PROJECT REPORT

TO: ENVIRONMENTAL EVALUATION COMMITTEE **AGENDA DATE: February 27, 2020**

FROM: PLANNING & DEVELOPMENT SERVICES **AGENDA TIME 1:30 PM/ No. 2**

PROJECT TYPE: IS#19-0032; Lack Road Bridge Replacement SUPERVISORY DISTRICT #3

LOCATION: 6143 Lack Road APN: 020-150-031-001

Brawley, CA 92227 PARCEL SIZE: +/- 21.79 acres

GENERAL PLAN (existing) Agriculture GENERAL PLAN (proposed) N/A

ZONE (existing) A-3 (Heavy Agriculture) ZONE (proposed) N/A

GENERAL PLAN FINDINGS ☒ CONSISTENT ☐ INCONSISTENT ☐ MAY BE/FINDINGS

PLANNING COMMISSION DECISION: HEARING DATE: _____

☐ APPROVED ☐ DENIED ☐ OTHER

PLANNING DIRECTORS DECISION: HEARING DATE: _____

☐ APPROVED ☐ DENIED ☐ OTHER

ENVIROMENTAL EVALUATION COMMITTEE DECISION: HEARING DATE: 02/27/2020

INITIAL STUDY: 19-0032

☐ NEGATIVE DECLARATION ☐ MITIGATED NEG. DECLARATION ☐ EIR

DEPARTMENTAL REPORTS / APPROVALS:

PUBLIC WORKS	☒ NONE	☐ ATTACHED
AG	☒ NONE	☐ ATTACHED
APCD	☐ NONE	☒ ATTACHED
E.H.S.	☒ NONE	☐ ATTACHED
FIRE / OES	☒ NONE	☐ ATTACHED
SHERIFF.	☒ NONE	☐ ATTACHED
OTHER	Quechan, Campo Band of Mission Indians	

REQUESTED ACTION:

(See Attached)

Planning & Development Services
801 MAIN ST., EL CENTRO, CA 92243 442-265-1736
(Jim Minnick, Director)
S:\AllUsers\APN\020\150\031\IS 19-0032\IS19-0032 PROREP.docx

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☐ NEGATIVE DECLARATION
☐ MITIGATED NEGATIVE DECLARATION

Initial Study & Environmental Analysis
For:

(County Project Number 6421)
Lack Road Bridge Replacement Project

Prepared By:

COUNTY OF IMPERIAL
Planning & Development Services Department
801 Main Street
El Centro, CA 92243
(442) 265-1736
www.icpds.com

Environmental Intelligence, LLC
1590 South Coast Highway, Suite 17
Laguna Beach, CA 92651

February 2020

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ACRONYMS AND ABBREVIATIONS

AASHTO	American Association of State Highway and Transportation Officials
AB	Assembly Bill
API	Area of Potential Impacts
AQMP	Air Quality Management Plan
BMP	Best Management Practice
BSA	Biological Study Area
BUOW	Burrowing Owl
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFC	Chlorofluorocarbons
CFGC	California Fish and Game Code
CGP	Construction General Permit
CH_4	Methane
CHRIS	California Historical Resources Information System
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CRRWQCB	Colorado River Regional Water Quality Control Board
dB	Decibel
dBA	A-Weighted Decibel
DPR	California Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
EI	Environmental Intelligence, LLC
EIR	Environmental Impact Report
ESA	Environmentally Sensitive Area
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
GHG	Greenhouse Gas
GPS	Global Positioning System
HCP	Habitat Conservation Plan
HFC	Hydrofluorocarbon
ICAPCD	Imperial County Air Pollution Control District
ICFD	Imperial County Fire Department
ICPDS	Imperial County Planning & Development Services Department

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ICSO	Imperial County Sheriff's Office
IID	Imperial Irrigation District
IS	Initial Study
Leq	Equivalent Noise Level
LRA	Local Responsibility Area
MM	Mitigation Measure
MND	Mitigated Negative Declaration
MPH	Miles per Hour
MSL	Mean Sea Level
N2O	Nitrous Oxide
NO2	Nitrogen Dioxide
NAAQS	National Ambient Air Quality Standards
NCCP	Natural Community Conservation Plan
ND	Negative Declaration
NF3	Nitrogen Trifluoride
NHD	National Hydrography Dataset
NPDES	National Pollutant Discharge Elimination System
NRHP	National Registrar of Historic Places
NWI	National Wetlands Inventory
O3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OPR	California Governor's Office of Planning and Research
PFC	Perfluorocarbon
PM	Particulate Matter
PPV	Peak Particle Velocity
QI	Quaternary Lake Sediments
RACT SIP	Reasonable Available Control Technology State Implementation Plan
SCAG	Southern California Association of Governments
SCIC	South Coastal Information Center
SF6	Sulfur Hexafluoride
SIP	State Implementation Plan
SO2	Sulfur Dioxide
SR	State Route
SSAB	Salton Sea Air Basin
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey
VHFHSZ	Very High Fire Hazard Severity Zones

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VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds

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SECTION 1
INTRODUCTION

A. PURPOSE

This document is a ☐ policy-level, ☒ project level Initial Study for evaluation of potential environmental impacts resulting with the proposed Lack Road Bridge Replacement Project (Refer to Exhibit 1, *Regional Vicinity*, & 2, *Project Location*).

B. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REQUIREMENTS AND THE IMPERIAL COUNTY'S GUIDELINES FOR IMPLEMENTING CEQA

As defined by Section 15063 of the State California Environmental Quality Act (CEQA) Guidelines and Section 7 of the County's "CEQA Regulations Guidelines for the Implementation of CEQA, as amended", an **Initial Study** is prepared primarily to provide the Lead Agency with information to use as the basis for determining whether an Environmental Impact Report (EIR), Negative Declaration, or Mitigated Negative Declaration would be appropriate for providing the necessary environmental documentation and clearance for any proposed project.

☐ According to Section 15065, an **EIR** is deemed appropriate for a particular proposal if the following conditions occur:

- The proposal has the potential to substantially degrade quality of the environment.
- The proposal has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
- The proposal has possible environmental effects that are individually limited but cumulatively considerable.
- The proposal could cause direct or indirect adverse effects on human beings.

☐ According to Section 15070(a), a **Negative Declaration** is deemed appropriate if the proposal would not result in any significant effect on the environment.

☐ According to Section 15070(b), a **Mitigated Negative Declaration** is deemed appropriate if it is determined that though a proposal could result in a significant effect, mitigation measures are available to reduce these significant effects to insignificant levels.

This Initial Study has determined that the proposed applications will not result in any potentially significant environmental impacts and therefore, a Negative Declaration is deemed as the appropriate document to provide necessary environmental evaluations and clearance as identified hereinafter.

This Initial Study and Negative Declaration are prepared in conformance with the California Environmental Quality Act of 1970, as amended (Public Resources Code, Section 21000 et. seq.); Section 15070 of the State & County of Imperial's Guidelines for Implementation of the California Environmental Quality Act of 1970, as amended (California Code of Regulations, Title 14, Chapter 3, Section 15000, et. seq.); applicable requirements of the County of Imperial; and the regulations, requirements, and procedures of any other responsible public agency or an agency with jurisdiction by law.

Pursuant to the County of Imperial Guidelines for Implementing CEQA, depending on the project scope, the County of Imperial Board of Supervisors, Planning Commission and/or Planning Director is designated the Lead Agency, in accordance with Section 15050 of the CEQA Guidelines. The Lead Agency is the public agency which has the

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principal responsibility for approving the necessary environmental clearances and analyses for any project in the County.

C. INTENDED USES OF INITIAL STUDY AND NEGATIVE DECLARATION

This Initial Study and Negative Declaration are informational documents which are intended to inform County of Imperial decision makers, other responsible or interested agencies, and the general public of potential environmental effects of the proposed applications. The environmental review process has been established to enable public agencies to evaluate environmental consequences and to examine and implement methods of eliminating or reducing any potentially adverse impacts. While CEQA requires that consideration be given to avoiding environmental damage, the Lead Agency and other responsible public agencies must balance adverse environmental effects against other public objectives, including economic and social goals.

The Initial Study and Negative Declaration, prepared for the project will be circulated for a period of 20 days (*30-days if submitted to the State Clearinghouse for a project of area-wide significance*) for public and agency review and comments. At the conclusion, if comments are received, the County Planning & Development Services Department will prepare a document entitled "Responses to Comments" which will be forwarded to any commenting entity and be made part of the record within 10-days of any project consideration.

D. CONTENTS OF INITIAL STUDY & NEGATIVE DECLARATION

This Initial Study is organized to facilitate a basic understanding of the existing setting and environmental implications of the proposed applications.

SECTION 1

I. INTRODUCTION presents an introduction to the entire report. This section discusses the environmental process, scope of environmental review, and incorporation by reference documents.

SECTION 2

II. ENVIRONMENTAL CHECKLIST FORM contains the County's Environmental Checklist Form. The checklist form presents results of the environmental evaluation for the proposed applications and those issue areas that would have either a significant impact, potentially significant impact, or no impact.

PROJECT SUMMARY, LOCATION AND EVIRONMENTAL SETTINGS describes the proposed project entitlements and required applications. A description of discretionary approvals and permits required for project implementation is also included. It also identifies the location of the project and a general description of the surrounding environmental settings.

ENVIRONMENTAL ANALYSIS evaluates each response provided in the environmental checklist form. Each response checked in the checklist form is discussed and supported with sufficient data and analysis as necessary. As appropriate, each response discussion describes and identifies specific impacts anticipated with project implementation.

SECTION 3

III. MANDATORY FINDINGS presents Mandatory Findings of Significance in accordance with Section 15065 of the CEQA Guidelines.

IV. PERSONS AND ORGANIZATIONS CONSULTED identifies those persons consulted and involved in preparation of this Initial Study and Negative Declaration.

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V. REFERENCES lists bibliographical materials used in preparation of this document.

VI. NEGATIVE DECLARATION – COUNTY OF IMPERIAL

VII. FINDINGS

SECTION 4

VIII. RESPONSE TO COMMENTS (IF ANY)

IX. MITIGATION MONITORING & REPORTING PROGRAM (MMRP) (IF ANY)

E. SCOPE OF ENVIRONMENTAL ANALYSIS

For evaluation of environmental impacts, each question from the Environmental Checklist Form is summarized and responses are provided according to the analysis undertaken as part of the Initial Study. Impacts and effects will be evaluated and quantified, when appropriate. To each question, there are four possible responses, including:

1. **No Impact:** A "No Impact" response is adequately supported if the impact simply does not apply to the proposed applications.

2. **Less Than Significant Impact:** The proposed applications will have the potential to impact the environment. These impacts, however, will be less than significant; no additional analysis is required.

3. **Less Than Significant With Mitigation Incorporated:** This applies where incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact".

4. **Potentially Significant Impact:** The proposed applications could have impacts that are considered significant. Additional analyses and possibly an EIR could be required to identify mitigation measures that could reduce these impacts to less than significant levels.

F. POLICY-LEVEL or PROJECT LEVEL ENVIRONMENTAL ANALYSIS

This Initial Study and Negative Declaration will be conducted under a ☐ policy-level, ☒ project level analysis. Regarding mitigation measures, it is not the intent of this document to "overlap" or restate conditions of approval that are commonly established for future known projects or the proposed applications. Additionally, those other standard requirements and regulations that any development must comply with, that are outside the County's jurisdiction, are also not considered mitigation measures and therefore, will not be identified in this document.

G. TIERED DOCUMENTS AND INCORPORATION BY REFERENCE

Information, findings, and conclusions contained in this document are based on incorporation by reference of tiered documentation, which are discussed in the following section.

1. Tiered Documents

As permitted in Section 15152(a) of the CEQA Guidelines, information and discussions from other documents can be included into this document. Tiering is defined as follows:

"Tiering refers to using the analysis of general matters contained in a broader EIR (such as the one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects;

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incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project."

Tiering also allows this document to comply with Section 15152(b) of the CEQA Guidelines, which discourages redundant analyses, as follows:

"Agencies are encouraged to tier the environmental analyses which they prepare for separate but related projects including the general plans, zoning changes, and development projects. This approach can eliminate repetitive discussion of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy or program to an EIR or negative declaration for another plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration."

Further, Section 15152(d) of the CEQA Guidelines states:

"Where an EIR has been prepared and certified for a program, plan, policy, or ordinance consistent with the requirements of this section, any lead agency for a later project pursuant to or consistent with the program, plan, policy, or ordinance should limit the EIR or negative declaration on the later project to effects which:

(1) Were not examined as significant effects on the environment in the prior EIR; or

(2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means."

2. Incorporation By Reference

Incorporation by reference is a procedure for reducing the size of EIRs/MND and is most appropriate for including long, descriptive, or technical materials that provide general background information, but do not contribute directly to the specific analysis of the project itself. This procedure is particularly useful when an EIR or Negative Declaration relies on a broadly-drafted EIR for its evaluation of cumulative impacts of related projects (*Las Virgenes Homeowners Federation v. County of Los Angeles* [1986, 177 Ca.3d 300]). If an EIR or Negative Declaration relies on information from a supporting study that is available to the public, the EIR or Negative Declaration cannot be deemed unsupported by evidence or analysis (*San Francisco Ecology Center v. City and County of San Francisco* [1975, 48 Ca.3d 584, 595]). This document incorporates by reference appropriate information from the "Final Environmental Impact Report and Environmental Assessment for the "County of Imperial General Plan EIR" prepared by Brian F. Mooney Associates in 1993 and updates.

