element

The Public Health and Safety Element 16 of the City's 2020 General Plan includes the following goal and policies related to noise within the City's planning area.

Goal NOI-1: Protect those living, working, and visiting the community from exposure to excessive noise.

Policy NOI-1.1 Prohibit the development of new commercial, industrial, or other noise generating land uses adjacent to existing residential uses and sensitive noise receptors such as schools, health care facilities, libraries, and churches if noise levels are to exceed 65 dBA CNEL.

Policy NOI-1.2 Ensure that excessive noise levels do not interfere with sleep through the implementation of land use requirements.

Policy NOI-1.3 Ensure that exterior noise levels for dwellings in residential areas do not exceed exterior noise levels of 65 dBA CNEL and interior noise levels of 45 dBA CNEL.

The City established goals and policies regarding land use compatibility with noise in the Public Health and Safety Element of the *Indio General Plan*. The goal of the noise standards is maintaining a healthy noise environment which complements the City's residential and resort character, and the mix of land uses provided in the City. Table 3-15 provides a land use compatibility matrix for community noise from the *City of Indio General Plan* that was developed by the California Office of Noise Control. Table 3-15 allows noise concerns to be incorporated in land use planning to prevent future noise and land use incompatibilities in the City.

Based upon the exterior noise exposure level, Table 3-15 identifies various land use categories as "normally acceptable," "conditionally acceptable," or "normally unacceptable" for development. It also identifies noise exposure levels where new construction or development should not be undertaken as "clearly unacceptable." A "normally acceptable" designation indicates that conventional construction can occur with no special noise reduction requirements. A "conditionally acceptable" designation implies that new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each proposed land use is made and needed noise insulation features are incorporated in the design. It also identifies noise exposure levels where new construction or development should not be undertaken, as "clearly unacceptable."

For noise-sensitive low-density single-family residential land uses, exterior noise levels of 60 dBA CNEL and below are considered “normally acceptable” by the City. The Building Department maintains *Uniform Building Code* standards which ensure that interior noise levels meet or exceed City standards which specify a maximum interior noise exposure of 45 dBA CNEL for residential structures. Exterior noise level standards apply to outdoor areas which have regular human use and in which a lowered noise level would be beneficial. Outdoor noise environments are generally limited to the rear yard of single-family homes, multifamily patios and balconies (with a depth of six feet or more) and common recreational areas.

TABLE 3-15 CITY OF INDIO NOISE AND LAND USE COMPATIBILITY

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE (L _{dn} or CNEL, dBA)			
	Clearly Compatible	Normally Compatible	Normally Incompatible	Clearly Incompatible
Residential - Single Family Residential, Duplex, Multiple Family	50 – 60	55 – 70	70 – 75	75 – 85
Residential – Low Density Single Family, Duplex, Mobile Homes	50 – 60	55 – 70	70 – 75	75 – 85
Residential – Multi Family	50 – 62.5	60 – 70	70 – 75	75 – 85
Transient Lodging - Motels, Hotels	50 – 62.5	60 – 70	70 – 80	80 – 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 – 70	60 – 70	70 – 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	-	50 – 70	65 – 85	-
Sports Arena, Outdoor Spectator Sports	-	50 – 75	70 – 85	-
Playgrounds, Neighborhood Parks	50 – 70	-	67.5 – 75	72.5 – 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 75	-	70 – 80	80 – 85
Office Buildings, Business, Commercial, and Professional	50 – 75	67.5 – 77.5	-	75 – 85
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 – 80	-	75 – 85

Source: City of Indio, *Indio General Plan 2020, Public Health and Safety Element*, 1993.
Clearly Compatible – Specified land use is satisfactory, based upon the assumption that any building is of normal conventional construction, without any special noise insulation requirements.
Normally Compatible – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, would normally suffice.
Normally Incompatible – New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Incompatible – New construction or development should generally not be undertaken.
* Construction of new residential uses would not be allowed within the 65 dBA CNEL contour for airport use.

Source: Michael Baker International 2018d.

City of Indio Noise Ordinance

The Indio Noise Ordinance 17, codified in Chapter 95C of the *Indio Municipal Code*, defines standards and general administrative procedures to control and abate unnecessary, excessive, and annoying noise and vibration. The Indio Noise Ordinance defines maximum permissible sound levels for sensitive and nonresidential uses within the City. This ordinance recognizes that excessive noise and vibration within the City is a condition that is detrimental to quality of life. Motor vehicle traffic noise is exempt from the ordinance.

County of Riverside General Plan

The Riverside County General Plan Noise Element (County Noise Element) has established noise-level performance standards for projects affected by non-transportation sources and transportation sources. Noise is generally characterized as an equivalent continuous sound level (Leq) averaged over time, day-night average sound level (Ldn), or CNEL.

Appendix I of the County Noise Element includes the *Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures Memorandum* (Traffic Noise Impact Memo). The Traffic Noise Impact Memo sets maximum thresholds for both interior noise levels in residential dwellings and exterior noise levels with respect to transportation projects. The interior noise levels in residential dwellings shall not exceed 45 Ldn/CNEL. The exterior noise level shall not exceed 65 Ldn/CNEL per the County Noise Element. The Noise Study Report compared existing and future ambient noise levels with thresholds established in the Traffic Noise Impact Memo to determine the potential for significant noise impacts.

Figure 3-8 depicts the noise levels of common activities to enable readers to compare the actual and predicted highway noise levels discussed in this section with common activities.

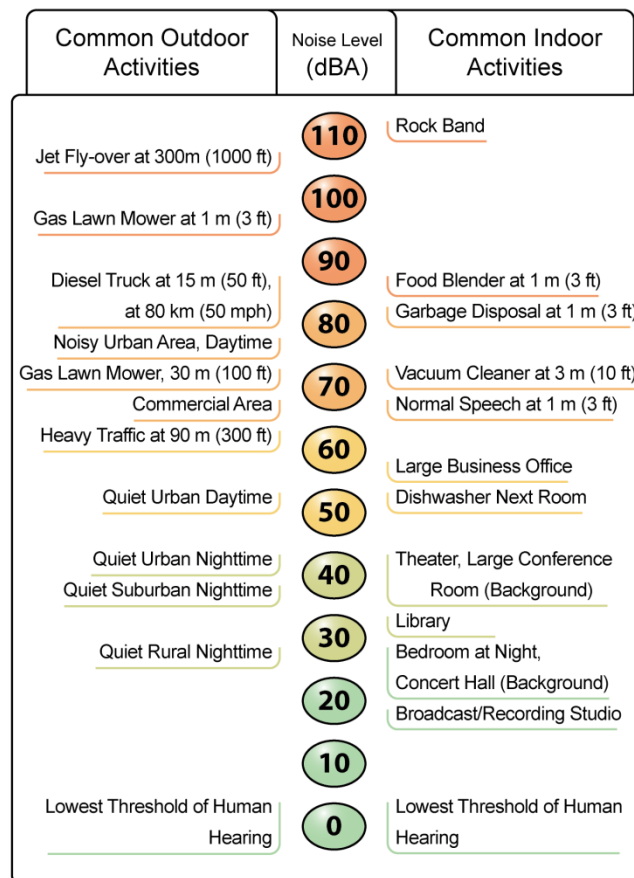


FIGURE 3-8 NOISE LEVELS OF COMMON ACTIVITIES

3.13.2 Study Methods and Procedures

A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. Although all land uses are evaluated in this analysis, the focus is on locations of frequent human use that would benefit from a lowered noise level. Accordingly, this impact analysis focuses on locations with defined outdoor activity areas, such as residential backyards and common use areas at multi-family residences.

Short-term measurement locations were selected to represent noise-sensitive land uses within the project area. Several other non-measurement locations were selected as modeling locations. A field noise study was conducted in accordance with recommended procedures in the Traffic Noise Impact Memo. The following is a summary of the procedures used to collect sound level data.

Field Measurement Procedures

Short-term noise measurements were taken at outdoor frequent human use areas at sensitive receivers within the proposed project area. Field measurements were taken at these locations to help determine proper shielding and background noise levels. All field measurements were 10 minutes in duration and noise levels are in terms of A-weighted decibel equivalent sound level. The following is a brief description of the measurement procedures utilized during field monitoring.

Short-Term Measurements

Short-term monitoring was conducted at three locations on August 30, 2017, using a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for Type I (precision) sound level meters. The measurements were taken over a 10-minute period. The short-term measurement locations are identified in Figure 3-9.

During the short-term measurements, field staff attended the noise meter. Minute-to-minute Leq values collected during the measurement period (10 minutes in duration) were logged by the sound level meter. Dominant noise sources that were not traffic-based were observed and noted during the measurements.

Temperature, wind speed, and humidity were noted during the short-term monitoring. During the short-term measurements, winds were gentle and speeds typically ranged from 0 to 5 mph. Temperatures ranged from 96°F to 102°F, with the barometric pressure typically 29.71 inches. The field note data sheets are provided in Appendix D, Supplemental Noise Data.

Traffic Noise Level Prediction Methods

Traffic noise levels were predicted using the Federal Highway Administration (FHWA) Traffic Noise Model Version 2.5 (TNM 2.5). TNM 2.5 is a computer model based on two FHWA reports: FHWA-PD-96-009 and FHWA-PD-96-010. Key inputs to the traffic noise model were the locations of roadways, shielding features (e.g., topography and buildings), noise barriers, ground type, and receptors. Three-dimensional representations of these inputs were developed using CAD drawings, aerials, and topographic contours.

Traffic noise was evaluated under existing conditions, design year no-project conditions, and design year conditions with the project. The loudest hour is generally characterized by free-flowing traffic at the highway design speed (i.e., LOS C or better). Vehicle classification percentages, and traffic speeds for existing and future design-year conditions along Avenue 48, Van Buren Street, and Dillon Road were obtained from the Traffic Noise Impact Memo for input into the traffic noise model. Loudest-hour ADT volumes (LOS C) were obtained from Figure C-3 Link/Volume Capacity/Level of Service Riverside County Roadways (revised March 2001) of the County General Plan. Tables A-1 and A-2 in Appendix D

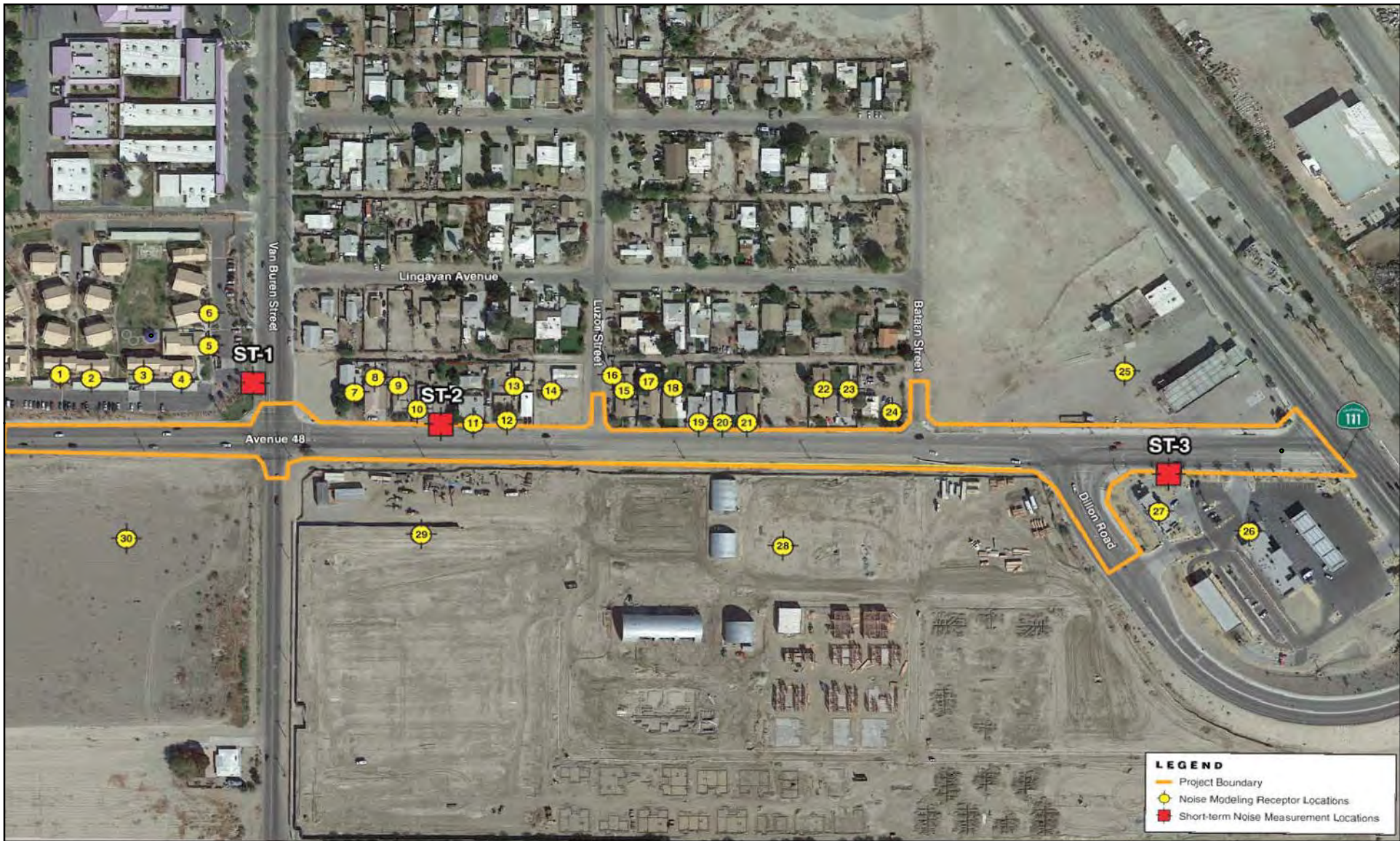
summarize the traffic volumes and assumptions used for modeling existing and future conditions with and without the proposed project.

Methods for Identifying Traffic Noise Impacts and Consideration of Abatement

Traffic noise impacts are considered to occur at receptor locations where predicted design-year noise levels are at least 12 decibels (dB) greater than existing noise levels, or where predicted design year noise levels approach or exceed the noise abatement criteria for the applicable activity category. Where traffic noise impacts are identified, noise abatement must be considered for reasonableness and feasibility as required by 23 CFR §772 and the Protocol.

According to the Protocol, abatement measures are considered acoustically feasible if a minimum noise reduction of 5.0 dB at impacted receptor locations is predicted with implementation of the abatement measures. In addition, barriers should be designed to intercept the line-of-sight from the exhaust stack of a truck to the first tier of receptors, as required by the Highway Design Manual, Chapter 1100. Furthermore, in accordance with the Protocol, Caltrans' acoustical design goal is that a barrier must provide at least 7.0 dB of noise reduction at one or more benefited receivers. This design goal applies to any receiver and is not limited to impacted receivers. Other factors that affect feasibility include topography, access requirements for driveways and ramps, presence of local cross streets, utility conflicts, other noise sources in the area, and safety considerations. The overall reasonableness of noise abatement is determined by considering factors such as cost; absolute predicted noise levels; predicted future increase in noise levels; expected noise abatement benefits; build date of surrounding residential development along the highway; environmental impacts of abatement construction; opinions of affected residents; input from the public and local agencies; and social, legal, and technological factors.

The Protocol defines the procedure for assessing reasonableness of noise barriers from a cost perspective. A cost-per-residence allowance is calculated for each benefited residence (i.e., residences that receive at least 5.0 dB of noise reduction from a noise barrier). The 2018 base allowance is \$95,000 per benefited residence. Additional allowance dollars are added to the base allowance based on absolute noise levels, the increase in noise levels resulting from the project, achievable noise reduction, and the date of building construction in the area. Total allowances are calculated by multiplying the cost-per-residence by the number of benefited residences. If the total allowance for all evaluated noise barriers is more than 50 percent of the estimated construction cost, the allowance per residence is modified to a reduced value.

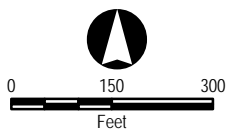


LEGEND

- Project Boundary
- Noise Modeling Receptor Locations
- Short-term Noise Measurement Locations

FIGURE 3-9
NOISE MEASUREMENT
AND MODELING LOCATIONS

COUNTY OF RIVERSIDE
 AVENUE 48
 WIDENING PROJECT



Source: Michael Baker International, 2018

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3.13.3 Affected Environment

Existing Land Uses

A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. Single- and multi-family residential uses are located to north of Avenue 48. Other land uses in the project vicinity include commercial and vacant land uses.

Noise Measurement Results

The existing noise environment of the project area was characterized by conducting short-term noise level measurements at representative noise-sensitive receiver locations.

Short-Term Monitoring

In order to quantify existing ambient mobile noise levels in the project area, three noise measurements were conducted on August 30, 2017; refer to Table 3-16, Summary of Short-Term Measurements. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. Ten-minute measurements were taken between 9:15 a.m. and 10:10 a.m., at each site during the day. Short-term (L_{eq}) measurements are considered representative of the noise levels in the project vicinity.

TABLE 3-16 SUMMARY OF SHORT-TERM MEASUREMENTS

SITE NO.	LOCATION	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	PEAK (dBA)	TIME
1	On grass in front of 83880 Avenue 48, Indio	65.5	50.6	83.8	98.2	9:56 a.m.
2	On the road in front of 84056 Avenue 48	69.1	50.1	86.2	104.0	9:39 a.m.
3	On the sidewalk in front of 84195 Avenue 48	71.3	52.1	95.1	116.6	9:15 a.m.

Source: Michael Baker International 2018d.

Meteorological conditions were sunny, warm temperatures, with light wind speeds (less than 5.0 mph), and low humidity. Measured noise levels during the daytime measurements ranged from 65.5 to 71.3 dBA L_{eq} . Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the ANSI for Type I (precision) sound level meters. The results of the field measurements are included in Noise Study Report.

Existing Noise Levels

The primary existing noise sources in the project area are transportation facilities. Traffic traveling on Avenue 48 is the main source of traffic noise in the project vicinity. The FHWA TNM 2.5 was used to evaluate traffic-related noise conditions in the vicinity of the project site. Since County of Riverside noise standards are expressed in $L_{dn}/CNEL$, TNM 2.5 was used to estimate noise levels expressed in dBA L_{den} , the level of noise expressed as a 24-hour average (also known as CNEL). LOS C traffic volumes were taken from Figure C-3 Link/Volume Capacity/Level of Service Riverside County Roadways (revised March 2001) of the County General Plan.

Table 3-17, Existing Traffic Noise Levels, shows the existing exterior and interior noise levels in the project area. Table 3-17 also lists the location and type of development for each modeled receiver location. The ambient noise levels measured were used to establish the existing noise level at many locations within the project area. As shown in Table 3-17, no modeled receptors in the project vicinity are currently exposed to noise levels exceeding the City of Coachella's, City of Indio's, and/or County of Riverside's exterior or interior noise thresholds.

TABLE 3-17 EXISTING TRAFFIC NOISE LEVELS

RECEPTOR NO.	LOCATION/APN	TYPE OF LAND USE	# OF DWELLING UNITS	MODELED EXTERIOR NOISE LEVEL (dBA CNEL) ¹	EXCEED CITY OR COUNTY EXTERIOR NOISE THRESHOLD?	MODELED INTERIOR NOISE LEVEL (dBA CNEL) ^{1,2}	EXCEED CITY OR COUNTY INTERIOR NOISE THRESHOLD?
1	83880 Avenue 48, Indio, CA 92201	Residential	4	59	<i>No</i> ³	39	<i>No</i> ³
2		Residential	4	59	<i>No</i> ³	39	<i>No</i> ³
3		Residential	4	60	<i>No</i> ³	40	<i>No</i> ³
4		Residential	4	60	<i>No</i> ³	40	<i>No</i> ³
5		Residential	4	59	<i>No</i> ³	39	<i>No</i> ³
6		Residential	4	58	<i>No</i> ³	38	<i>No</i> ³
7	84030 Avenue 48, Indio, CA 92201	Residential	1	62	<i>No</i> ⁴	42	<i>No</i> ⁴
8	84038 Avenue 48, Indio CA 92201	Residential	1	58	<i>No</i> ⁴	38	<i>No</i> ⁴
9	84056 Avenue 48, Indio CA 92201	Residential	1	57	<i>No</i> ⁴	37	<i>No</i> ⁴
10		Residential	1	62	<i>No</i> ⁴	42	<i>No</i> ⁴
11	84072 Avenue 48, Indio CA 92201	Residential	1	62	<i>No</i> ⁴	42	<i>No</i> ⁴
12	84088 48th Ave, Indio CA 92201	Residential	1	62	<i>No</i> ⁴	42	<i>No</i> ⁴
13	84100 Avenue 48, Indio CA 92201	Residential	1	56	<i>No</i> ⁴	36	<i>No</i> ⁴
14	47939 Luzon St, Indio CA 92201	Residential	1	56	<i>No</i> ⁴	36	<i>No</i> ⁴
15	84138 Avenue 48, Indio CA 92201	Residential	1	56	<i>No</i> ⁴	36	<i>No</i> ⁴
16		Residential	1	55	<i>No</i> ⁴	35	<i>No</i> ⁴
17	84148 Avenue 48, Indio CA 92201	Residential	1	56	<i>No</i> ⁴	36	<i>No</i> ⁴
18	84158 Avenue 48, Indio CA 92201	Residential	1	56	<i>No</i> ⁴	36	<i>No</i> ⁴
19	84166 Avenue 48, Indio CA 92201	Residential	1	63	<i>No</i> ⁴	43	<i>No</i> ⁴
20	84172 Avenue 48, Indio CA 92201	Residential	1	63	<i>No</i> ⁴	43	<i>No</i> ⁴
21	84186 48th Ave, Indio CA 92201	Residential	1	63	<i>No</i> ⁴	43	<i>No</i> ⁴
22	84220 48th Ave, Indio CA 92201	Residential	1	56	<i>No</i> ⁴	36	<i>No</i> ⁴
23		Residential	1	55	<i>No</i> ⁴	35	<i>No</i> ⁴
24	84229 Avenue 48, Indio CA 92201	Residential	1	62	<i>No</i> ⁴	42	<i>No</i> ⁴
25	84417 Indio Blvd, Indio CA 92201	Commercial	-	58	<i>No</i> ⁵	38	<i>No</i> ⁷
26	48055 Grapefruit Blvd, Coachella CA 92236	Commercial	-	58	<i>No</i> ⁵	38	<i>No</i> ⁷

RECEPTOR NO.	LOCATION/APN	TYPE OF LAND USE	# OF DWELLING UNITS	MODELED EXTERIOR NOISE LEVEL (dBA CNEL) ¹	EXCEED CITY OR COUNTY EXTERIOR NOISE THRESHOLD?	MODELED INTERIOR NOISE LEVEL (dBA CNEL) ^{1,2}	EXCEED CITY OR COUNTY INTERIOR NOISE THRESHOLD?
27	48079 Grapefruit Blvd, Coachella CA 92236	Commercial	-	63	<i>No</i> ⁵	43	<i>No</i> ⁷
28	APN 603-220-066	Commercial	-	58	<i>No</i> ⁵	38	<i>No</i> ⁷
29	APN 603-220-062	Commercial	-	59	<i>No</i> ⁵	39	<i>No</i> ⁷
30	APN 612-230-015	Vacant	-	59	<i>No</i> ⁶	38	<i>No</i> ⁷

- Notes:
1. The modeled noise levels are based on LOS C traffic volumes provided in *Figure C-3 Link/Volume Capacity/Level of Service Riverside County Roadways* (revised March 2001) of the County General Plan.
 2. Assuming that standard residential design (with windows closed) will provide a 20 dBA of attenuation in accordance with the County of Riverside's *Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures Memorandum* (January 15, 2004).
 3. The exterior noise standard for single- and multi-family residential uses is 60 dBA CNEL, and the interior noise threshold is 45 dBA CNEL in the City of Indio.
 4. The County of Riverside exterior noise standard for single- and multi-family residential uses is 60 dBA CNEL, and the interior noise threshold is 45 dBA CNEL.
 5. The City of Indio exterior noise standard for commercial retail and industrial uses is 70 dBA CNEL.
 6. There is no noise standard for vacant land.
 7. There is no interior noise standard for commercial uses or vacant land.

Source: Michael Baker International 2018d.

3.13.4 Impact Assessment

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?**

Less Than Significant Impact With Mitigation. It is difficult to specify noise levels that are generally acceptable to everyone; what is annoying to one person may be unnoticed by another. Standards may be based on documented complaints in response to documented noise levels, or based on studies of the ability of people to sleep, talk, or work under various noise conditions. However, all such studies recognize that individual responses vary considerably. Standards usually address the needs of the majority of the general population.

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Table 3-18, Construction Equipment Noise, summarizes noise levels produced by construction equipment that is commonly used on roadway construction projects. Construction equipment is expected to generate noise levels up to 95 dB at a distance of 25 feet, 89 dB at 50 feet, and 83 at 100 feet. Noise produced by construction equipment would be reduced over distance at a rate of about 6.0 dB per doubling of distance.

TABLE 3-18 CONSTRUCTION EQUIPMENT NOISE

EQUIPMENT	MAXIMUM NOISE LEVEL (dBA at 25 feet)	MAXIMUM NOISE LEVEL (dBA at 50 feet)	MAXIMUM NOISE LEVEL (dBA at 100 feet)	MAXIMUM NOISE LEVEL (dBA at 600 feet)
Scrapers	95	89	83	67
Bulldozers	91	85	79	63
Heavy Trucks	94	88	82	66
Backhoe	86	80	74	58
Pneumatic Tools	91	85	79	63
Concrete Pump	88	82	76	30

Source: Michael Baker International 2018d.

Sensitive uses closest to the project site include residential uses adjoining the roadway to the north. Additionally, the next closest sensitive receptor, Martin Van Buren Elementary School is located approximately 478 feet north of the roadway. These sensitive uses may be exposed to elevated noise levels during project construction. However, as the project involves the widening of a roadway, construction noise would not be concentrated in one location for extended periods of time. Construction equipment would move in a linear fashion along the project area.

Roadway construction that occurs within or adjacent to the City of Coachella would be required to comply with the construction time limitations within Section 7.40.070 of the Coachella Municipal Code. Pursuant to the City Municipal Code, all construction activities may occur from October 1st through April 30th between the hours of 6:00 a.m. and 5:30 p.m. on week days and between 8:00 a.m. and 5:00 p.m. on weekends and holidays. From May 1st through September 30th, all construction activities may occur between the hours of 5:00 a.m. to 7:00 p.m. on week days and between 8:00 a.m. to 5:00 p.m. on weekends and holidays. Roadway construction that occurs within or adjacent to unincorporated Riverside County would be required to comply with the construction time limitations within Section 2 of Ordinance Number 847 of the Riverside County Code. Pursuant to the County Code, private construction projects located one-quarter of a mile or more from an inhabited dwelling, provided that construction occurs between the hours of 6:00 a.m. and 6:00 p.m. during the months of June through September, and between

the hours of 7:00 a.m. and 6:00 p.m. during the months of October through May are exempt from the county-wide noise regulations. These permitted hours of construction are required in recognition that construction activities undertaken during daytime hours are a typical part of living in an urban environment and do not cause a significant disruption. Implementation of Mitigation Measure NOI-1 would ensure that project construction complies with allowable hours for construction noise and requires construction equipment to be equipped with properly operating and maintained mufflers and other state required noise attenuation devices to further minimize impacts. Therefore, a less than significant noise impact would result from construction activities.

No modeled receptors would be exposed to noise levels exceeding City of Coachella, City of Indio, and/or County of Riverside exterior or interior noise thresholds under Build conditions. The design-year traffic noise modeling results are summarized in Table 3-19, Future Traffic Noise Levels (see Tables B-1 and B-2 in Appendix B of the Noise Study Report for the design-year traffic noise modeling results). As shown in Table 3-19, exterior noise levels would range between 55 dBA CNEL and 63 dBA CNEL, and interior noise level would range between 35 dBA CNEL and 43 dBA CNEL under the Future No Build scenario. As also shown in Table 3-19, no modeled receptors would be exposed to noise levels exceeding the County of Riverside 65 dBA CNEL exterior noise level threshold, and/or the 45 dBA CNEL interior noise level threshold under No Build conditions.

Exterior noise levels under the Build Alternative (i.e., the proposed project) would range between 58 dBA CNEL and 65 dBA CNEL, and interior noise levels under the Build Alternative would range between 38 dBA CNEL and 45 dBA CNEL. As shown in Table 3-19, no modeled receptors would be exposed to noise levels exceeding City of Coachella, City of Indio, and/or County of Riverside exterior or interior noise thresholds under Build conditions.

The greatest traffic noise increase (3.0 dBA) with project implementation would occur at receptors 16 (residence), 28 (commercial use), and 29 (commercial use) when comparing the Future Build and Future No Build scenarios. However, noise levels would not exceed the City of Coachella's, City of Indio's, and/or County of Riverside's exterior and interior noise thresholds with project implementation. Therefore, a less than significant impact would occur and no mitigation is required.

Upon project completion, noise in the project area would not significantly increase. The project involves widening Avenue 48 from Van Buren Street eastward to Dillon Road. The proposed project does not include any stationary noise sources and would not generate any stationary source noise impacts. Therefore, the project would not result in 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.

TABLE 3-19 FUTURE TRAFFIC NOISE LEVELS

RECEPTOR NO.	LOCATION/APN	TYPE OF LAND USE	# OF DWELLING UNITS	FUTURE NO BUILD ¹		FUTURE BUILD			
				Predicted Exterior Noise Level (dBA CNEL) ^{1,2}	Predicted Interior Noise Level (dBA CNEL) ^{1,2,3}	Predicted Exterior Noise Level (dBA CNEL) ²	Exceed City or County Exterior Noise Threshold?	Predicted Interior Noise Level (dBA CNEL) ^{2,3}	Exceed City or County Interior Noise Threshold?
1	83880 Avenue 48, Indio, CA 92201	Residential	4	59	39	60	No ⁴	40	No ⁴
2		Residential	4	59	39	60	No ⁴	40	No ⁴
3		Residential	4	60	40	61	No ⁴	41	No ⁴
4		Residential	4	60	40	60	No ⁴	40	No ⁴
5		Residential	4	59	39	59	No ⁴	39	No ⁴
6		Residential	4	58	38	58	No ⁴	38	No ⁴
7	84030 Avenue 48, Indio, CA 92201	Residential	1	62	42	63	No ⁵	43	No ⁵
8	84038 Avenue 48, Indio CA 92201	Residential	1	58	38	59	No ⁵	39	No ⁵
9	84056 Avenue 48, Indio CA 92201	Residential	1	57	37	59	No ⁵	39	No ⁵
10		Residential	1	62	42	64	No ⁵	44	No ⁵
11	84072 Avenue 48, Indio CA 92201	Residential	1	62	42	63	No ⁵	43	No ⁵
12	84088 Avenue 48, Indio CA 92201	Residential	1	62	42	63	No ⁵	43	No ⁵
13	84100 Avenue 48, Indio CA 92201	Residential	1	56	36	58	No ⁵	38	No ⁵
14	47939 Luzon St, Indio CA 92201	Residential	1	56	36	58	No ⁵	38	No ⁵
15	84138 Avenue 48, Indio CA 92201	Residential	1	56	36	58	No ⁵	38	No ⁵
16		Residential	1	55	35	58	No ⁵	38	No ⁵
17	84148 Avenue 48, Indio CA 92201	Residential	1	56	36	58	No ⁵	38	No ⁵
18	84158 Avenue 48, Indio CA 92201	Residential	1	56	36	58	No ⁵	38	No ⁵
19	84166 Avenue 48, Indio CA 92201	Residential	1	63	43	65	No ⁵	45	No ⁵

RECEPTOR NO.	LOCATION/APN	TYPE OF LAND USE	# OF DWELLING UNITS	FUTURE NO BUILD ¹		FUTURE BUILD			
				Predicted Exterior Noise Level (dBA CNEL) ^{1,2}	Predicted Interior Noise Level (dBA CNEL) ^{1,2,3}	Predicted Exterior Noise Level (dBA CNEL) ²	Exceed City or County Exterior Noise Threshold?	Predicted Interior Noise Level (dBA CNEL) ^{2,3}	Exceed City or County Interior Noise Threshold?
20	84172 Avenue 48, Indio CA 92201	Residential	1	63	43	65	No ⁵	45	No ⁵
21	84186 48th Ave, Indio CA 92201	Residential	1	63	43	64	No ⁵	44	No ⁵
22	84220 48th Ave, Indio CA 92201	Residential	1	56	36	59	No ⁵	39	No ⁵
23		Residential	1	55	35	58	No ⁵	38	No ⁵
24	84229 Avenue 48, Indio CA 92201	Residential	1	62	42	64	No ⁵	44	No ⁵
25	84417 Indio Blvd, Indio CA 92201	Commercial	-	58	38	59	No ⁶	39	No ⁸
26	48055 Grapefruit Blvd, Coachella CA 92236	Commercial	-	58	38	60	No ⁶	40	No ⁸
27	48079 Grapefruit Blvd, Coachella CA 92236	Commercial	-	63			No ⁶	44	No ⁸
28	APN 603-220-066	Commercial	-	58			No ⁶	41	No ⁸
29	APN 603-220-062	Commercial	-	59			No ⁶	42	No ⁸
30	APN 612-230-015	Vacant	-	58			No ⁷	39	No ⁸

Notes:

1. Since no improvements would be made to Avenue 48 under the Future No Build scenario, the traffic volumes and predicted noise levels for the Future No Build scenario would be the same as the existing modeled noise levels shown in Table 6 (Existing Traffic Noise Levels).
2. The modeled noise levels are based on LOS C traffic volumes provided in *Figure C-3 Link/Volume Capacity/Level of Service Riverside County Roadways* (revised March 2001) of the County General Plan.
3. Assuming that standard residential design (with windows closed) will provide a 20 dBA of attenuation in accordance with the County of Riverside's *Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures Memorandum* (January 15, 2004).
4. The exterior noise standard for single- and multi-family residential uses is 60 dBA CNEL, and the interior noise threshold is 45 dBA CNEL in the City of Indio.
5. The County of Riverside exterior noise standard for single- and multi-family residential uses is 60 dBA CNEL, and the interior noise threshold is 45 dBA CNEL.
6. The City of Indio exterior noise standard for commercial retail and industrial uses is 70 dBA CNEL.
7. There is no noise standard for vacant land.
8. There is no interior noise standard for commercial uses or vacant land.