When an EIR or Negative Declaration incorporates a document by reference, the incorporation must comply with Section 15150 of the CEQA Guidelines as follows:

- The incorporated document must be available to the public or be a matter of public record (CEQA Guidelines Section 15150[a]). The General Plan EIR and updates are available, along with this document, at the County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 Ph. (442) 265-1736.

- This document must be available for inspection by the public at an office of the lead agency (CEQA Guidelines Section 15150[b]). These documents are available at the County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 Ph. (442) 265-1736.

- These documents must summarize the portion of the document being incorporated by reference or briefly describe information that cannot be summarized. Furthermore, these documents must describe the

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relationship between the incorporated information and the analysis in the tiered documents (CEQA Guidelines Section 15150[c]). As discussed above, the tiered EIRs address the entire project site and provide background and inventory information and data which apply to the project site. Incorporated information and/or data will be cited in the appropriate sections.

- These documents must include the State identification number of the incorporated documents (CEQA Guidelines Section 15150[d]). The State Clearinghouse Number for the County of Imperial General Plan EIR is SCH #93011023.

- The material to be incorporated in this document will include general background information (CEQA Guidelines Section 15150[f]). This has been previously discussed in this document.

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SECTION 2

II. Environmental Checklist

1. **Project Title**: Imperial County Public Works Department Lack Road Bridge Replacement Project

2. **Lead Agency**: Imperial County Planning & Development Services Department (ICPDS)

3. **Contact person and phone number**: Mariela Moran, Planner II, (442)265-1736, ext. 1747

4. **Address**: 801 Main Street, El Centro CA, 92243

5. **E-mail**: marielamoran@co.imperial.ca.us

6. **Project location**: The proposed application, referred to herein as "the Proposed Project", is located approximately 5.8 miles northwest of the City of Westmorland where Lack Road crosses the New River at bridge No. 58C0101 in Imperial County, California (Exhibit 1, *Regional Vicinity*). The existing bridge is a seven (7) span, simply supported untreated DF stringers bridge with laminated timber decking and AC cover, supported by treated timber pile bents and pile bent abutments with timber seating walls that runs north and south over the New River. The existing bridge is approximately 106 feet in length and 27 feet wide. The approximate limits of the Proposed Project area would extend along Lack Road from approximately 300 feet south to 350 feet north of the New River. Lack Road is a north/south road that supports direct access from State Route (SR-) 86 to Imperial County Route S-30. The Proposed Project is located 0.3 mile south of Vail Road and 0.2 mile north of Foulds Road (Exhibit 2, *Project Location*).

7. **Project sponsor's name and address**: Imperial County Public Works Department, 155 S. 11th Street, El Centro, CA 92243

8. **General Plan designation**: The area surrounding the Proposed Project site is characterized as agricultural land uses. Lack Road is a farm to market road with two (2) traffic lanes, one (1) traveling in each direction. The Proposed Project is surrounded by land zoned as Heavy Agriculture (A-3) with a general plan designation of Agriculture (County of Imperial, 2019a, 2019b; Exhibits 3 and 4, *General Plan and Land Use Designation Map and Zoning Map*). The Proposed Project would construct a new improved bridge structure in place of the existing bridge where it crosses the New River. The Proposed Project is consistent with both the Imperial County General Plan's land use designation of the Proposed Project site and the County's Land Use Ordinance.

9. **Zoning**: See General Plan designation, above.

10. **Description of project**: Due to severe deterioration of some of the pile supports, the existing bridge has been closed to traffic (inactive) for over one (1) year. The County Public Works Department (Applicant) proposes to replace the existing seven (7) span timber bridge with a new precast concrete bridge designed to current American Association of State Highway and Transportation Officials (AASHTO) standards with California amendments (Exhibits 5 and 6, *Site Plan and Typical Section*). The proposed new bridge design would consist of a single-span bridge with four (4) precast/prestressed bulb-tee girders supported on two (2) abutments. The new bridge dimensions would be 35 feet and 6 inches wide by 125 feet long, with a structure depth of 7 feet and 0.875 inches. The selection of a precast bridge structure would eliminate the need for construction to take place within the New River.

The proposed roadway would remain a single travel lane in each direction, and geometry for the Proposed Project would be based on applicable County and AASHTO standards. The new bridge would be reconstructed in the same alignment with two (2) 12-foot-wide lanes designed for a 55 mile per hour (mph) vehicular speed. Shoulder widths would be 4 feet on the bridge, and would transition to the existing width at the roadway conform points. The new bridge would be designed to withstand a 100-year flood event.

The existing bridge would be removed without having to enter the New River as all construction activities were designed to take place from the river banks. It is estimated that the Proposed Project would be constructed over a nine (9)-month period beginning in March 2020 and concluding in November 2020.

11. **Surrounding land uses and setting**: Briefly describe the project's surroundings: The topography of the Proposed Project area is relatively flat with a gentle gradient downward to the northwest (Exhibit 7, *USGS Topographic Map*).

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The elevation at the Proposed Project site is approximately 215 feet below Mean Sea Level (MSL). The New River flows beneath the existing bridge and the natural river's banks support limited wetland and riparian vegetation, which is primarily comprised of salt cedar (*Tamarix spp.*) and iodine bush (*Allenrolfea occidentalis*). Agricultural land surrounds the Proposed Project site with an Imperial Irrigation District (IID) culvert to the east that empties into the New River. Vail Road is located approximately 0.3 mile north of the Proposed Project site, while Foulds Road is located approximately 0.2 mile south of the Proposed Project site. The nearest sensitive receptors (residences) are approximately 1.1 miles south and 1.9 miles northeast of the Proposed Project.

12. **Other public agencies whose approval is required** (e.g., permits, financing approval, or participation agreement.): Planning Commission

13. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1?**

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code, Section 21080.3.2). Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code, Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code, Section 21082.3 (c) contains provisions specific to confidentiality.

The lead CEQA agency must begin the Assembly Bill (AB) 52 consultation process prior to the release of a ND, MND, or EIR. The AB 52 consultation process shall begin with the Lead Agency (ICPDS) providing written notification to California Native American Tribes who identify as being traditionally and culturally affiliated with the Proposed Project area. The written notification includes a brief description of the Proposed Project, including the location, the Lead Agency's contact information, and notification that the California Native American Tribe has 30 days to request consultation, per AB 52. Upon receipt of a written response from a California Native American Tribe requesting consultation, the Lead Agency and the California Native American Tribe(s) requesting consultation shall begin AB 52 consultation. AB 52 consultation notification letter was sent by the ICPDS on December 10, 2019. Response comment letters were received from the Quechan Indian Tribe (via email) on December 13, 2019, December 23, 2019 and February 2, 2020. The comments provided by the Quechan Indian Tribe have been acknowledged by the ICPDS and the Cultural Resources Survey Report (see Appendix D).

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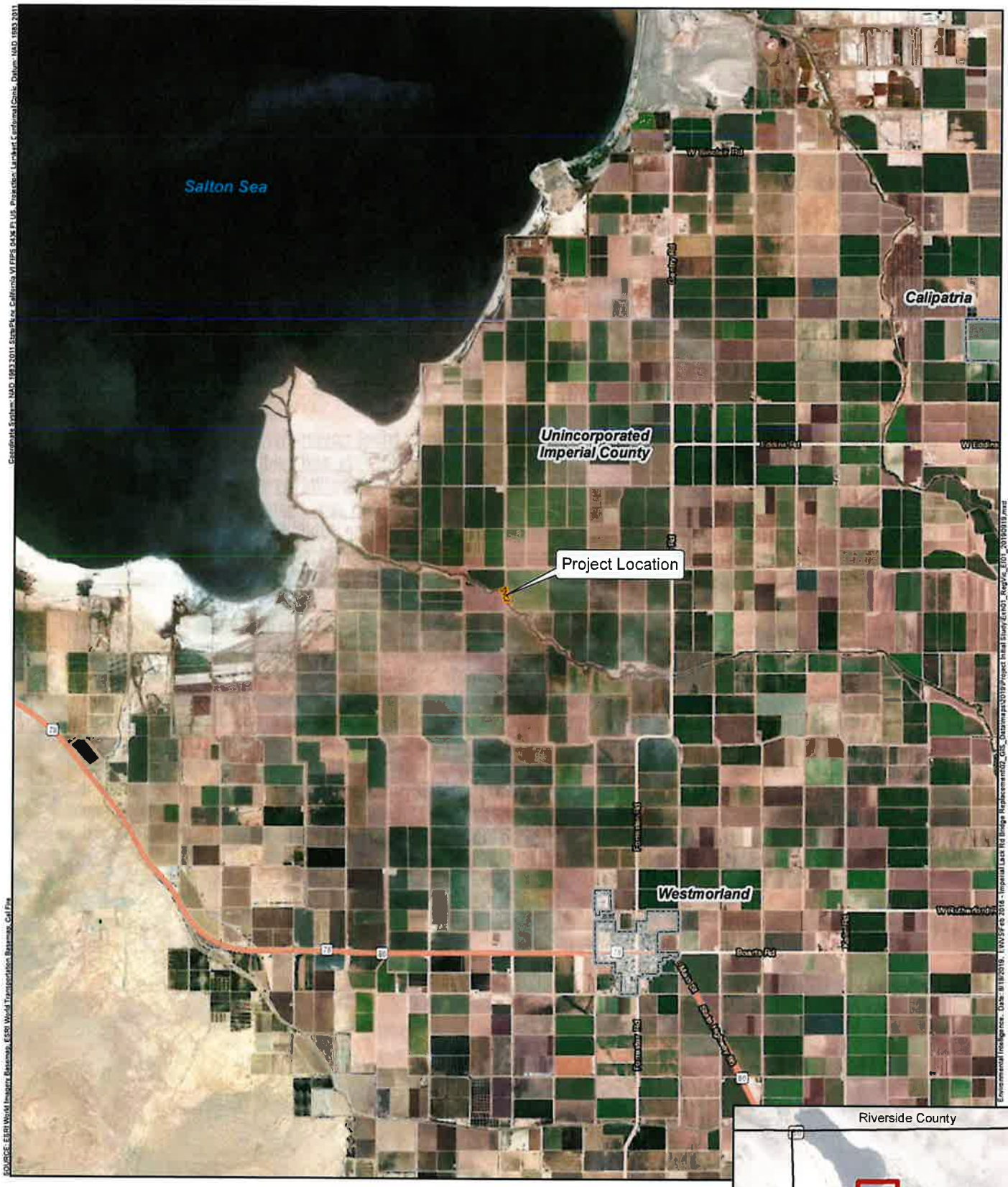