Source: Michael Baker International 2018d.

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

Less Than Significant Impact With Mitigation. Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. The vibration produced by construction equipment is illustrated in Table 3-20, Typical Vibration Levels for Construction Equipment.

TABLE 3-20 TYPICAL VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT

EQUIPMENT	APPROXIMATE PEAK PARTICLE VELOCITY AT 15 FEET (inches/second)	APPROXIMATE PEAK PARTICLE VELOCITY AT 25 FEET (inches/second)	APPROXIMATE PEAK PARTICLE VELOCITY AT 42 FEET (inches/second)
Scrapers	95	89	83
Bulldozers	91	85	79
Heavy Trucks	94	88	82
Backhoe	86	80	74
Pneumatic Tools	91	85	79
Concrete Pump	88	82	76

Source: Michael Baker International 2018d.

The nearest structures to the project site include residential uses adjoining the roadway (approximately 15 feet away), Martin Van Buren Elementary School approximately 478 feet north of the roadway and New Seasons Church approximately 560 feet north of the roadway. Groundborne vibration decreases rapidly with distance. As indicated in Table 3-20, based on the Federal Transit Administration data, vibration velocities from typical heavy construction equipment operation that would be used during project construction range from 0.006 to 0.452 inch-per-second peak particle velocity (PPV) at 15 feet from the source of activity. With regard to the proposed project, groundborne vibration would be generated primarily during grading activities on-site and by off-site haul-truck travel. The nearest existing residential uses are located within 15 feet north of the roadway. As presented in Table 3-20, vibration levels associated with vibratory rollers within 15 feet would exceed the 0.2 inch-per-second PPV significance threshold for vibration (Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006). Mitigation Measure NOI-2 would be required to ensure that the construction activities do not use vibratory rollers within 42 feet of the nearest sensitive receptor. With the implementation of Mitigation Measure NOI-2, the proposed construction activities would not exceed the 0.2 inch-per-second PPV significance threshold for vibration. Additionally, construction activities

would be limited and would not be concentrated within 15 feet of the adjacent structures for an extended period of time. Therefore, vibration impacts would be less than significant.

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. The project site is not located within the vicinity of a private airstrip or related facilities. The nearest airport is the Jacqueline Cochran Regional Airport, located approximately 4.95 miles to the southeast of the project site. The Riverside Airport Land Use Commission (ALUC) amended the *Riverside County Airport Land Use Compatibility Plan* in June 2005. The project site is not located within the *Jacqueline Cochran Regional Airport Compatibility Map*. Therefore, implementation of the proposed project would not result in an impact related to exposure of people residing or working in the project area to excessive or high noise impact levels associated with aircraft and no mitigation is required.

3.13.5 Mitigation Measures

NOI-1 Noise control shall conform to the provisions in Section 14-8.02, "Noise Control" of the Standard Specifications and these Special Provisions.

The noise level from the Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBA LMax at a distance of 50 feet. This requirement in no way relieves the Contractor from responsibility for complying with local ordinances regulating noise level.

Said noise level requirement shall apply to all equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals must be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

Payment

Full compensation for conforming to the requirements of this Section, "Noise Control," shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

NOI-2 During project construction, all vibratory roller equipment operating on the project site shall not be utilized within 42 feet of the nearest sensitive receptor to minimize vibration impacts.

3.14 Population and Housing

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.14.1 Affected Environment

The proposed project is surrounded by single-family residential, commercial, retail/restaurant, institutional uses, and vacant land. Riverside County’s population was estimated to be 2,387,71, and the number of housing units in the County was estimated at 831,375 with an average of 3.25 persons per household between 2012-2016 (U.S. Census Bureau 2018a). The City of Coachella’s population was estimated to be 44,953, and the number of housing units in the City was estimated to be 9,903 with an average of 3.85 persons per household between 2012-2016 (United States Census Bureau 2018b). Finally, the City of Indio’s population was estimated to be 88,488, and the number of housing units in the City was estimated to be 28,971 with an average of 3.10 persons per household between 2012-2016 (United States Census Bureau 2018b).

3.14.2 Impact Assessment

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)?

No Impact. The project would not include the construction of homes or businesses, nor would it extend roads into previously undeveloped areas or areas that are limited in potential for growth due to lack of transportation infrastructure. The proposed project would provide three additional travel lanes along an existing transportation route within the project limits. The project would relieve traffic congestion, increase mobility, and accommodate existing traffic conditions in the project area and is not a trip generating land use thereby inducing substantial unplanned population growth into the area. No direct or indirect growth would occur as a result of the proposed project and no mitigation is required.

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

No Impact. The proposed project would not displace existing people or housing or necessitate the construction of replacement housing. Reconstruction of driveways, fences, walls, and front yard improvements, if necessary, would be performed under construction easements or rights-of-entry and would be coordinated with property owners. No impact would occur and no mitigation is required.

3.14.3 Mitigation Measures

No mitigation measures are proposed.

3.15 Public Services

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.15.1 Affected Environment

Fire

The City of Coachella contracts with the County of Riverside Fire Department (RCFD) for fire protection and emergency services. The RCFD is a full-service public safety department which provides fire suppression and emergency medical services to City of Coachella. Fire Station #79 serves the City of Coachella from its downtown facility located at 1377 Sixth Street, Coachella (City of Coachella 2018c). The City of Coachella General Plan’s Goal 7, Policy 7.11 is to coordinate with the RCFD to manage the distribution of fire stations and seek goals of 2.0 personnel per 1,000 population, provide fire protection within a 1.5 mile radius from the fire stations, and five-minute response times (City of Coachella 2015b). Surrounding areas outside the City of Coachella City limits are served by RCFD stations located in the cities of Indio, La Quinta, and Thermal as part of a Regional Fire and Emergency Medical Response plan.

Police/Sheriff

The Riverside County Sheriff’s Department (Sheriff’s Department) is contracted to provide comprehensive law enforcement services through the City of Coachella Police Department. The City of Coachella operates a substation from the Sheriff’s Department located at 86625 Airport Boulevard, Thermal (City of Coachella 2018b). The City of Coachella General Plan’s Goal 7, Policy 7.3 is to the extent feasible, raise the ratio of police officers to residents to a minimum of 1.3 officers per 1,000 residents, and maintain personnel and facilities in the police department necessary to provide the best response time feasible (City of Coachella 2015c). Police services within the City of Indio are provided by the City through the Indio Police Department – this department is headquartered in the city at 46800 Jackson Street.

Schools

Schools located within the vicinity of the project include Martin Van Buren Elementary School, Cesar Chavez Elementary School, and Theodore Roosevelt Elementary. The school located closest to the project site is Martin Van Buren Elementary School – this school is located approximately 478 feet north of the project site. There are no schools located within or immediately adjacent to the project site.

Parks

There are no city or county designated parks/recreational facilities located immediately adjacent to the project alignment. The nearest park/recreational facility to the project site is Rancho Las Flores Park, located in the City Coachella – this park is located approximately 1,000 feet south of the project site.

Other Public Facilities

Sunline Transit Agency provides public transportation in the Coachella Valley area and Riverside-Downtown Area during Peak Hours. Sunline Routes 90 and 111 are located in the vicinity of the project site; however, there are no bus stops or bus routes within the project alignment (Sunline Transit Agency 2018).

3.15.2 Impact Assessment

Would the Project:

- a) **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 following public services:**

Fire protection

Less Than Significant Impact. The proposed project involves the widening of an existing roadway which does not include residential or commercial components that would increase the population in the area resulting in the need to provide additional fire protection services, equipment, or facilities. The proposed project would enhance the operation of Avenue 48 through the project-related widening. As a result, the delivery of public services including fire protection and emergency services would improve, resulting in a beneficial impact to these services and the community. Short-term congestion related to the construction phase would be minimized with the implementation of a TCP, described below in Checklist Response 3.17.2 (a). The TCP would include, but not be limited to, the use of portable, changeable message signs, signs notifying emergency responders of upcoming construction, and a public awareness campaign related to the scheduling of the proposed project. No construction of new or expanded fire services or facilities would be required. Impacts would be less than significant and no mitigation is required.

Police protection

Less Than Significant Impact. The proposed project involves the widening of an existing roadway which does not include residential or commercial components that would increase the population in the area resulting in the need to provide additional police protection services, equipment, or facilities. The proposed project would enhance the operation of Avenue 48 through the project-related widening. As a result, the delivery of public services including fire protection and emergency services would improve, resulting in a beneficial impact to these services and the community. Short-term congestion related to the

construction phase would be minimized with the implementation of a TCP, described below in Checklist Response 3.17.2 (a). The TCP would include, but not be limited to, the use of portable, changeable message signs, signs notifying emergency responders of upcoming construction, and a public awareness campaign related to the scheduling of the proposed project. No construction of new or expanded fire services or facilities would be required. Impacts would be less than significant and no mitigation is required.

Schools

No Impact. There are no schools within the immediate area. Therefore, access to schools would not be impeded as a result of the proposed project, and no mitigation is required.

Parks

No Impact. The proposed project would not result in an increase in the demand for existing neighborhood or regional park facilities nor would it result in the need for construction of new or expanded recreational facilities. Therefore, no impact would occur and no mitigation is required.

Other Public Facilities

No Impact. The proposed project would not impact other public facilities, including bus routes, or result in the demand for additional public facilities and no impact would occur.

3.15.3 Mitigation Measures

No mitigation measures are proposed.

3.16 Recreation

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the project:				
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.16.1 Affected Environment

The nearest park/recreational facility to the project site is Rancho Las Flores Park, located in the City Coachella – this park is located approximately 1,000 feet south of the project site. There are no existing or planned parks along the project corridor.

3.16.2 Impact Assessment

Would the Project:

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 proposed project would not result in an increase in the demand for existing neighborhood or regional park facilities; therefore, no impacts related to demand or use of recreation facilities would occur and no mitigation is 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. As stated previously, a component of the proposed project includes constructing new five-foot-wide bicycle lanes in the eastbound and westbound directions of Avenue 48. However, implementation of the project would not otherwise require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. Therefore, no impact would occur and no mitigation is required.

3.16.3 Mitigation Measures

No mitigation measures are proposed.

3.17 Transportation

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.17.1 Affected Environment

The segment of Avenue 48 that would be widened as part of the proposed project provides key access to SR-86 and I-10 for travelers in the project vicinity within the City of Coachella and the City of Indio. The project site is situated within developing areas of the City of Coachella, the City of Indio, and the County, adjacent to and west of Indio Boulevard, west of SR-86, and south of I-10. The roadway is surrounded by single-family residential, commercial, retail/restaurant, institutional uses, and vacant land.

3.17.2 Impact Assessment

Would the Project:

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

Less Than Significant Impact with Mitigation. The proposed project would provide three additional travel lanes along Avenue 48 within the project limits (one additional westbound lane and two additional eastbound lanes) to relieve traffic congestion, increase mobility, and accommodate existing traffic conditions in the area. However, additional vehicular traffic would occur in the area after project implementation due to anticipated general growth in the area. Table 3-21 depicts the ADT volumes along the project corridor during the Existing Year (2017), Opening Year (2019), and Horizon Year (2038) Without Project and With Project conditions. Table 3-21 also shows the corresponding LOS for each of the above-described Without Project and With Project scenarios for the Existing Year, Opening Year, and Horizon Year. LOS designations range from A to F, with LOS A representing no delays (traffic flows freely); LOS C representing minimal delays (few restrictions on speed); and LOS F representing excessive traffic delays (very congested traffic). Per the General Plans for the County and cities of Coachella and Indio, the LOS goal is to achieve and maintain LOS D or better on all roadways and intersections.

As shown in Table 3-21, Avenue 48 is operating at LOS B in the Existing Year (2017) within the project limits. Avenue 48 would experience an increase in ADT without the project between the Existing Year

(2017) and Horizon Year (2038) due to general growth in the area. Although additional trips would occur along Avenue 48 after project implementation due to general growth in the area associated with projected increased development, the project would generally relieve existing and forecast traffic congestion in the project area along Avenue 48. It is anticipated that LOS would decrease in the Horizon Year (2038) when comparing Without Project conditions (i.e., LOS C) versus With Project conditions (i.e., LOS D) for the Avenue 48 study segment from Dillon Road to Indio Boulevard – the lower LOS for this particular study segment with the project in the Horizon Year (2038), as compared to Without Project conditions in the same year, can be attributed to general growth in the project vicinity and the associated increase in vehicular traffic associated with that anticipated growth. However, the proposed project would achieve and maintain LOS D or better on all roadway segments, consistent with the General Plans for the County and cities of Coachella and Indio.

Sunline Transit Agency provides public transportation in the Coachella Valley area and Riverside-Downtown Area during Peak Hours. Sunline Routes 90 and 111 are located in the vicinity of the project site; however, there are no bus stops or bus routes within the project corridor (Sunline Transit Agency 2018). Bus service would be maintained along the route during construction. The County would coordinate with the Sunline Transit Agency to ensure their operations are not interrupted during construction activities (refer to Mitigation Measure TRA-1).

Temporary lane closures and striping would occur during project construction; however, two-way travel along Avenue 48 through the project corridor would be maintained during construction. During final design, construction and traffic management plans would be prepared to minimize disruption to the public. Appropriate measures would be incorporated to ensure safe vehicle and pedestrian movement through the project area during construction. To facilitate the movement of traffic during construction, a TCP would be prepared and implemented during construction (refer to Mitigation Measure TRA-1).

TABLE 3-21 PROJECT AREA TRAFFIC OPERATIONS

AVENUE 48 ROADWAY SEGMENT	TOTAL ADT	LOS
Existing Conditions (2017)		
Van Buren Street to Dillon Road	11,893	B
Dillon Road to Indio Blvd.	12,205	B
Opening Year (2019)¹ Without Project		
Van Buren Street to Dillon Road	12,272	B
Dillon Road to Indio Blvd.	12,739	A
Opening Year (2019)¹ With Project		
Van Buren Street to Dillon Road	12,272	A
Dillon Road to Indio Blvd.	12,739	A
Horizon Year (2038) Without Project		
Van Buren Street to Dillon Road	22,780	F
Dillon Road to Indio Blvd.	35,458	C
Horizon Year (2038) With Project		
Van Buren Street to Dillon Road	29,403	B
Dillon Road to Indio Blvd.	41,140	D
Notes:		
1. Opening Year With Project and Without Project traffic volumes would be the same.		

Source: County of Riverside 2018.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact. The proposed project would not conflict with the applicable congestion management program, ordinances, or policies related to the circulation system nor would it conflict with or be inconsistent with CEQA Guidelines Section 15064.3 (b)(2). As stated in Checklist Response 3.8.3 (a) above, the VMT between the existing and future scenarios is attributed to projected economic and population growth in the area, and is not a direct result of project implementation. The proposed project would not cause an increase in traffic since there would be no trip generation resulting from its implementation project. The project would not construct, nor facilitate the construction of, any new homes or businesses that would generate new vehicle trips. Implementation of the proposed project would generally improve traffic conditions along Avenue 48 and would generally reduce congestion when compared to the existing conditions. Furthermore, the proposed project would achieve and maintain LOS D or better on all roadways and intersections, consistent with the General Plans for the County and cities of Coachella and Indio. Therefore, there would be a less than significant impact, and no mitigation is required.

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 proposed project would not substantially increase safety hazards due to a geometric design feature or incompatible use. The project will be designed in accordance with pertinent engineering standards. No impact would occur in this regard, and therefore no mitigation is required.

d) Result in inadequate emergency access?

Less Than Significant Impact With Mitigation. As discussed above, construction-related delays may occur, although the proposed construction would be staged to keep roadways within the project area open to two-way traffic. A TCP would be implemented during construction to ensure safety and efficient flow of traffic throughout the project area during construction. A component of the TCP would be to coordinate with the emergency service providers to ensure their operations can be adjusted. In addition, none of the roadways in the project area are dedicated as emergency evacuation routes. The improvements proposed as part of the project would improve overall circulation. It is anticipated that construction of the proposed project would have a beneficial effect on emergency vehicle response times due to the new traffic lanes and roadway improvements. With implementation of Mitigation Measure TRA-1, impacts would be less than significant and no further mitigation is required.

3.17.3 Mitigation Measures

TRA-1 Temporary impacts to traffic flow as a result of construction activities would be minimized through construction phasing and signage and a traffic control plan (TCP).

3.18 Tribal Cultural Resources

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <p>a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or</p> <p>b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p>

The information in this section is based on the *Cultural Resource Assessment* (Applied EarthWorks, Inc. 2018).

3.18.1 Affected Environment

Native American Coordination

Sacred Lands Search Letter and Responses

As part of the *Cultural Resource Assessment*, Applied Earthworks contacted the NAHC on July 20, 2017, for a review of the sacred lands file (SLF). The purpose of the SLF search request was to determine if any known Native American cultural properties (e.g., traditional use or gathering areas, places of religious or sacred activity) are present within or adjacent to the project area. The NAHC responded on July 25, 2017, stating that the records search failed to indicate the presence of Native American cultural resources within the immediate project area. A copy of the NAHC response is provided in Appendix B of the *Cultural Resource Assessment*.

AB 52 Consultation

The County sent notification letters, pursuant to AB 52 procedures, to pertinent Native American tribes on August 31, 2017. The letters informed the tribes of the proposed project and included a brief project description, location map, and County contact information. Letters were sent via United States Postal Service certified mail to the following individuals on the County's notification list, as follows:

- Pattie Garcia-Plotkin, Tribal Preservation Officer (THPO), Agua Caliente Band of Cahuilla Indians
- Jacquelyn Barham, Cabazon Band of Mission Indians
- Anthony Madrigal, Cahuilla Band of Indians
- David Harper, THPO, Colorado River Indian Tribes
- Andrew Salas, Chairman, Gabrieleno Band of Mission Indians – Kizh Nation
- Michael Mirelez, Cultural Resource Coordinator, Torres Martinez Desert Cahuilla Indians
- Ray Huaute, Morongo Cultural Heritage Program
- Shasta Gaughen, THPO, Pala Band of Mission Indians
- Ebru Ozdil, Planning Specialist, Pechanga Cultural Resources Department
- Arlene Kingery, THPO, Quechan Indian Nation
- Joseph D. Hamilton, Chairman, Ramona Band of Cahuilla
- Destiny Colocho, Manager, Rincon Band of Luiseño Indians
- Anthony Morales, Chairperson, Gabrieleno/Tongva San Gabriel Band of Mission Indians
- Lee Clauss, Director, San Manuel Band of Mission Indians
- Joseph Ontiveros, Cultural Resource Director, Soboba Band of Luiseño Indians
- Darrel Mike, Tribal Chairperson, Twenty-Nine Palms Band of Mission Indians

The tribes had 30 days from the receipt of the formal notification to request AB 52 consultation. Four responses were received in response to the initial notification letter. Only one tribe, the Twenty-Nine Palms Band of Mission Indians, requested formal AB 52 consultation as part of the proposed project. A summary of each of the responses received from Native American tribes, in response to the initial notification letter sent by the County, is provided below:

- In a letter dated September 6, 2017, Shasta Gaughen, THPO of the Pala Band of Mission Indians, declined AB 52 consultation and deferred to other tribes in closer proximity to the project.
- On September 20, 2017, the County received a letter via email from Katie Croft, archaeologist at the Agua Caliente Band of Cahuilla Indians THPO, stating that the Agua Caliente Band of Cahuilla Indians defers to the Cabazon Band of Mission Indians and that this letter concludes their consultation with the County.
- On October 11, 2017, the County received a letter from the Twenty-Nine Palms Band of Mission Indians. The Twenty-Nine Palms Band of Mission Indians stated that the project area is located in a culturally sensitive area within the Chemehuevi Traditional Use Area. The Twenty-Nine Palms Band of Mission Indians requested that the County consult with the tribe for the purposes of AB 52.
- On October 16, 2017, the County received a letter from the Rincon Band of Luiseño Indians. The Rincon Band of Luiseño Indians noted that the project is located outside of the Luiseño Aboriginal Territory. They recommended that the County locate a tribe within the project Area in order to receive direction on how to handle any inadvertent findings.

The County sent an AB 52 consultation initiation letter via e-mail and certified mail on November 6, 2017 to the Twenty-Nine Palms Band of Mission Indians. In response, a teleconference was subsequently conducted on December 5, 2017 that included County representatives, and the THPO and Tribal Cultural Specialist from the Twenty-Nine Band of Mission Indians. During the meeting, the proposed project elements were discussed along with the project's Impact Area and the status of the cultural resource study. The Twenty-Nine Band of Mission Indians stated that a number of sensitive prehistoric archaeological sites are located in the vicinity of the project. The tribe requested Geographic Information System (GIS) data for the current design plans and a copy of the draft *Cultural Resource Assessment*

Report in order that they could review the results of the study. A copy of the draft report was sent to the Twenty-Nine Band of Mission Indians via email on December 20, 2017. The Twenty-Nine Band of Mission Indians Comments provided comments on the draft report to the County on February 5, 2018.

A meeting that included the County's project Planner, the THPO and Tribal Cultural Specialist from the Twenty-Nine Band of Mission Indians, and Applied Earthworks personnel was then held at the County's office on February 29, 2018 to discuss the cultural sensitivity of project area and proposed cultural resource mitigation measures. During the meeting, the Twenty-Nine Band of Mission Indians requested several revisions to the draft cultural resource mitigation measures that were included in the *Cultural Resource Assessment* Report. These revisions included adding language stipulating that a Native American representative would be present at the cultural resource awareness and sensitivity training prior to the start of construction. In addition, the Twenty-Nine Band of Mission Indians also requested that a measure be included that required Native American monitoring during ground-disturbing activities that extend into undisturbed native soils. On March 21, 2018, a revised set of mitigation measures was emailed to the THPO and Tribal Cultural Specialist for review and comment. The Twenty-Nine Band of Mission Indians responded with a letter on March 28, 2018, that included the revised cultural resource mitigation measures that were approved by the THPO. The letter stated that compliance with the revised conditions would mitigate the current concerns the Twenty-Nine Band of Mission Indians had regarding the project. A copy of the letter, along with other non-confidential correspondence, is provided in Appendix C of the *Cultural Resource Assessment*.

3.18.2 Impact Assessment

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

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)?

Less Than Significant With Mitigation. As discussed in Checklist Response 3.5, Cultural Resources, a records search was conducted by the EIC on February 10, 2017. This search included the project area with an additional one-mile radius buffer that extended out from the project boundary (referred to as the project "study area"). The objective of this records search was to identify prehistoric and historic period archaeological and built-environment resources that had been previously recorded within the study area during prior cultural resource investigations.

Additional sources consulted during the archaeological literature and records search include the NRHP, the Office of Historic Preservation Archaeological Determinations of Eligibility, and the Office of Historic Preservation Directory of Properties in the Historic Property Data File. There are no listed historic properties, historical resources, or historic landmarks recorded within the project study area.

Results of the records search indicate that no less than 51 investigations have been conducted previously within the project study area (refer to Table A-1 in Appendix C of this IS/MND). Five of the previous investigations (RI-4577, RI-4828, RI-4829, RI-4830, and RI-5452) intersected portions of the project area. As a result, approximately 70 percent of the project impact area has been investigated by previous studies.

The cultural resource survey identified one historical built-environment resource (Avenue 48 [33-028164]) within the project area. Avenue 48 was evaluated for listing on the CRHR as part of this study. The segment of Avenue 48 within the project area is a modern two-lane asphalt-paved road that

follows an older historical road alignment and is not recommended eligible for listing on the CRHR. As such, there are no historical resources as defined by CEQA within the project area and a finding of no historical resources affected for the proposed project is recommended.

The *Cultural Resource Assessment* (2018) identified no archaeological resources located within the project area. However, the lack of surface evidence of archaeological resources does not preclude their subsurface existence. Record search data indicate a number of prehistoric and historic-period archaeological sites have been recorded within one-mile of the project boundary. As such, intact subsurface archaeological deposits may be encountered during construction activities. It is therefore recommended that a qualified archaeological monitor be present during project-related ground-disturbing activities in undisturbed native sediments. With implementation of Mitigation Measures CUL-1 and CUL-2 impacts to cultural resources would be less than significant. Mitigation Measure CUL-3 would ensure impacts to buried cultural resources inadvertently discovered during construction would be less than significant.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less Than Significant With Mitigation. Refer to Checklist Response 3.18.2 (a) above for a discussion.

3.18.3 Mitigation Measures

Refer to mitigation measures in Section 3.5.3 (Cultural Resources).

3.19 Utilities and Service Systems

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	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 stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.19.1 Affected Environment

A variety of local and regional purveyors provide and maintain utility and service system facilities associated with water, sewer, electric, gas, telephone, and cable. Existing utilities in the area include: potable water, reclaimed water, sewer, electrical, telecommunications, gas, and fiber optic. The following facilities may be adjusted and/or relocated as part of the project design: utility poles, water valves, blow-off valves, fire hydrants, water meters, electrical vaults, and telecommunication boxes. However, no utility relocations are anticipated to take place outside the designated project area.

3.19.2 Impact Assessment

Would the Project:

- a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?**

Less Than Significant Impact. The proposed project involves the widening of an existing roadway and would not require or result in the relocation or construction of new water, wastewater treatment, electrical power, natural gas, or telecommunication facilities. The proposed project would require the extension of existing storm drain culverts to ensure proper drainage. The proposed project is not anticipated to substantially increase stormwater runoff. Furthermore, no new storm drainage facilities are anticipated to

be required outside of the ROW. The existing storm drain system is anticipated to be adequate to serve the proposed project. Refer to Section 3.10 (Hydrology and Water Quality) for more information regarding project-related water quality impacts and control. Impacts on the existing stormwater drainage facilities would be considered 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 proposed project does not contain any components that would require long-term water services or the provision of new water supplies or the expansion of existing facilities. No impact would occur and no mitigation is 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 projects projected demand in addition to the providers existing commitments?

No Impact. The proposed project does not contain any components that would generate any wastewater that would require treatment at a water treatment plant. No impact would occur and no mitigation is 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?

Less Than Significant Impact. Due to the nature of the project, solid waste would not be generated during the project's operation phase. However, construction of the proposed project would generate wastes that would be disposed of in local or regional facilities such as concrete rubble, non-hazardous metal, and refuse from construction workers. Construction of the project would marginally increase the amount of solid waste disposal above current levels. However, due to the small scale and short duration of project construction, construction of the project would not generate solid wastes in excess of state or local standards, or in excess of the capacity of local infrastructure nor would it impair the attainment of solid waste reduction goals. Impacts relative to construction-related solid waste disposal would be less than significant and no mitigation is required.

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

No Impact. The solid waste generated during the construction of the proposed project would be disposed of in accordance with all applicable state, regional, and local management and reduction statutes and conservation measures regarding solid waste and recycling of waste materials. Operation of the proposed project would not generate any solid waste. No impact would occur and no mitigation is required.

3.19.3 Mitigation Measures

No mitigation measures are proposed.

3.20 Wildfire

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
Would the Project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.20.1 Affected Environment

The project site is situated within developing areas of the City of Coachella, the City of Indio, and the County. The roadway is surrounded by single-family residential, commercial, retail/restaurant, institutional uses, and vacant land. As designated on the Western Coachella Valley Area Plan, Figure 12, Wildfire Susceptibility, the project site is not located within a wildfire severity zone (County of Riverside 2017).

3.20.2 Impact Assessment

Would the Project:

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

Less Than Significant Impact. As discussed in Checklist Response 3.9.2 (f), temporary lane closures and striping would occur during project construction; however, two-way travel along Avenue 48 through the project corridor would be maintained during construction activities with at least one travel lane open in each direction at all times. A TCP would be prepared and may include, but not be limited to, designated construction routes, designated construction parking areas, appropriate detours, safety precautions, and the use of changeable message signs. The proposed project is not anticipated to interfere with an adopted emergency response plan or emergency evacuation plan; impacts would be less than significant and no further mitigation is 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 does not include any habitable structures. Furthermore, the project site is not located within a wildfire severity zone as shown on the Western Coachella Valley Area Plan, Figure 12, Wildfire Susceptibility (County of Riverside 2017). The project would not expose people or structures to a significant risk involving wildfires. Therefore, the project would not exacerbate wildfire risks and would not expose occupants to pollutant concentrations from a wildfire.

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 on the environment?

No Impact. The proposed project involves the widening of an existing roadway and does not require the construction or installation of additional roads, fuel breaks, emergency water sources, power lines, or other utilities. The project would not exacerbate wildfire risks in the project area.

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?

Less Than Significant Impact. The project site is surrounded by single-family residential, commercial, retail/restaurant, institutional uses, and vacant land. The project site and immediate surrounding area are relatively level, with a low potential for landslides. As discussed in Checklist Response 3.10.2 (c) above, the project would not substantially alter the existing drainage patterns of the site or result in substantial erosion or siltation on- or off-site. The existing drainage patterns of the project would not create large slopes on the project site. Therefore, implementation of the proposed project would not expose people or structures to significant risks due to runoff, post-fire slope instability, or drainage changes.

3.20.3 Mitigation Measures

No mitigation measures are proposed.

3.21 Mandatory Findings of Significance

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Would the Project:

a) 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 Impact. As addressed in the pertinent sections of this Initial Study, the proposed project would not substantially degrade the quality of the environment. In addition, the project would not 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, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. Furthermore, the proposed project would not result in the elimination of important examples of major periods of California history or prehistory. Therefore, impacts in this regard are considered less than significant.

b) 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 Impact With Mitigation. As described in the previous sections of this IS/MND, Checklist Responses 3.1 through 3.20, the proposed project would result in less than significant impacts with incorporation of mitigation measures for air quality, biological resources, cultural resources/tribal cultural resources, hazards/hazardous wastes, hydrology and water quality, noise, and transportation/traffic. Implementation of mitigation measures identified in the aforementioned resource areas of this IS/MND are required to reduce impacts to a less than significant level.