EXHIBIT 1: REGIONAL VICINITY
LACK ROAD BRIDGE REPLACEMENT | IMPERIAL COUNTY, CA

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Proposed Project Site

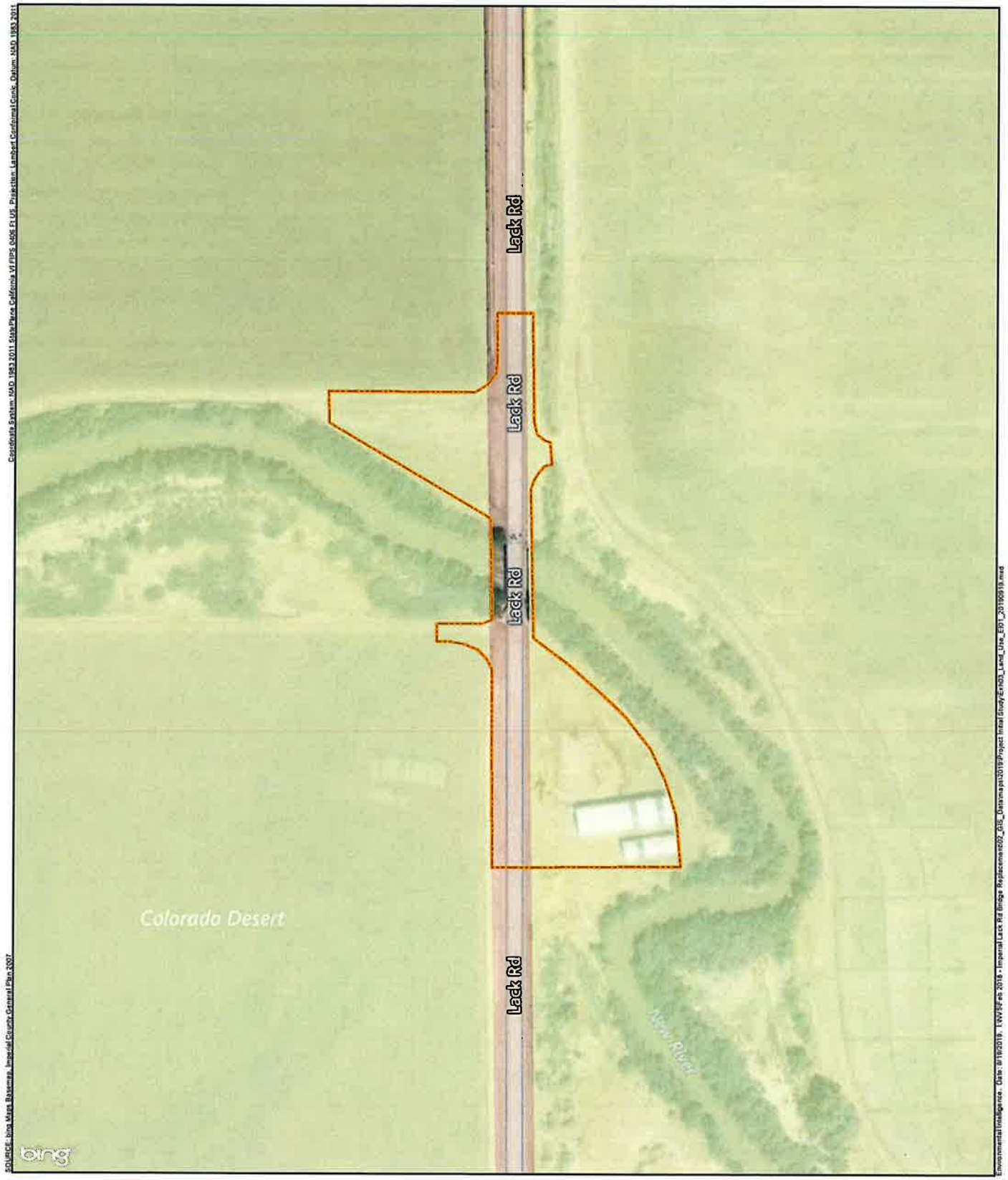
0 250 500 Feet

1:3,000 1 in = 250 feet

EXHIBIT 2: PROJECT LOCATION

LACK ROAD BRIDGE REPLACEMENT | IMPERIAL COUNTY, CA

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Proposed Project Site

Land Use

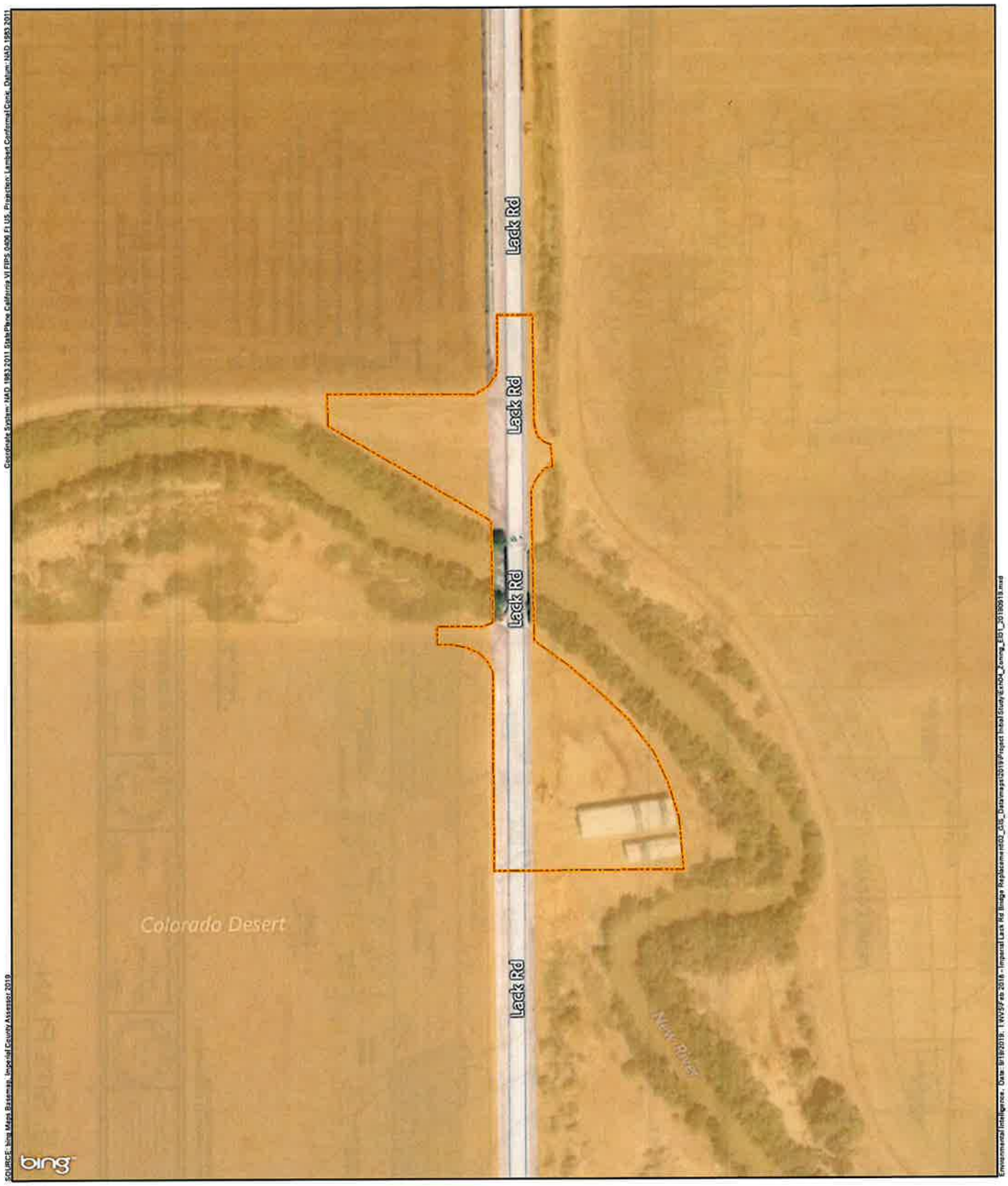
Agriculture

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1:2,400 1 in = 200 feet

EXHIBIT 3: GENERAL PLAN AND LAND USE DESIGNATION MAP
LACK ROAD BRIDGE REPLACEMENT | IMPERIAL COUNTY, CA

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Proposed Project Site

Zoning

Heavy Agriculture

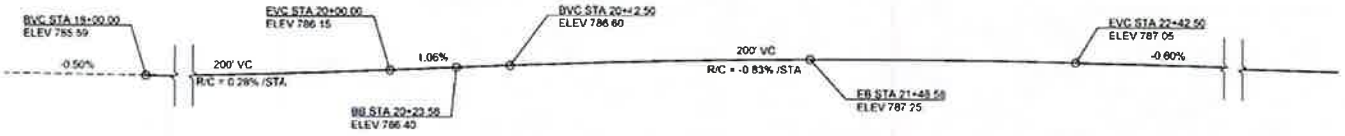
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1:2,400 1 in = 200 feet

EXHIBIT 4: ZONING MAP

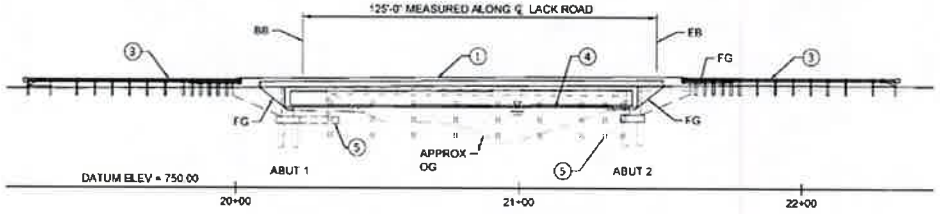
LACK ROAD BRIDGE REPLACEMENT | IMPERIAL COUNTY, CA

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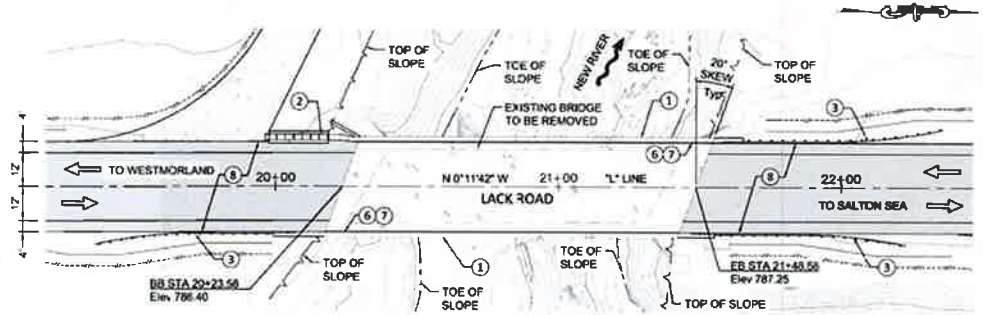
PROFILE GRADE

SCALE: 1"=20'



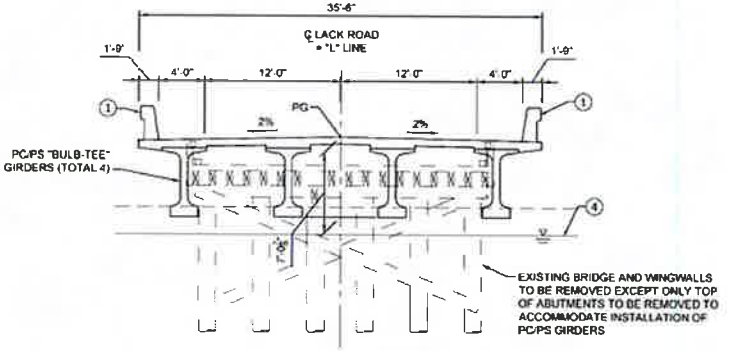
ELEVATION

SCALE: 1"=20'



PLAN

SCALE: 1"=20'



TYPICAL SECTION

SCALE: 1"=5'

LEGEND:

- INDICATES DIRECTION OF TRAFFIC
- INDICATES EXISTING BRIDGE
- INDICATES PROPOSED BRIDGE
- INDICATES DIRECTION OF FLOW

NOTES:

1. CONCRETE BARRIER (TYPE 836)
2. CRASH CUSHION, SEE ROADWAY PLANS
3. MIDWEST GUARDRAIL SYSTEM, SEE ROADWAY PLANS
4. Q100 WATER SURFACE ELEVATION = 778.40
5. EXISTING BRIDGE ABUTMENT REMAINS IN PLACE, CUT TOP PORTION TO AVOID NEW BRIDGE GIRDERS
6. PAINT BRIDGE NAME "LACK ROAD BRIDGE"
7. PAINT BRIDGE NUMBER "58C-0101"
8. AC PAVEMENT OVER AGGREGATE BASE. SEE "PLAN AND PROFILE" SHEET

GRAPHIC SCALE
0' 10' 20' 30' 40' 60' 80'
SCALE 1"= 20'

NOTES:
ANY UTILITIES LOCATED BY THE CONTRACTOR NOT SHOWN ON THESE PLANS SHALL BE PROTECTED IN PLACE OR REPLACED IN KIND IF DAMAGED BY THE CONTRACTOR

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
DANIEL SUN, P.E.
NYS
40084
R.C.E. No.
9/6/19
DATE
12/30/19
REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E.
ROAD COMMISSIONER
62028
R.C.E. No.
DATE
9/30/19
REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DES 9/4/2019
DRN SRD
CHK AS SHOWN
QC'D CDS

LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

GENERAL PLAN

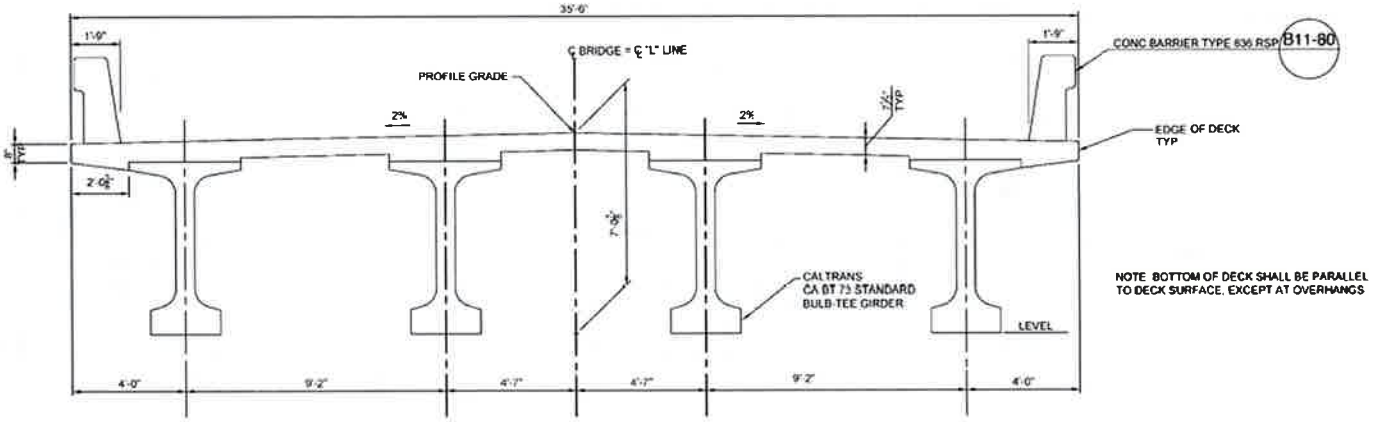
REFERENCE S 01

SHEET 5 OF 18

EEC ORIGINAL PKG

EXHIBIT 5. SITE PLAN

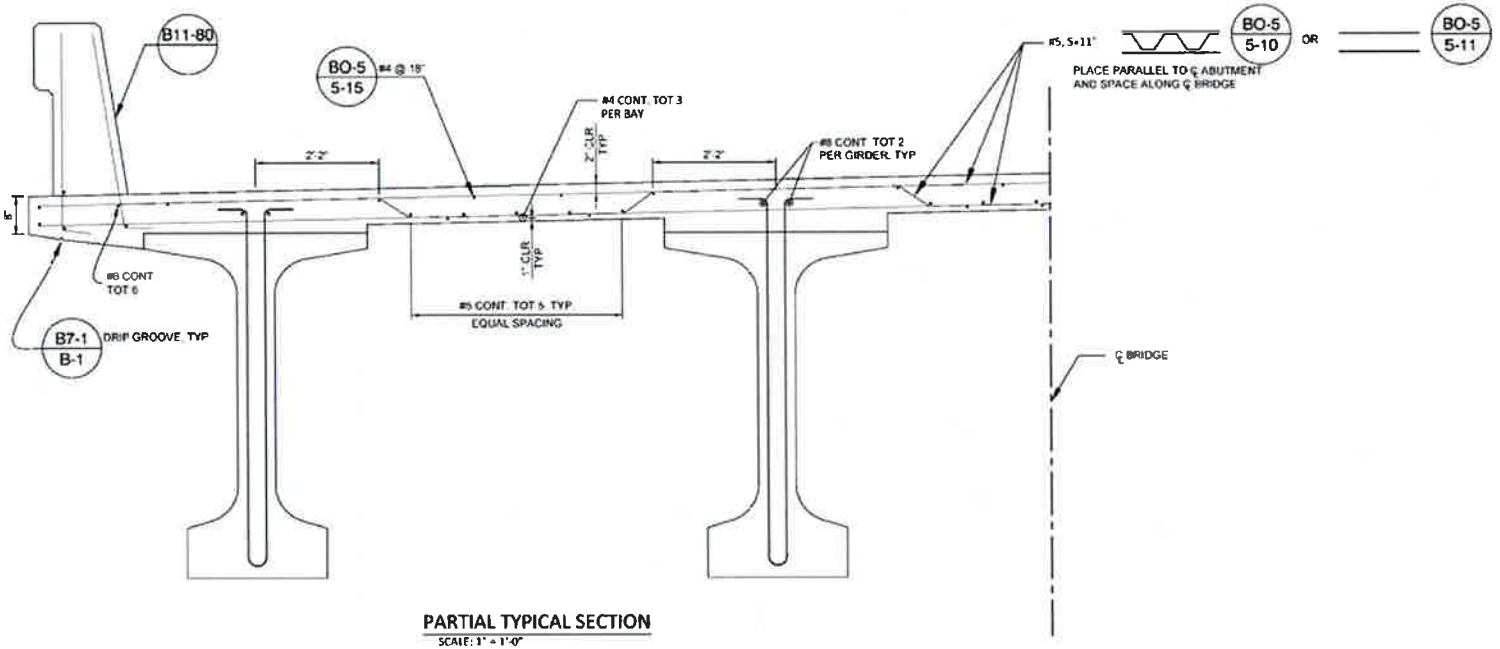
LACK ROAD BRIDGE REPLACEMENT | IMPERIAL COUNTY, CA



NOTE: BOTTOM OF DECK SHALL BE PARALLEL TO DECK SURFACE, EXCEPT AT OVERHANGS

TYPICAL SECTION

SCALE: ½" = 1'-0"



PARTIAL TYPICAL SECTION

SCALE: 1" = 1'-0"

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECTION OF:
DANIEL SUN, P.E.
NV5
40064 R.C.E. No.
9/6/19 DATE
12/30/19 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E.
ROAD COMMISSIONER
62028 R.C.E. No.
DATE
9/30/19 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 9/6/2019
DRAWN SRO
PLOT AS SHOWN
CHECKED CDS

LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

TYPICAL SECTION

REFERENCE 5 08

SHEET 12 OF 18

N:\18_0000439\Civil\08 - Bridge - Typical Section dwg Sep 06, 2019 10:20

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EXHIBIT 6. TYPICAL SECTION

LACK ROAD BRIDGE REPLACEMENT | IMPERIAL COUNTY, CA

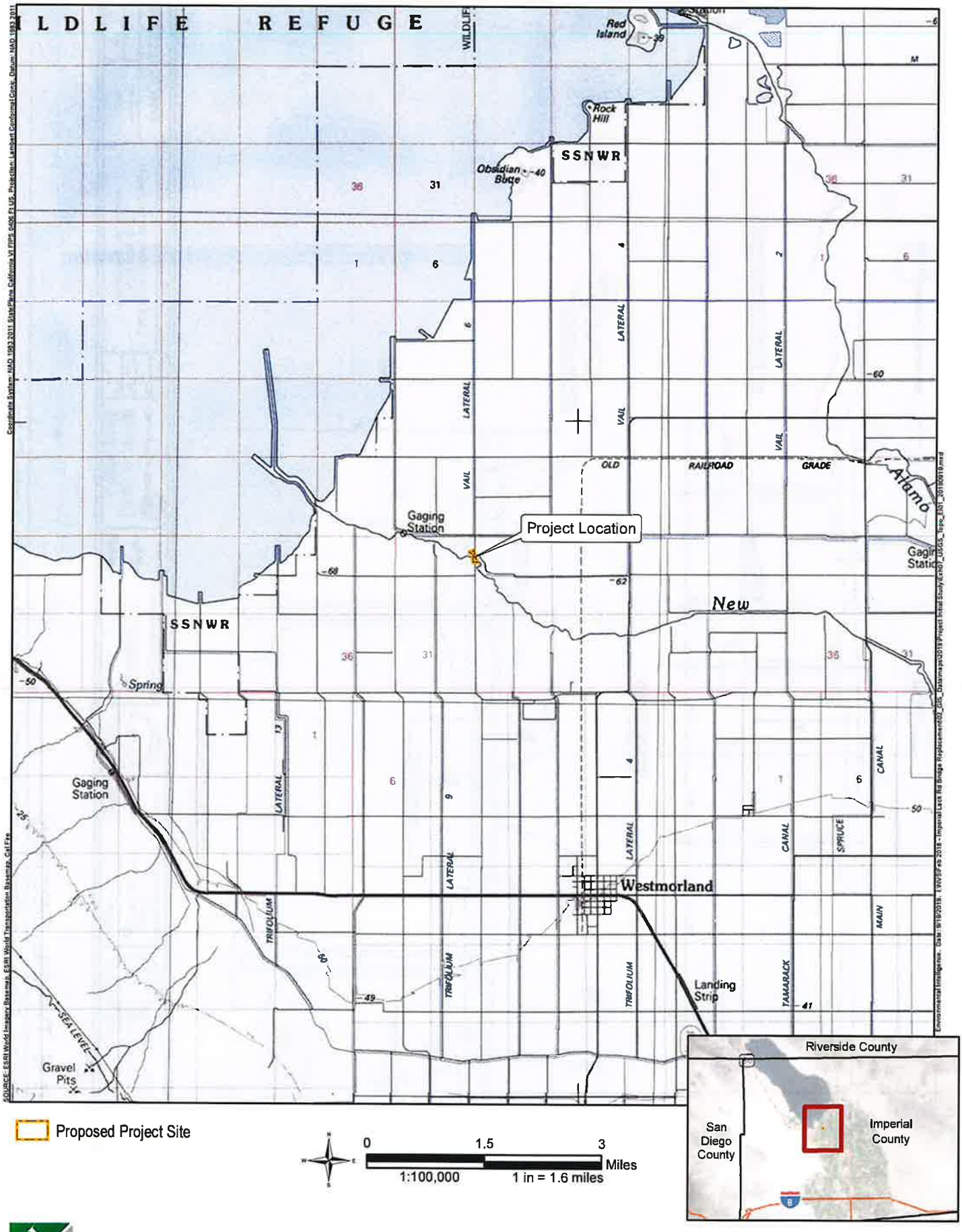


Exhibit 7: USGS Topographic Map

Lack Road Bridge Replacement | Imperial County, CA

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

ENVIRONMENTAL EVALUATION COMMITTEE (EEC) DETERMINATION

After Review of the Initial Study, the Environmental Evaluation Committee has:

☐ Found that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ Found that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ Found that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ Found that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ Found that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE DE MINIMIS IMPACT FINDING: ☐ Yes ☐ No

EEC VOTES	YES	NO	ABSENT
PUBLIC WORKS	☑	☐	☐
ENVIRONMENTAL HEALTH SVCS	☑	☐	☐
OFFICE EMERGENCY SERVICES	☑	☐	☐
APCD	☑	☐	☐
AG	☑	☐	☐
SHERIFF DEPARTMENT	☐	☐	☑
ICPDS	☑	☐	☐

Jim Minnick, Director of Planning/EEC Chairman — Date: 3/2/20

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PROJECT SUMMARY

A. Project Location:

The Proposed Project is located approximately 5.8 miles northwest of the City of Westmorland where Lack Road crosses the New River at bridge No. 58C0101 in Imperial County, California (Exhibit 1, *Regional Vicinity*). The existing bridge is a seven (7) span, simply supported untreated DF stringers bridge with laminated timber decking and AC cover, supported by treated timber pile bents and pile bent abutments with timber seating walls that runs north and south over the New River. The existing bridge is approximately 106 feet in length and 27 feet wide. The approximate limits of the Proposed Project area would extend along Lack Road from approximately 300 feet south to 350 feet north of the New River. Lack Road is a north/south road that supports direct access from State Route (SR-) 86 to Imperial County Route S-30. The Proposed Project is located 0.3 mile south of Vail Road and 0.2 mile north of Foulds Road (Exhibit 2, *Project Location*).

B. Project Summary:

Due to severe deterioration of some of the pile supports, the existing bridge has been closed to traffic (inactive) for over one (1) year. The County Public Works Department (Applicant) proposes to replace the existing seven (7) span timber bridge with a new precast concrete bridge designed to current American Association of State Highway and Transportation Officials (AASHTO) standards with California amendments (Exhibits 5 and 6, *Site Plan and Typical Section*). The proposed new bridge design would consist of a single-span bridge with four (4) precast/prestressed bulb-tee girders supported on two (2) abutments. The new bridge dimensions would be 35 feet and 6 inches wide by 125 feet long, with a structure depth of 7 feet and 0.875 inches. The selection of a precast bridge structure would eliminate the need for construction to take place within the New River.

The proposed roadway would remain a single travel lane in each direction, and geometry for the Proposed Project would be based on applicable County and AASHTO standards. The new bridge would be reconstructed in the same alignment with two (2) 12-foot-wide lanes designed for a 55 mile per hour (mph) vehicular speed. Shoulder widths would be 4 feet on the bridge, and would transition to the existing width at the roadway conform points. The new bridge would be designed to withstand a 100-year flood event.

The existing bridge would be removed without having to enter the New River as all construction activities were designed to take place from the river banks. It is estimated that the Proposed Project would be constructed over a nine (9)-month period beginning in March 2020 and concluding in November 2020.

C. Environmental Setting:

The topography of the Proposed Project area is relatively flat with a gentle gradient downward to the northwest (Exhibit 7, *USGS Topographic Map*). The elevation at the Proposed Project site is approximately 215 feet below Mean Sea Level (MSL). The New River flows beneath the existing bridge and the natural river's banks support limited wetland and riparian vegetation, which is primarily comprised of salt cedar (*Tamarix spp.*) and iodine bush (*Allenrolfea occidentalis*). Agricultural land surrounds the Proposed Project site with an Imperial Irrigation District (IID) culvert to the east that empties into the New River. Vail Road is located approximately 0.3 mile north of the Proposed Project site, while Foulds Road is located approximately 0.2 mile south of the Proposed Project site. The nearest sensitive receptors (residences) are approximately 1.1 miles south and 1.9 miles northeast of the Proposed Project.

D. Analysis:

The area surrounding the Proposed Project site is characterized as agricultural land uses. Lack Road is a farm to market road with two (2) traffic lanes, one (1) traveling in each direction. The Proposed Project is surrounded by land zoned as Heavy Agriculture (A-3) with a general plan designation of Agriculture (County of Imperial, 2019a, 2019b; Exhibits 3 and 4, *General Plan and Land Use Designation Map and Zoning Map*). The Proposed Project would construct a new improved bridge structure in place of the existing bridge where it crosses the New River. The Proposed Project is consistent with both the Imperial County General Plan's land use designation of the Proposed Project site and the County's Land Use Ordinance. Therefore, the adoption of the CEQA Initial Study for the Proposed Project would be consistent with applicable County and State ordinances and regulations.

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E. General Plan Consistency:

In addition to the analysis stated above, the project is found to be consistent, with the adoption of CEQA Initial Study for the proposed Lack Road Bridge Replacement Project.

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EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole 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.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance

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	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

I. *AESTHETICS*

The Proposed Project consists of the replacement of the existing seven (7-) span timber bridge with a new precast concrete bridge within the same alignment as the existing bridge. The topography on the site is flat and primarily surrounded by disturbed agricultural land. The Proposed Project site is surrounded by land designated as Agriculture and zoned as A-3. The County's Zoning Code (Title 9, Chapter 9: A-3 [Heavy Agriculture]) provides the following description for the Heavy Agriculture land use district, and is provided below:

> **The purpose of the A-3 (Heavy Agriculture) [40 acres or larger typical] Zone is to designate areas that are suitable for agricultural land uses; to prevent the encroachment of incompatible uses onto and within agricultural lands; and to prohibit the premature conversion of such lands to non-agricultural uses. It is a land use that is to promote the heaviest of agricultural uses in the most suitable land areas of the County. Uses in the A-3 zoning designation are limited primarily to agricultural related uses and agricultural activities that are compatible with agricultural uses.**

The predominant land use in the vicinity of the Proposed Project is agricultural.