A cumulative impact could occur if the project would result in an incrementally considerable contribution to a significant cumulative impact in consideration of past, present, and reasonably foreseeable future projects for each resource area. The cumulative study area is generally confined to an approximate one-mile radius. A review of the City of Coachella’s, the City of Indio’s, and the County’s websites, as well as direct contact with city representatives, was conducted in order to compile a list of past, present, and reasonably foreseeable future projects. These cumulative projects are listed in Table 3-22.

TABLE 3-22 CUMULATIVE PROJECTS LIST

PROJECT	LOCATION / ADDRESS	DESCRIPTION	APPROXIMATE DISTANCE FROM THE PROJECT AREA
CITY OF COACHELLA			
Coachella Village	South side of Avenue 48, west of Van Buren Street	242 new apartments with recreation and daycare buildings on 9.69 acres.	0.2 mile southwest of project site
Glenroy Resort Development	Southeast corner of Avenue 48 and Van Buren Street	A mixed-use development consisting of 130 single story resort bungalows with a total of 624 rooms, as well as an 8,050 square foot conference center, 2,000 square foot maintenance building, 12,000 square foot office, gym and food service building with an indoor entertainment area, a four story, 130 room hotel; a 3,600 square foot restaurant, a 3,120 square foot medical marijuana dispensary, a 2,500 square foot general store, and a 2,500 square foot coffee shop with drive-through access.	Directly adjacent, south of Avenue 48
Cultivation Technologies	84-811 Avenue 48	A commercial cannabis cultivation industrial complex with common parking and security fencing, to be located on 6.06 acres of land in the M-W (Wrecking Yard) zone. The project will consist of two industrial buildings (totaling 111,500 square feet).	0.53 mile east of project site, south side of Avenue 48
Coachella Research Park 1	Northeast corner of Avenue 48 and Harrison Street	Construction of a cannabis cultivation industrial campus with common parking, landscaping and security fencing, to be located on 11.25 acres. The project will consist of six, three story industrial buildings (totaling 312,700 square feet).	0.76 mile east of project site
Coachella Research Park 2	48-451 Harrison Street	Construction of sixteen, three-story industrial buildings (totaling 740,880 square feet) for cannabis cultivation on 20 acres.	0.68 mile southeast of project site

PROJECT	LOCATION / ADDRESS	DESCRIPTION	APPROXIMATE DISTANCE FROM THE PROJECT AREA
Coachella Warehouses	Southwest corner of Avenue 48 and Harrison Street	Construction of a commercial cannabis cultivation and processing complex with common parking, landscaping and security fencing, to be located on 14.61 acres. The project will consist of twenty industrial buildings ranging in size from 4,000 to 16,000 square feet, (totaling 256,200 square feet) at 84-851 Avenue 48 (APN 603-232-021, -022, & -024).	0.76 mile east of project site
Kismet Organic	48-050 Harrison Street (APN 603-290-001)	Construction of a new 77,400 square foot commercial cannabis cultivation facility with perimeter fencing, landscaping, retention basin, parking lot and carport structures on 4.8 acres partially-developed site.	0.80 mile east of project site, south side of Avenue 48
Date Palm Business Park (Phase I)	49723 Harrison Street	Subdivision and future construction of a 1.2 million square foot light industrial business park, consisting of commercial cannabis cultivation and related uses including processing, manufacturing, distribution and office uses. Phase 1 consists of an IID electrical substation and two lettered parcels proposed for common-area retention basins, with construction of a commercial cannabis cultivation center in two buildings totaling 120,000 square feet including 140 parking spaces.	1.13 miles southeast of project site
CoachellGro Corp.	48-490 Harrison Street	Construction of a new cannabis cultivation facility consisting of a 63,248 square foot 2-story office/head-house building and a 193,803 square foot industrial cannabis cultivation building with greenhouse roof structure, including off-street parking, landscaping and site improvements.	0.97 mile southeast of project site
Coachella Brands	Avenue 48	Construction of a new cannabis cultivation facility consisting of a 63,248 square foot 2-story office head-house building and a 193,803 square foot industrial cannabis cultivation building with greenhouse roof structure, including off-street parking, landscaping and site improvements.	0.5 mile east of the project site
CannTech Facility	84-801 Avenue 48	Phase construction of a new 67,240 square foot commercial cannabis cultivation facility on a 3.2-acre parcel.	0.44 mile east of project site
CITY OF INDIO			
Convenience store/gas station and two drive-through restaurants pads	Northeast corner of Indio Boulevard and Avenue 48	Construction of a convenience store/gas station and two drive-through restaurants pads on an approximate 3.56-acre parcel.	Adjacent to the project site (along Avenue 48)

The following analysis evaluates the project's potential to contribute considerably to a cumulative impact. As described in the previous sections of this Initial Study, Checklist Responses 3.1 through 3.20, the proposed project would result in no impact or impacts considered less than significant on the following resource areas: aesthetics, agricultural and forest resources, energy, geology and soils, greenhouse gas emissions, land use and planning, mineral resources, population and housing, recreation, utilities and service systems, and wildfire and would not contribute either directly or indirectly to a cumulatively considerable impact in these resource areas. The potential for the proposed project to result in cumulative impacts that would be considered significant in the above-mentioned resource areas is considered low, and the proposed project does not have the potential to result in a cumulative impact that would affect the health or sustainability of any of these resource areas.

For resources identified as having a less than significant impact with mitigation or a less than significant impact, a preliminary review of the potential impacts identified was conducted to determine if a reasonably foreseeable cumulative impact could occur. Based on this review it was determined that the resources that could potentially contribute to significant cumulative impacts to a considerable degree when combined with the past, present, and reasonably foreseeable cumulative projects are: air quality, biological resources, cultural resources, hazard/hazardous materials, hydrology and water quality, noise, and transportation/traffic. A cumulative evaluation for these environmental resource areas is provided below.

Air Quality

As detailed in Checklist Response 3.3.3 (a), the project's short-term construction and long-term operational emissions for CO, NO_x, ROG, PM₁₀, and PM_{2.5} would not exceed the applicable SCAQMD thresholds. With respect to cumulative Basin-wide conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the 2016 AQMP pursuant to FCAA mandates. As such, the proposed project would comply with SCAQMD Rule 403 requirements, and implement all feasible mitigation measures (Mitigation Measures AQ-1 and AQ-2). Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the proposed project. In addition, the proposed project would comply with adopted 2016 AQMP emissions control measures. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects throughout the Basin, which would include related projects.

Similar to the proposed project addressed in this Initial Study, future development projects would also be required to adhere to pertinent SCAQMD rules and mandates, as well as the pertinent provisions of CEQA, to implement mitigation measures, as necessary and feasible, to avoid significant impacts to air quality. Therefore, the proposed project's incremental contribution to cumulative air quality related impacts, when combined with past, present, and reasonably foreseeable projects, would be less than cumulatively considerable.

Biological Resources

As described in Checklist Section 3.4.2 (a), no special-status plant or wildlife species were observed within the survey area during the habitat assessment. On-site and surrounding land uses have eliminated naturally occurring habitats within the survey area, reducing the suitability of the habitat to support special-status plant or wildlife species. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that no special-status plant and wildlife species are expected to occur within the survey area, and are presumed absent. Therefore, it was determined that implementation of the proposed project would have "no effect" on special-status plant and wildlife species known to occur in the general vicinity of the survey area. No impact would occur and no mitigation would be required.

The project site is located within the boundaries of the CVMSHCP Area, but is not located within any Conservation Areas, Preserves, Cores, or Linkages. The proposed project is listed as a “Covered Activity” under the CVMSHCP. With implementation of the applicable avoidance, minimization, and/or mitigation measures as identified herein, the proposed project would be fully consistent with the biological goals and objectives of the CVMSHCP and avoid significant impacts to sensitive plant and animal species.

Future development projects identified herein in support of the cumulative impacts analysis would be required to adhere to the requirements of the CVMSHCP, and other pertinent local regulations, similar to the proposed project and would be required to implement mitigation measures, as necessary, to minimize or otherwise avoid significant impacts to biological resources. Therefore, the proposed project’s incremental contribution to cumulative impacts to biological resources, when combined with past, present, and reasonably foreseeable projects, would be less than cumulatively considerable.

Cultural and Historical Resources

As described in Checklist Responses 3.5.2 (a), (b), and (c), the cultural resource assessment identified no archaeological resources within the project area. However, the lack of surface evidence of archaeological resources does not preclude their subsurface existence. Record search data indicate a number of prehistoric and historic-period archaeological sites have been recorded within one-mile of the project boundary. As such, intact subsurface archaeological deposits may be encountered during construction activities. It is therefore recommended that a qualified archaeological monitor be present during project-related ground-disturbing activities in undisturbed native sediments. With implementation of Mitigation Measures CUL-1 and CUL-2 impacts to cultural resources would be less than significant.

The project site and vicinity have been surveyed for archaeological resources and no human remains interred outside formal cemeteries were detected during the survey. Given the disturbed nature of the project site, it is unlikely project construction would disturb any buried human remains. However, if human remains are discovered during construction implementation of Mitigation Measure CUL-3 would ensure impacts to buried cultural resources inadvertently discovered during construction would be less than significant.

The cultural resource survey identified one historical built-environment resource (Avenue 48 [33-028164]) within the project area. Avenue 48 was evaluated for listing on the California Register as part of cultural resource assessment. The segment of Avenue 48 within the project area is a modern two-lane asphalt-paved road that follows an older historical road alignment and is not recommended eligible for listing on the California Register. As such, there are no historical resources as defined by CEQA within the project area and a finding of no historical resources affected for the proposed project is recommended.

Cultural resources are generally not considered subject to cumulative effects because they are either individually directly or indirectly affected in a way that changes the significance of the property, or they are not affected in a way that changes the significance of the property. Development in the City of Coachella, the City of Indio, and the County, and adjacent jurisdictions would require grading and excavation that could potentially affect unanticipated archaeological and paleontological resources, including human remains. It is possible that these projects could cause a significant impact on historic properties and unidentified buried archaeological resources, including buried human remains, through possible ground disturbance associated with construction activities. CEQA requirements for protecting archaeological resources and CEQA and Health Code requirements related to the treatment of human remains are applicable to development in the City of Coachella, the City of Indio, and the County as well as adjacent jurisdictions, as are local cultural resource protection provisions. If subsurface cultural resources are protected upon discovery as required by law, impacts to those resources would be less than significant. Further, with the measures that would be imposed and enforced if unanticipated resources are

discovered, the contribution of the proposed project to the cumulative destruction of subsurface cultural resources throughout the City of Coachella, the City of Indio, the County, and the region would not be cumulatively considerable.

Hazards/Hazardous Materials

The cumulative study area for hazards/hazardous materials includes the area within a one-mile radius of the project site. As discussed in Checklist Response 3.9.2 (d), a database search was conducted to evaluate the potential for the project site or properties near the project site to create adverse environmental impacts. The database search for the proposed project concluded that the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As discussed in Checklist Response 3.8.2 (a), construction of the proposed project would involve the use of potentially hazardous materials, including vehicle fuels, oils, and transmission fluids. However, all hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, state, and federal regulations. Long-term operations at the project site would not result in the release of hazardous materials.

The Phase I ESA did identify the presence of LBPs in traffic striping materials and PCBs potentially present in pole-mounted transformers, which may be disturbed during project construction. There is the potential to encounter unknown hazardous materials in soils during site disturbance activities, which present a concern to workers and the public during construction. Long-term operations at the project site would not result in the release of hazardous materials. With incorporation of Mitigation Measures HAZ-1 through HAZ-3, the potential for hazards related to the release of hazardous materials considered less than significant.

Future development projects identified would be required to undergo investigations similar to the proposed project and would be required to implement mitigation measures to remediate or otherwise avoid release of hazardous materials into the environment. The proposed project's incremental contribution to cumulative impacts from hazards and hazardous materials, when combined with past, present, and reasonably foreseeable projects, would be less than cumulatively considerable.

Hydrology and Water Quality

A significant cumulative impact related to hydrology and water quality would occur if the impacts created by the proposed project, even if individually less than significant, would make a considerable contribution to a cumulatively significant impact when considered together with similar impacts created by other past, present, and reasonably foreseeable future projects. Individually, the project would not place housing within a 100-year floodplain; would not place structures in an area that would impede or redirect flood flows; would not expose people or structures to inundation from failure of a dam or levee; and would not result in inundation due to seiche, tsunami, or mudflows. Therefore, the project would not contribute to a potential cumulative impact in relation to these effects.

As discussed in Checklist Response 3.10.2 (a), project-related construction would disturb more than one acre of ground; therefore, the County would be required to electronically file a NOI with the SWRCB. Project construction activities could result in wind and rain erosion of the existing onsite soils and could increase the amount of suspended solids contained in storm flows due to erosion of exposed soils. Non-sediment potential contaminants that could enter water runoff from the construction site include paints, solvents, metals, oil, gasoline, petroleum products, concrete-related products, chemicals, and trash. All of these contaminants could contribute to the degradation of water quality.

The existing area of impervious surface within the project limits is approximately 4.9 acres, whereas the area of impervious surface after project improvements is estimated to be approximately 6.4 acres. Therefore, the proposed project is anticipated to result in a total increase of approximately 1.5 acres of net new impervious surface as compared to existing conditions. Although the rate and quantity of runoff would change due to the increase in the amount of impervious surface area, the project would have a low potential to impact surface water quality. Implementation of Mitigation Measure WAT-1 would ensure that the proposed project would not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality. Therefore, impacts would be less than significant with mitigation incorporated.

Cumulative projects would be subject to the same federal, state, and local regulations regarding water quality standards and would typically be required to draft and implement SWPPPs with specific provisions that address erosion and sedimentation control during construction and operation. These impacts would be localized and controlled at the source and would not be cumulatively considerable.

Noise

Adverse noise and vibration impacts during construction of the proposed project would be localized and would occur intermittently for varying periods of time throughout the construction period. Short-term cumulative impacts related to ambient noise and vibration levels could occur if construction associated with the proposed project as well as surrounding current and future development were to occur simultaneously. To the extent that construction periods overlap, there is a potential for an adverse impact on sensitive receptors in the vicinity of the project with a cumulative noise level greater than the noise generated solely at the project site. However, project construction is estimated to occur over a six-month period and impacts would be short-term and intermittent in duration. In addition, the proposed project and the cumulative projects in the area would comply with local noise ordinances, County general plan policies, and state standards. Therefore, the incremental effects of the project, when considered together with the effects of relevant past, present, and reasonably foreseeable projects, would not create a cumulatively significant impact to the public or environment related to significant noise or vibration.

Transportation

Other projects in the area may be under construction in the same time frame as the proposed project. To the extent that construction periods overlap, there is a potential for cumulative local level traffic impacts from multiple project detours and lane reductions occurring simultaneously in and adjacent to the study area, potentially resulting in deterioration of traffic operations on area local roadways. The City of Coachella, the City of Indio, and the County would coordinate the timing of project detours and lane closures for all projects in the area in order to minimize cumulative traffic impacts. With mitigation measure TRA-1 identified in Section 3.17.3, short-term impacts on traffic/transportation would be minimized and the project would not contribute either directly or indirectly to a cumulatively considerable impact to this resource area.

c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant With Mitigation. As described in the previous sections of this IS/MND, Checklist Responses 3.1 through 3.20, the proposed project would result in less than significant impacts with incorporation of mitigation measures for air quality, biological resources, cultural resources, hazards/hazardous wastes, hydrology and water quality, noise, and transportation/traffic. Implementation of mitigation measures identified in the aforementioned resource areas of this Initial Study are required to reduce impacts to a less than significant level. Therefore, after implementation of the measures, the proposed project would result in a less-than-significant impact on human beings.

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4.0 LIST OF PREPARERS

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APPENDIX A

**AIR QUALITY AND
GREENHOUSE GAS EMISSIONS DATA**

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Avenue 48, City of Coachella - Riverside-Salton Sea County, Summer

Avenue 48, City of Coachella
Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	5.00	User Defined Unit	5.00	217,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Approximate site area. Project is a roadway widening.

Construction Phase - Anticipated construction schedule.

Off-road Equipment - Anticipated equipment.

Off-road Equipment -

Off-road Equipment -

Demolition - 450 Tons Demo per County.

Grading - 7,250 CY Earthwork.

Vehicle Trips - Construction only run.

Construction Off-road Equipment Mitigation - Per Rule 403.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	8.00	66.00
tblConstructionPhase	NumDays	18.00	44.00
tblGrading	AcresOfGrading	33.00	4.00
tblGrading	MaterialImported	0.00	7,250.00
tblLandUse	LandUseSquareFeet	0.00	217,800.00
tblLandUse	LotAcreage	0.00	5.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.5927	36.3332	22.6377	0.0416	6.4659	1.7976	7.8768	3.4184	1.6722	4.7168	0.0000	4,185.506 2	4,185.506 2	1.0756	0.0000	4,210.567 1
Maximum	3.5927	36.3332	22.6377	0.0416	6.4659	1.7976	7.8768	3.4184	1.6722	4.7168	0.0000	4,185.506 2	4,185.506 2	1.0756	0.0000	4,210.567 1

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.5927	36.3332	22.6377	0.0416	2.9561	1.7976	4.3669	1.5138	1.6722	2.8123	0.0000	4,185.5062	4,185.5062	1.0756	0.0000	4,210.5671
Maximum	3.5927	36.3332	22.6377	0.0416	2.9561	1.7976	4.3669	1.5138	1.6722	2.8123	0.0000	4,185.5062	4,185.5062	1.0756	0.0000	4,210.5671

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	54.28	0.00	44.56	55.72	0.00	40.38	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.0439	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	6.0439	0.0000	5.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000	0.0000	1.1700e-003

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.0439	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	6.0439	0.0000	5.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000	0.0000	1.1700e-003

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/30/2019	5	22	
2	Grading	Grading	1/31/2019	5/2/2019	5	66	
3	Paving	Paving	5/3/2019	7/3/2019	5	44	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	44.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	906.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4404	0.0000	0.4404	0.0667	0.0000	0.0667			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	3.5134	35.7830	22.0600	0.0388	0.4404	1.7949	2.2353	0.0667	1.6697	1.7364		3,816.8994	3,816.8994	1.0618		3,843.4451

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0112	0.5109	0.0614	1.5400e-003	0.0350	1.8500e-003	0.0368	9.5900e-003	1.7700e-003	0.0114		163.1984	163.1984	0.0101		163.4518
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0393	0.5163	1.2900e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		128.5653	128.5653	3.6700e-003		128.6570
Total	0.0793	0.5502	0.5777	2.8300e-003	0.1605	2.6500e-003	0.1631	0.0429	2.5100e-003	0.0454		291.7637	291.7637	0.0138		292.1088

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1883	0.0000	0.1883	0.0285	0.0000	0.0285			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	3.5134	35.7830	22.0600	0.0388	0.1883	1.7949	1.9832	0.0285	1.6697	1.6982	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0112	0.5109	0.0614	1.5400e-003	0.0334	1.8500e-003	0.0353	9.2000e-003	1.7700e-003	0.0110		163.1984	163.1984	0.0101		163.4518
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0393	0.5163	1.2900e-003	0.1190	8.0000e-004	0.1198	0.0317	7.4000e-004	0.0324		128.5653	128.5653	3.6700e-003		128.6570
Total	0.0793	0.5502	0.5777	2.8300e-003	0.1524	2.6500e-003	0.1550	0.0409	2.5100e-003	0.0434		291.7637	291.7637	0.0138		292.1088

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1003	0.0000	6.1003	3.3193	0.0000	3.3193			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	2.5805	28.3480	16.2934	0.0297	6.1003	1.3974	7.4976	3.3193	1.2856	4.6048		2,936.8068	2,936.8068	0.9292		2,960.0361

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0771	3.5068	0.4217	0.0106	0.2402	0.0127	0.2528	0.0658	0.0121	0.0780		1,120.1341	1,120.1341	0.0696		1,121.8740
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0393	0.5163	1.2900e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		128.5653	128.5653	3.6700e-003		128.6570
Total	0.1452	3.5460	0.9380	0.0119	0.3657	0.0135	0.3791	0.0991	0.0129	0.1120		1,248.6994	1,248.6994	0.0733		1,250.5310

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6079	0.0000	2.6079	1.4190	0.0000	1.4190			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	2.5805	28.3480	16.2934	0.0297	2.6079	1.3974	4.0052	1.4190	1.2856	2.7046	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0771	3.5068	0.4217	0.0106	0.2293	0.0127	0.2420	0.0632	0.0121	0.0753		1,120.1341	1,120.1341	0.0696		1,121.8740
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0393	0.5163	1.2900e-003	0.1190	8.0000e-004	0.1198	0.0317	7.4000e-004	0.0324		128.5653	128.5653	3.6700e-003		128.6570
Total	0.1452	3.5460	0.9380	0.0119	0.3482	0.0135	0.3617	0.0948	0.0129	0.1077		1,248.6994	1,248.6994	0.0733		1,250.5310

3.4 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0393	0.5163	1.2900e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		128.5653	128.5653	3.6700e-003		128.6570
Total	0.0681	0.0393	0.5163	1.2900e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		128.5653	128.5653	3.6700e-003		128.6570

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0393	0.5163	1.2900e-003	0.1190	8.0000e-004	0.1198	0.0317	7.4000e-004	0.0324		128.5653	128.5653	3.6700e-003		128.6570
Total	0.0681	0.0393	0.5163	1.2900e-003	0.1190	8.0000e-004	0.1198	0.0317	7.4000e-004	0.0324		128.5653	128.5653	3.6700e-003		128.6570

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.0439	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Unmitigated	6.0439	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.3829					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	6.0439	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.3829					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	6.0439	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Avenue 48, City of Coachella - Riverside-Salton Sea County, Winter

**Avenue 48, City of Coachella
Riverside-Salton Sea County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	5.00	User Defined Unit	5.00	217,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Approximate site area. Project is a roadway widening.

Construction Phase - Anticipated construction schedule.

Off-road Equipment - Anticipated equipment.

Off-road Equipment -

Off-road Equipment -

Demolition - 450 Tons Demo per County.

Grading - 7,250 CY Earthwork.

Vehicle Trips - Construction only run.

Construction Off-road Equipment Mitigation - Per Rule 403.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	8.00	66.00
tblConstructionPhase	NumDays	18.00	44.00
tblGrading	AcresOfGrading	33.00	4.00
tblGrading	MaterialImported	0.00	7,250.00
tblLandUse	LandUseSquareFeet	0.00	217,800.00
tblLandUse	LotAcreage	0.00	5.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.5901	36.3397	22.5564	0.0415	6.4659	1.7976	7.8770	3.4184	1.6722	4.7170	0.0000	4,144.5653	4,144.5653	1.0761	0.0000	4,169.7800
Maximum	3.5901	36.3397	22.5564	0.0415	6.4659	1.7976	7.8770	3.4184	1.6722	4.7170	0.0000	4,144.5653	4,144.5653	1.0761	0.0000	4,169.7800

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.5901	36.3397	22.5564	0.0415	2.9561	1.7976	4.3672	1.5138	1.6722	2.8125	0.0000	4,144.5653	4,144.5653	1.0761	0.0000	4,169.7800
Maximum	3.5901	36.3397	22.5564	0.0415	2.9561	1.7976	4.3672	1.5138	1.6722	2.8125	0.0000	4,144.5653	4,144.5653	1.0761	0.0000	4,169.7800

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	54.28	0.00	44.56	55.72	0.00	40.38	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.0439	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	6.0439	0.0000	5.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000	0.0000	1.1700e-003

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.0439	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	6.0439	0.0000	5.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000	0.0000	1.1700e-003

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/30/2019	5	22	
2	Grading	Grading	1/31/2019	5/2/2019	5	66	
3	Paving	Paving	5/3/2019	7/3/2019	5	44	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	44.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	906.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4404	0.0000	0.4404	0.0667	0.0000	0.0667			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	3.5134	35.7830	22.0600	0.0388	0.4404	1.7949	2.2353	0.0667	1.6697	1.7364		3,816.8994	3,816.8994	1.0618		3,843.4451

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0118	0.5161	0.0722	1.5000e-003	0.0350	1.8800e-003	0.0369	9.5900e-003	1.8000e-003	0.0114		159.1512	159.1512	0.0111		159.4288
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0407	0.4241	1.1600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		115.4022	115.4022	3.2100e-003		115.4826
Total	0.0768	0.5567	0.4963	2.6600e-003	0.1605	2.6800e-003	0.1632	0.0429	2.5400e-003	0.0454		274.5535	274.5535	0.0143		274.9114

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1883	0.0000	0.1883	0.0285	0.0000	0.0285			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	3.5134	35.7830	22.0600	0.0388	0.1883	1.7949	1.9832	0.0285	1.6697	1.6982	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0118	0.5161	0.0722	1.5000e-003	0.0334	1.8800e-003	0.0353	9.2000e-003	1.8000e-003	0.0110		159.1512	159.1512	0.0111		159.4288
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0407	0.4241	1.1600e-003	0.1190	8.0000e-004	0.1198	0.0317	7.4000e-004	0.0324		115.4022	115.4022	3.2100e-003		115.4826
Total	0.0768	0.5567	0.4963	2.6600e-003	0.1524	2.6800e-003	0.1550	0.0409	2.5400e-003	0.0434		274.5535	274.5535	0.0143		274.9114

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1003	0.0000	6.1003	3.3193	0.0000	3.3193			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	2.5805	28.3480	16.2934	0.0297	6.1003	1.3974	7.4976	3.3193	1.2856	4.6048		2,936.8068	2,936.8068	0.9292		2,960.0361

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0811	3.5421	0.4958	0.0103	0.2402	0.0129	0.2531	0.0658	0.0123	0.0782		1,092.3562	1,092.3562	0.0762		1,094.2612
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0407	0.4241	1.1600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		115.4022	115.4022	3.2100e-003		115.4826
Total	0.1460	3.5828	0.9199	0.0115	0.3657	0.0137	0.3794	0.0991	0.0131	0.1122		1,207.7585	1,207.7585	0.0794		1,209.7438

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6079	0.0000	2.6079	1.4190	0.0000	1.4190			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	2.5805	28.3480	16.2934	0.0297	2.6079	1.3974	4.0052	1.4190	1.2856	2.7046	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0811	3.5421	0.4958	0.0103	0.2293	0.0129	0.2422	0.0632	0.0123	0.0755		1,092.3562	1,092.3562	0.0762		1,094.2612
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0407	0.4241	1.1600e-003	0.1190	8.0000e-004	0.1198	0.0317	7.4000e-004	0.0324		115.4022	115.4022	3.2100e-003		115.4826
Total	0.1460	3.5828	0.9199	0.0115	0.3482	0.0137	0.3619	0.0948	0.0131	0.1079		1,207.7585	1,207.7585	0.0794		1,209.7438

3.4 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0407	0.4241	1.1600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		115.4022	115.4022	3.2100e-003		115.4826
Total	0.0650	0.0407	0.4241	1.1600e-003	0.1255	8.0000e-004	0.1263	0.0333	7.4000e-004	0.0340		115.4022	115.4022	3.2100e-003		115.4826

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0650	0.0407	0.4241	1.1600e-003	0.1190	8.0000e-004	0.1198	0.0317	7.4000e-004	0.0324		115.4022	115.4022	3.2100e-003		115.4826
Total	0.0650	0.0407	0.4241	1.1600e-003	0.1190	8.0000e-004	0.1198	0.0317	7.4000e-004	0.0324		115.4022	115.4022	3.2100e-003		115.4826

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.0439	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Unmitigated	6.0439	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.3829					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	6.0439	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.3829					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	6.0439	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Avenue 48, City of Coachella - Riverside-Salton Sea County, Annual

**Avenue 48, City of Coachella
Riverside-Salton Sea County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	5.00	User Defined Unit	5.00	217,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Approximate site area. Project is a roadway widening.

Construction Phase - Anticipated construction schedule.

Off-road Equipment - Anticipated equipment.

Off-road Equipment -

Off-road Equipment -

Demolition - 450 Tons Demo per County.

Grading - 7,250 CY Earthwork.

Vehicle Trips - Construction only run.