Four (4) highways within the County have the potential to be designated as a State Scenic Highway. The nearest eligible State Scenic Highway is SR-78 located approximately 4.3 miles south of the Proposed Project site (California Department of Transportation [Caltrans], 2018; County General Plan Circulation and Scenic Highways Element, 2008).

One of the goals of the County's General Plan is to protect and enhance the aesthetic character of the region. The County's natural scenic resources include deserts, sand dunes, mountains, and the Salton Sea. The nearest natural scenic resource is the Salton Sea, located approximately 2.2 miles northwest of the Proposed Project site.

Except as provided in Public Resources Code Section 21099, would the project:

a)	Have a substantial adverse effect on a scenic vista or scenic highway?	☐	☐	☐	☒

a) The Proposed Project would not interfere with or contain components that would adversely impact a scenic vista, area, or scenic corridor. The Proposed Project would be located on a site which does not contain any unique scenic qualities or characteristics. The Proposed Project would not adversely affect any scenic vista, spaces, corridors, or areas because the Proposed Project is consistent with the surrounding land uses and would not be visible from scenic vistas or major scenic corridors such as SR-78 (County General Plan Conservation and Open Space Element, 2016). Given the new bridge's depth of 7 feet and 0.875 inches, views of important visual resources such as views of the Salton Sea to the northwest will remain unaffected by the Proposed Project. Therefore, the Proposed Project would not be expected to have a substantial adverse effect on a scenic vista and there would be no impacts.

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

b) The Proposed Project is not located along a State Scenic Highway and there are no scenic trees, rock outcroppings, or historic buildings located at the Proposed Project site or in the surrounding area that would be damaged or impacted as a result of the Proposed Project. Therefore, no impact would occur as a result of the Proposed Project.

c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surrounding? (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?	☐	☐	☒	☐

c) The Proposed Project site is relatively flat and the proposed bridge replacement would occur within the existing roadway. The new bridge and construction related activities would be visible from public roadways and the surrounding agricultural lands. While the Proposed Project would minimally change the visual character in a non-urbanized area, the Proposed Project would replace an existing bridge that is so severely deteriorated that it resulted in inactivity (bridge closure) for over a year. Therefore, viewer sensitivity to the visual changes resulting from the new bridge would be minimal and instead contribute to a visual improvement of public views along the public roadways once the new bridge has been completed. As such, the Proposed Project would not significantly alter the existing viewshed and impacts would be less than significant.

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

d) The existing sources of light and glare in the Proposed Project area consist of vehicle lights (headlights and taillights) on the existing roadways and lighting associated with the surrounding agricultural uses. As a bridge replacement project, the Proposed Project's new bridge would not directly add any new light sources. As the existing bridge has been closed for over a year due to severe deterioration, the Proposed Project would generate additional traffic along Lack Road upon operation

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of the new bridge, which would increase light and glare from additional vehicular lights and indirectly add new light sources. However, the nearest residences are located 1.1 miles south and 1.9 miles northeast of the Proposed Project site. Due to these distances, these residences would not be adversely or significantly affected by the increase in light and glare from additional vehicular lights from the new bridge. Therefore, potential lighting and glare impacts would to be less than significant.

Cumulative Impacts:

Implementation of the Proposed Project would not result in any significant cumulative impacts because development of the Proposed Project will not affect any scenic vista, spaces, corridors, or areas and is consistent with the surrounding land uses. Furthermore, the Proposed Project has been designed in accordance with applicable County and current AASHTO standards in order to not adversely impact day or nighttime views in the surrounding area. Therefore, the Proposed Project's cumulative contribution would be less than significant and potential cumulative impacts to aesthetics would not occur.

II. *AGRICULTURE AND FOREST RESOURCES*

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. –Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? ☐ ☐ ☒ ☐

a) The California Department of Conservation's Important Farmland Maps were reviewed and the Proposed Project is located on land that is designated as Farmland of Statewide Importance. Farmland of Statewide Importance is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture (California Department of Conservation, 2016a). Though the Proposed Project is located on land designated as Farmland of Statewide Importance, the Proposed Project consists of the replacement of an existing bridge with a new and improved bridge structure over the New River. The new bridge would be reconstructed in the same alignment as the existing bridge. As such, the Proposed Project would not require or result in any conversions or changes of farmland to non-agricultural uses as the existing use is a non-agricultural use. Therefore, less than significant impacts would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract? ☐ ☐ ☐ ☒

b) As discussed above, while the Proposed Project is surrounded by land designated as Agriculture and zoned A-3 (Heavy Agriculture), the Proposed Project is within the County's Right-of-Way and consists of the replacement of an existing bridge with a new and improved bridge structure to be reconstructed in the same alignment as the existing bridge over the New River. The County exited the California Department of Conservation's Land Conservation Act (Williamson Act) program by nonrenewing all contracts within the County, therefore no portion of the Proposed Project is enrolled in a Williamson Act Contract (California Department of Conservation, 2016b). As such, no impacts would occur related to conflicts with the existing zoning or a Williamson Act contract.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? ☐ ☐ ☐ ☒

c) The Proposed Project would not be located on or within the vicinity of land zoned as forest land. The Proposed Project site is surrounded by land zoned as A-3 (Heavy Agriculture). The Proposed Project consists of the replacement of an existing bridge with a new and improved bridge structure reconstructed in the same alignment as the existing bridge over the New River. Therefore, the Proposed Project would not 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]). Therefore, no impacts would occur.

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

d) The Proposed Project would not be located on or within the vicinity of forest land (as defined in California Public Resources Code Section 12220 [g]) and therefore, would not result in the loss of forest land or the conversion of forest land

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to non-forest use. No impact would occur.

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? ☐ ☐ ☒ ☐

e) The Proposed Project site is not located on or within the vicinity of forest land (California Public Resources Coded Section 12220 [g]) and, therefore, would not result in the conversion of forest land to non-forest use. The Proposed Project is surrounded by land designated as Agriculture and zoned A-3 (Heavy Agriculture). However, the Proposed Project would involve the replacement of an existing bridge with a new and improved bridge structure within the same alignment as the existing bridge. Therefore, the Proposed Project would not require or result in the conversion of Farmland to non-agricultural use (County of Imperial, 2019a, 2019b; California Department of Conservation, 2016a). Therefore, less than significant impacts would occur.

Cumulative Impacts:

Implementation of the Proposed Project would not result in any loss to agriculture and forestry resources; therefore, no cumulative impacts would occur.

III. *AIR QUALITY*

The Proposed Project is located in the Salton Sea Air Basin (SSAB) within the Imperial County Air Pollution Control District's (ICAPCD's) jurisdictional boundaries. The SSAB includes the Imperial Valley and the central part of Riverside County, including the Coachella Valley. The Imperial Valley is bordered by the Salton Sea to the north, the Anza-Borrego Desert State Park to the west, the Chocolate Mountains to the northeast, and the U.S./Mexican Border to the south. ICAPCD has jurisdiction over stationary sources of pollution and regulates air pollution for the Basin. Non-stationary sources are regulated by the California Air Resources Board (CARB). The ICAPCD has regional authority over the control of air pollution from all sources other than emissions from motor vehicles as well as regulatory control over all stationary sources of air contaminants. The ICAPCD has established significance thresholds to assist lead agencies in determining whether a proposed project may have a significant air quality impact and has provided guidance for project applicants in the 2007 Imperial County CEQA Air Quality Handbook (APCD, 2017).

Criteria Pollutants

Six (6) air pollutants have been identified by the U.S. Environmental Protection Agency (USEPA) and the CARB as being of concern both on a nationwide and statewide level: ozone (O_3); carbon monoxide (CO); nitrogen dioxide (NO_2); sulfur dioxide (SO_2); lead; and particulate matter (PM), which is subdivided into two (2) classes based on particle size: PM equal to or less than 10 micrometers in diameter (PM_{10}) and PM equal to or less than 2.5 micrometers in diameter ($PM_{2.5}$).

Air pollutant emissions also contribute to poor air quality when those emissions exceed significance thresholds, which can have adverse effects on human health. For instance, exposure to high concentrations of volatile organic compounds (VOCs) can interfere with oxygen uptake and ambient VOC concentrations are suspected to cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis. NO_2, as a potential irritant at atmospheric concentrations, can worsen respiratory diseases, such as asthma, over short periods of exposure, which causes respiratory symptoms including coughing, wheezing, or difficulty breathing. Longer periods of exposure to high concentrations of NO_2 can contribute to the development of asthma and potentially increase susceptibility to respiratory infections. CO in high concentrations reduces the amount of oxygen transported in the blood stream to critical organs like the heart and brain and, at very high levels, can lead to dizziness, confusion, unconsciousness, and death (USEPA, 2016). SO_2 can result in temporary breathing impairment in asthmatic children and adults engaged in active outdoor activities. Lastly, when inhaled into the deepest part of the lung, both PM_{10} and $PM_{2.5}$ cause health effects and, according to numerous scientific studies, have been linked to premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing (USEPA, 2018). These pollutants can cause potentially adverse health effects when they are emitted in significant amounts.

With the exception of $PM_{2.5}$, PM_{10}, and 8-hour O_3, the SSAB is in attainment or unclassified for all federal and State air pollutant standards. On November 13, 2009, the County was designated in nonattainment for 2006 24-hour $PM_{2.5}$ National Ambient Air Quality Standards (NAAQS). However, the nonattainment designation was only for the urban area of the County. On April 10, 2014, the CARB approved the 2013 Amendments to Area Designations for California Ambient Air Quality Standards (CAAQS). Effective July 1, 2014, the City of Calexico was designated in nonattainment for State $PM_{2.5}$ standard, with the rest of the SSAB designated as in attainment.

The Imperial Valley is classified as nonattainment for federal and State PM_{10} standards. As a result, ICAPCD was required to develop a PM_{10} Attainment Plan. The final 2009 Imperial County State Implementation Plan (SIP) for PM_{10} was adopted by the ICAPCD on August 11, 2009.

ICAPCD was required to develop an 8-hour attainment plan for Ozone due to the County's moderate nonattainment status for 1997 federal 8-hour O_3 standards. On December 3, 2009 the USEPA determined the County had attained the 1997 8-hour NAAQS for O_3. However, because this determination does not constitute a redesignation to attainment under Section 107(d)(3) of the Clean Air Act (CAA), the designation status has remained moderate nonattainment for the 1997 8-hour O_3 standard. Nevertheless, ICAPCD is required

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to submit a modified air quality management plan (AQMP) to the USEPA for approval. Therefore, in order to meet the CAA requirements, the County submitted a 2009 8-hour O_3 AQMP and the Reasonable Available Control Technology State Implementation Plan (RACT SIP) for USEPA approval. Both the modified 2009 8-hour O_3 AQMP and RACT SIP were adopted by the ICAPCD on July 13, 2010. On November 18, 2010, the CARB approved the County's modified 2009 8-hour O_3 AQMP.

Regional Conditions

Mountain peaks in the SSAB range from 3,000 to 11,000 feet in elevation, which prevents off-shore winds from flowing into Imperial County. Temperatures in the SSAB frequently exceed 100 degrees Fahrenheit (°F) during the summer and are generally over 70 °F in the winter. The SSAB averages between 3 and 7 inches of precipitation per year (CARB, 2011).

Sensitive Receptors

CARB has identified the following groups who are most likely to be affected by air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes and people with cardiovascular and chronic respiratory diseases. Examples of land uses where substantial numbers of sensitive receptors are often found are residences, schools, daycare centers, playgrounds, and medical-related facilities (CARB, 2005). There are a few scattered residences on the surrounding agricultural land in the general vicinity of the Proposed Project. The nearest sensitive receptors to the Proposed Project are residences located approximately 1.1 miles south and 1.9 miles northeast of the Proposed Project. The closest school, Westmorland Elementary School is located approximately 4.7 miles southeast of the Proposed Project site (Google Earth, accessed 2019). It is estimated that the Proposed Project would be constructed over an approximate nine (9)-month period.

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to the following determinations. Would the Project:

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

a) As previously discussed, the SSAB has been designated as in attainment or unclassified for all federal and State pollutant standards with the exception of $PM_{2.5}$, PM_{10}, and 8-hour O_3. The 2009 Imperial County SIP for PM_{10}, modified 2009 8-hour O_3 AQMP, and RACT SIP set programs to comply with State and federal requirements for air quality standards. Air quality plans are based on population growth and vehicular miles traveled based on land uses established by local general plans. Therefore, the Proposed Project must demonstrate compliance with local land use plans, population projections, and applicable ICAPCD rules and regulations. The Proposed Project site is surrounded by land designated as Agriculture and zoned as A-3 (Heavy Agriculture). While the Proposed Project is surrounded by these lands, the Proposed Project consists of the replacement of an existing deteriorated bridge with a new and improved bridge structure to be reconstructed in the same alignment as the existing bridge over the New River. The Proposed Project would not alter the existing use of the Proposed Project site and, as such, be consistent with all applicable land use plans. Additionally, the Proposed Project does not include a residential component. As such, the Proposed Project would not alter the location, distribution, density, or growth of the human population in the area and would not exceed population projections.

Regarding short-term sources of emissions, the Proposed Project would generate fugitive dust emissions during ground disturbing activities during the construction phase. During operations, the Proposed Project's new bridge would add mobile emission sources (heavy equipment and vehicle traffic) to the Proposed Project vicinity that are currently emitted on other local roads on lengthy detours as the existing bridge has been closed for over a year. The Proposed Project would be required to comply with existing ICAPCD rules for the reduction of fugitive dust emissions. ICAPCD's Regulation VIII establishes these procedures. Compliance with this regulation is mandatory on all construction sites, regardless of size. However, because compliance with Regulation VIII is required for all projects, compliance with this regulation is mandatory and included as mitigation measures in this document. Therefore, compliance with this regulation and the ICAPCD's CEQA Handbook (MM-AQ-1 and MM-AQ-2) would ensure the Proposed Project would not conflict with or obstruct implementation of applicable air quality plans. Therefore, the Proposed Project would result in less than significant impacts with mitigation incorporated.

MM-AQ-1:
The Applicant shall comply with the requirements contained within ICAPCD Regulation VIII, which includes preparation of a Dust Control Plan for control of fugitive dust during construction, written notification to the Air District 10 days prior to the start of construction activities; and remit a list of equipment to be used during construction in Excel format (See Appendix E). The Dust Control Plan shall address construction and earthmoving activities. The Dust Control Plan shall include information regarding the dust suppressants that shall be applied and specific surface treatments and/or control measures to be utilized during construction. The Dust Control Plan shall be submitted to ICAPCD and ICPDS for review and approval prior to construction.

MM-AQ-2:
The Applicant shall comply with the required standard and enhanced mitigation measures contained in the ICAPCD CEQA Handbook, which include the following:

- **Standard Mitigation Measures for Construction Combustion Equipment**
  - **Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel-powered equipment;**

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- **Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum;**
- **Limit, to the extent feasible, the hours of operation of heavy-duty equipment and/or the amount of equipment in use; and**
- **Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).**

- **Enhanced Mitigation Measures for Construction Equipment**
  - **Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak hour of vehicular traffic on adjacent roadways; and**
  - **Implement activity management (e.g. rescheduling activities to reduce short-term impacts).**

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? ☐ ☒ ☐ ☐

b) The Proposed Project's impacts during both construction and operation could be cumulatively considerable as the SSAB is in attainment or unclassified for all federal and State pollutant standards with the exception of $PM_{2.5}$, PM_{10}, and 8-hour O_3. However, an individual project can emit these pollutants without significantly contributing to this cumulative impact depending on the magnitude of emissions. While the Proposed Project would generate emissions during the construction of the new bridge and could potentially result in a cumulatively considerable increase in the generation of pollutants, the Proposed Project would replace the existing bridge with a new and improved bridge structure within the same alignment as the existing bridge. Therefore, due to the small project footprint, construction impacts are expected to be minimal and temporary. Additionally, the Proposed Project would be required to comply with Regulation VII and the ICAPCD's CEQA Handbook (MM-AQ-1 and MM-AQ-2). As such, implementation of mitigation measures would ensure the Proposed Project's cumulative contribution during construction would be less than significant.

Emissions during operation of the Proposed Project could potentially result in a cumulatively considerable increase due to an increase in vehicular traffic (since the bridge is currently closed and seeing none). As commuters that currently utilize this stretch of Lack Road are required to exercise lengthy detours due to the closure of the existing bridge, the Proposed Project would improve passage for commuters. However, the Proposed Project's new bridge would increase mobile emission sources (heavy equipment and vehicle traffic) to the Proposed Project vicinity that have not been in the vicinity since the closure of the existing bridge over a year ago. Because the new bridge would be located on Lack Road, a Minor Collector road classified by the County, and only containing two (2) travel lanes, it is anticipated the new bridge would be used by the surrounding community's marginal number of commuters that either live or work along that stretch of Lack Road. As such, it is expected that the mobile emissions generated by the Proposed Project would not result in emissions that would exceed the ICAPCD's significance thresholds. Additionally, as the nearest sensitive receptors to the Proposed Project are residences located approximately 1.1 miles south and 1.9 miles northeast of the Proposed Project, the Proposed Project's emissions would not exceed the ICAPCD's significance thresholds at these sensitive receptors. Furthermore, like with the Proposed Project and as discussed in Response IIIa, above, cumulative projects would also be subject to mitigation pursuant to the ICAPCD rules and regulations (e.g., Regulation VIII) and the ICAPCD's CEQA Handbook. As the Proposed Project would be required to comply with Regulation VIII and the ICAPCD's CEQA Handbook (MM-AQ-1 and MM-AQ-2), the Proposed Project's contribution would be less than cumulatively considerable.

c) Expose sensitive receptors to substantial pollutants concentrations? ☐ ☒ ☐ ☐

c) In addition to the above listed criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are less pervasive in the urban atmosphere than criteria air pollutants, however they are linked to short-term (acute) and/or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust, to name a few. Cars and trucks release at least 40 different TACs. The most important of these TACs, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to TACs can result from emissions from normal operations as well as accidental releases. Health effects of TACs can include cancer, birth defects, neurological damage, and death. The Office of Environmental Health Hazard Assessment (OEHHA) developed a Guidance Manual for the Preparation of Health Risk Assessments. According to OEHHA methodology, health effects from carcinogenic TACs are usually described in terms of individual cancer risk, which is based on a 30-year lifetime exposure to TACs.

Construction

The greatest potential for TAC emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the Proposed Project. As discussed above, health effects from TACs are usually described in terms of individual cancer risk, which is based on a 30-year lifetime exposure to TACs. Health effects are generally evaluated based on a lifetime, long-term exposure (i.e., 70 years). Given the relatively limited number of heavy-duty construction equipment and the short-term construction schedule, the Proposed Project would not result in a long-term

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substantial source of TAC emissions and corresponding individual cancer risk. Additionally, the nearest sensitive receptors are residences located approximately 1.1 miles south and 1.9 miles northeast of the Proposed Project site. Therefore, less than significant short-term toxic air contaminant impacts to sensitive receptors would occur during the construction phase of the Proposed Project.

Operation

The existing bridge has been closed to traffic for over one (1) year due to severe deterioration of some of the pile supports. As such, no existing traffic is generated at the Proposed Project site. Because agricultural operations surround the Proposed Project site, the Proposed Project would introduce heavy equipment and vehicular traffic along the new bridge and this section of Lack Road to the site during operation. While the Proposed Project's new bridge would generate heavy equipment and vehicular traffic, because the new bridge would be located on Lack Road, which is classified as a Minor Collector road by the County, and only contain two (2) travel lanes, it is anticipated the new bridge would be used by the surrounding community's marginal number of commuters that either live or work along that stretch of Lack Road. As such, it is anticipated the Proposed Project would not emit substantial pollutant concentrations. Additionally, as discussed in Response IIIa, above, the Applicant would comply with fugitive dust control measures during operation pursuant to ICAPCD's Regulation VIII (MM-AQ-1) and the ICAPCD CEQA Handbook (MM-AQ-2). Due to these factors and the distance to the nearest sensitive receptors (residences located approximately 1.1 miles south and 1.9 miles northeast of the Proposed Project site), impacts to sensitive receptors during operation would be less than significant with mitigation incorporated.

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

d) A significant impact would result if the Proposed Project would create objectionable odors during construction or operational activity. Potential sources that may emanate objectionable odors during construction activities include equipment exhaust, application of asphalt paints, and other exterior finishes. The objectionable odors that may be produced during the construction process are of short-term nature and the odor emissions are expected to cease upon the drying or hardening of the odor producing materials. Land uses, and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Proposed Project, which consists of the replacement of an existing deteriorated bridge with a new bridge within the same alignment, would not include components that are typically associated with odor complaints. Additionally, the nearest sensitive receptors are residences located approximately 1.1 miles south and 1.9 miles northeast of the Proposed Project site. Due to the limited amounts of odor producing materials being utilized and the Proposed Project's distance from the nearest sensitive receptors, less than significant impacts related to odors affecting a substantial number of people would occur.

Cumulative Impacts:

Proposed Project implementation is not anticipated to exceed the construction or operational emissions threshold adopted by the ICAPCD. Compliance with the applicable ICAPCD's rules and regulations (including implementation of MM-AQ-1 and MM-AQ-2) would ensure that dust emissions are minimized during construction to further reduce short-term cumulative impacts. There is an existing regional cumulative impact associated with $PM_{2.5}$, PM_{10}, and 8-hour O_3 because the SSAB is in attainment or unclassified for all federal and State pollutant standards with the exception of these pollutants. However, an individual project can emit these pollutants without significantly contributing to this cumulative impact depending on the magnitude of emissions. Because emissions from the Proposed Project are expected to be less than significant, the Proposed Project's contribution to the cumulative air quality impact would also be less than significant. As discussed in Response IIIb, above, cumulative projects would also be subject to mitigation pursuant to the ICAPCD rules and regulations (e.g., Regulation VIII) and the ICAPCD's CEQA Handbook. Therefore, cumulative impacts would be less than significant.

IV. *BIOLOGICAL RESOURCES*

The County Public Works Department contracted Ms. Marie Barrett of Barrett's Biological Surveys to conduct a habitat assessment of the Proposed Project site. Prior to conducting the field survey, a desktop analysis was conducted. The desktop analysis included a literature review of potentially applicable regulatory requirements. Additionally, publicly available data was reviewed to determine if any special-status species or habitats occur (via recorded occurrences or habitat) or have the potential to occur within the vicinity of the Project. Resource records were obtained using the California Natural Diversity Database (CNDDB) for the Westmoreland E U.S. Geological Survey (USGS) 7.5-minute Topographic Quadrangle and the surrounding eight (8) quadrangles within the United States including Wiest, Iris, Niland, Obsidian Butte, Westmoreland W, Brawley NW, Brawley, and Alamorio. Ms. Barrett and Mr. Jacob Calanno conducted a pedestrian survey within and adjacent to the Biological Study Area (BSA) on July 25, 2019. The BSA is located within the Colorado Desert, which is a subdivision of the larger Sonoran Desert and covers approximately 7 million acres. The desert encompasses the County and includes parts of San Diego County, Riverside County, and a small part of San Bernardino County. The region experiences greater summer daytime temperatures (up to 120°F) than higher-elevation deserts and rarely experiences frost. In addition, the Colorado Desert experiences two (2) rainy seasons per year, usually in the winter and late summer in this portion. This area is within the agricultural portion that is irrigated by Colorado River water delivered through water conveyance structures maintained by the IID. The Proposed Project spans the New River which drains into the Salton Sea.

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The purpose of the field survey was to identify if any sensitive or otherwise protected biological resources occur or have the potential to occur within the Proposed Project boundary and surrounding area. As discussed above, a desktop analysis and summary report were prepared by Barrett's Biological Surveys following the survey and are included as Appendix A (*Biological Assessment Report, 2019*). Discussions and determinations within this section are based on the results presented in Appendix A.

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? ☐ ☒ ☐ ☐

a) No federally or State threatened, endangered, candidate, or special-status species, or sensitive natural habitats were observed within the BSA. Within the nine (9) quadrangles searched as part of the desktop analysis for the Biological Assessment Report, four (4) botanical species and 36 wildlife species were listed. None of the special-status plant species were observed during the survey or would be expected to occur within the Proposed Project site. Nevertheless, the Biological Assessment Report recommended a preconstruction plant survey should be conducted by a qualified biologist (MM-BIO-1). Of the special-status wildlife species, burrowing owl (*Athene cunicularia*), a California Department of Fish and Wildlife (CDFW) Species of Special Concern and Yuma Ridgway's Rail (*Rallus obsoletus*), a federally endangered species, are both known to occur in the vicinity of the Proposed Project site (Appendix A). However, the Proposed Project's BSA did not have any sign of either species. There were no burrows located within the BSA. Additionally, no nesting birds or bats were observed during the pedestrian survey. Potential removal of salt cedar (*Tamarix spp.*), an invasive species, and iodine bush (*Allenrolfea occidentalis*), a native species, may be determined necessary to facilitate construction activities in the work area. This vegetation provides potentially suitable habitat for nesting birds. Therefore, it is recommended that vegetation removal occur outside the nesting season (general breeding and nesting bird season of February through August; MM-BIO-2). With implementation of MM-BIO-1 through MM-BIO-4, the Proposed Project's impacts to nesting birds during construction would be less than significant.

MM-BIO-1:

A preconstruction plant survey shall be conducted by a qualified biologist.

MM-BIO-2:

Nesting bird surveys by qualified biologists during nesting season (February through August); preferably time construction during non-nesting season (September through January). Time nesting surveys within 3-5 days prior to start of construction. Burrowing owl (BUOW) preconstruction survey within 14 days of start of construction.

MM-BIO-3:

Worker environmental awareness training for nesting birds and BUOW, which shall include the following aspects:

- **Biology and status of the BUOW;**
- **Protection measures designed to reduce potential impacts to the species, function of flagging designating authorized work areas;**
- **Reporting procedures to be used if a BUOW is encountered in the field; and driving procedures and techniques, for commuting, and driving on, to the Proposed Project site; and**
- **Identification of nesting birds and procedures to follow if nesting is suspected.**

MM-BIO-4:

Areas outside of the Proposed Project footprint shall be designated as an "Environmentally Sensitive Area" (ESA) on Proposed Project plans. No project-related activities shall take place within the ESA-designated areas.