Construction Off-road Equipment Mitigation - Per Rule 403.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	8.00	66.00
tblConstructionPhase	NumDays	18.00	44.00
tblGrading	AcresOfGrading	33.00	4.00
tblGrading	MaterialImported	0.00	7,250.00
tblLandUse	LandUseSquareFeet	0.00	217,800.00
tblLandUse	LotAcreage	0.00	5.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1625	1.7916	1.1481	2.3500e-003	0.2225	0.0845	0.3070	0.1147	0.0780	0.1926	0.0000	212.9361	212.9361	0.0551	0.0000	214.3146
Maximum	0.1625	1.7916	1.1481	2.3500e-003	0.2225	0.0845	0.3070	0.1147	0.0780	0.1926	0.0000	212.9361	212.9361	0.0551	0.0000	214.3146

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1625	1.7916	1.1481	2.3500e-003	0.1037	0.0845	0.1882	0.0514	0.0780	0.1293	0.0000	212.9359	212.9359	0.0551	0.0000	214.3144
Maximum	0.1625	1.7916	1.1481	2.3500e-003	0.1037	0.0845	0.1882	0.0514	0.0780	0.1293	0.0000	212.9359	212.9359	0.0551	0.0000	214.3144

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	53.40	0.00	38.71	55.21	0.00	32.87	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	11-1-2018	1-31-2019	0.4402	0.4402
2	2-1-2019	4-30-2019	1.1012	1.1012
3	5-1-2019	7-31-2019	0.3969	0.3969
		Highest	1.1012	1.1012

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1030	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.1030	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1030	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.1030	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/30/2019	5	22	
2	Grading	Grading	1/31/2019	5/2/2019	5	66	
3	Paving	Paving	5/3/2019	7/3/2019	5	44	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	44.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	906.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8400e-003	0.0000	4.8400e-003	7.3000e-004	0.0000	7.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0387	0.3936	0.2427	4.3000e-004		0.0197	0.0197		0.0184	0.0184	0.0000	38.0890	38.0890	0.0106	0.0000	38.3539
Total	0.0387	0.3936	0.2427	4.3000e-004	4.8400e-003	0.0197	0.0246	7.3000e-004	0.0184	0.0191	0.0000	38.0890	38.0890	0.0106	0.0000	38.3539

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3000e-004	5.7600e-003	7.3000e-004	2.0000e-005	3.8000e-004	2.0000e-005	4.0000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	1.6116	1.6116	1.1000e-004	0.0000	1.6142
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.6000e-004	4.9000e-003	1.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1811	1.1811	3.0000e-005	0.0000	1.1819
Total	7.9000e-004	6.2200e-003	5.6300e-003	3.0000e-005	1.7400e-003	3.0000e-005	1.7700e-003	4.6000e-004	3.0000e-005	4.9000e-004	0.0000	2.7927	2.7927	1.4000e-004	0.0000	2.7961

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0700e-003	0.0000	2.0700e-003	3.1000e-004	0.0000	3.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0387	0.3936	0.2427	4.3000e-004		0.0197	0.0197		0.0184	0.0184	0.0000	38.0889	38.0889	0.0106	0.0000	38.3538
Total	0.0387	0.3936	0.2427	4.3000e-004	2.0700e-003	0.0197	0.0218	3.1000e-004	0.0184	0.0187	0.0000	38.0889	38.0889	0.0106	0.0000	38.3538

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3000e-004	5.7600e-003	7.3000e-004	2.0000e-005	3.6000e-004	2.0000e-005	3.8000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	1.6116	1.6116	1.1000e-004	0.0000	1.6142
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.6000e-004	4.9000e-003	1.0000e-005	1.2900e-003	1.0000e-005	1.3000e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.1811	1.1811	3.0000e-005	0.0000	1.1819
Total	7.9000e-004	6.2200e-003	5.6300e-003	3.0000e-005	1.6500e-003	3.0000e-005	1.6800e-003	4.4000e-004	3.0000e-005	4.7000e-004	0.0000	2.7927	2.7927	1.4000e-004	0.0000	2.7961

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2013	0.0000	0.2013	0.1095	0.0000	0.1095	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0852	0.9355	0.5377	9.8000e-004		0.0461	0.0461		0.0424	0.0424	0.0000	87.9195	87.9195	0.0278	0.0000	88.6149
Total	0.0852	0.9355	0.5377	9.8000e-004	0.2013	0.0461	0.2474	0.1095	0.0424	0.1520	0.0000	87.9195	87.9195	0.0278	0.0000	88.6149

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6000e-003	0.1186	0.0150	3.4000e-004	7.8100e-003	4.2000e-004	8.2300e-003	2.1400e-003	4.0000e-004	2.5500e-003	0.0000	33.1843	33.1843	2.1700e-003	0.0000	33.2385
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9900e-003	1.3900e-003	0.0147	4.0000e-005	4.0700e-003	3.0000e-005	4.1000e-003	1.0800e-003	2.0000e-005	1.1100e-003	0.0000	3.5432	3.5432	1.0000e-004	0.0000	3.5457
Total	4.5900e-003	0.1200	0.0297	3.8000e-004	0.0119	4.5000e-004	0.0123	3.2200e-003	4.2000e-004	3.6600e-003	0.0000	36.7275	36.7275	2.2700e-003	0.0000	36.7842

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0861	0.0000	0.0861	0.0468	0.0000	0.0468	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0852	0.9355	0.5377	9.8000e-004		0.0461	0.0461		0.0424	0.0424	0.0000	87.9194	87.9194	0.0278	0.0000	88.6148
Total	0.0852	0.9355	0.5377	9.8000e-004	0.0861	0.0461	0.1322	0.0468	0.0424	0.0893	0.0000	87.9194	87.9194	0.0278	0.0000	88.6148

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6000e-003	0.1186	0.0150	3.4000e-004	7.4600e-003	4.2000e-004	7.8800e-003	2.0600e-003	4.0000e-004	2.4600e-003	0.0000	33.1843	33.1843	2.1700e-003	0.0000	33.2385
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9900e-003	1.3900e-003	0.0147	4.0000e-005	3.8600e-003	3.0000e-005	3.8900e-003	1.0300e-003	2.0000e-005	1.0500e-003	0.0000	3.5432	3.5432	1.0000e-004	0.0000	3.5457
Total	4.5900e-003	0.1200	0.0297	3.8000e-004	0.0113	4.5000e-004	0.0118	3.0900e-003	4.2000e-004	3.5100e-003	0.0000	36.7275	36.7275	2.2700e-003	0.0000	36.7842

3.4 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0320	0.3354	0.3226	5.0000e-004		0.0181	0.0181		0.0167	0.0167	0.0000	45.0454	45.0454	0.0143	0.0000	45.4017
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0320	0.3354	0.3226	5.0000e-004		0.0181	0.0181		0.0167	0.0167	0.0000	45.0454	45.0454	0.0143	0.0000	45.4017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	9.2000e-004	9.8000e-003	3.0000e-005	2.7100e-003	2.0000e-005	2.7300e-003	7.2000e-004	2.0000e-005	7.4000e-004	0.0000	2.3621	2.3621	7.0000e-005	0.0000	2.3638
Total	1.3300e-003	9.2000e-004	9.8000e-003	3.0000e-005	2.7100e-003	2.0000e-005	2.7300e-003	7.2000e-004	2.0000e-005	7.4000e-004	0.0000	2.3621	2.3621	7.0000e-005	0.0000	2.3638

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0320	0.3354	0.3226	5.0000e-004		0.0181	0.0181		0.0167	0.0167	0.0000	45.0454	45.0454	0.0143	0.0000	45.4016
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0320	0.3354	0.3226	5.0000e-004		0.0181	0.0181		0.0167	0.0167	0.0000	45.0454	45.0454	0.0143	0.0000	45.4016

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.538064	0.038449	0.184390	0.122109	0.017402	0.005339	0.017250	0.067711	0.001365	0.001213	0.004629	0.000959	0.001120

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1030	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Unmitigated	1.1030	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2524					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8506					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Total	1.1030	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2524						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8506						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	5.0000e-005	0.0000			0.0000	0.0000		0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004
Total	1.1030	0.0000	5.0000e-005	0.0000			0.0000	0.0000		0.0000	0.0000	9.0000e-005	9.0000e-005	0.0000	0.0000	1.0000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	M1/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	M1/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Operational Emissions Calculations

Avenue 48 Roadway Segment	Total ADT	Percent Trucks	Truck ADT
Existing Conditions (2017)			
Van Buren Street to Dillon Road	11,893	3.80%	452
Dillon Road to Grapefruit Blvd./Indio Blvd.	12,205	3.80%	464
Total	24,098	--	916
Opening Year (2019)			
Van Buren Street to Dillon Road	12,272	3.80%	466
Dillon Road to Grapefruit Blvd./Indio Blvd.	12,739	3.80%	484
Total	25,011	--	950
2038 Without Project			
Van Buren Street to Dillon Road	22,780	1.90%	433
Dillon Road to Grapefruit Blvd./Indio Blvd.	35,458	5.90%	2,092
Total	58,238	--	2,525
2038 With Project			
Van Buren Street to Dillon Road	29,403	1.80%	529
Dillon Road to Grapefruit Blvd./Indio Blvd.	41,140	5.20%	2,139
Total	70,543	--	2,669

Daily VMT	2017	2019	2038 Without	2038 With
Van Buren Street to Dillon Road	3,568	3,682	6,834	8,821
Dillon Road to Grapefruit Blvd./Indio Blvd.	1,221	1,274	3,546	4,114
Total	4,788	4,956	10,380	12,935

Ave 48 Mobile Emissions (grams)	ROG	CO	NOX	CO2	PM10	PM2.5	PM10TW	PM10BW	PM2.5 TW	PM2.5 BW	SOX
Existing (2017)	271.0824905	7728.884544	2570.902722	2031124.751	23.63535316	22.40582332	52.98605767	211.9076573	13.24651442	90.81756743	24.13790568
Opening Year (2019)	237.8797352	6842.561124	2181.100163	2018809.299	19.07501151	18.02954405	54.83510333	219.3025637	13.70877583	93.98681301	24.98024217
2038 Without Project	413.5779335	8675.708563	1520.580209	3373085.502	13.23416699	12.30877824	115.545141	453.81151	28.88628524	194.4906472	37.04375314
2038 With Project	515.3846136	10811.32803	1894.887468	4203406.969	16.49190029	15.33871709	143.9878267	565.52212	35.99695668	242.3666229	46.1624735

Ave 48 Mobile Emissions (pounds)	ROG	CO	NOX	CO2	PM10	PM2.5	PM10TW	PM10BW	PM2.5 TW	PM2.5 BW	SOX
Existing (2017)	0.60	17.04	5.67	4,477.86	0.05	0.05	0.12	0.47	0.03	0.20	0.05
Opening Year (2019)	0.52	15.09	4.81	4,450.71	0.04	0.04	0.12	0.48	0.03	0.21	0.06
2038 Without Project	0.91	19.13	3.35	7,436.38	0.03	0.03	0.25	1.00	0.06	0.43	0.08
2038 With Project	1.14	23.83	4.18	9,266.93	0.04	0.03	0.32	1.25	0.08	0.53	0.10

Metric Tons	
Existing (2017)	741.36
Opening Year (2019)	736.87
2038 Without Project	1231.18
2038 With Project	1534.24

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APPENDIX B

**SPECIAL-STATUS SPECIES AND THEIR
POTENTIAL TO OCCUR WITHIN THE SURVEY AREA**

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Table B-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
SPECIAL-STATUS WILDLIFE SPECIES				
<i>Athene cunicularia</i> burrowing owl	Fed: None CA: SSC CVMSHCP: Covered	Common yearlong resident of southern California. Prefers open, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Requires fossorial burrows for roosting and nesting surrounded by relatively short vegetation and open habitat for foraging and watching for predators. Also known to occupy man-made structures including drain pipes, debris piles, and development pads.	No	Presumed Absent There is no suitable habitat or burrows (i.e., burrows >4 inches in diameter) within the survey area. Habitat within the survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for burrowing owl. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 0.5 miles west of the survey area (CNDDDB 2003).
<i>Buteo regalis</i> ferruginous hawk	Fed: None CA: WL CVMSHCP: Not Covered	Common winter resident of grasslands and agricultural areas in southwestern California. Frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of pinyon-juniper habitats. Does not breed in California.	No	Presumed Absent This species does not nest in California. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable foraging or roosting habitat for ferruginous hawks during winter. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 2.5 miles northeast of the survey area (CNDDDB 2016).
<i>Eumops perotis californicus</i> western mastiff bat	Fed: None CA: SSC CVMSHCP: Not Covered	Primarily a cliff-dwelling species, roost generally under exfoliating rock slabs. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least 3 meters below the entrance for flight. In California, it is most frequently encountered in broad open areas. Its foraging habitat includes dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas.	No	Presumed Absent The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable roosting habitat (i.e., cliffs, caves, bridges) for western mastiff bat. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 1.4 miles southeast of the survey area (CNDDDB 1939).
<i>Lasiurus xanthinus</i> western yellow bat	Fed: None CA: SSC CVMSHCP: Covered	Uncommon in California, known only in Los Angeles and San Bernardino Counties. Occurs in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Prefers to roost and feed in, and near, palm oases and riparian habitats.	No	Presumed Absent The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable roosting habitat (i.e., palm trees, riparian habitat) for western yellow bat. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 1.4 miles southeast of the survey area (CNDDDB 1981).

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Macrobaenetes valgum</i> Coachella giant sand treader cricket	Fed: None CA: None CVMSHCP: Covered	Depends on the active dunes and ephemeral sand fields at the west end of the Coachella Valley. In wind-blown environments, habitats are dominated by creosote bush (<i>Larrea tridentata</i>), burroweed (<i>Ambrosia dumosa</i>), honey mesquite (<i>Prosopis glandulosa</i>), Mormon tea (<i>Ephedra nevadensis</i>), desert willow (<i>Chilopsis linearis</i>), and sandpaper bush (<i>Petalonyx nitidus</i>).	No	Presumed Absent There are no active dunes or sand fields within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for Coachella giant sand treader cricket. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 4.4 miles west of the survey area (CNDDDB Unknown Date).
<i>Perognathus longimembris bangsi</i> Palm Springs pocket mouse	Fed: None CA: SSC CVMSHCP: Covered	Known from various vegetation communities, including creosote scrub, desert scrub, and grasslands, generally occurring on loosely packed or sandy soils with sparse to moderately dense vegetative cover. No longer occur on the valley floor from Palm Springs to the Salton Sea in areas developed for urban and agricultural land uses.	No	Presumed Absent There is no suitable habitat or areas with loose sandy soils within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for Palm Springs pocket mouse. Further, the species no longer occurs on the valley floor from Palm Springs to the Salton Sea in areas that have been developed for urban and agricultural land uses. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 4.4 miles east of the survey area (CNDDDB 2001).
<i>Phrynosoma mcallii</i> flat-tailed horned lizard	Fed: None CA: SSC CVMSHCP: Covered	Typical habitat is sandy desert hardpan or gravel flats with scattered sparse vegetation of low species diversity. Most common in areas with high density of harvester ants and fine wind-blown sand, but do not normally occur in habitats characterized as marshes and tamarisk arrowweed thickets, and agricultural and developed areas.	No	Presumed Absent There is no suitable habitat or areas with fine wind-blown sand within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments. Further, the survey area is located outside of the current distribution of flat-tailed horned lizard. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 2.7 miles north of the survey area (CNDDDB 1997).
<i>Polioptila melanura</i> black-tailed gnatcatcher	Fed: None CA: WL CVMSHCP: Not Covered	In Mojave, Great Basin, Colorado and Sonoran Desert communities, prefers nesting and foraging in densely lined arroyos and washes dominated by creosote bush and salt bush (<i>Atriplex</i> sp.) with scattered bursage (<i>Ambrosia acanthicarpa</i>), burro weed, ocotillo (<i>Fouquieria splendens</i>), saguaro (<i>Carnegiea gigantea</i>), barrel cactus (<i>Ferocactus cylindraceus</i>), prickly pear cactus (<i>Opuntia</i> sp.) and cholla (<i>Cylindropuntia acanthocarpa</i>).	No	Presumed Absent There is no suitable habitat within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable foraging or nesting habitat for black-tailed gnatcatcher. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 1.4 miles southeast of the survey area (CNDDDB 1934).

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Pyrocephalus rubinus</i> vermillion flycatcher	Fed: None CA: SSC CVMSHCP: Not Covered	Occurs in a variety of open habitats including open woodland, clearings, desert scrub, savannah, agricultural land, golf courses, and recreational parks. The species tends to stay near water, often occurring in riparian vegetation characterized by cottonwoods (<i>Populus fremontii</i>), mesquite (<i>Prosopis</i> spp.), willows (<i>Salix</i> sp.), and sycamores (<i>Platanus</i> spp.).	No	Presumed Absent There is no suitable habitat within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable woodland/riparian habitat for vermillion flycatcher. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 5.0 miles southeast of the survey area (CNDDDB 1948).
<i>Taxidea taxus</i> American badger	Fed: None CA: SSC CVMSHCP: Not Covered	Occupies a wide variety of habitats including dry, open grassland, sagebrush, and woodland habitats. Require dry, friable, often sandy soil to dig burrows for cover, food storage, and giving birth.	No	Presumed Absent There is no suitable habitat within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for American badger. In addition, no American badgers, sign, or potential burrows were observed within the survey area during the field survey. In addition, the species was not observed during the field survey. There have been no specific locations for this species recorded by the CNDDDB.
<i>Toxostoma crissale</i> Crissal thrasher	Fed: None CA: SSC CVMSHCP: Covered	Common yearlong resident in southern California. Occupies arid habitats including desert washes, riparian brush, and mesquite thickets at lower elevations and dense scrub in arroyos at higher elevations. Occurs in areas dominated by mesquite hummocks and thickets with acacias (<i>Acacia</i> sp.), arrowweed (<i>Pulchea sericea</i>), and in desert saltbush scrub.	No	Presumed Absent There is no desert saltbush scrub, arrowweed scrub, riparian brush, or mesquite thicket habitat within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable foraging or nesting habitat for Crissal thrasher. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 1.4 miles southeast of the survey area (CNDDDB 1941).
<i>Toxostoma lecontei</i> Le Conte's thrasher	Fed: None CA: SSC CVMSHCP: Covered	Common yearlong resident in southern California. Typically occurs in habitats consisting of sparsely vegetated desert flats, dunes, alluvial fans, or gently rolling hills having a high proportion of one or more species of saltbush and/or cholla. The ground is generally bare or with sparse patches of grasses and annuals forming low ground cover. Prefers thick, dense, and thorny shrubs or cholla for nesting.	No	Presumed Absent There are no dunes or alluvial fans with dense thorny shrubs within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable foraging or nesting habitat for Le Conte's thrasher. In addition, the species was not observed during the field survey. There have been no specific locations for this species recorded by the CNDDDB.

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Uma inornata</i> Coachella Valley fringe-toed lizard	Fed: THR CA: END CVMSHCP: Covered	Sparsely-vegetated arid areas with fine wind-blown sand, including dunes, washes, alkali scrub, and flats with sandy hummocks formed around the bases of vegetation. Requires fine, loose, wind-blown sand for burrowing.	No	Presumed Absent There is no dune habitat or areas with fine wind-blown sand within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for Coachella Valley fringe-toed lizard. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 1.0 miles west of the survey area (CNDDDB 1975).
<i>Xerospermophilus tereticaudus chlorus</i> Palm Springs round-tailed ground squirrel	Fed: None CA: None CVMSHCP: Covered	Prefers open, flat, grassy areas in fine-textured, sandy soil. Habitats include mesquite- and creosote-dominated sand dunes, creosote bush scrub, creosote-palo verde, and saltbush/alkali scrub. Substrates include wind-blown sand, coarse sand, and packed silt with desert pavement.	No	Presumed Absent There no areas with fine-textured sandy soils, creosote bush scrub, saltbush scrub, or sand dune habitat within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for Palm Springs round-tailed ground squirrel. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 1.4 miles southeast of the survey area (CNDDDB 1938).
SPECIAL-STATUS PLANT SPECIES				
<i>Abronia villosa var. aurita</i> chaparral sand-verbena	Fed: None CA: None CNPS: 1B.1 CVMSHCP: Not Covered	Habitats include chaparral, coastal scrub, and desert dunes. Found at elevations ranging from 246 to 5,250 feet above mean sea level (msl). Blooming period is from January to September.	No	Presumed Absent There is no suitable chaparral, coastal scrub, or desert dune habitat within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for chaparral sand-verbena. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 3.7 miles northwest of the survey area (CNPS 1949).
<i>Astragalus lentiginosus var. coachellae</i> Coachella Valley milk-vetch	Fed: END CA: None CNPS: 1B.2 CVMSHCP: Covered	Occurs in dunes and sandy flats along disturbed margins of sandy washes and in sandy soils along roadsides adjacent to existing sand dunes. May also occur in sandy substrates in creosote bush scrub. Found at elevations ranging from 130 to 2,150 feet above msl. Blooming period is February to May.	No	Presumed Absent There are no dunes, sandy flats, or washes within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for Coachella Valley milk-vetch. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 2.6 miles northwest of the survey area (CNPS 1926).

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Astragalus preussii</i> var. <i>laxiflorus</i> Lancaster milk-vetch	Fed: None CA: None CNPS: 1B.1 CVMSHCP: Not Covered	Occurs on alkaline clay in flat, gravelly or sandy washes in chenopod scrub. Found at elevations ranging from 0 to 2,300 feet above msl. Blooming period is from March to May.	No	Presumed Absent There are no gravelly or sandy washes within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for Lancaster milk-vetch. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 5.9 miles southwest of the survey area (CNPS 1928).
<i>Astragalus sabulorum</i> gravel milk-vetch	Fed: None CA: None CNPS: 2B.2 CVMSHCP: Not Covered	Associated with sandy, sometimes gravelly flats, washes, and roadsides. Habitats include desert dunes, Mojavean desert scrub, and Sonoran desert scrub. Found at elevations ranging from -200 to 3,050 feet above msl. Blooming period is from February to July.	No	Presumed Absent There is no dune, desert scrub, or wash habitat within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for gravel milk-vetch. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 1.6 miles southeast of the survey area (CNPS 1937).
<i>Cryptantha costata</i> ribbed cryptantha	Fed: None CA: None CNPS: 4.3 CVMSHCP: Not Covered	Occurs on sandy soils in desert dunes, Mojavean desert scrub, and Sonoran desert scrub. Found at elevations ranging from -200 to 1,640 feet above msl. Blooming period is from February to May.	No	Presumed Absent There is no sandy soil, dune, or desert scrub habitat within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for ribbed cryptantha. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 1.6 miles north of the survey area (CNPS 1995).
<i>Ditaxis claryana</i> glandular ditaxis	Fed: None CA: None CNPS: 2B.2 CVMSHCP: Not Covered	Occurs on sandy habitats in Mojavean desert scrub and Sonoran desert scrub. Found at elevations ranging from 0 to 1,525 feet above msl. Blooming period is from October to March.	No	Presumed Absent There is no sandy soil or desert scrub habitat within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for glandular ditaxis. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 1.7 miles northwest of the survey area (CNPS 1906).
<i>Eschscholzia androuxii</i> Joshua Tree poppy	Fed: None CA: None CNPS: 4.3 CVMSHCP: Not Covered	Occurs on sandy, gravelly, and/or rocky desert washes, flats, and slopes in Joshua tree woodland and Mojavean desert scrub. Found at elevations ranging from 1,900 to 5,530 feet above msl. Blooming period is February to June.	No	Presumed Absent There is no Joshua tree woodland or desert scrub habitat within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for Joshua tree poppy. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 11.7 miles northwest of the survey area (CNPS 1926).

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Mentzelia tridentata</i> creamy blazing star	Fed: None CA: None CNPS: 1B.3 CVMSHCP: Not Covered	Occurs on rocky, gravelly, and sandy soils within Mojavean desert scrub. Found at elevations ranging from 2,300 to 3,850 feet above msl. Blooming period is from March to May.	No	Presumed Absent There is no desert scrub habitat within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for creamy blazing star. In addition, the species was not observed during the field survey. There have been no specific locations for this species recorded by the CNDDB or CNPS.
<i>Xylorhiza cognata</i> Mecca-aster	Fed: None CA: None CNPS: 1B.2 CVMSHCP: Covered	Occurs in Sonoran desert scrub within the Indio Hills and Mecca Hills. Found at elevations ranging from 65 to 1,310 feet above msl. Blooming period is from January to June.	No	Presumed Absent There is no desert scrub habitat within the survey area. The survey area is generally disturbed or comprised of existing roadways and developments and does not provide suitable habitat for Mecca-aster. In addition, the species was not observed during the field survey. The nearest recorded occurrence is approximately 4.6 miles east of the survey area (CNPS 2006).

U.S. Fish and Wildlife Service (Fed) - Federal
END - Federally Endangered
THR - Federally Threatened

California Department of Fish and Wildlife (CA) - California
END - State Endangered
SSC - Species of Special Concern
WL - Watch List

California Native Plant Society (CNPS)
California Rare Plant Rank
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
4 Plants of Limited Distribution – A Watch List

Threat Ranks
0.1 - Seriously threatened in California
0.2 - Moderately threatened in California
0.3 - Not very threatened in California

APPENDIX C
RESULTS OF CULTURAL RESOURCES RECORDS SEARCH

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Table C-1 Previous Cultural Studies Within One-Mile Radius Of The Project Area

EIC DOCUME NT #	DATE	AUTHOR(S)	TITLE
RI-00675	1979	Joan Oxendine	Archaeology Phase I Survey Report: Proposed Widening and Signalization at the Intersections of Highway 86, Highway 111 and Avenue 48, PM 21.5, 11209-910053-56111; Highway 111 and Avenue 50, Including the Strip along Avenue 50 Between Highway 111 and Avenue 52, PM 27.0, 11209-910065-56111, in Riverside County.
RI-01101	1980	Stanley Berryman	Results of an Archaeological Survey of the Indian Palms Country Club, Indio, California.
RI-01102	1998	Bruce Love	Cultural Resources Report: Indian Palms Country Club, City of Indio, Riverside County, California
RI-01319	1998	Paul G. Chace	An Archaeological Resources Survey for the Valley Sanitary District Wetlands project, City of Indio, Riverside County.
RI-01493	1982	Napton, Kyle L. and E.A. Greathouse	Cultural Resource Inventory on the Twenty-Nine Palms Indian Reservation, Riverside County, California.
RI-01494	1993	Rosenthal, Jane and Patricia R. Jertberg	Archaeological Assessment of the Twenty-Nine Palms Band of Mission Indians Casino Development, Indio, Riverside County, California.
RI-01975	1985	Breece, William H. and Laurel A. Harrison	The Results of a Cultural Resources Survey in Coachella, California.
RI-02210	1986	Underwood, J., J. Cleland, C.M. Wood, and R. Apple	Preliminary Cultural Resources Survey Report for the US Telecom Fiber Optic Cable project, From San Timoteo Canyon to Socorro, Texas: the California Segment.
RI-03471	1991	Macko, Michael	Archaeological Resource Assessment of the Proposed Indian Village Residential Development, Cabazon Indian Reservation, Riverside County, California.
RI-04291	2000	Dieller, John, Andrew R. Pignolo, and Michael Baksh	An Archaeological Survey of Three Signboard Locations Along Dillon Road, Cabazon Indian Reservation, Riverside County, California.
RI-04432	2001	Love, Bruce and Bai "Tom" Tang	Historical / Archaeological Resources Survey Report: Astor Ranch Property, City of Indio, Riverside County, California.
RI-04492	2001	White, Robert S. and Laura S. White	A Cultural Resources Assessment of an 8.06 Acre Parcel as Shown on TPM 30012, Located Northeast of the Intersection of Calhoun Street and Date Avenue in the City of Indio, Riverside County.
RI-04552	2002	Brock, James	Phase I Cultural Resources Assessment for a 116-Acre Property in the City of Coachella, Riverside County, California (APN 612-220-002, 612-220-004, 612-240--1, 612-240-002, 612-240-003, and 612-240-004).
RI-04556	2002	Brock, James	Phase I Cultural Resources Assessment for Tentative Tract Map No. 30582, City of Coachella, Riverside County, California (APN 612-220-003).
RI-04557	2002	Brock, James	Phase II Archaeological Investigations of Sites CA-RIV-6797 and CA-RIV-6798, Tentative Tract No. 30684, City of Coachella, Riverside County, California.
RI-04558	2002	Brock, James	Phase I Cultural Resources Assessment for Tentative Tract No. 30728, City of Coachella, Riverside County, California.
RI-04560	2002	Brock, James	Phase I Cultural Resources Assessment for Tentative Tract Map No. 30830, City of Coachella, Riverside County, California.
RI-04561	2002	Brock, James	Phase I Cultural Resources Assessment for Tentative Tract Map No. 30829, City of Coachella, Riverside County, California.
RI-04562	2002	Brock, James	Phase I Cultural Resources Assessment for Tentative Tract Map No. 30910, City of Coachella, Riverside County, California.
RI-04577*	2002	Brock, James	Phase I Cultural Resources Assessment for Tentative Tract Map No. 30498, City of Coachella, Riverside County, California (APNs 603-220-022, -024, -

Table C-1 Previous Cultural Studies Within One-Mile Radius Of The Project Area

EIC DOCUME NT #	DATE	AUTHOR(S)	TITLE
			025, -026, and -027).
RI-04668	2003	Brock, James	Phase I Cultural Resources Assessment for Tentative Tract 30354-1, City of Coachella, Riverside County, California.
RI-04669	2003	Brock, James	Phase I Cultural Resources Assessment for a 60-Acre Property in the Cities of Coachella and Indio, Riverside County, California (Tentative Tract 31433 Indio).
RI-04740	2004	Tetra Tech, Inc.	An Archaeological Resources Survey of Approximately 80 Acres for the Coachella 293 project, City of Coachella, County of Riverside, California.
RI-04771	2004	Brock, James and Mary Anne Eason	Report on Archaeological Monitoring of Rough Grading for Tract 30935, City of Indio, Riverside County, California.
RI-04817	2004	Demcak, Carol R.	Report of Archaeological and Paleontological Monitoring at Tract 30684, Coachella, Riverside County, California.
RI-04819	2003	Demcak, Carol R.	Report of Phase I (Survey Level) Archaeological Assessment for 7-Acre Parcel in City of Indio, Riverside County, California.
RI-04823	2004	Demcak, Carol R.	Report of Phase I Archaeological Assessment for Two Parcels (APNs 612-270-002, -003, and -004), Avenue 49 at Calhoun Street, Coachella, California.
RI-04825	2003	Demcak, Carol R.	Report of Phase II (Test Level) Archaeological Investigations at TTM 30910, City of Coachella, Riverside County, California.
RI-04826	2003	Demcak, Carol R.	Report of Extended Phase II (Test Level) Archaeological Investigations at TTM 30910, City of Coachella, Riverside County, California.
RI-04827	2003	Demcak, Carol R.	Final Report of Extended Phase II (Test Level) Archaeological Investigations at TTM 30910, City of Coachella, Riverside County, California.
RI-04828*	2003	Demcak, Carol R., Stephen Van Wormer, and Milos Velchovsky	Report of Archaeological and Paleontological Monitoring at TTM 30498, City of Coachella, Riverside County, California.
RI-04829*	2004	Demcak, Carol R.	Report of Archaeological and Paleontological Monitoring at Tract 30498-2, "Rancho Las Flores", Coachella, Riverside County, California.
RI-04830*	2004	Demcak, Carol R.	Report of Archaeological and Paleontological Monitoring at Tract 30498-3, "Rancho Las Flores", Coachella, Riverside County, California.
RI-05125	2004	John D. Goodman II and Leslie J. Mouriquand	Phase I Cultural Resources Investigation for the 450-Acre Shadow View Country Club project, City of Coachella, Riverside County, California.
RI-05131	2003	The Keith Companies	Phase I Cultural Resources Investigation of 19.74 Acres Located Between Van Buren Street and the Southern Pacific Railroad, City of Indio, Riverside County, California.
RI-05452*	2005	Goodwin, Riordan	Historic Property Survey Report (The Dillon Road Grade Separation project, City of Coachella, Riverside County, CA).
RI-05606	2003	White, Robert S. and Laura S. White	A Cultural Resources Assessment of a +/-17 Acre Parcel. Located Southeast of the Intersection of Jackson Street and Avenue 48, City of Coachella, Riverside County.
RI-05740	2003	Quinn, Harry M. and Mariam Dahdul	Historical/Archaeological Resources Survey Report, Tentative Tract No. 31074, City of Indio, Riverside County, California.
RI-05741	2003	Tang, Bai, Michael Hogan, Josh Smallwood, and Daniel Ballester	Historical/Archaeological Resources Survey Report, Tentative Tract Map No. 31389, in the City of Indio, Riverside County, California.
RI-06014	2003	Hogan, Michael	Letter Report: Archaeological Monitoring of Earth-Moving Activities, Tentative Tract Map No. 30728, City of Coachella, Riverside County, CA.

Table C-1 Previous Cultural Studies Within One-Mile Radius Of The Project Area

EIC DOCUME NT #	DATE	AUTHOR(S)	TITLE
RI-06303	2004	Tang, Bai and Casey Tibbet	The "Patton House": Northwest Corner of Avenue 48 and Jackson Street, City of Indio, Riverside County, California.
RI-06527	2005	Hogan, Michael, Bai Tang, Ayse Taskiran-Johnson, Harry Quinn, Daniel Ballester, and Josh Smallwood	Final Cultural Resources Report, Archaeological Investigations at Villa Montego II, Tract No. 31385, City of Indio, Riverside County, CA.
RI-06533	2006	Tang, Bai and Michael Hogan	Historical/Archaeological Resources Survey Report, Tentative Parcel Map No. 34368, City of Coachella, Riverside County, California.
RI-07522	2006	Sanka, Jennifer	Phase I Cultural Resources Assessment Van Buren Street project Coachella, Riverside County, California.
RI-08345	2010	Terri Jacquemain and Daniel Ballester	Historical / Archaeological Resources Study Report: Fred Young Farm Labor Center, City of Indio, Riverside County, California.
RI-08540	2010	Bai "Tom" Tang and Michael Hogan	Identification and Evaluation of Historic Properties Indio Water Authority Wastewater Treatment project Cities of Indio and La Quinta Riverside County, California.
RI-08690	2011	Wayne H. Bonner and Sarah A. Williams	Letter Report: Cultural Resources Search and Site Visit Results for T-Mobile USA Candidates IE24183-B.
RI-08977	2011	Matthew M. DeCarlo and William T. Eckhardt	Cultural Resources Inventory of Three Construction Yards and the Desert Center DC-2 Yard Distribution Alignment of the Southern California Edison (SCE) Devers-Palo Verde 2 (DPV2) project, Riverside County, California.
RI-09273	2010	Pamela Daly, M.S.H.P.	Evaluation of buildings owned by Coachella Valley Rescue Mission.
RI-09563	2015	Tiffany Clark	Cultural Resource Monitoring Report for the Las Plumas West project, City of Indio, Riverside County, California.
RI-09622	2012	Melinda Horne, Molly Valasik, and Sherri Gust	82266 Avenue 50 Cultural Resources Assessment City of Coachella, Riverside County, California.
*Indicates studies that include portions or all of the project area.			

Source: Applied EarthWorks, Inc. 2018.