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? ☐ ☐ ☒ ☐

b) Salt cedar and iodine bush were observed within the BSA during the pedestrian survey. No sensitive vegetation communities occur within or adjacent to the Proposed Project site (Appendix A). Effects on any riparian habitat would be expected to have a less than significant impact from implementation of the Proposed Project.

c) Have a substantial adverse effect on state or federally ☐ ☒ ☐ ☐

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protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

c) It is understood that Ms. Barrett did not conduct formal jurisdictional delineation surveys. However, riverine and freshwater emergent wetlands were found in the Proposed Project site (U.S. Fish and Wildlife Service [USFWS] National Wetlands Inventory [NWI], 2019), as the New River is recognized as a jurisdictional water body by U.S. Army Corps of Engineers (USACE), Colorado River Regional Water Quality Control Board (CRRWQCB) and CDFW. Federal and State guidelines both follow a no net loss of wetlands. Therefore, the Proposed Project may require a Nationwide 404 permit from USACE under the Clean Water Act, a Streambed Alteration Agreement from CDFW under Section 1602 of the California Fish and Game Code (CFGC), and a 401 Water Quality Certification from CRRWQCB. However, the existing bridge would be removed without the need to be in the New River and all construction activities are anticipated to take place from the banks. Thus, construction of the Proposed Project would not impact any wetlands associated with the New River, the flow of the New River, or allow any fill into or out of the New River. The Proposed Project would have a temporary impact to the project area during construction; however, no permanent impacts are anticipated as a result of construction activities. Nevertheless, the Biological Report recommended consultation with USACE to obtain the required permit for working within a waterway that drains into waters of the United States and CDFW regarding a Streambed Alteration Agreement. Therefore, consultation with USACE, CDFW, and CRRWQCB is recommended for the Proposed Project to ensure the Proposed Project obtains applicable permits and complies with any mitigation measures from these agencies (MM-BIO-5). Implementation of mitigation measure MM-BIO-5 would reduce impacts to less than significant levels.

MM-BIO-5:

Once consultation with USACE, CRRWQCB, and CDFW has been conducted, the Applicant shall apply for and obtain any necessary permits and comply with any mitigation measures required by these agencies.

d) Interfere substantially with the movement of any 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? ☐ ☐ ☒ ☐

d) The existing bridge over the New River has the potential to serve as a movement corridor for small and common wildlife species, such as rodents, reptiles, and small mammals. The closest alternative crossing points are at Gentry Road, approximately 2.5 miles southeast of the Proposed Project, and a small foot crossing, approximately 0.7 mile northwest of the Proposed Project. Although the existing bridge could serve as a wildlife corridor, particularly for nocturnal terrestrial species when traffic volume is assumed to be lower (lower collision risk), a new bridge would be constructed after removal of the existing bridge. This corridor would be unavailable for the duration of the Proposed Project's construction. While the terrestrial wildlife that use this corridor would be temporarily impacted, avian species and any fish species found in the New River would not be impacted. The flow of the New River would not be disrupted as a result of the Proposed Project as the removal of the existing bridge would be accomplished without the need to be in the New River and all anticipated construction activities would take place from the banks. Therefore, fish species such as common carp (*Cyprinus carpio*), channel catfish (*Ictalurus punctatus*), and Mozambique tilapia (*Oreochromis mossambicusa*) would not be impacted by the Proposed Project. A less than significant impact would result from the Proposed Project.

e) Conflict with any local policies or ordinance protecting biological resource, such as a tree preservation policy or ordinance? ☐ ☐ ☐ ☒

e) No local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, apply to the Proposed Project site.

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? ☐ ☐ ☐ ☒

f) The Proposed Project is not located within an area covered by an adopted Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP).

Cumulative Impacts:

The Proposed Project site contains wetlands and jurisdictional waters of the U.S. and the State. The Proposed Project may trigger an application for waters permits to occur; however, implementation of the proposed mitigation measures identified below would mitigate the Proposed Project's cumulative biological resource impacts to below the level of significance.

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V. *CULTURAL RESOURCES*

A cultural resources records search was conducted by Environmental Intelligence, LLC (EI) staff at the California Historical Resources Information System (CHRIS), South Coastal Information Center (SCIC) at San Diego State University on August 30, 2019. The records search identified all previously recorded cultural resources and cultural resource studies within the records search extent, which is defined as a ¼-mile radius around the Area of Potential Impacts (API). No previous cultural resource studies had been conducted within the API or within a ¼-mile radius. Additionally, no cultural resources had been previously recorded within the records search extent.

EI reviewed the Caltrans Historic Bridge Inventory for Local Agency Bridges to determine the potential historical significance of the Lack Road Bridge. The Caltrans Historic Bridge Inventory for Local Agency Bridges lists the Lack Road Bridge as bridge number 58C0101 - New River (Lack Road). It was constructed in 1940 and its location is listed as 4.2MI N/O SR-86. The bridge's historical significance is listed as a Category 5 (Bridge not eligible for National Registrar of Historic Places [NRHP]).

EI archaeologist Ms. Amber Lopez-Johnson (M.A.) conducted an intensive pedestrian survey of the API on September 26, 2019. The API was surveyed using transects spaced no greater than 15 meters apart. The archaeologist examined exposed ground surface for artifacts (e.g., flaked stone tools, tool-making debris, milling tools, ceramics, ecofacts [e.g., marine shell and bone], soil discoloration that might indicate the presence of a cultural midden, and features indicative of the former presence of structures or buildings [e.g., standing exterior walls, postholes, foundations] or historic debris [e.g., metal, glass, ceramics]). Ground disturbances such as burrows were visually inspected. EI used EOS Arrow GNSS 100 Series global positioning system (GPS) units with sub-meter accuracy and ArcGIS Collector Software to confirm all API footprints and record any geospatial data for newly or previously recorded resources. All new and previously recorded resources within the API were documented, photographed, and recorded on California Department of Parks and Recreation (DPR) 523 forms. No cultural material was identified within the API during the pedestrian survey. The API is located within an area that has been previously disturbed by ongoing agricultural activities. Based on the agricultural activities within the API, the potential for encountering subsurface cultural deposits within the API is considered low. The results of the records search and intensive pedestrian survey were documented in the Cultural Resources Survey Report, included as Appendix B (*Cultural Resources Survey Report, 2019 [Updated 2020]*).

Would the project:

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

a) No historical resources have been documented within the Proposed Project area. Given the previous agricultural disturbance in the area, the potential to encounter historical resources within the Proposed Project area would be considered low. Therefore, less than significant impacts are expected.

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

b) No archaeological resources have been previously recorded within the Proposed Project area. There is potential for archaeological resources to be found during excavation and grading. However, given the previously disturbed nature of the Proposed Project area, the potential to encounter archaeological resources within the Proposed Project area would be considered low. The ICPDS received a comment letter from the Campo Band of Mission Indians on December 19, 2019 (see Appendix D). Based on the information provided by the Campo Band of Mission Indians, the ICPDS is willing to implement MM-TCR-1 through MM-TCR-3 (see Section XVIII. Tribal Cultural Resources, below) for the Proposed Project. The Proposed Project would comply with these mitigation measures to avoid or reduce impacts to a tribal cultural resource to less than significant levels. Therefore, the Proposed Project would comply with these mitigation measures in order to not cause an adverse change in the significance of an archaeological resource and reduce impacts to less than significant levels.

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

c) No formal cemeteries are located within the Proposed Project area. Additionally, no known archaeological sites are located within the vicinity of the Proposed Project area, which could indicate the presence of human remains interred outside of dedicated cemeteries. Given the previously disturbed nature of the Proposed Project area, the potential to encounter human remains would be considered low. Nevertheless, based on the information provided by the Campo Band of Mission Indians comment letter (see Appendix D), the Proposed Project would implement MM-TCR-2 and MM-TCR-3 (see Section XVIII. Tribal Cultural Resources, below) to ensure impacts related to the disturbance of human remains, would be less than significant.

Cumulative Impacts:

Proposed Project implementation would not result in significant impacts to cultural resources. Therefore, the Proposed Project's contribution to a cumulative impact would not be considerable and potential cumulative impacts to cultural resources would be less than significant.

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	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

VI. *ENERGY*

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? ☐ ☐ ☐ ☒

a) The construction and operation of the Proposed Project would not require the creation of a new source of energy. The Proposed Project, as a bridge replacement project, would not have an electrical component as overhead lighting is not part of the design; therefore, no unnecessary consumption of energy is anticipated.

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

b) State and local agencies regulate the use and consumption of energy through various programs. As a result of the passage of AB 32 (California Global Warming Solutions Act of 2006), which seeks to reduce the effects of greenhouse gas (GHG) emissions, a majority of the State regulations are intended to reduce energy use and GHG emissions. The Proposed Project would be consistent with State regulations regarding GHG emissions (refer to Section 3.8 [GHG Emissions]). Energy consumption as part of the construction would be minimal and temporary. Additionally, no energy would be used during the operational life of the new bridge. As such, the Proposed Project would not conflict with or obstruct a State or local plan for renewable energy and energy efficiency. No impacts would occur.

Cumulative Impacts:

As identified above, the Proposed Project, as a bridge replacement project, would not unnecessarily consume energy resources or conflict with energy plans. As a result, no energy impacts would occur as a result of the Proposed Project, therefore the Proposed Project would not contribute to cumulative impacts.

VII. *GEOLOGY AND SOILS*

Would the project:

The County Public Works Department contracted NV5 to conduct a geotechnical study of the Proposed Project site and prepare a foundation report. The Draft Foundation Report prepared by NV5 is included as Appendix C (*Draft Foundation Report, 2019*). The purpose of the foundation report was to summarize the results of the geotechnical study and provide seismic and foundation design recommendations for the proposed replacement of the existing bridge. Discussions and determinations within this section are based on the results of the Draft Foundation Report.

Southern California is a seismically active region that contains several surface faults and fault zones considered active or potentially active, including the Newport-Inglewood, Whittier, San Andreas, San Jacinto, Malibu-Coast-Raymond, Chino, Elsinore, Palos Verdes, San Gabriel, and Sierra Madre-Santa Susana-Cucamonga faults.

a) Directly or indirectly cause potential substantial adverse effects, including risk of loss, injury, or death involving: ☐ ☒ ☐ ☐

1) 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? ☐ ☐ ☐ ☒

1) The most recent Alquist-Priolo Earthquake Fault Zoning Maps were reviewed and the Proposed Project site is not included within any Earthquake Fault Zones as created by the Alquist-Priolo Earthquake Fault Zoning Act. The Brawley Seismic Zone is located approximately 2 miles east of the Proposed Project. The Elmore Ranch Fault is the nearest known fault, located approximately 6 miles to the southwest of the Proposed Project site (California Department of Conservation, 2010). Given the distance of the Proposed Project from known faults and seismic zones, the Proposed Project would not be expected to expose people or structures to rupture as a result of a known earthquake fault. No impacts would occur.

2) Strong Seismic ground shaking? ☐ ☒ ☐ ☐

2) As discussed above, the Brawley Seismic Zone and the Elmore Ranch Fault are located approximately 2 miles east and 6 miles southwest, respectively. While no known faults or fault zones are located in close proximity to the Proposed Project site, risk of seismic activity is present due to the seismically active nature of the region. The Proposed Project would be designed using seismic recommendations in accordance with current Caltrans standards and engineering practices. Therefore, the Proposed Project's compliance with the current Caltrans standards (Bridge Design Practices

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and Seismic Design Criteria) and AASHTO Bridge Design Specifications with California Amendments, as well as the recommended mitigation measures (MM-GS-1) would significantly reduce the potential for substantially adverse effects from strong seismic ground shaking. The Proposed Project would result in less than significant impacts with mitigation incorporated.

MM-GS-1:

The Applicant shall ensure all grading operations and construction are conducted in accordance with the Plans and Specifications and in conformance with the recommendations included in the Draft Foundation Report (Appendix C) and any subsequent geotechnical and soils report to be prepared by a licensed geotechnical engineer.

3) Seismic-related ground failure, including liquefaction and seiche/tsunami? ☐ ☒ ☐ ☐

3) Liquefaction occurs when unconsolidated, water-laden soils are shaken and lose cohesion, causing previously solid soils to behave temporarily as viscous liquids. It is most prevalent in areas of recently deposited silts or sands, and in areas with high groundwater levels. Liquefaction may lead to near-surface ground failure, such as ground settlement, lateral spread, and loss of foundation support. The Draft Foundation Report stated a subsurface exploration program encountered poorly to moderately consolidated alluvial clay and silty sands. A liquefaction assessment was completed by NV5 and the results of the liquefaction assessment were presented in the Draft Foundation Report (Appendix C). Due to the potential for liquefaction and associated seismic induced settlement, the proposed new bridge's pile design would need to accommodate potential downdrag forces. The design of the Proposed Project would comply with the current Caltrans standards (Bridge Design Practices and Seismic Design Criteria), AASHTO Bridge Design Specifications with California Amendments, and the recommendations in the Draft Foundation Report (see mitigation measure MM-GS-1), which would reduce impacts related to seismic ground failure and liquefaction to less than significant levels.