Table C-2 Cultural Resources Within one-mile radius of the project Area

PRIMARY	TRINOMIAL	AGE	TYPE	DESCRIPTION
33-000149	CA-RIV-149	Prehistoric	Site	Village Site
33-002984	CA-RIV-2984	Prehistoric	Site	Ceramic scatter with faunal and charcoal
33-002985	CA-RIV-2985	Prehistoric	Site	Ceramic and lithic scatter
33-002986	CA-RIV-2986	Prehistoric	Site	Ceramic and lithic scatter
33-002987	CA-RIV-2987	Prehistoric	Site	Ceramic and lithic scatter
33-004129	CA-RIV-4129	Multicomponent	Site	Ceramic and lithic scatter with historical refuse
33-004130	CA-RIV-4130	Prehistoric	Site	Ceramic and lithic scatter
33-004131	CA-RIV-4131/H	Multicomponent	Site	Ceramic and lithic scatter, habitation site, historical refuse
33-005325	CA-RIV-5325H	Historic	Site	Refuse scatter
33-008302		Built Environment	Building	Wittier Ranch/Astor Ranch
33-008410		Built Environment	Structure	Dillon Road / Highway
33-009498	CA-RIV-6381H	Built Environment	Structure	Southern Pacific Railroad/Union Pacific Railroad
33-011393		Prehistoric	Isolate	Groundstone, discoidal
33-011410	CA-RIV-006797	Prehistoric	Site	Ceramic and lithic scatter
33-011411	CA-RIV-006798	Prehistoric	Site	Ceramic scatter
33-011412	CA-RIV-006799H	Historic	Site	Refuse scatter
33-011585		Prehistoric	Isolate	Bifacial mano
33-012294	CA-RIV-007017	Prehistoric	Site	Ceramic and lithic scatter
33-012379	CA-RIV-007031	Multicomponent	Site	Ceramic and lithic scatter with historical refuse
33-012510		Prehistoric	Isolate	Ceramic sherd
33-012667		Prehistoric	Isolate	Ceramic sherd
33-012668		Prehistoric	Isolate	Ceramic sherd
33-012669		Prehistoric	Isolate	Ceramic sherd
33-012670		Prehistoric	Isolate	Ceramic sherd
33-012806		Historic	Structure	Concrete slab foundation
33-012808		Prehistoric	Isolate	Single wonderstone flake
33-013094		Prehistoric	Isolate	Mano fragment
33-013095		Prehistoric	Isolate	Fire affected rock
33-013402		Prehistoric	Isolate	Milling slab
33-013403		Prehistoric	Isolate	Ceramic sherd
33-013405	CA-RIV-7450/H	Multicomponent	Site	Ceramic and lithic scatter with historical refuse
33-013406	CA-RIV-7451	Prehistoric	Site	Ceramic scatter
33-013407	CA-RIV-7452	Prehistoric	Site	Ceramic sherd
33-014901	CA-RIV-007932	Historic	Site	Refuse scatters and well
33-014902		Prehistoric	Isolate	Quartzite mano
33-015674	CA-RIV-008167	Historic	Site	Remains of orange grove and irrigation system

Table C-2 Cultural Resources Within one-mile radius of the project Area

PRIMARY	TRINOMIAL	AGE	TYPE	DESCRIPTION
33-017134		Historic	Site	Foundation
33-017259		Built Environment	Structure	Whitewater Channel
33-017629	CA-RIV-9132	Prehistoric	Site	Possible habitation site
33-017933		Built Environment	Building	Fred Young Farm Labor Center, single story duplexes
33-024165		Built Environment	Building	Coachella Valley Rescue Mission
33-024166		Built Environment	Building	Coachella Valley Rescue Mission - Women's Dormitory
33-024167		Built Environment	Building	84169 Highway 111, two one-story commercial buildings
33-024920	CA-RIV-012350	Multicomponent	Site	Ceramic scatter with glass scatter
33-024921		Prehistoric	Isolate	Ceramic sherd
33-024922	CA-RIV-012351	Historic	Site	Refuse scatter
33-024923	CA-RIV-12352	Prehistoric	Site	Ceramic scatter
33-024924		Prehistoric	Isolate	Ceramic sherd
33-024925	CA-RIV-012353	Prehistoric	Site	Ceramic scatter
33-024928		Prehistoric	Site	Ceramic scatter
33-024929	CA-RIV-12354	Prehistoric	Site	Ceramic scatter
33-026439		Built Environment	Building	83793 Doctor Carreon Boulevard, public utility building
*Indicates resources located within the project area.				

Source: Applied EarthWorks, Inc. 2018.

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APPENDIX D
NOISE DATA

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Site Number: 1			
Recorded By: Ryan Richards			
Job Number: 161097			
Date: 8/30/2017			
Time: 9:56 AM			
Location: 83880 Avenue 48., Indio, CA 92201			
Source of Peak Noise: Traffic			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
65.5	50.6	83.8	98.2

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	3011133	3/27/2017	
	Microphone	Brüel & Kjær	4189	3086765	3/27/2017	
	Preamp	Brüel & Kjær	ZC 0032	25380	3/27/2017	
	Calibrator	Brüel & Kjær	4231	2545667	3/27/2017	
Weather Data						
Est.	Duration: 10 minutes			Sky: Sunny		
	Note: dBA Offset = 0.01			Sensor Height (ft): 5 ft		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (inches)	
	<5		102.3		29.71	

Photo of Measurement Location



2250

Instrument:		2250
Application:		BZ7225 Version 4.7.2
Start Time:		08/30/2017 09:56:42
End Time:		08/30/2017 10:06:42
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.02

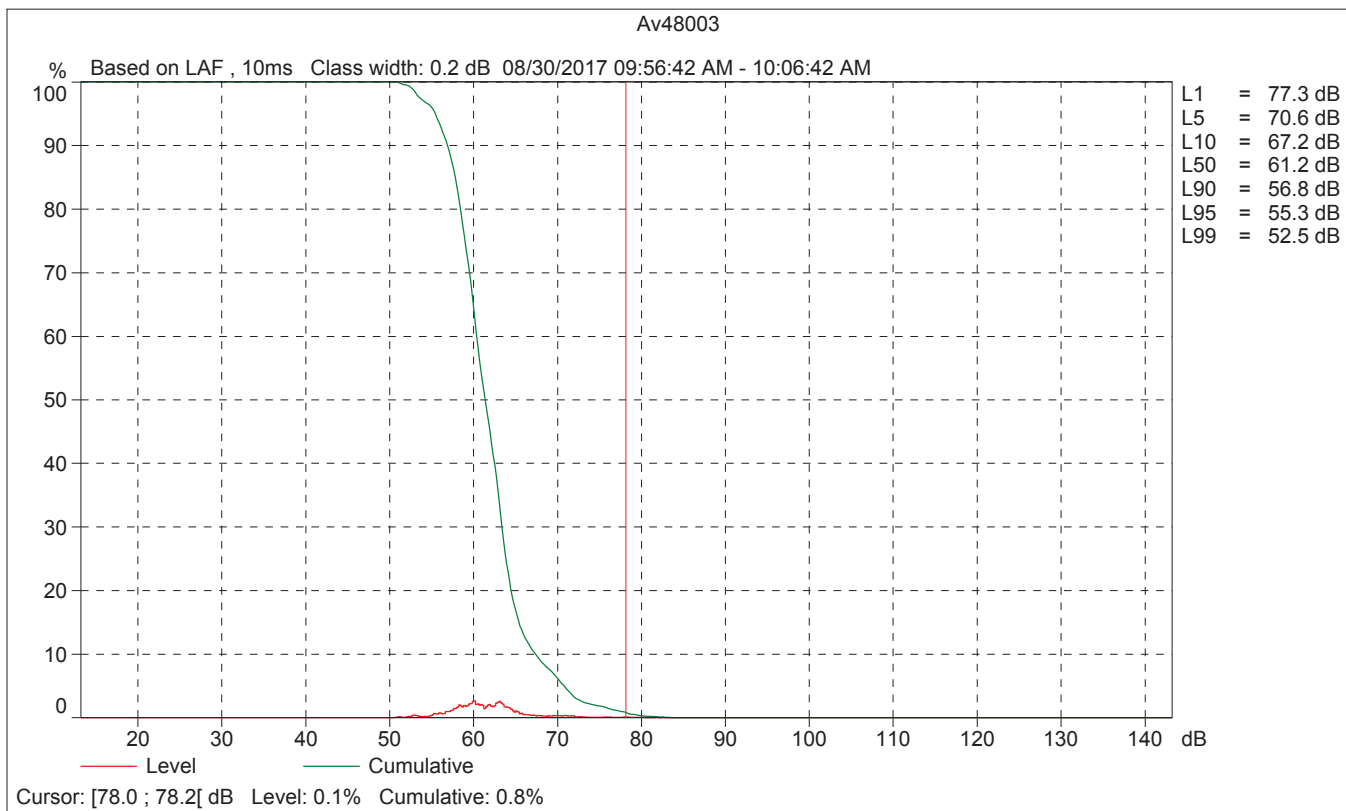
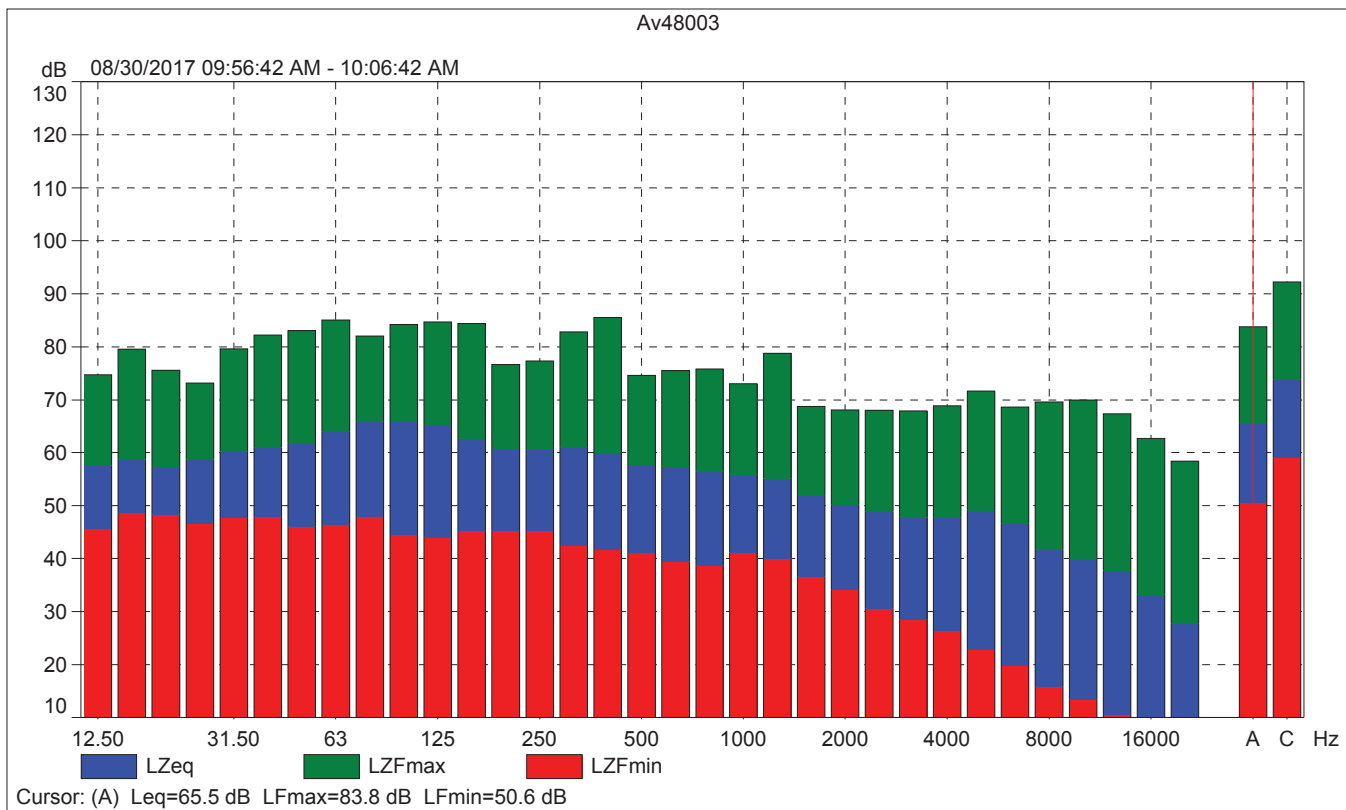
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Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

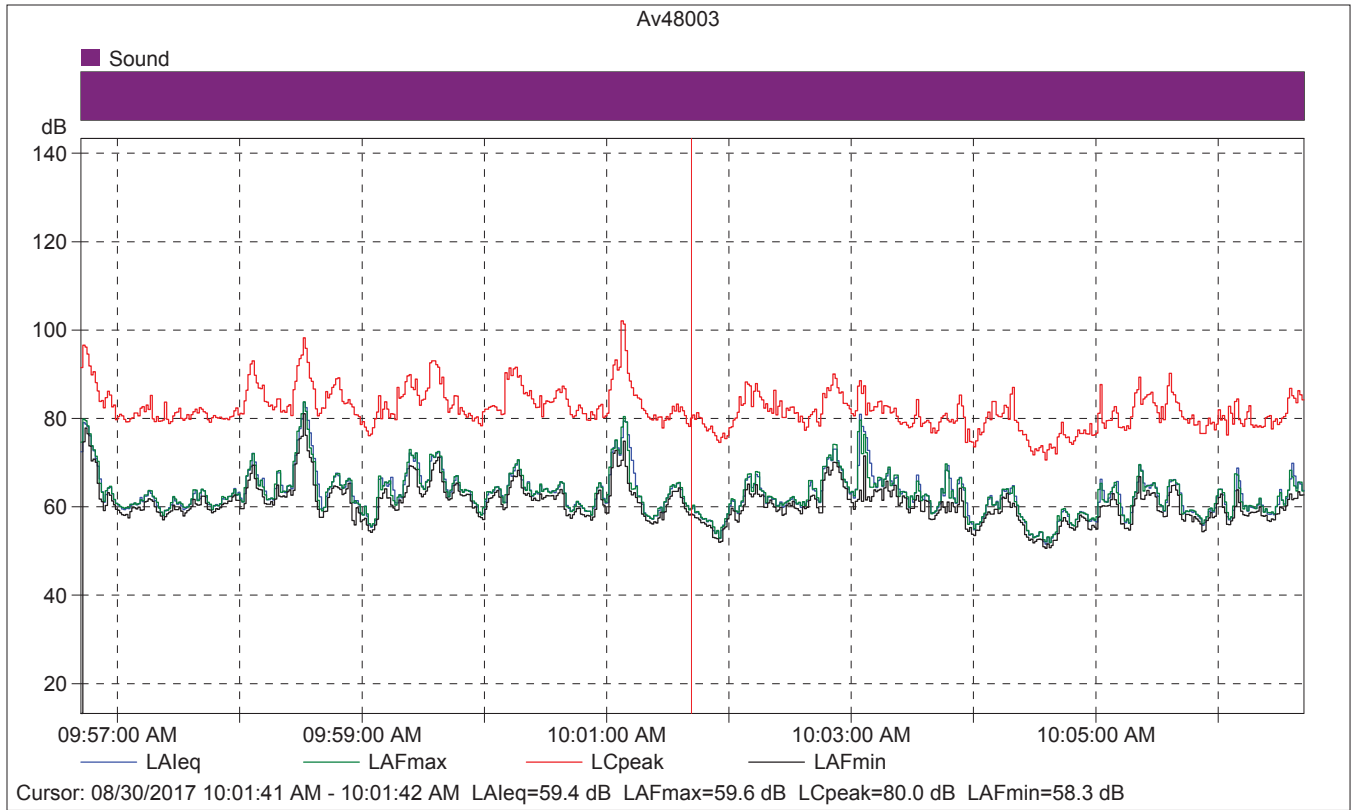
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

Calibration Time:		08/29/2017 14:37:13
Calibration Type:		External reference
Sensitivity:		44.1153794527054 mV/Pa

Av48003

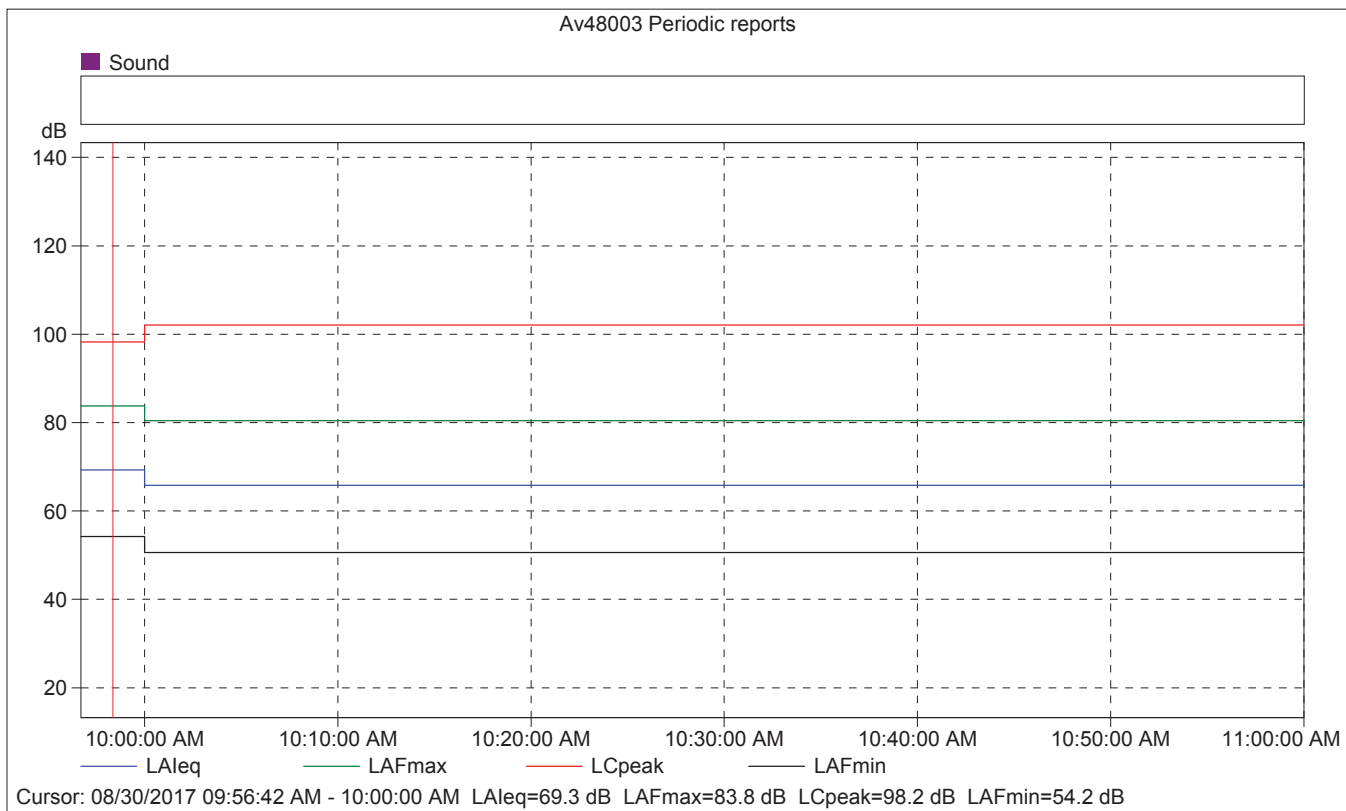
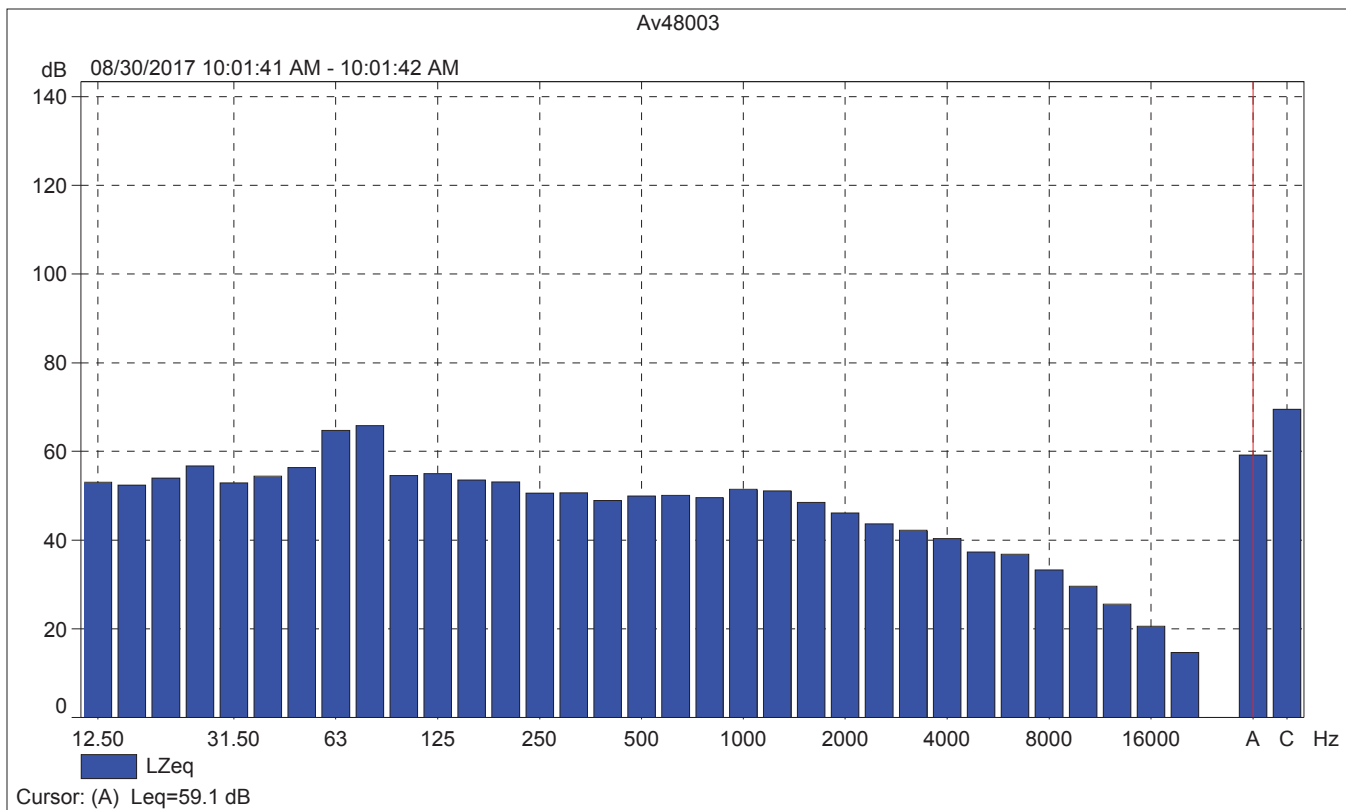
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Date	08/30/2017	08/30/2017					





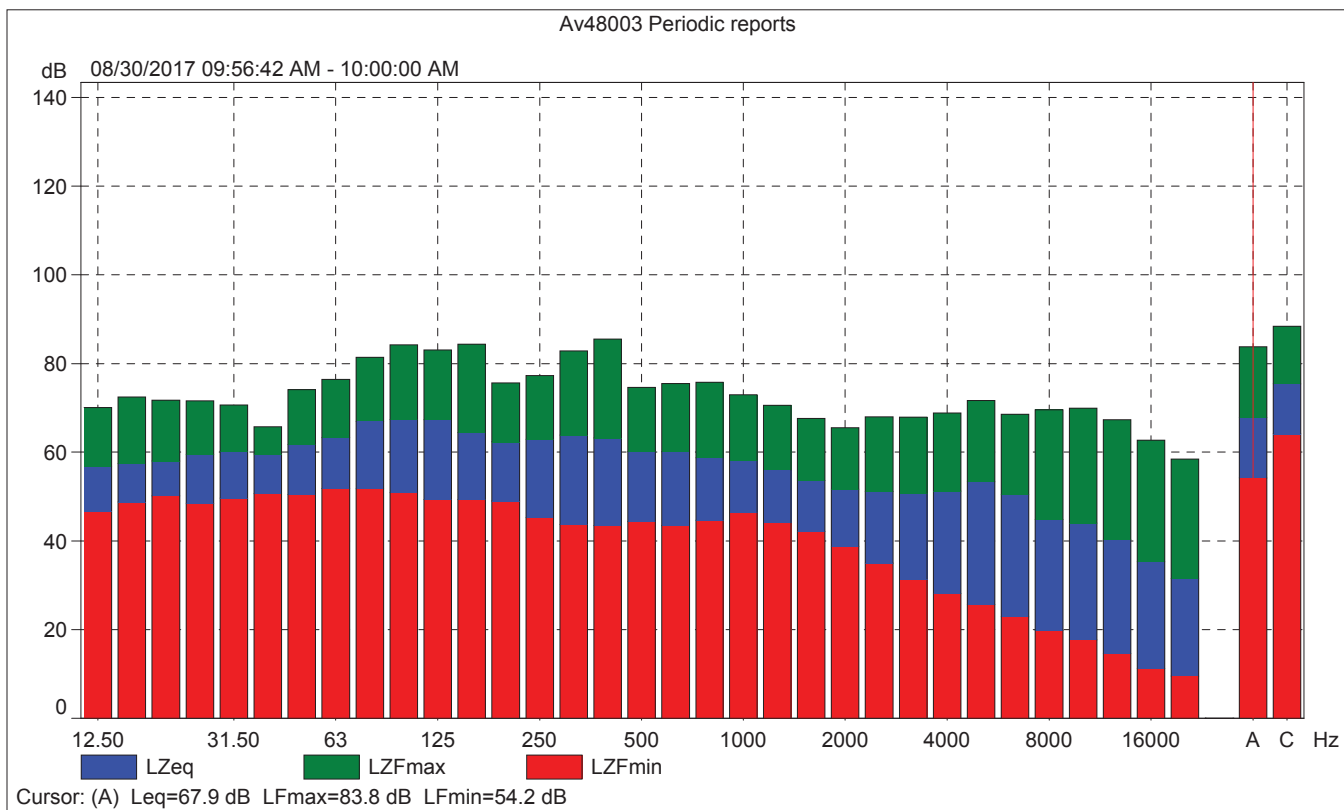
Av48003

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Date	08/30/2017				

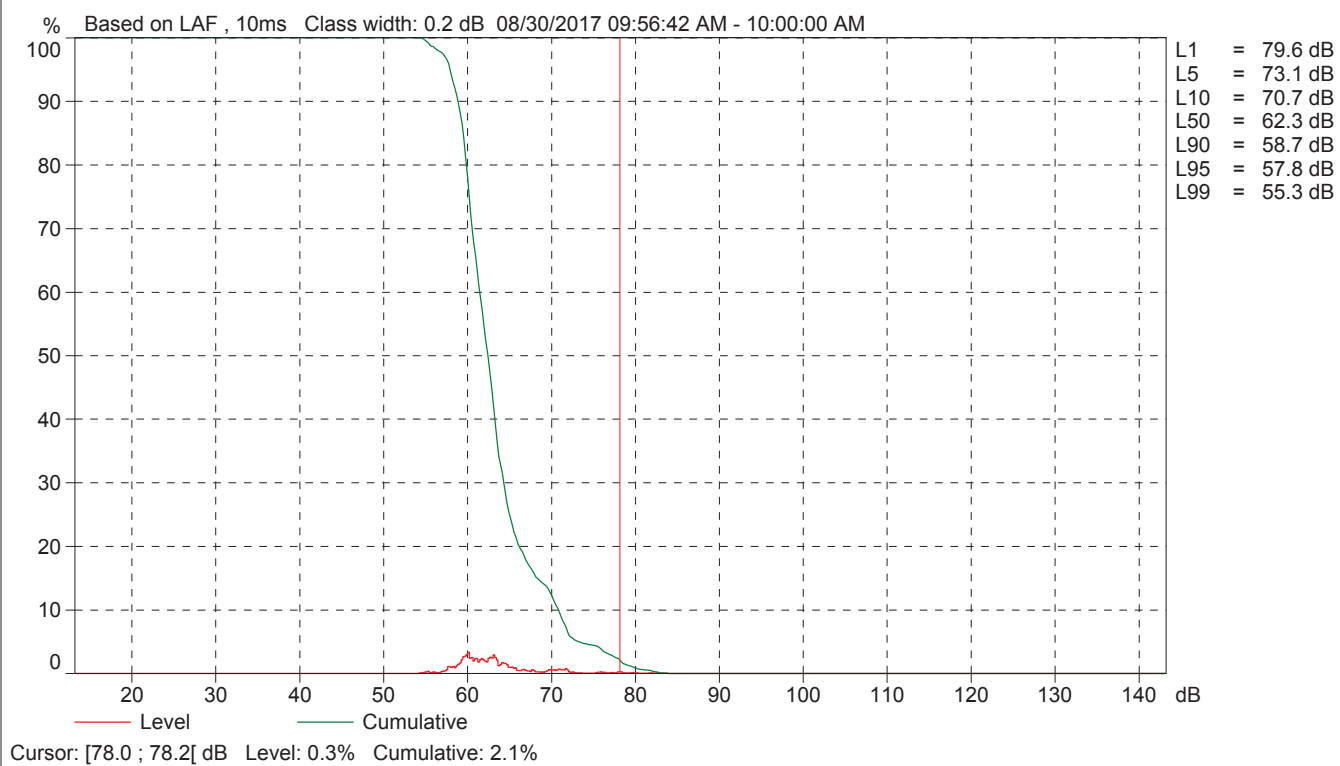


Av48003 Periodic reports

	Start time	Elapsed time	Overload [%]	LAFeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	69.3	83.8	54.2
Time	09:56:42 AM	0:03:18				
Date	08/30/2017					



Av48003 Periodic reports



Site Number: 2			
Recorded By: Ryan Richards			
Job Number: 161097			
Date: 8/30/2017			
Time: 9:39 AM			
Location: 84056 Avenue 48, Indio, CA			
Source of Peak Noise: Traffic			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
69.1	50.1	86.2	104.0

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	3011133	3/27/2017	
	Microphone	Brüel & Kjær	4189	3086765	3/27/2017	
	Preamp	Brüel & Kjær	ZC 0032	25380	3/27/2017	
	Calibrator	Brüel & Kjær	4231	2545667	3/27/2017	
Weather Data						
Est.	Duration: 10 minutes			Sky: Sunny		
	Note: dBA Offset = 0.01			Sensor Height (ft): 5 ft		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (inches)	
	<5		99.3		29.71	

Photo of Measurement Location



2250

Instrument:		2250
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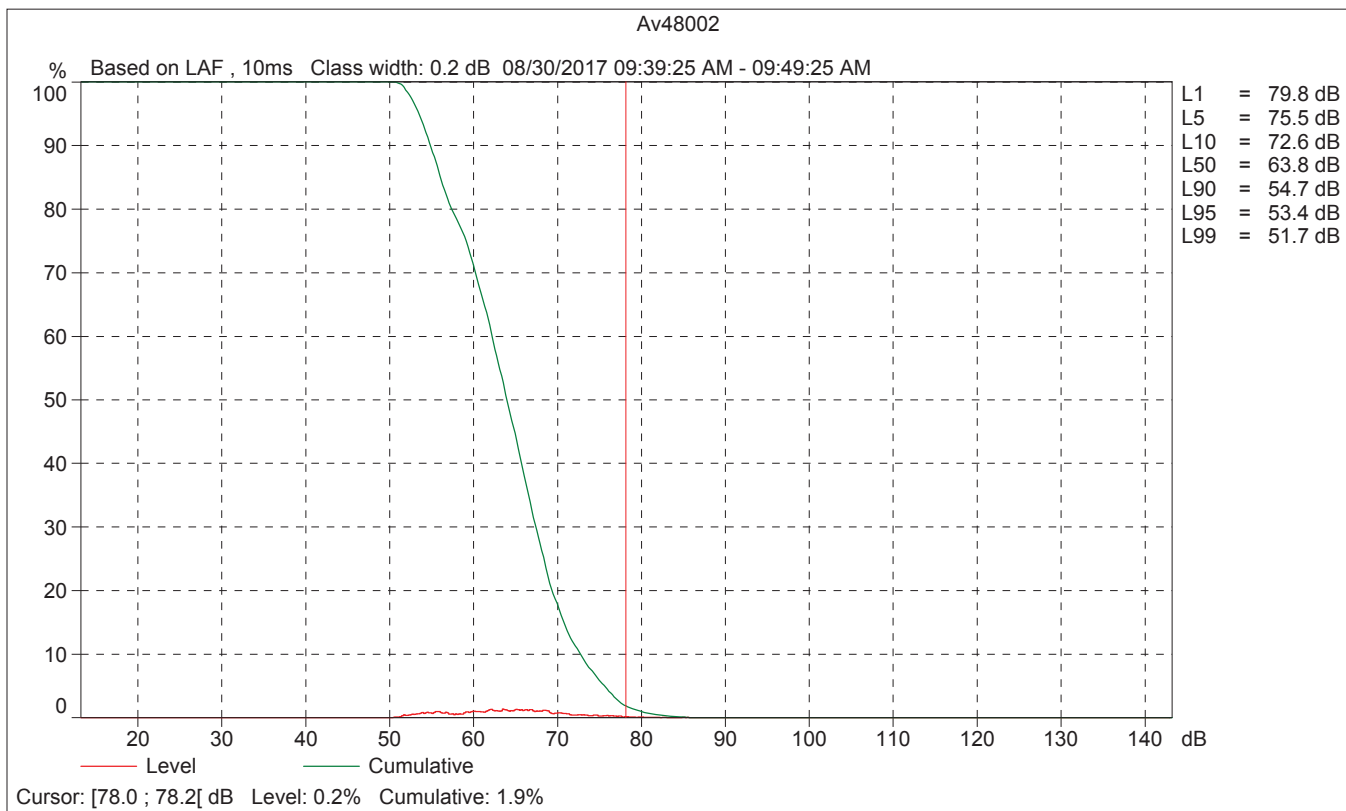
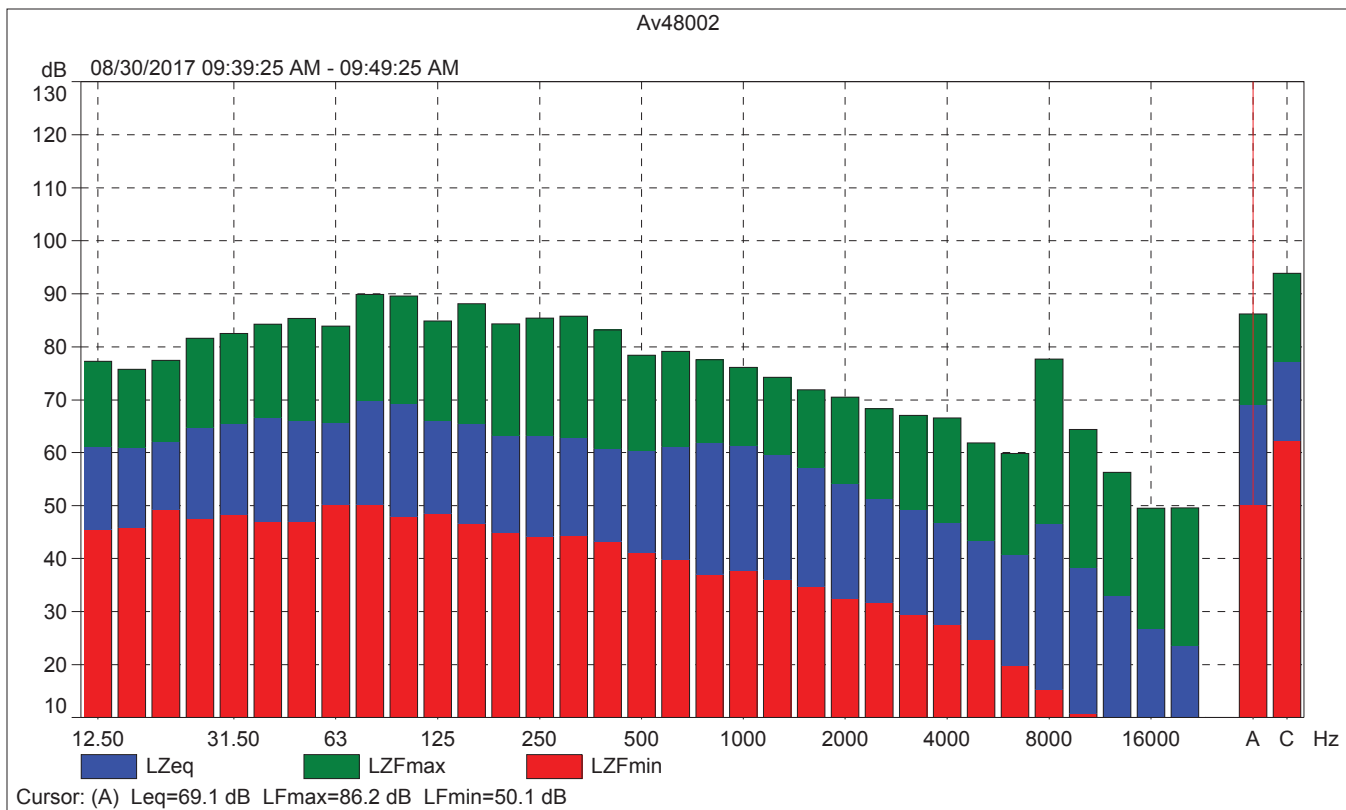
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Spectrum:	FS	Z

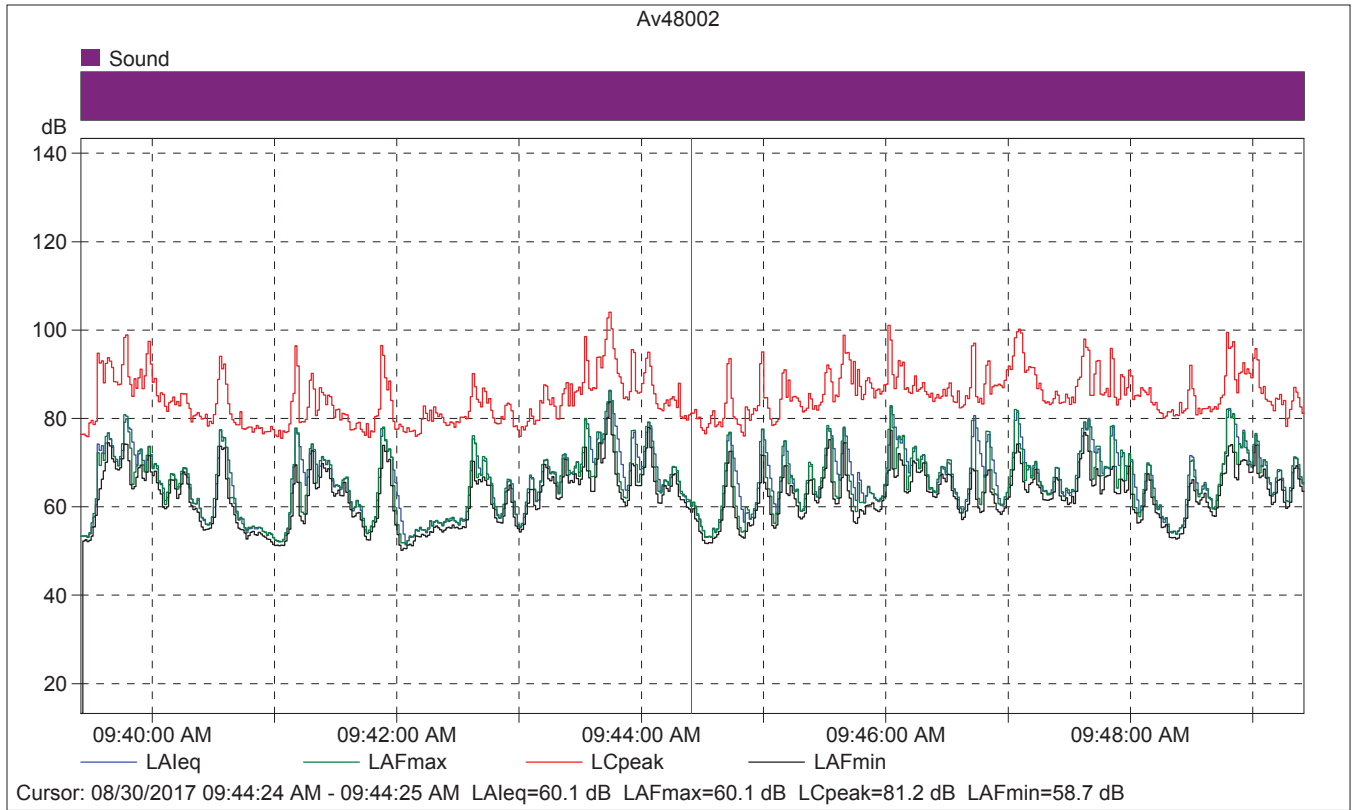
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Microphone Serial Number:		3086765
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Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

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Av48002

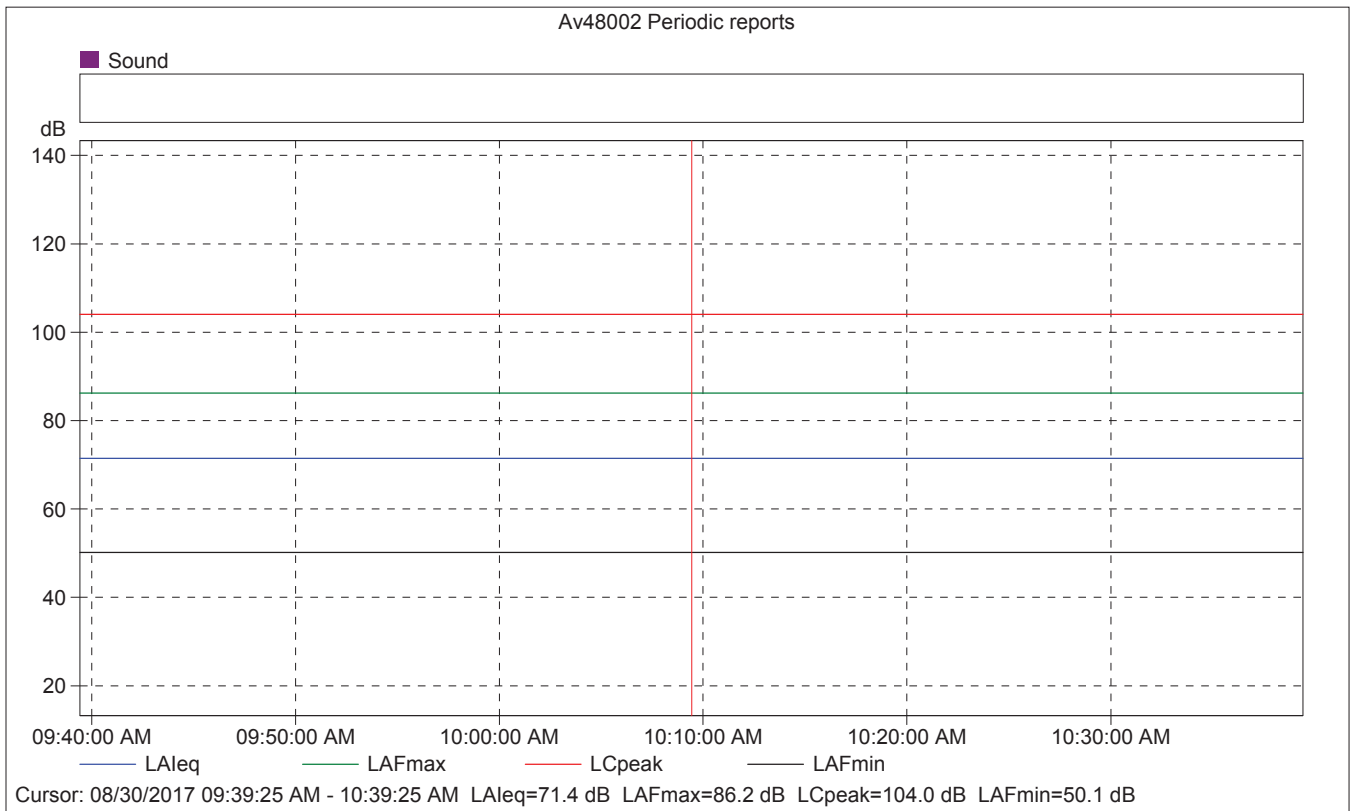
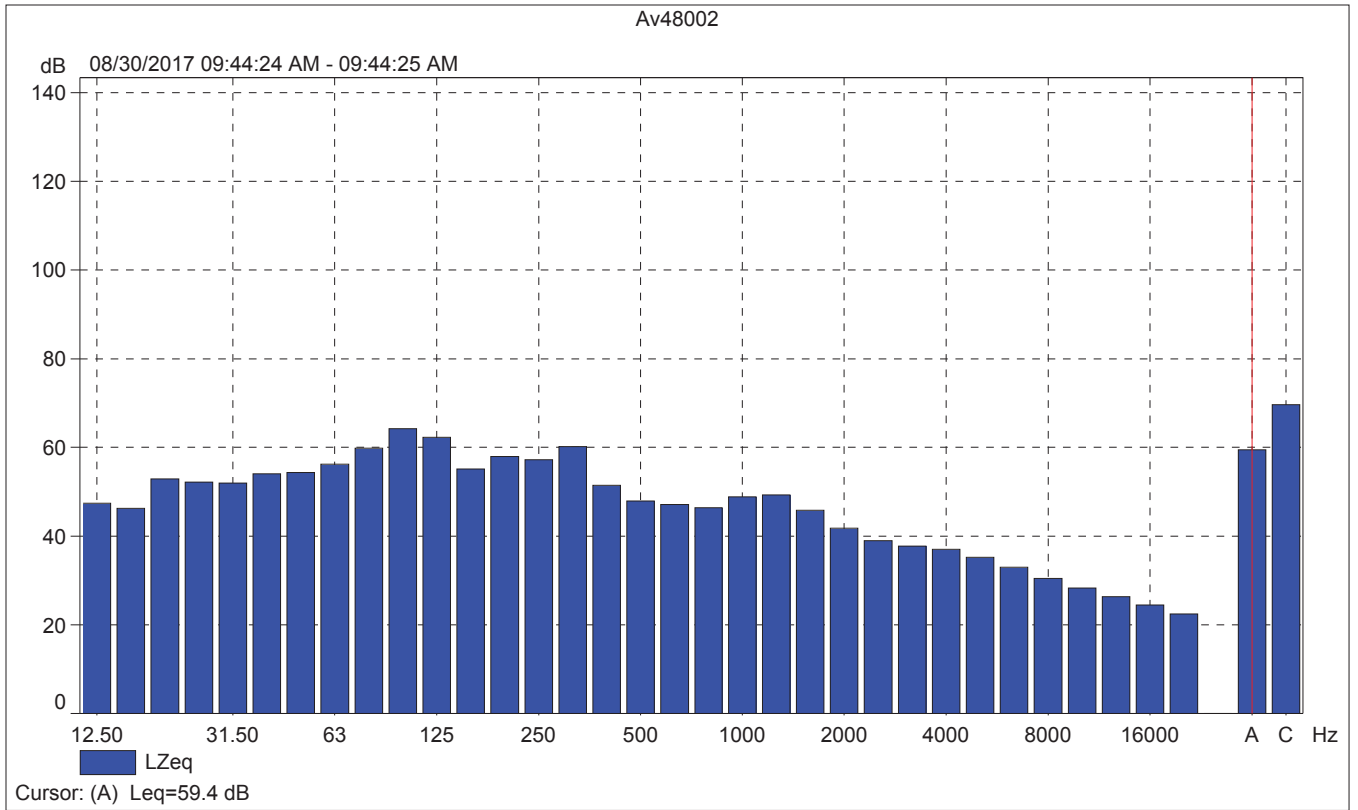
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Value				0.00	69.1	86.2	50.1
Time	09:39:25 AM	09:49:25 AM	0:10:00				
Date	08/30/2017	08/30/2017					





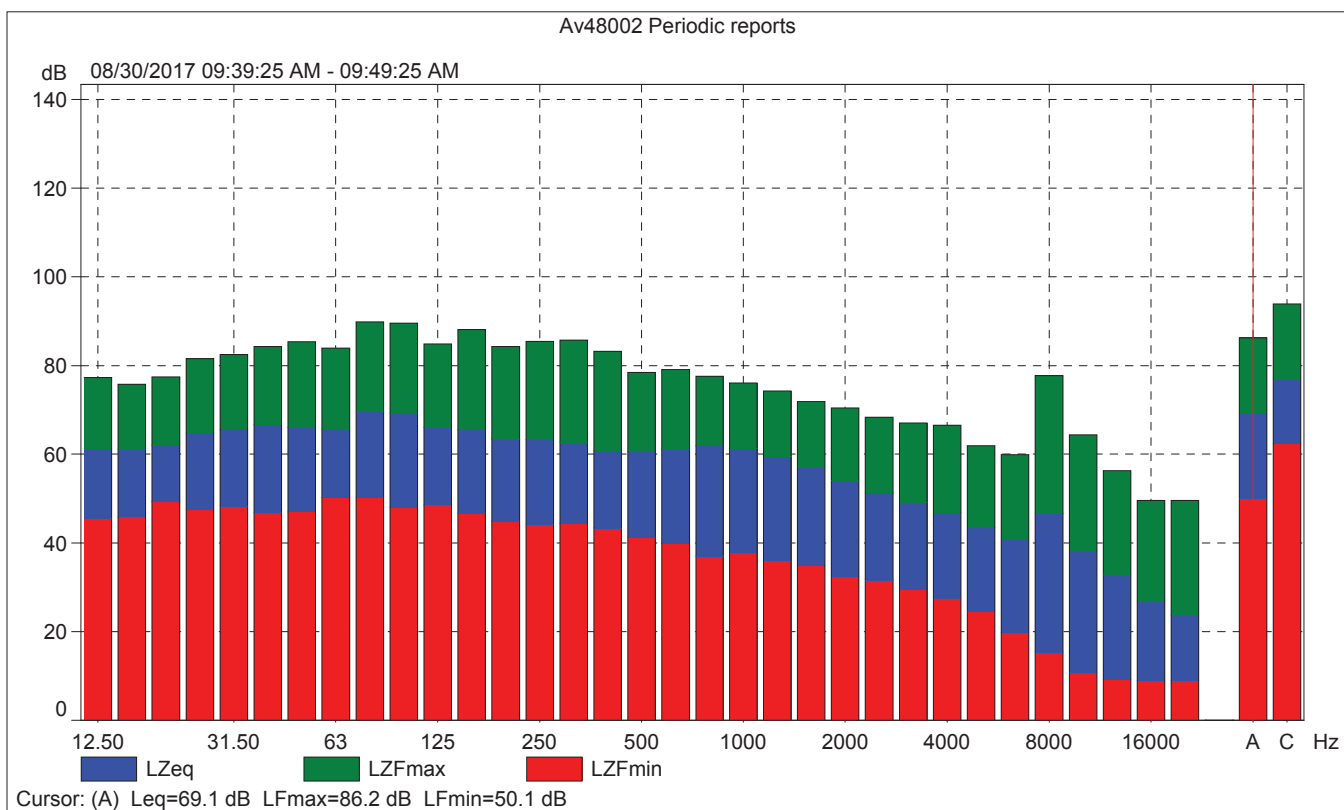
Av48002

	Start time	Elapsed time	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			60.1	60.1	58.7
Time	09:44:24 AM	0:00:01			
Date	08/30/2017				

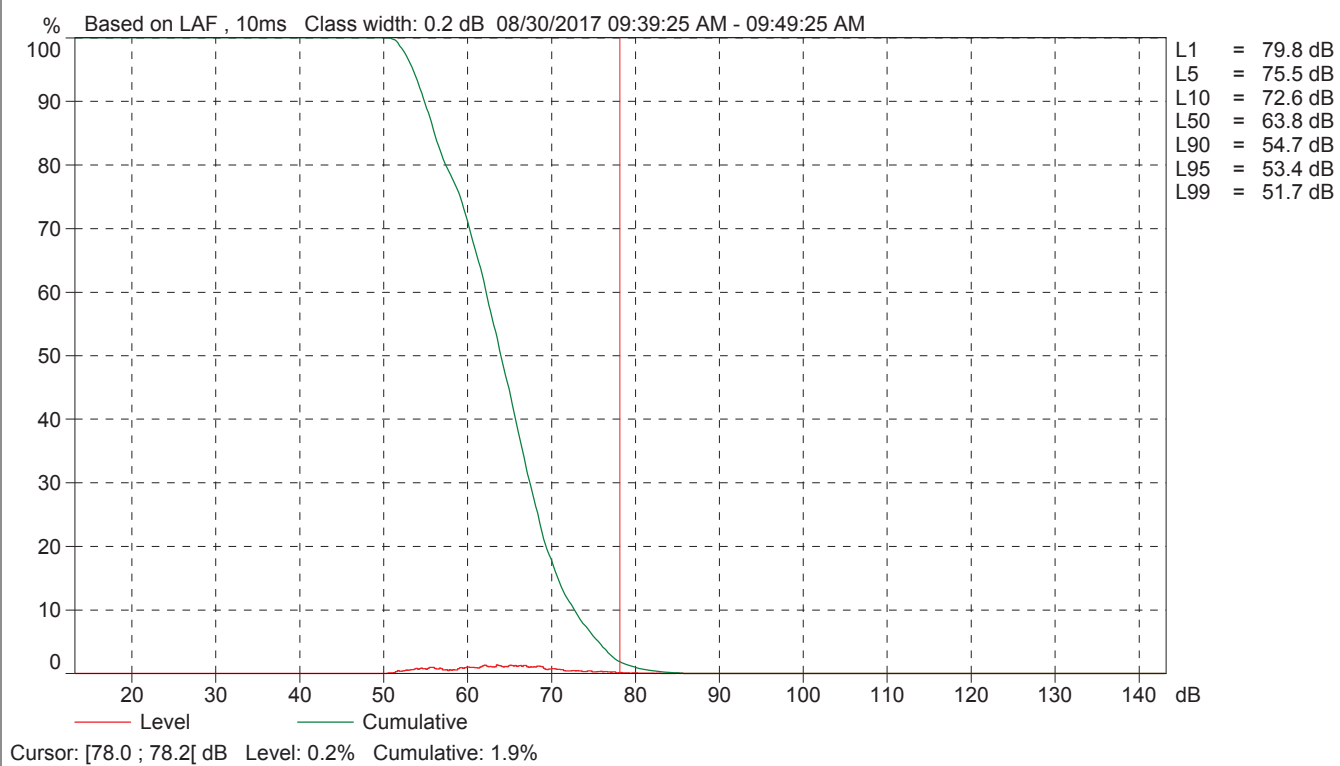


Av48002 Periodic reports

	Start time	Elapsed time	Overload [%]	LAFeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	71.4	86.2	50.1
Time	09:39:25 AM	0:10:00				
Date	08/30/2017					



Av48002 Periodic reports



Site Number: 3			
Recorded By: Ryan Richards			
Job Number: 161097			
Date: 8/30/2017			
Time: 9:15 AM			
Location: 84195 Avenue 48, Indio, CA 92201			
Source of Peak Noise: Traffic			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
71.3	52.1	95.1	116.6

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	3011133	3/27/2017	
	Microphone	Brüel & Kjær	4189	3086765	3/27/2017	
	Preamp	Brüel & Kjær	ZC 0032	25380	3/27/2017	
	Calibrator	Brüel & Kjær	4231	2545667	3/27/2017	
Weather Data						
Est.	Duration: 10 minutes			Sky: Sunny		
	Note: dBA Offset = 0.01			Sensor Height (ft): 5 ft		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (inches)	
	<5		96.4		29.71	

Photo of Measurement Location



2250

Instrument:		2250
Application:		BZ7225 Version 4.7.2
Start Time:		08/30/2017 09:15:23
End Time:		08/30/2017 09:25:23
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.02

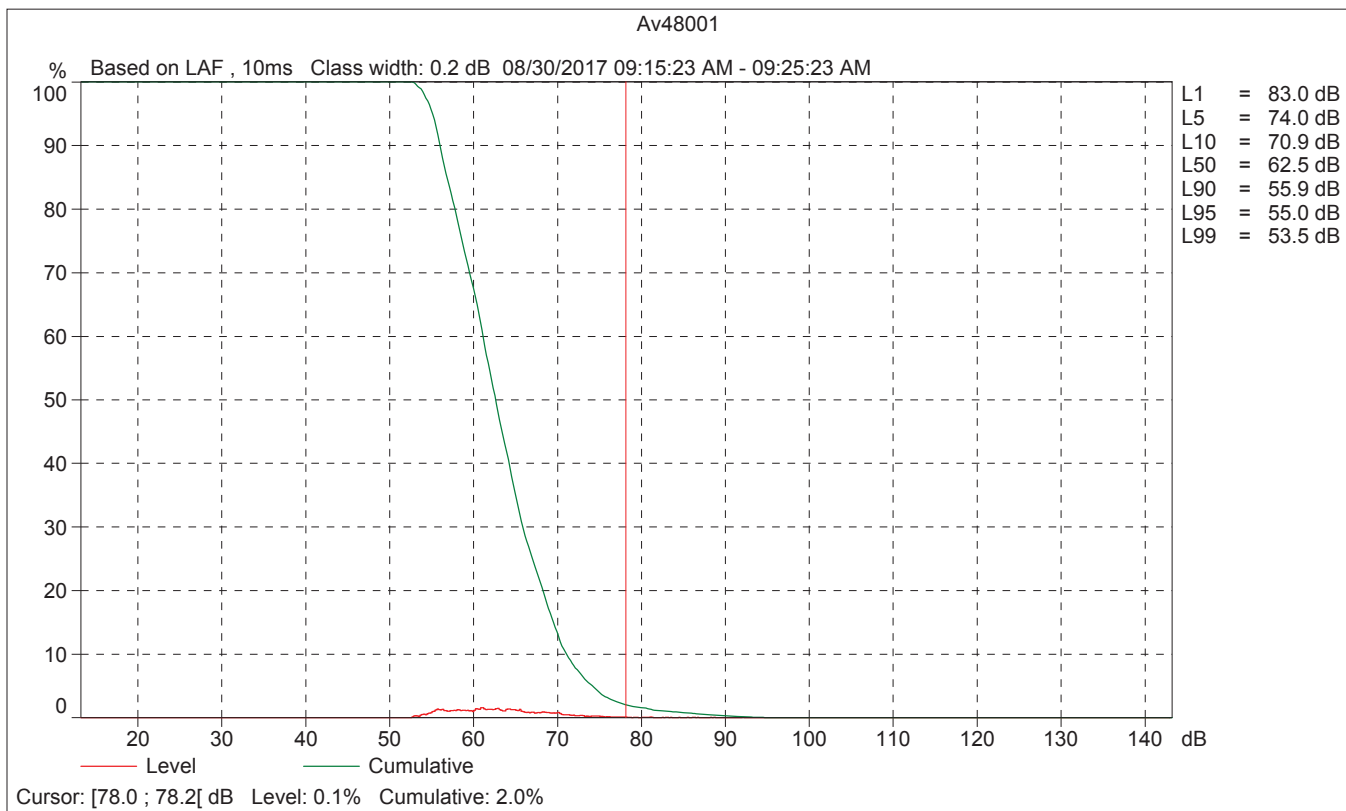
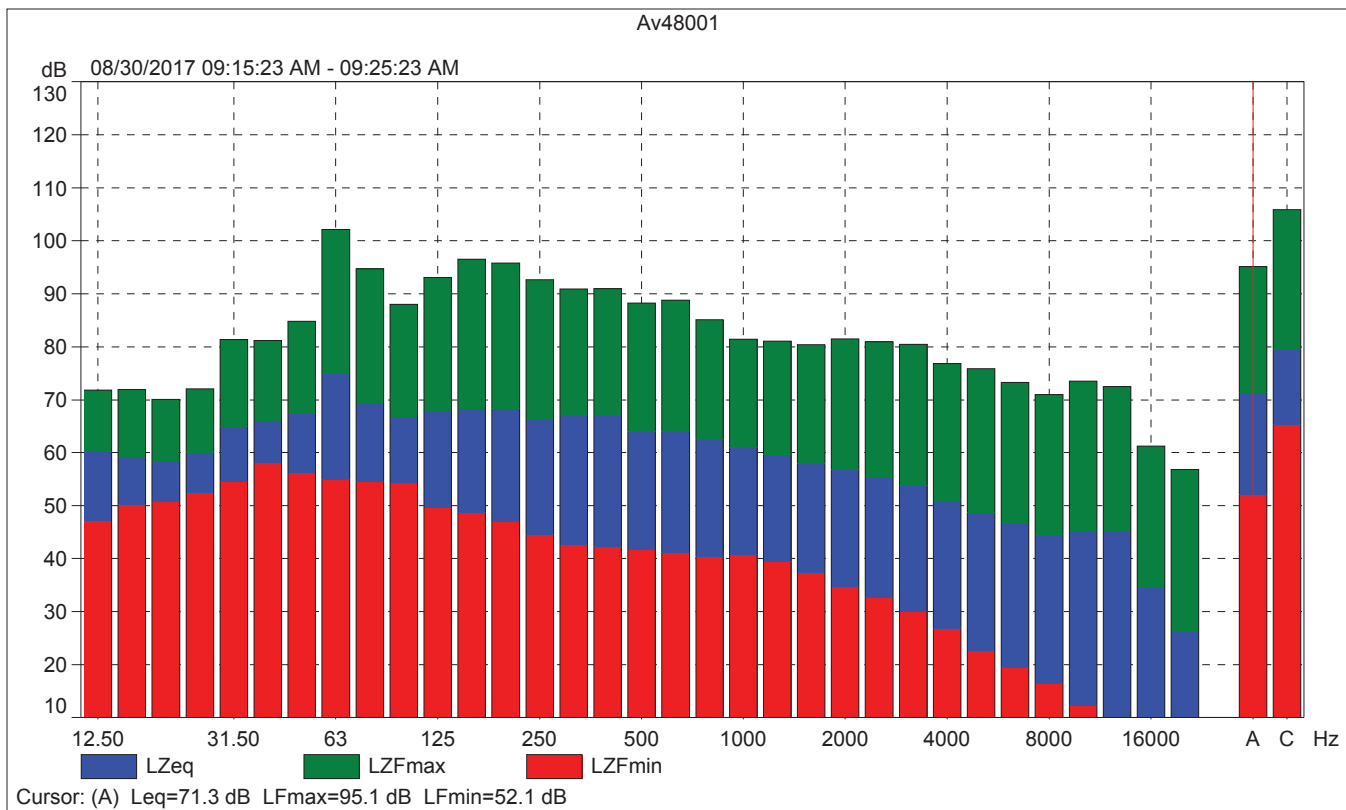
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

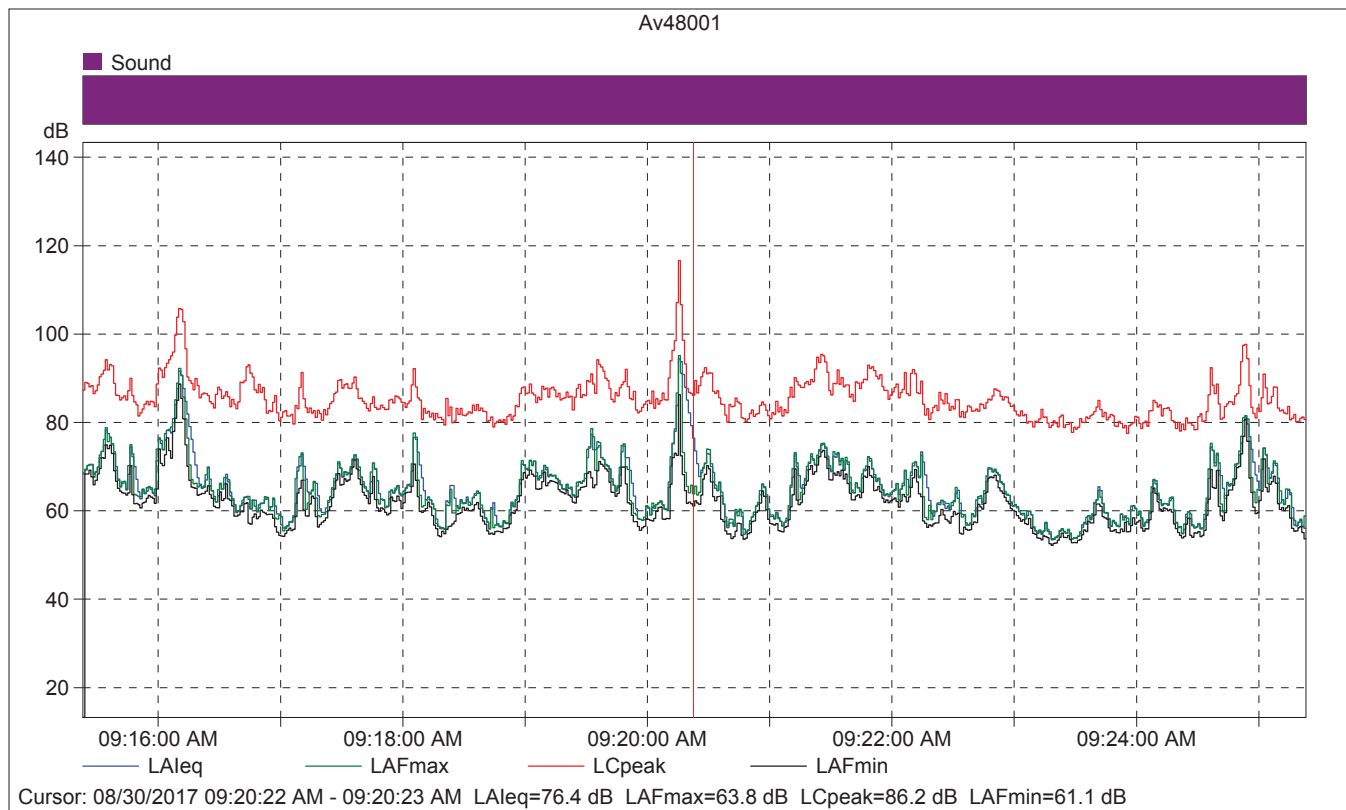
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

Calibration Time:		08/29/2017 14:37:13
Calibration Type:		External reference
Sensitivity:		44.1153794527054 mV/Pa

Av48001

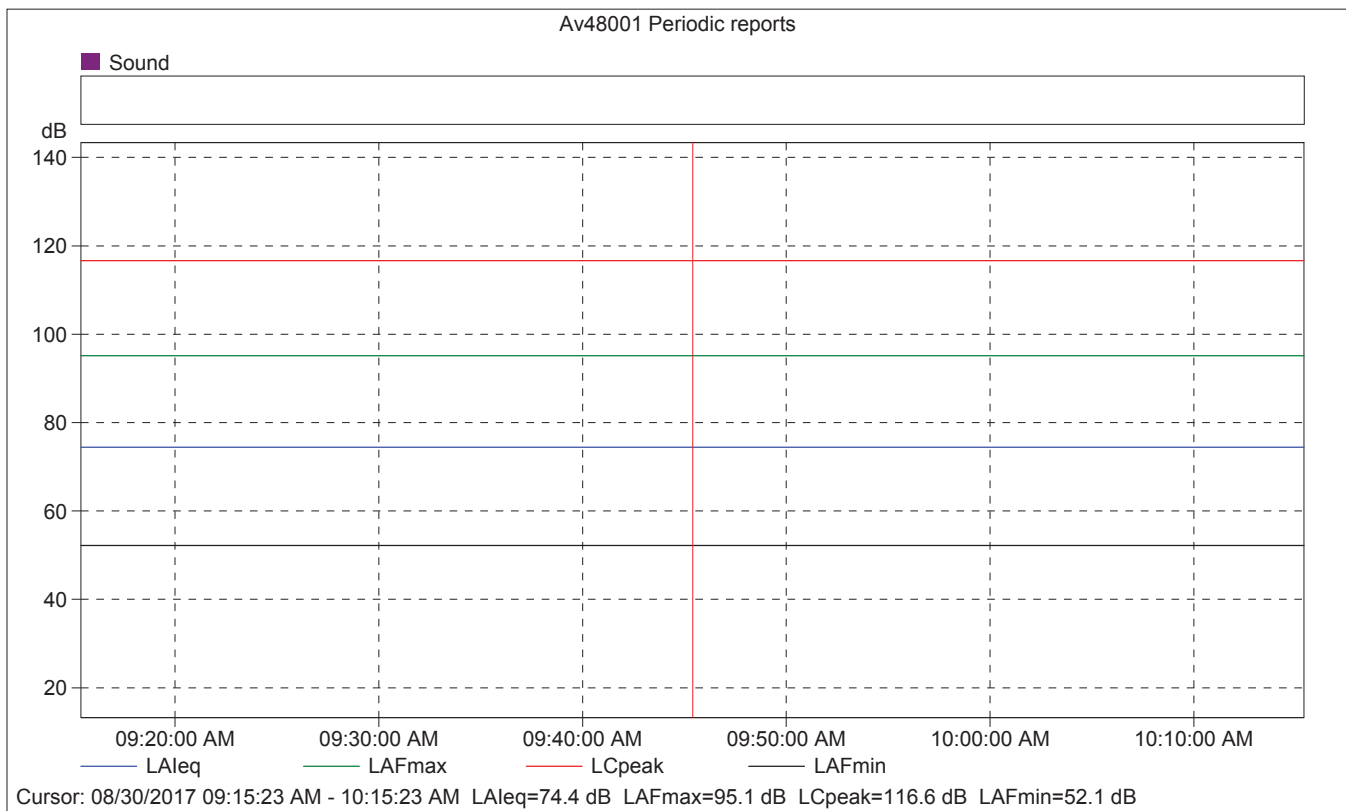
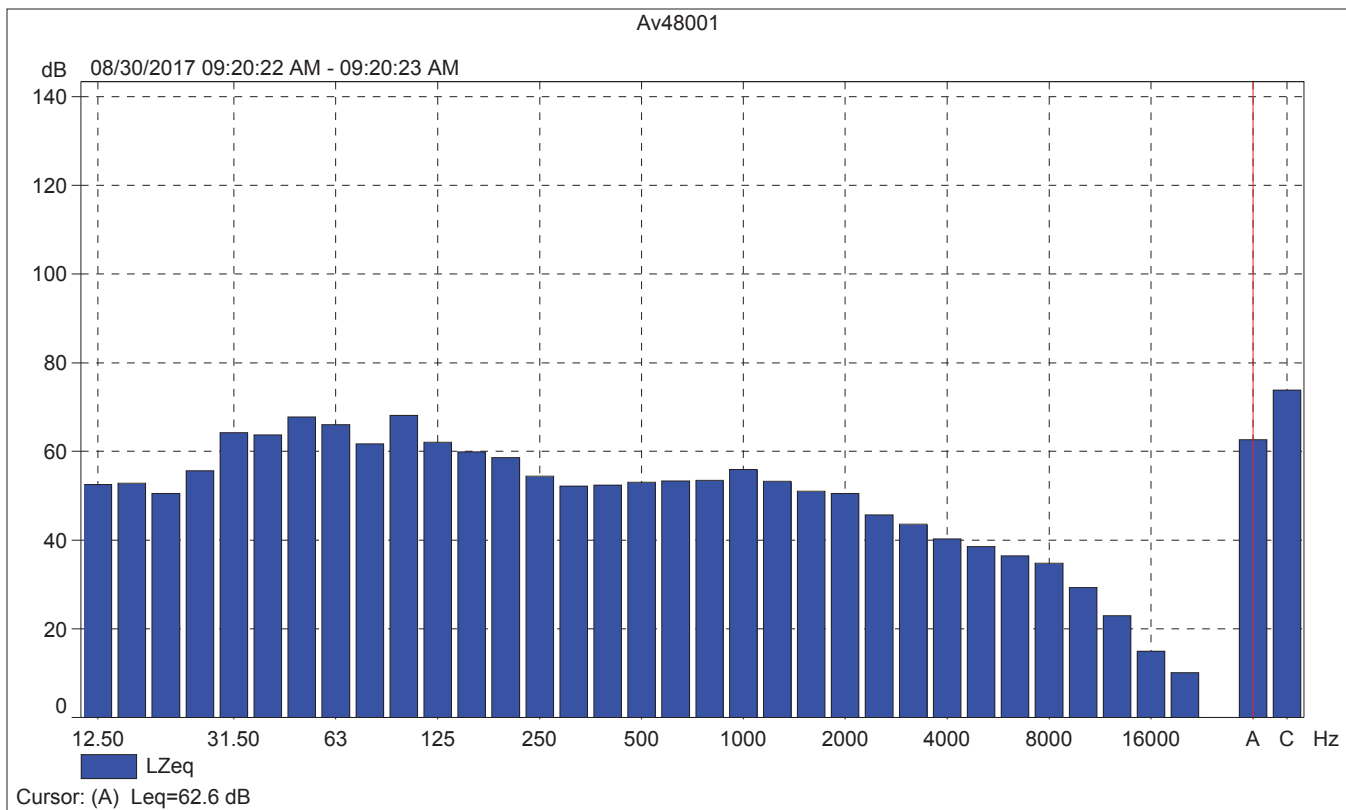
	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	71.3	95.1	52.1
Time	09:15:23 AM	09:25:23 AM	0:10:00				
Date	08/30/2017	08/30/2017					





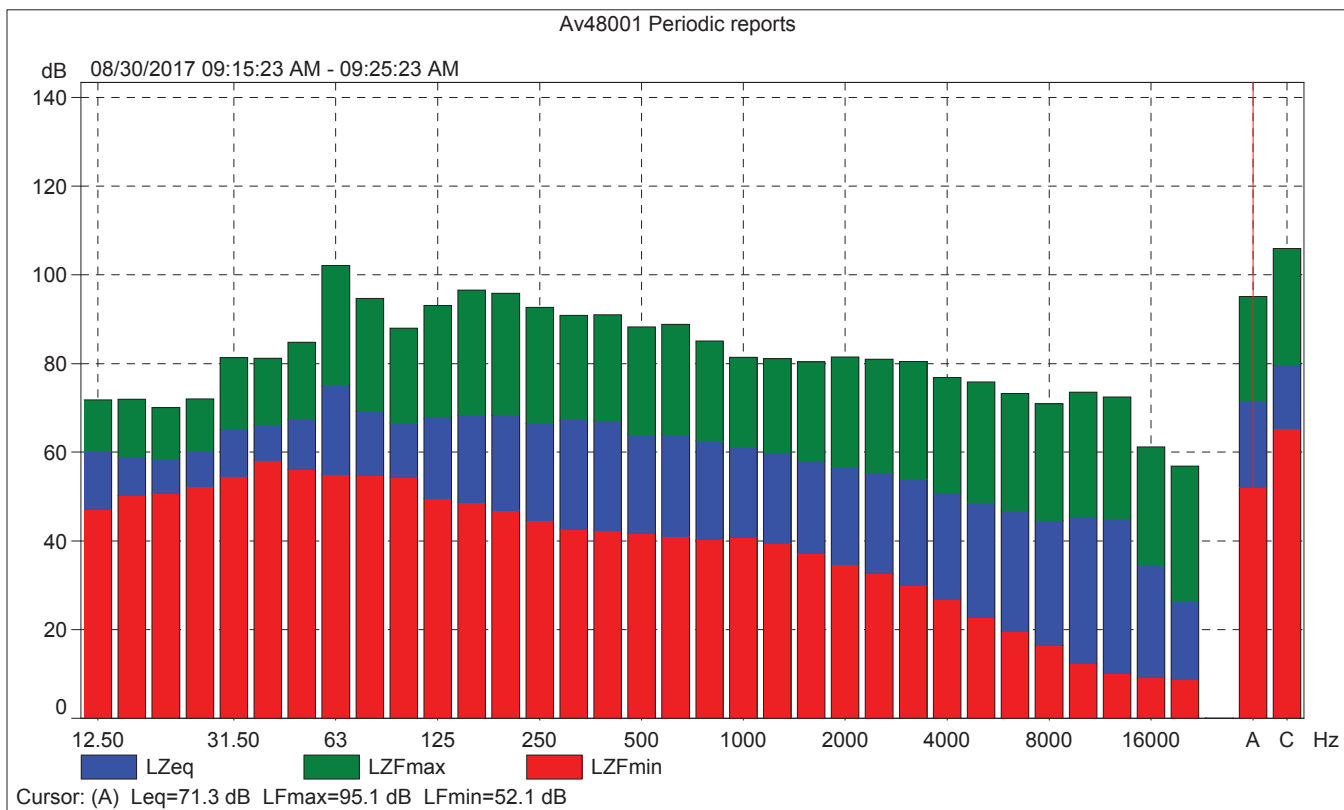
Av48001

	Start time	Elapsed time	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			76.4	63.8	61.1
Time	09:20:22 AM	0:00:01			
Date	08/30/2017				

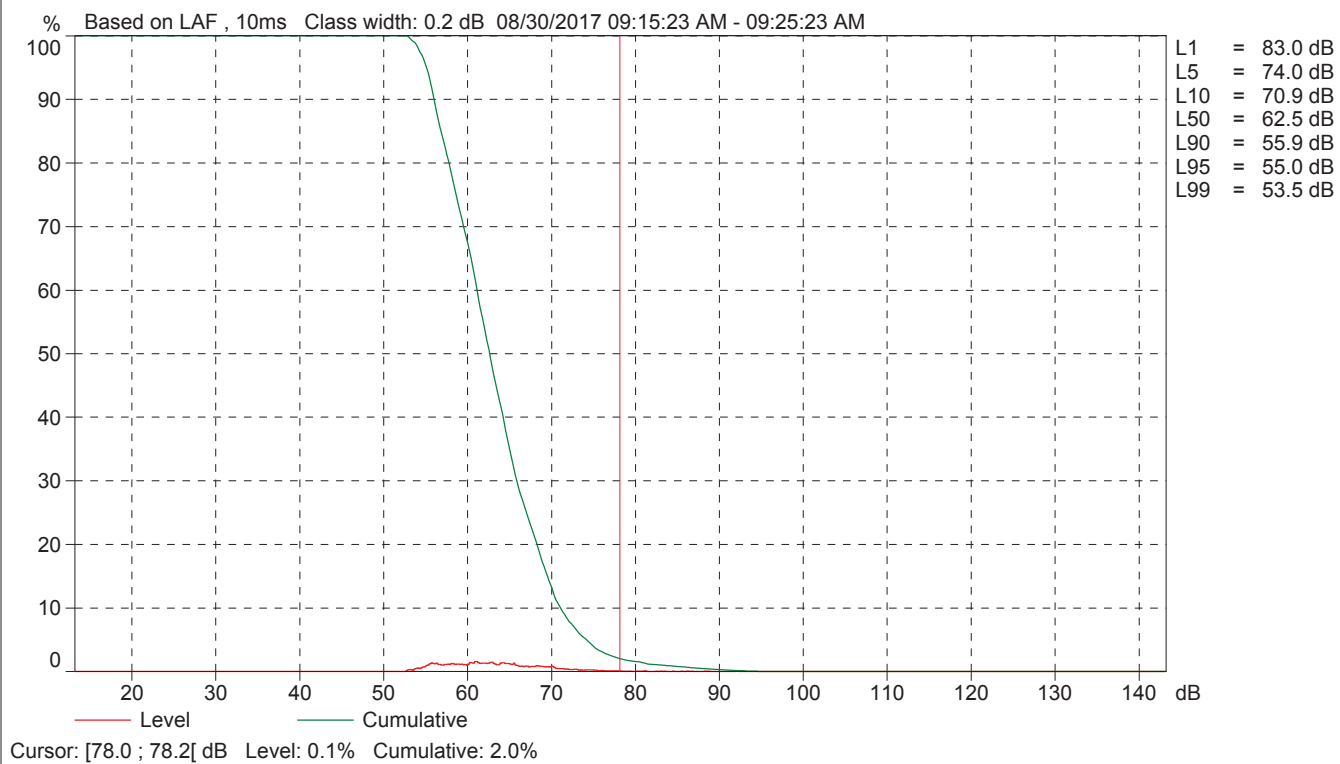


Av48001 Periodic reports

	Start time	Elapsed time	Overload [%]	LAFeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	74.4	95.1	52.1
Time	09:15:23 AM	0:10:00				
Date	08/30/2017					



Av48001 Periodic reports



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

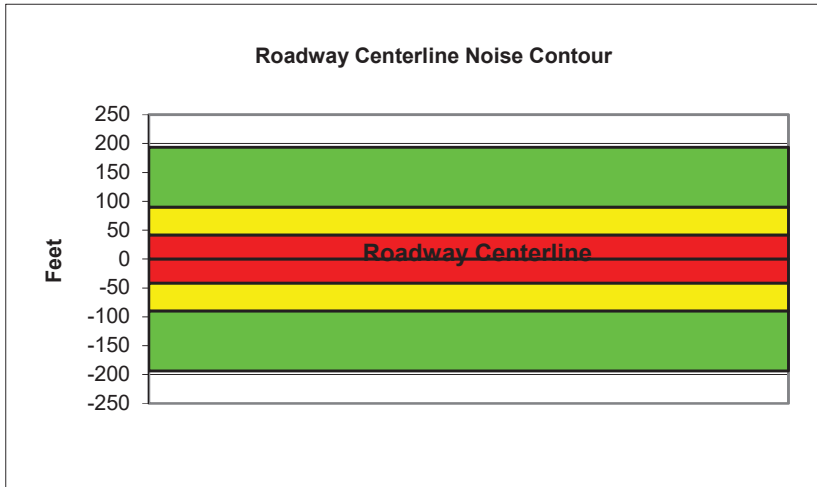
Project Name: Avenue 48 Widening in City of Coachella Scenario: Existing
 Analyst: Ryan Richards Job #: 161097
 Roadway: 48th Avenue
 Road Segment: Dillon Road to Grapefruit Blvd. - Indio Blvd.

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	12458			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1245.8			
Centerline Dist. To Observer:	100	Vehicle Speed:	50			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.2	61.0	59.2	53.1	61.8	62.4
Medium Trucks:	59.9	51.8	45.4	43.8	52.3	52.6
Heavy Trucks:	64.1	52.2	43.1	44.3	53.7	53.8
Vehicle Noise:	66.4	62.1	59.5	54.2	62.8	63.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	194
65 dBA	90
70 dBA	42
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

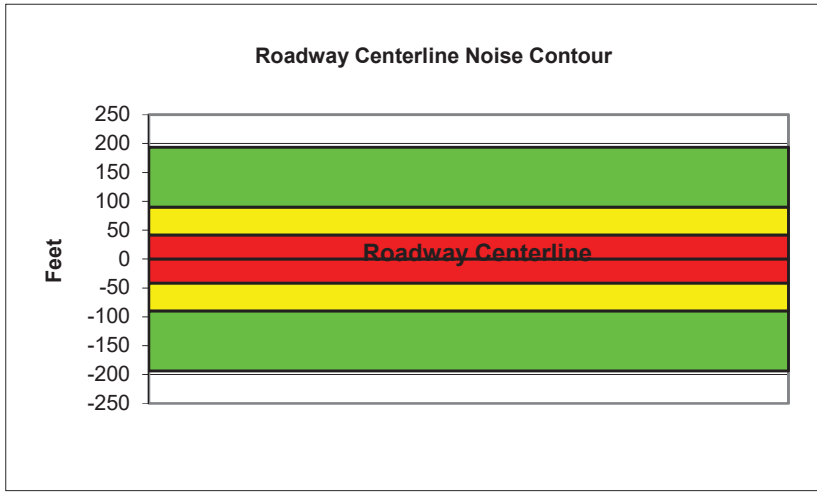
Project Name: Avenue 48 Widening in City of Coachella Scenario: Existing
 Analyst: Ryan Richards Job #: 161097
 Roadway: 48th Avenue
 Road Segment: Dillon Road to Grapefruit Blvd. - Indio Blvd.

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	12458			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1245.8			
Centerline Dist. To Observer:	100	Vehicle Speed:	50			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.2	61.0	59.2	53.1	61.8	62.4
Medium Trucks:	59.9	51.8	45.4	43.8	52.3	52.6
Heavy Trucks:	64.1	52.2	43.1	44.3	53.7	53.8
Vehicle Noise:	66.4	62.1	59.5	54.2	62.8	63.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	194
65 dBA	90
70 dBA	42
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

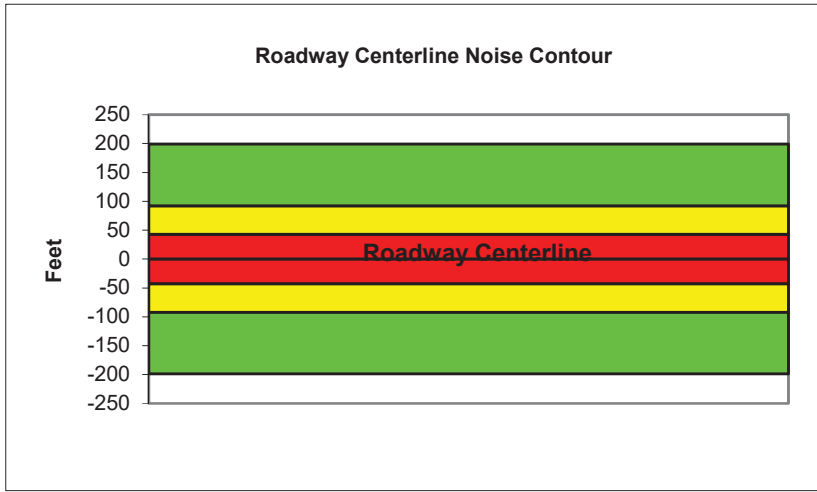
Project Name: Avenue 48 Widening in City of Coachella Scenario: Near Term
 Analyst: Ryan Richards Job #: 161097
 Roadway: 48th Avenue
 Road Segment: Van Buren Street to Dillon Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	12937			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1293.7			
Centerline Dist. To Observer:	100	Vehicle Speed:	50			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.4	61.1	59.4	53.3	61.9	62.5
Medium Trucks:	60.0	52.0	45.6	44.0	52.5	52.7
Heavy Trucks:	64.3	52.3	43.3	44.5	53.9	54.0
Vehicle Noise:	66.6	62.2	59.7	54.4	63.0	63.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	199
65 dBA	92
70 dBA	43
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

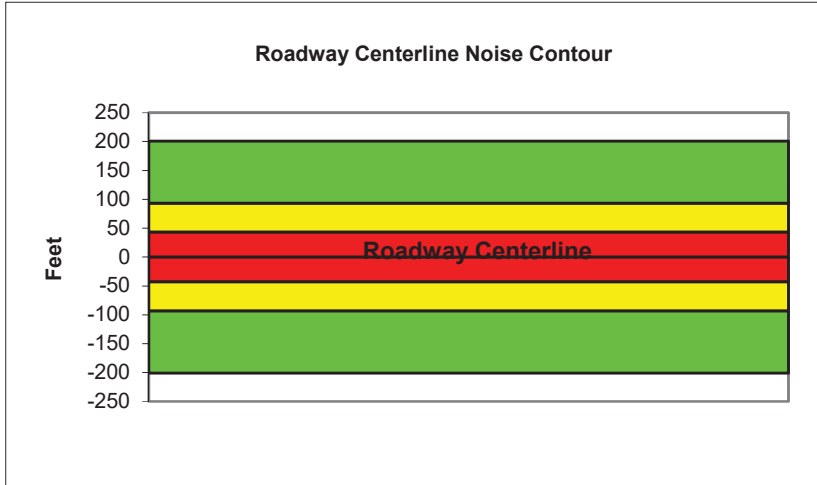
Project Name: Avenue 48 Widening in City of Coachella Scenario: Near Term
 Analyst: Ryan Richards Job #: 161097
 Roadway: 48th Avenue
 Road Segment: Dillon Road to Grapefruit Blvd. - Indio Blvd.

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	13121			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1312.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	50			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.4	61.2	59.4	53.3	62.0	62.6
Medium Trucks:	60.1	52.0	45.6	44.1	52.6	52.8
Heavy Trucks:	64.3	52.4	43.3	44.6	53.9	54.1
Vehicle Noise:	66.6	62.3	59.7	54.4	63.0	63.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	201
65 dBA	93
70 dBA	43
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

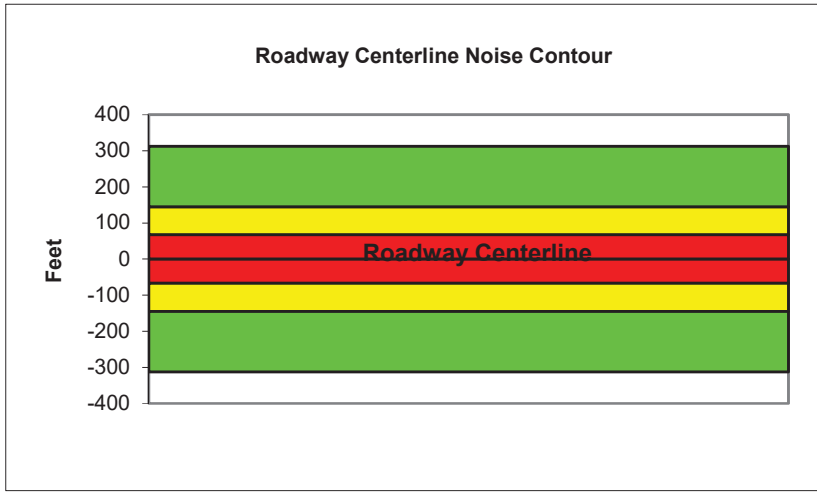
Project Name: Avenue 48 Widening in City of Coachella Scenario: Near Term Plus Project
 Analyst: Ryan Richards Job #: 161097
 Roadway: 48th Avenue
 Road Segment: Van Buren Street to Dillon Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	12937			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1293.7			
Centerline Dist. To Observer:	100	Vehicle Speed:	65			
Barrier Near Lane CL Dist:	0	Centerline Separation:	100			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.4	63.2	61.4	55.3	63.9	64.6
Medium Trucks:	60.6	52.5	46.1	44.5	53.0	53.3
Heavy Trucks:	64.1	52.1	43.1	44.3	53.3	53.4
Vehicle Noise:	66.4	63.9	61.6	56.0	64.6	65.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	312
65 dBA	145
70 dBA	67
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

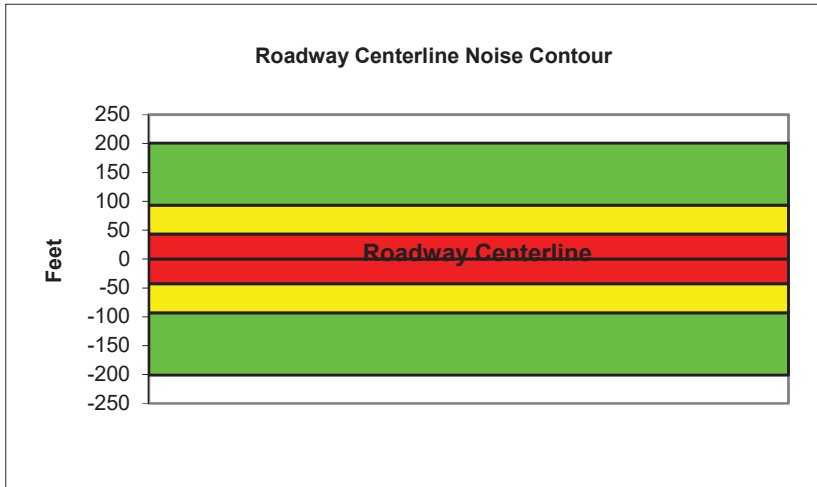
Project Name: Avenue 48 Widening in City of Coachella Scenario: Near Term Plus Project
 Analyst: Ryan Richards Job #: 161097
 Roadway: 48th Avenue
 Road Segment: Dillon Road to Grapefruit Blvd. - Indio Blvd.

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	13121			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1312.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	50			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.4	61.2	59.4	53.3	62.0	62.6
Medium Trucks:	60.1	52.0	45.6	44.1	52.6	52.8
Heavy Trucks:	64.3	52.4	43.3	44.6	53.9	54.1
Vehicle Noise:	66.6	62.3	59.7	54.4	63.0	63.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	201
65 dBA	93
70 dBA	43
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

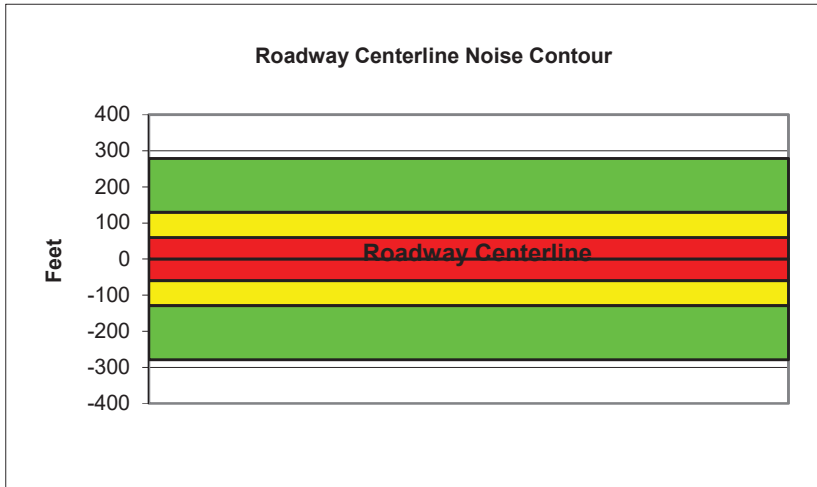
Project Name: Avenue 48 Widening in City of Coachella Scenario: Future
 Analyst: Ryan Richards Job #: 161097
 Roadway: 48th Avenue
 Road Segment: Van Buren Street to Dillon Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	21470			
Receiver Barrier Dist:	0	Peak Hour Traffic:	2147			
Centerline Dist. To Observer:	100	Vehicle Speed:	50			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.6	63.3	61.6	55.5	64.1	64.7
Medium Trucks:	62.2	54.2	47.8	46.2	54.7	54.9
Heavy Trucks:	66.5	54.5	45.5	46.7	56.1	56.2
Vehicle Noise:	68.8	64.4	61.9	56.6	65.2	65.7

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	279
65 dBA	129
70 dBA	60
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

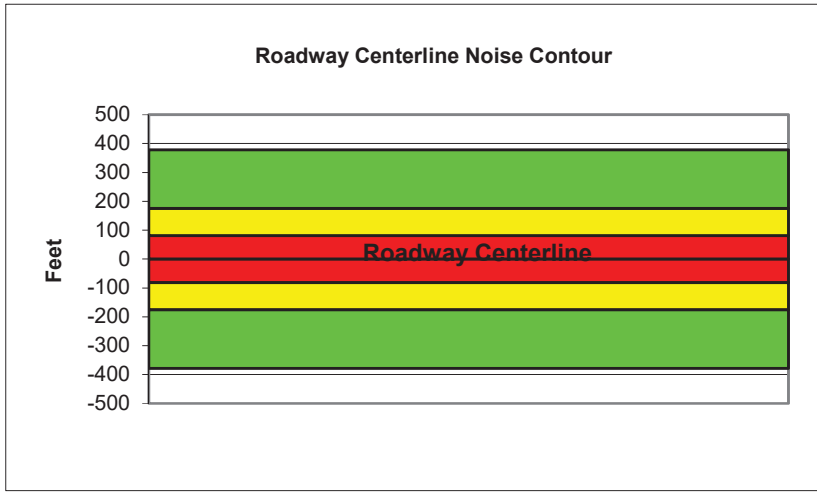
Project Name: Avenue 48 Widening in City of Coachella Scenario: Future
 Analyst: Ryan Richards Job #: 161097
 Roadway: 48th Avenue
 Road Segment: Dillon Road to Grapefruit Blvd. - Indio Blvd.

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	33950			
Receiver Barrier Dist:	0	Peak Hour Traffic:	3395			
Centerline Dist. To Observer:	100	Vehicle Speed:	50			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.6	65.3	63.5	57.5	66.1	66.7
Medium Trucks:	64.2	56.2	49.8	48.2	56.7	56.9
Heavy Trucks:	68.5	56.5	47.5	48.7	58.1	58.2
Vehicle Noise:	70.8	66.4	63.9	58.6	67.2	67.7

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	379
65 dBA	176
70 dBA	82
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

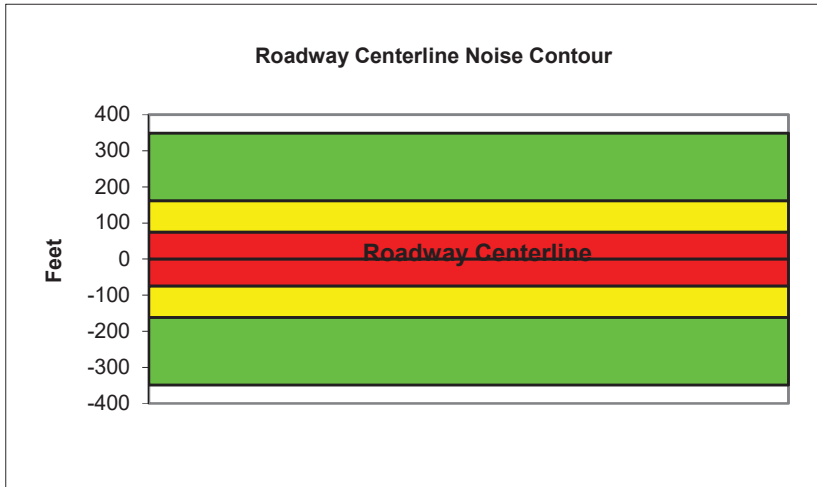
Project Name: Avenue 48 Widening in City of Coachella Scenario: Future Plus Project
Analyst: Ryan Richards Job #: 161097
Roadway: 48th Avenue
Road Segment: Van Buren Street to Dillon Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	30086			
Receiver Barrier Dist:	0	Peak Hour Traffic:	3008.6			
Centerline Dist. To Observer:	100	Vehicle Speed:	50			
Barrier Near Lane CL Dist:	0	Centerline Separation:	60			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.5	64.3	62.5	56.4	65.1	65.7
Medium Trucks:	63.2	55.1	48.7	47.1	55.6	55.9
Heavy Trucks:	67.4	55.5	46.4	47.6	57.0	57.1
Vehicle Noise:	69.7	65.4	62.8	57.5	66.1	66.6

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	349
65 dBA	162
70 dBA	75
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

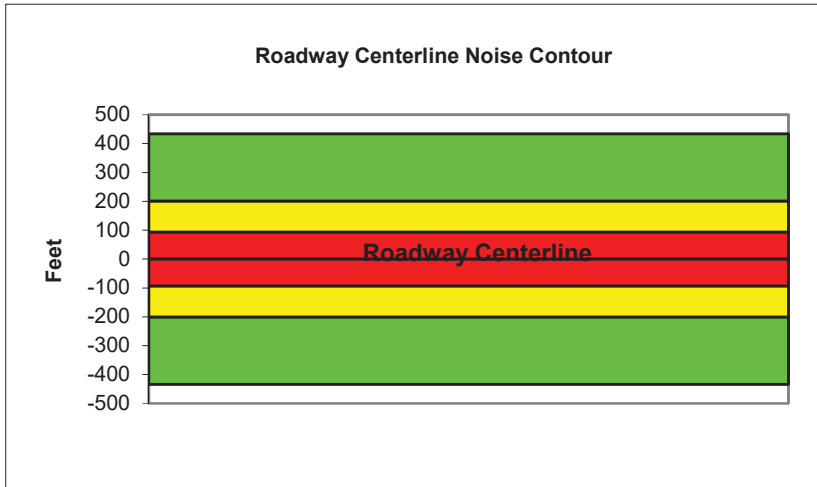
Project Name: Avenue 48 Widening in City of Coachella Scenario: Future Plus Project
 Analyst: Ryan Richards Job #: 161097
 Roadway: 48th Avenue
 Road Segment: Dillon Road to Grapefruit Blvd. - Indio Blvd.

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	41713			
Receiver Barrier Dist:	0	Peak Hour Traffic:	4171.3			
Centerline Dist. To Observer:	100	Vehicle Speed:	50			
Barrier Near Lane CL Dist:	0	Centerline Separation:	60			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.9	65.7	63.9	57.8	66.5	67.1
Medium Trucks:	64.6	56.5	50.1	48.6	57.1	57.3
Heavy Trucks:	68.8	56.9	47.8	49.0	58.4	58.6
Vehicle Noise:	71.1	66.8	64.2	58.9	67.5	68.0

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	434
65 dBA	201
70 dBA	93
Mitigated	
60 dBA	
65 dBA	
70 dBA	



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APPENDIX E
DISTRIBUTION LIST

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Distribution List

The Notice of Availability/Notice of Intent to Adopt a Mitigated Negative Declaration was mailed to the following agencies, organizations, and individuals (unless Initial Study hardcopies specified).

ADJACENT PROPERTY OWNERS

All property owners within 500 feet of the proposed project received a Notice of Availability / Notice of Intent to Adopt a Mitigated Negative Declaration.

UTILITIES

Joseph Forkert
AT&T
22311 Brookhurst St., Suite 203
Huntington Beach, CA 92646

Mark Chappell, P.E.
City of Coachella
Manager of Engineering
1515 Sixth St.
Coachella, CA 92236

Tyler Hull
Coachella Valley Water District
85995 Ave. 52
Coachella, CA 92236

William Kearns and Luis Becerra
Access Design & Construction
Frontier Communications
295 North Sunrise Way
Palm Springs, CA 92262-5295

Jose Gerado
Imperial Irrigation District
81600 Ave. 58
La Quinta, CA 92253

Brian Macy
Indio Water Authority
83-101 Ave. 45
Indio, CA 92201

Karley Payne
Kinder Morgan
Energy Partners, L.P.
1100 Town and Country Rd.
Orange, CA 92868

Caleb King
CenturyLink
100 South Cincinnati Ave.
Suite 1200
Tulsa, OK 74103

Jose Renteria
CenturyLink
100 South Cincinnati Ave.
Suite 1200
Tulsa, OK 74103

Luis Ramirez
Southern California Gas Company
9400 Oakdale Ave
Mail Location 9314
Chatsworth, CA 91311-6511

Peter Quintana
Planning Department
Southern California Gas Company
P.O. Box 3003
92373-0306

Kevin Kuennen
Southern California Gas
Land & ROW
251 E. 1st St.
Beaumont, CA 92223

Jeff York
Sprint Communication Company
282 South Sycamore Ave.
Rialto, CA 92376

Ed Mulcahy
Sunesys, LLC.
Western Regional Office
226 N. Lincoln Ave.
Corona, CA 92882

Robert Santos
Sunesys, LLC.
Western Regional Office
1325 Pico, #106
Corona, CA 92881

Lee Hobson, Construction
Manager
Charter Communications
83-475 Ave. 45
Indio, CA 92201

Steve Shepard
Valley Sanitary District
45-500 Van Buren St.
Indio, CA 92201

Dean Boyer
Attention: Investigations
Verizon Business
2400 N. Glenville Dr.
Richardson. TX 75082

Omar Cecena
Cable USA
P.O. Box 336
Borrego Springs, CA 92004

Denton Johnson
Questar Southern Trails Pipeline
Mail Stop OC129
P.O. Box 45360
Salt Lake City, UT 84145-0360

Matthey Williams
Level 3
1025 Eldorado Blvd-33A522
Broomfield, CO 80021

Distribution List

The Notice of Availability/Notice of Intent to Adopt a Mitigated Negative Declaration was mailed to the following agencies, organizations, and individuals (unless Initial Study hardcopies specified).

Stephen Stockton
San Geronio Pass Water Agency
1210 Beaumont Ave.
Beaumont, CA 92223

Kerri Mariner
Cabazon Water District
P.O. Box 297
Cabazon, CA 92230

Calvin Louie
Cabazon Water District
P.O. Box 297
Cabazon, CA 92230

Rick Hall
Cabazon Water District
P.O. Box 297
Cabazon, CA 92230

Miladros Wallace
Mission Springs Water District
66575 E. 2nd St.
Desert Hot Springs, CA 92240

Chris King
Time Warner Telecom
8677 Fruitridge Rd.
Sacramento, CA 95826

Kathy J. Meyer
Metropolitan Water District
P.O. Box 54153
Los Angeles, CA 90054

Larry Moore
Verizon Communications
295 N. Sunrise Way
Palm Springs, CA 92262

Cody C. Quezada
Southern California Gas Company
P.O. Box 3003
Redlands, CA 92373-0306

Rosalyn Squires
Southern California Gas Company
9400 Oakdale Ave., Mail 9314
Chatsworth, CA 91311-6511

Kimberlie Gurule
Southern California Edison
1444 E. Mc Fadden Ave., Bldg. D
Santa Ana, CA 92705

Frank Jasso
Southern California Edison
36100 Cathedral Canyon Dr.
Cathedral City, CA 92234

James Lee
Southern California Edison
300 N. Pepper Ave.
Rialto, CA 92376

FEDERAL AGENCIES

John Taylor
U.S. Fish and Wildlife Service
777 East Tahquitz Canyon Way
#208
Palm Springs, CA 92262

U.S. Army Corps of Engineers
Los Angeles District
P.O. Box 532711
Los Angeles, CA 90017

STATE AGENCIES

Mr. Kate Gordon, Director
State Clearinghouse
Office of Planning & Research
1400 Tenth Street
P.O. Box 3044
Sacramento, CA 95812-3044

California Dept of Fish & Wildlife
Eastern Sierra
Inland Desert Region
3602 Inland Empire Blvd.
#C-220
Ontario, CA 91764

California Department of
Transportation, Planning
464 West 4th Street, 6th Floor
San Bernardino, CA 92401-1400

Colorado River Basin
Regional Water
Quality Control Board
73-720 Fred Waring Dr., #100
Palm Desert, CA 92260

Distribution List

The Notice of Availability/Notice of Intent to Adopt a Mitigated Negative Declaration was mailed to the following agencies, organizations, and individuals (unless Initial Study hardcopies specified).

REGIONAL / LOCAL AGENCIES

South Coast Air Quality
Management District
Attn: CEQA Review
21865 E. Copley Dr.
Diamond Bar, CA 91765

Southern California
Association of Governments
Intergovernmental Review
818 West 7th St., 12th Fl.
Los Angeles, CA 90017-3435

Scott Bangle
Riverside County Park and Open
Space District
4600 Crestmore Road, MS 2970
Riverside, CA 92509

Charissa Leach
Riverside County Planning Dept.
4080 Lemon Street
Riverside, CA 92501

John Guerin
Riverside County Airport Land
Use Commission / Planning
4080 Lemon Street
Riverside, CA 92501

Anne Mayer
Riverside County
Transportation Commission
4080 Lemon Street, 3rd Floor, MS
1031
Riverside, CA 92501

Rueben Arroyo
Riverside County
Agricultural Commissioner
4080 Lemon Street, Room #19
Basement, MS 1250
Riverside, CA 92502-1089

Stephanie Persi / Ray Smith
Riverside County
Executive Office
4080 Lemon Street, 4th Floor
Riverside, CA 92501

Rachel Johnson
Riverside County Farm Bureau
21160 Box Springs Rd., #102
Moreno Valley, CA 92557

Joan Valle or Randy Sheppard
Riverside County
Flood Control District
1995 Market Street
Riverside, CA 92501

Rob Fields
Riverside County
Economic Development Agency
4090 County Circle Drive
Riverside, CA 92503

Riverside County Fire Dept.
Planning & Engineering
4080 Lemon Street, 2nd Floor, MS
224
Riverside, CA 92501

Riverside County Sheriff's
Dept. Department, Indio Station
82-695 Dr. Carreon Blvd
Indio, CA 92201

Riverside County Sheriff's
Department, Cabazon Station
PO Box 457
Cabazon, CA 92230

Ryan Ross
Riverside County
Waste Management
14310 Frederick Street
Moreno Valley, CA 92553

Tom Kirk
Coachella Valley
Association of Governments
73-710 Fred Waring Dr., #200
Palm Desert, CA 92260

Coachella Valley
Resource Conservation District
USDA Service Center
82-901 Bliss Ave.
Indio, CA 92201

Stan Ford
Coachella Valley
Recreation & Park District
45-871 Clinton Street
Indio, CA 92201

Rohan Kuruppu
Director of Planning
Riverside Transit Agency
1825 Third Street
P.O. Box 59968
Riverside, CA 92517

CITY OF COACHELLA - LOCAL AGENCIES

Jeff Buompensiero
Lieutenant
City of Coachella Police Dept.
86625 Airport Blvd.
Thermal, CA 92274

Bonifacio De La Cruz
Battalion Chief
City of Coachella Fire Dept.
1377 6th St.
Coachella, CA 92236

Maritza Martinez
Public Works Director
City of Coachella – Public Works
53462 Enterprise Way
Coachella, CA 92236

Distribution List

The Notice of Availability/Notice of Intent to Adopt a Mitigated Negative Declaration was mailed to the following agencies, organizations, and individuals (unless Initial Study hardcopies specified).

Luis Lopez
Development Services Director
City of Coachella
1515 6th St.
Coachella, CA 92236

Berlinda Blackburn
Environmental Compliance Manager
City of Coachella, Utilities Dept.
53462 Enterprise Way
Coachella, CA 92236

Dr. Edwin Gomez
Superintendent
Coachella Unified School District
87-225 Church St.
Thermal, CA 92274

CITY OF COACHELLA - LOCAL AGENCIES

William Pattison
City Manager
City of Coachella City Council
City Manager's Office
1515 6th St.
Coachella CA 92236

CITY OF INDIO - LOCAL AGENCIES

Jim Curtis
Community Services Manager
City of Indio
100 Civic Center Mall
Indio, CA. 92201

City of Indio Police Department
46800 Jackson St.
Indio, CA 92201

Carl S. Morgan, Director
City of Indio
Economic Development
100 Civic Center Mall
Indio, CA. 92201

Cynthia Hernandez
City of Indio, City Clerk
100 Civic Center Mall
Indio, CA 92201

Timothy Wassil
Director of Public Works
City of Indio - Public Works
100 Civic Center Mall
Indio, CA. 92201

Jorge Rodriquez, Division Chief
Fire Administration Headquarters
City of Indio Fire Department
46-990 Jackson St.
Indio, CA 92201

ELECTED OFFICIALS

V. Manuel Perez
Supervisor District 4
Riverside County Board of
Supervisors
4080 Lemon Street
Riverside, CA 92501

NATIVE AMERICAN TRIBES

Pattie Garcia-Plotkin THPO
Agua Caliente
Band of Cahuilla Indians
5401 Dinah Shore Dr.
Palm Springs, CA 92264

Doug Todd Welmas
Chair Cabazon
Band of Mission Indians
84-245 Indio Springs Pkwy.
Indio, CA 92203

Anthony Madrigal
Sr. Cultural Director
Cahuilla Band of Indians
52701 Highway 371
Anza, CA 92539

Brian Etsitty, Acting THPO
Colorado River Indian Tribes
(CRIT)
26600 Mohave Rd.
Parker, AZ 85344

Andrew Salas, Chair
Gabrieleño Band of Mission
Indians – Kizh Nation
P.O. Box 393
Covina, CA 91723

Alicia Benally
Cultural Resource Specialist
Morongo
Band of Mission Indians
12700 Pumarra Rd.
Banning, CA 92220

Distribution List

The Notice of Availability/Notice of Intent to Adopt a Mitigated Negative Declaration was mailed to the following agencies, organizations, and individuals (unless Initial Study hardcopies specified).

Shasta C. Gaughen
THPO Pala
Band of Mission Indians
PMB 50, 35008 Pala Temecula Rd.
Pala, CA 92059

Ebru Odzil, Cultural Analyst
Temecula Band of Luiseño
Indians (Pechanga)
P.O. Box 2183
Temecula, CA 92593

Jill McCormick, Historic
Preservation Officer
Quechan Indian Nation
Fort Yuma Indian Reservation,
P.O. Box 1899
Yuma, AZ 85366

Joseph D. Hamilton
Ramona Band of Cahuilla
56310 Highway 371, Suite B,
P.O. Box 391670
Anza, CA 92539

Destiny Colocho
Cultural Resources Manager
Rincon Band of Luiseño Indians
1 West Tribal Rd.
Valley Center, CA 92082

Anthony Morales
Chairperson
Gabieleno/Tongva San Gabriel
Band of Mission Indians
P.O. Box 693
San Gabriel, CA 91778

Lee Clauss, Director
San Manuel
Band of Mission Indians
26569 Community Center Dr.
Highland, CA 92346

Joe Ontiveros
Cultural Resource Director
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581

Michael Mirelez
Cultural Resource Coordinator
Torres Martinez
Desert Cahuilla Indians
P.O. Box 1160
Thermal, CA 92274

Darrell Mike, Chair
Twenty Nine Palms
Band of Mission Indians
46-200 Harrison Place
Coachella, CA 92236

SCHOOLS

Martin Van Buren Elementary School
47733 Van Buren St.
Indio, CA 92201

Cesar Chavez Elementary School
49601 Avenida De Oro
Coachella, CA 92236

LIBRARIES

Veronica C. Evans
Library Manager
Coachella Library
1538 Seventh St.
Coachella, CA 92236

Casey Bowen
Branch Manager
Indio Library
200 Civic Center Mall
Indio, CA 92201

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APPENDIX F
MITIGATION MONITORING AND REPORTING PROGRAM

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1.0 INTRODUCTION

The California Environmental Quality Act (CEQA) was amended in 1989 to add section 21081.6 to the Public Resources Code. Section 21081.6 (a) (1) states that *“the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation.”*

Furthermore, Section 21081.6 requires a public agency to adopt a mitigation monitoring and reporting program for assessing and ensuring compliance with any required mitigation measured identified for the proposed project. Section 21081.6 provides general guidelines in implementing mitigation monitoring and reporting programs and mandates that specific reporting and monitoring requirements be defined prior to the close of the public review period for the mitigated negative declaration.

The Mitigation Monitoring and Reporting Program (MMRP) table below lists those mitigation measures that may be included as conditions of approval for the proposed Avenue 48 Widening Project. These measures correspond to those discussed in the Initial Study/Mitigated Negative Declaration. To ensure that the project’s mitigation measures would be properly implemented, a monitoring program has been developed that specifies the timing of and responsibility for monitoring each measure. The mitigation measures identified in the Initial Study/Mitigated Negative Declaration have been described in sufficient detail to provide the necessary information to identify the party or parties responsible for carrying out the mitigation. The County would have the primary responsibility for monitoring and reporting the implementation of the mitigation measures, as described.

**Mitigation Monitoring and Reporting Program (MMRP)
Avenue 48 Widening Project**

						VERIFICATION OF COMPLIANCE		
No.	Section of the Initial Study	Task and Description	Timing of Implementation	Method of Implementation	Responsible Party	Initials	Date	Remarks
AIR QUALITY								
AQ-1	Section 3.1.4	The construction contractor shall comply with Caltrans' Standard Specifications Section 14-9.03 Dust Control of Caltrans' Standard Specifications (2010). Construction of the project would also comply with the South Coast Air Quality Management District's Rule 403 — Fugitive Dust.	During construction	County to verify site plans to ensure incorporation prior to construction. Site inspections during construction to ensure compliance with this measure.	County and Construction Contractor			
AQ-2	Section 3.1.4	The construction contractor shall comply with Section 7-1.02 Emissions Reduction and Section 18 Dust Palliative of Caltrans' Standard Specifications (2010).	During construction	County to conduct site inspections to ensure compliance with this measure.	County and Construction Contractor			
AQ-3	Section 3.1.4	The Wind Erosion Control BMP (WE-1) from Caltrans' Construction Site Best Management Practices Manual will be implemented as follows: <ul style="list-style-type: none"> • Water shall be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will ensure even distribution. • All distribution equipment shall be equipped with a positive means of shutoff. • Unless water is applied by means of pipelines, at least one mobile unit shall be available at all times to apply water or dust palliative to the project. • If reclaimed water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Regional Water Quality Control Board requirements. Non-potable water shall not be conveyed in tanks or drain pipes that will be used to convey potable water and there shall be no connection between potable and non-potable supplies. Non-potable tanks, pipes and other conveyances shall be marked "NON-POTABLE" 						

						VERIFICATION OF COMPLIANCE		
No.	Section of the Initial Study	Task and Description	Timing of Implementation	Method of Implementation	Responsible Party	Initials	Date	Remarks
		<p>WATER – DO NOT DRINK.”</p> <ul style="list-style-type: none"> Materials applied as temporary soil stabilizers and soil binders will also provide wind erosion control benefits. 						
BIOLOGICAL RESOURCES								
BIO-1	Section 3.4.3	In order to comply with the MBTA, and relevant sections of the California Fish and Game Code (e.g., Sections 3503, 3503.3, 3511, 3513), if construction occurs between February 1st and August 31st, within three days of the start of any vegetation removal or ground disturbing activities a qualified biologist shall conduct a pre-construction clearance survey for nesting birds to ensure that no nesting birds would be disturbed during construction. The qualified biologist conducting the clearance survey shall document a negative survey with a brief letter report indicating that no impacts to active avian nests or burrows would occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a 300-foot buffer around the active nest. For listed and raptor species, this buffer should be expanded to 500 feet. A biological monitor shall be present to delineate the boundaries of the buffer area and monitor the active nest to ensure that nesting behavior is not adversely affected by construction activities as determined by the biologist. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.	Prior to construction	County to retain a qualified biologist to conduct pre-construction surveys during appropriate blooming season.	County and Qualified Biologist			
BIO-2	Section 3.4.3	A pre-construction burrowing owl clearance survey shall be conducted to confirm that burrowing owls remain absent and impacts to any occupied burrows that may be located on or within 500 feet of the development footprint do not occur. Two pre-construction clearance surveys shall be conducted 14 to 30 days and 24 hours prior to any vegetation removal or ground-disturbing activities.	During construction	County to conduct site inspections to ensure compliance with this measure.	County and Construction Contractor			

						VERIFICATION OF COMPLIANCE		
No.	Section of the Initial Study	Task and Description	Timing of Implementation	Method of Implementation	Responsible Party	Initials	Date	Remarks
BIO-3	Section 3.4.3	<p>Best Management Practices (BMPs) will be incorporated into project design and project management to minimize impacts on the environment including the release of pollutants (oils, fuels, etc.). All Temporary BMPs will remain in place until vegetation has been restored to pre-project conditions:</p> <ul style="list-style-type: none"> • The area of construction and disturbance would be limited to as small an area as feasible to reduce erosion and sedimentation. • Measures would be implemented during land-disturbing activities to reduce erosion and sedimentation. These measures may include mulches, soil binders and erosion control. Blankets, silt fencing, fiber rolls, temporary berms, sediment desilting basins, sediment traps, and check dams. • Existing vegetation would be protected where feasible to reduce erosion and sedimentation. Vegetation would be preserved by installing temporary fencing, or other protection devices, around areas to be protected. • Exposed soils would be covered by loose bulk materials or other materials to reduce erosion and runoff during rainfall events. • Exposed soils would be stabilized, through watering or other measures, to prevent the movement of dust at the project site caused by wind and construction activities such as traffic and grading activities. • All construction roadway areas would be properly protected to prevent excess erosion, sedimentation, and water pollution. • All erosion control measures and storm water control measures would be properly maintained until the site has returned to a pre-construction state. • All disturbed areas would be restored to pre-construction contours and revegetated, either through hydroseeding or other means, with native 	Prior to construction	County to retain qualified biologist to conduct burrowing owl survey.	County and Qualified Biologist			

						VERIFICATION OF COMPLIANCE		
No.	Section of the Initial Study	Task and Description	Timing of Implementation	Method of Implementation	Responsible Party	Initials	Date	Remarks
		species. <ul style="list-style-type: none"> All construction materials would be hauled off-site after completion of construction. 						
BIO-4	Section 3.4.3	The contractor shall dispose of all food-related trash in closed containers, and shall remove it from the project area each day during the construction period. Construction personnel will not feed or otherwise attract wildlife to the project area.	During construction	County to conduct site inspections to ensure compliance with this measure.	County and Construction Contractor			
BIO-5	Section 3.4.3	The contractor will not apply rodenticides or herbicides in the project area during construction activities.	During construction	County to conduct site inspections to ensure compliance with this measure.	County and Construction Contractor			
BIO-6	Section 3.4.3	Pre-construction environmental awareness training will be provided to all construction workers.	Prior to construction	County will ensure that environmental awareness training will be provided to construction workers prior to the commencement of construction.	Construction Contractor			
BIO-7	Section 3.4.3	If any wildlife is encountered during the course of construction, said wildlife will be allowed to leave the construction area unharmed.	During construction	The Construction Contractor will adhere to the requirements outlined in this measure.	County and Construction Contractor			
BIO-8	Section 3.4.3	Prior to arrival at the project site and prior to leaving the project site, construction equipment that may contain invasive plants and/or seeds will be cleaned to reduce the spreading of noxious weeds.	During construction	County to conduct site inspections to ensure compliance with this measure.	County and Construction Contractor			
CULTURAL RESOURCES/TRIBAL CULTURAL RESOURCES								
CUL-1	Section 3.5.3	Prior to construction, cultural resource awareness and sensitivity training shall be provided to all construction crew members by a Secretary of Interior Standards qualified archaeologist and representative(s) from appropriate Native American Tribe(s) to ensure that the crew members are aware of the need for cultural resource monitoring, the monitoring protocol, and the work cessation and notification protocol.	During construction	The County-appointed archaeological and/or Tribal monitor will adhere to the requirements outlined in this measure should	County-appointed archaeological and/or Tribal monitor			

						VERIFICATION OF COMPLIANCE		
No.	Section of the Initial Study	Task and Description	Timing of Implementation	Method of Implementation	Responsible Party	Initials	Date	Remarks
				archaeological resources be inadvertently encountered during construction.				
CUL-2	Section 3.5.3	Secretary of Interior Standards qualified monitor and Native American monitor from an appropriate Native American Tribe(s) shall monitor all ground-disturbing activities that extend into undisturbed native soils. In conjunction with the archaeological monitor, the Native American monitor shall have the authority to temporarily divert, redirect or halt the ground disturbance activities to allow identification, evaluation, and potential recovery of cultural resources. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be suspended 100 feet around the resource(s). The archaeological monitor, a representative of the appropriate Native American Tribe(s), and the Riverside County Transportation Department shall confer regarding the appropriate treatment and mitigation of the discovered resource(s). Work shall not resume in the area until mitigation has been completed or it has been determined that the archaeological resource(s) is not significant.	During construction	The County-appointed archaeological and/or Tribal monitor will adhere to the requirements outlined in this measure should human remains be inadvertently encountered during construction.	County-appointed archaeological and/or Tribal monitor			
CUL-3	Section 3.5.3	If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner would notify the NAHC, which would determine and notify a MLD. With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items	During construction	The County-appointed archaeological and/or Tribal monitor will adhere to the requirements outlined in this measure should human remains be inadvertently encountered during construction.	County-appointed archaeological and/or Tribal monitor			

						VERIFICATION OF COMPLIANCE		
No.	Section of the Initial Study	Task and Description	Timing of Implementation	Method of Implementation	Responsible Party	Initials	Date	Remarks
		associated with Native American burials.						
HAZARDS AND HAZARDOUS MATERIALS								
HAZ-1	Section 3.8.3	Should the project require disturbance of traffic striping materials, the testing and removal of these materials shall be conducted consistent with Caltrans Standard Special Provisions for <i>Remove Traffic Stripe and Pavement Markings</i> .	During construction	Should traffic striping materials be disturbed, a Debris Containment Work Plan and a Lead Compliance Plan will be prepared by the construction contractor.	County and Construction Contractor			
HAZ-2	Section 3.8.3	Any transformer to be relocated/removed during site construction/demolition activities shall be conducted under the purview of the local utility company to identify proper-handling procedures regarding PCBs consistent with Title 22, Division 4.5 of the CCR, and other appropriate regulatory agencies.	During construction	If unknown wastes are discovered during construction the contractor will follow the requirements identified in this measure.	County and Construction Contractor			
HAZ-3	Section 3.8.3	As is the case for any project that proposes excavation, the potential exists for unknown hazardous contamination to be revealed during project construction. If soil contaminated by hazardous waste is discovered during construction, proper hazardous waste handling and emergency procedures under 40 CFR § 262 and Division 4.5 of Title 22 California Code of Regulations shall be followed.	Prior to construction	County to prepare a CCP.	County and Construction Contractor			
HYDROLOGY AND WATER QUALITY								
WAT-1	Section 3.9.3	. The project will require coverage under the Construction General Permit 2009 0009 DWQ NPDES CAS No. CAS 000002 prior to any ground disturbance activities. The Contractor's SWPPP shall describe the Contractor's plan for managing run-on and runoff during each construction phase. The SWPPP shall describe	Prior to Construction	Count to prepare a SWPPP.	County			

						VERIFICATION OF COMPLIANCE		
No.	Section of the Initial Study	Task and Description	Timing of Implementation	Method of Implementation	Responsible Party	Initials	Date	Remarks
		the BMPs that will be implemented to control erosion, sediment, tracking, construction materials, construction wastes, and non-storm water flows. The SWPPP shall describe installation, operation, inspection, maintenance, and monitoring activities that will be implemented for compliance with the CGP and all applicable federal, state, and local laws, ordinances, statutes, rule and regulations related to the protection of water quality. The project site must be fully stabilized using a combination of native hydroseed mix and/or stabilizing tackifier prior to filing the Notice of Termination.						
NOISE								
NOI-1	Section 3.12.5	<p>Noise control shall conform to the provisions in Section 14-8.02, "Noise Control" of the Standard Specifications and these Special Provisions.</p> <p>Section 14-8.02, "Noise Control," second paragraph, is deleted and replaced with the following:</p> <p>The noise level from the Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBA LMax at a distance of 50 feet. This requirement in no way relieves the Contractor from responsibility for complying with local ordinances regulating noise level.</p> <p>Said noise level requirement shall apply to all equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals must be avoided in favor of light warnings except those required by safety laws for the protection of personnel.</p> <p>Payment</p> <p>Full compensation for conforming to the requirements of this Section, "Noise Control," shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.</p>	Prior to construction	County to verify site plans to ensure incorporation prior to construction. Site inspections during construction to ensure compliance with this measure.	County and Construction Contractor			

						VERIFICATION OF COMPLIANCE		
No.	Section of the Initial Study	Task and Description	Timing of Implementation	Method of Implementation	Responsible Party	Initials	Date	Remarks
NOI-2	Section 3.12.5	During project construction, all vibratory roller equipment operating on the project site shall not be utilized within 42 feet of the nearest sensitive receptor to minimize vibration impacts.	During Construction	Construction Contractor to ensure vibratory roller equipment will not be utilized within 42 feet of the nearest sensitive receptor.	County and Construction Contractor			
TRANSPORTATION/TRAFFIC								
TRA-1	Section 3.16.3	Temporary impacts to traffic flow as a result of construction activities would be minimized through construction phasing and signage and a traffic control plan (TCP).	Prior to and during construction	County will approve the Traffic Control Plan that addresses the requirements identified in this measure.	County and Construction Contractor			