4) Landslides? ☐ ☐ ☒ ☐

4) The Proposed Project site is located in a flat area with no high or steep natural slopes. The Draft Foundation Report stated no indications of landslides or deep-seated instability were observed at the Proposed Project site during the geotechnical study (Appendix C). As such, the potential for landslides would be considered low. There would be no potential for the Proposed Project to expose people or structures to landslides. Less than significant impacts are expected.

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

b) During construction, loss of topsoil and erosion could result from construction activities, including the operation of heavy machinery, grading activities, excavation, or wind or water erosion of stockpiled fill/excavated materials at staging areas. Erosion would be minimized through the implementation of best management practices (BMPs) such as limiting the amount of disturbed soil to the extent possible, preventing runoff from the site, and ensuring compliance with the Stormwater Pollution Prevention Plan (SWPPP; discussed in greater detail in the *Hydrology and Water Quality* section below). In addition, the Proposed Project site is relatively flat and experiences low levels of natural erosion (County of Imperial, n.d.). As such, with implementation of BMPs and compliance with the SWPPP, impacts related to soil erosion or the loss of top soil would be less than significant.

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 landslides, lateral spreading, subsidence, liquefaction or collapse? ☐ ☒ ☐ ☐

c) The Draft Foundation Report identified the Proposed Project site as underlain with predominantly poorly to moderately consolidated alluvial materials consisting of lean clay with lenses of fat clay, silty sands and clayey sands. As discussed above, the potential for landslides is considered low. Lateral spreading occurs when there is widespread liquefaction and a gentle slope, or a free face toward which lateral spreading may occur. As discussed above, liquefaction impacts would be less than significant with mitigation incorporated (MM-GS-1). Additionally, the Draft Foundation Report stated the liquefiable layers are located below the elevation of the stream channel and abutment slope face. Furthermore, the piles for the existing bridge would not be removed from the New River, which the Draft Foundation Report assumes would provide some dissipation of additional lateral pressures resulting from an earthquake event. Thus, the Draft Foundation Report determined the potential for lateral spreading is considered low. Therefore, with incorporation of mitigation measure MM-GS-1, the Proposed Project would result in less than significant impacts.

d) Be located on expansive soil, as defined in the latest Uniform Building Code, creating substantial direct or indirect risk to life or property? ☐ ☒ ☐ ☐

d) As discussed above, the Proposed Project site is underlain with lean clay with lenses of fat clay, silty sands, and clayey sands. The geotechnical study tested two (2) samples of the near-surface clay soils, which indicated medium expansion

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potential. As these materials are generally considered unsuitable for use as backfill for structure foundations, retaining walls, or pipe bedding, the foundation report recommended potential expansive soil properties should be verified at the completion of rough grading since site grading will redistribute on-site soils. Compliance with Caltrans standards (Bridge Design Practices and Seismic Design Criteria), AASHTO Bridge Design Specifications with California Amendment, recommendations from the Proposed Project's Draft Foundation Report (MM-GS-1), and mitigation measure MM-GS-2 included below would ensure that risks from expansive soil would be less than significant.

MM-GS-2:

Soils imported for on-site use shall preferably have very low to low expansion potential (based on UBC Standard 18-2 test procedures). Lots on which expansive soils may be exposed at grade shall be undercut 3 feet or more and capped with very low to low expansion potential fill. In the event expansive soils are present near the ground surface, special design and construction considerations shall be utilized in general accordance with the recommendations of the geotechnical consultant.

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?	☐	☐	☐	☒

e) The Proposed Project consists of a bridge replacement and there are no planned facilities that require a wastewater disposal system. Therefore, the Proposed Project would not include septic tanks or alternative wastewater disposal systems. No impact from septic tanks or alternative wastewater disposal systems as part of the Proposed Project would occur.

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

f) As shown on the California Division of Mines and Geology, 1:250,000 Geologic Map of the Salton Sea (Jennings, 1967), the Proposed Project area is underlain by Quaternary lake sediments (Ql), which have a high sensitivity for paleontological resources. However, given the previously disturbed nature of the Proposed Project area, the potential to encounter a paleontological resource would be considered low and potential impacts to paleontological resources would be less than significant.

Cumulative Impacts:

The development of cumulative projects in the area has the potential to impact geologic resources. However, geological impacts are site-specific and are expected to be minimal to none from a cumulative geological standpoint. Similar to the Proposed Project, any related projects' potential impacts related to geology and soils would be assess on a case-by-case basis. MM-GS-1 and MM-GS-2 would be implemented during the construction phase of the Proposed Project to reduce potential impacts. Therefore, with the implementation of mitigation measure, the Proposed Project's cumulative impacts related to geology and soils would be reduced to a less than significant level.

VIII. *GREENHOUSE GAS EMISSION*

Constituent gases of the Earth's atmosphere, called atmospheric GHGs, play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent GHGs contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Transportation is responsible for 40 percent of the State's GHG emissions (CARB, 2019). Emissions of CO_2 and N_2O are byproducts of fossil fuel combustion. Methane, a potent GHG, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean.

Assembly Bill 32 (Global Warming Solutions Act of 2006)

The Global Warming Solutions Act (commonly referred to as AB 32 requires a Statewide commitment and effort to reduce GHG emissions to 1990 levels by 2020 (25 percent below business as usual). To effectively implement the 2020 goal, AB 32 requires the CARB to develop appropriate regulations and to establish a mandatory reporting system to track and monitor GHG emission levels from stationary sources.

This bill is the first Statewide policy in the United States to mitigate GHG emissions and includes penalties for noncompliance. As with the goals and targets set by other GHG emissions–related actions taking place at the regional and international levels, AB 32 sets precedence in requiring an inventory and reduction of GHG emissions in the State.

Currently, six (6) GHGs are regulated by the federal and State government: CH_4, CO_2, hydrofluorocarbons (HFCs), N_2O, perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). The CARB also includes nitrogen trifluoride (NF_3) in its inventory of monitored GHGs in California.

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	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

IX. *HAZARDS AND HAZARDOUS MATERIALS*

Would the project:

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

a) Construction of the Proposed Project would require the use and transport of chemicals and materials typically associated with precast concrete bridge structures, paving, and other chemicals associated with construction. The use of these materials would be temporary and limited to the immediate area of application during the construction phase. The use, transport, and disposal of these materials would be completed in a manner that is consistent with the State requirements and manufacturer's recommendations and would ensure that there would not be a significant hazard to the public or the environment.

The New River flows beneath the existing bridge, which is classified as a Class 4 waterway (Appendix C). During construction, the existing bridge would be removed. However, these activities would be conducted above the New River. All construction activities are anticipated to take place from the banks. While direct contact with the New River would not be necessary as part of the Proposed Project's construction activities, site grading would redistribute on-site soils that may need to be collected and disposed of. These soils may be contaminated from the New River. If these soils are contaminated, the temporary disturbance and potential disposal of these soils during grading may create a significant hazard to the public and environment. The Proposed Project would implement mitigation measures MM-AQ-1 and MM-HAZ-1 through MM-HAZ-6, including the preparation and implementation of a Contaminated Soil Management Plan, to minimize associated risks and ensure applicable statutory and regulatory standards and requirements are complied with in the event contaminated soils are encountered. Implementation of mitigation measures would ensure that potentially contaminated soils are identified, removed, and properly disposed of to prevent the creation of significant hazard to the public and the environment to the maximum extent feasible and reduce impacts to less than significant levels.

During operations, the Proposed Project's new bridge would not require the routine transport, use or disposal of hazardous materials. It is anticipated that hazardous materials would not be transported as a result of the new bridge or that materials requiring training, professional use, or transport to a designated hazardous disposal facility would not be frequently applied or used on the new bridge. Therefore, the Proposed Project would not cause a significant hazard to the public or environment during operation and impacts would be less than significant.

MM-HAZ-1:

Prior to construction activities, a soils investigation shall be conducted to determine the presence of contaminated soils on the Proposed Project site.

MM-HAZ-2:

A Contaminated Soil Management Plan shall be prepared and implemented during construction that contains procedures to be followed in the event that contaminated soils are encountered during construction of the Proposed Project. The Contaminated Soil Management Plan shall include procedures for the proper identification, removal, and disposal of contaminated soils. A copy of the Contaminated Soil Management Plan shall be provided to the Imperial County Environmental Health Department.

MM-HAZ-3:

The Applicant shall contact the appropriate regulatory agencies identified in the Contaminated Soil Management Plan if contaminated soils are encountered.

MM-HAZ-4:

Sampling and analysis of soils known or suspected to be impacted by hazardous materials shall be conducted in accordance with the procedures detailed in the Contaminated Soil Management Plan.

MM-HAZ-5:

Procedures for the proper handling, storage, treatment, transport, and disposal of contaminated soil shall be conducted in consultation with the appropriate regulatory agencies and in compliance with applicable statutory and regulatory requirements.

MM-HAZ-6:

A Worker Health and Safety Plan shall be prepared and implemented prior to the start of construction activities. The Worker Health and Safety Plan shall identify the nature and extent of contaminants that may be encountered during construction, appropriate health and environmental protection measures and equipment, and emergency response procedures. The Worker Health and Safety Plan shall also include the following New River Health and Safety Considerations, which shall be adhered to prior to the start of and throughout construction activities:

- **The Proposed Project Contractor shall be advised that the New River flows beneath the Proposed Project site.**

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- **As the New River is known to contain bacteria-laden foam that can blow over to nearby sites on windy days, precautions shall be identified and taken when working close to the New River on windy days (wind gusts in excess of 15 miles per hour).**
- **Construction workers shall be prohibited from drinking water from the New River.**
- **To assist in preparing for the risk associated with construction activities close to the New River, a model risk assessment is available on the Occupational Safety and Health Administration website (http:www.dir.ca.gov/dosh/).**

b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment? ☐ ☒ ☐ ☐

b) As previously stated, construction of the Proposed Project would require the use of chemicals and materials typically associated with precast concrete bridge structures, paving, and other chemicals associated with construction. The use of these materials would be temporary and would be limited by the construction duration and location and in quantity. Additionally, they would be transported, used, and disposed of in a manner that is consistent with the State requirements and manufacturers recommendations and would not create a significant hazard to the public or environment. As discussed above, the New River is a polluted waterway that flows underneath the Proposed Project. As a result of the pollution in the New River, the soils on the Proposed Project site may be contaminated and, if contaminated, could create a significant hazard and release of hazardous materials into the environment during grading. Implementation of mitigation measures MM-AQ-1 and MM-HAZ-1 through MM-HAZ-6 would ensure that the Proposed Project would not release hazardous materials into the environment and create a significant hazard if contaminated soils are encountered.

The Proposed Project, as a bridge replacement project, would not involve the use of hazardous materials during operation. Thus, operation of the Proposed Project would not create a significant hazard to the public or environment through the accidental release of hazardous materials into the environment. Therefore, implementation of mitigation measures would reduce impacts related to hazardous materials to less than significant levels.

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

c) The closest school, Westmorland Elementary School is located approximately 4.7 miles southeast of the Proposed Project site (Google Earth, accessed 2019). As previously noted in the responses to IXa and IXb above, while the Proposed Project may release hazardous materials into the environment with the disturbance of soil that may be contaminated by the polluted New River during construction, the Proposed Project would not emit hazardous emissions or handle hazardous materials within one-quarter mile of existing or proposed schools. As a result, the Proposed Project would not pose a risk to nearby schools and less than significant impacts would occur.

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? ☐ ☒ ☐ ☐

d) A review of the Department of Toxic Substances Control's (DTSC's) and State Water Resources Control Board's (SWRCB's) databases (EnviroStor and Geotracker) were completed for the Proposed Project. The nearest cleanup site is located approximately 1.6 miles northeast of the Proposed Project. This cleanup site was deemed complete and the case was closed as of August 25, 1992 (SWRCB, 2019). The Proposed Project crosses the New River, which is a Class 4 contaminated waterway (Appendix C). The New River is included in the 2006 Clean Water Act Section 303 (d) list, which identifies waters that are too polluted or otherwise degraded to meet water quality standards set by states, territories, or authorized tribes. The New River conveys agricultural runoff from Mexicali and Imperial Valley, as well as contamination from urban runoff from Mexicali. The New River exhibits very poor water quality as it is known to transport community and industrial wastewater, raw and inadequately treated sewage, toxic industrial waste, garbage and other solid wastes, animal wastes, and occasionally geothermal wastewaters. As discussed above, direct contact with the New River would not be necessary as part of the Proposed Project's construction activities as these activities would take place from the banks. While direct contact with the New River would not be necessary as part of the Proposed Project's construction activities, soils on the Proposed Project site encountered during grading may be contaminated from the New River. If these soils are contaminated, a significant hazard to the public and environment may be created. The Proposed Project would implement mitigation measures MM-AQ-1 and MM-HAZ-1 through MM-HAZ-6 to minimize associated risks and ensure applicable statutory and regulatory standards and requirements are complied with in the event contaminated soils are encountered. With implementation of these mitigation measures, impacts related to the creation of a significant hazard to the public or environment would be reduced to less than significant levels.

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- **As the New River is known to contain bacteria-laden foam that can blow over to nearby sites on windy days, precautions shall be identified and taken when working close to the New River on windy days (wind gusts in excess of 15 miles per hour).**
- **Construction workers shall be prohibited from drinking water from the New River.**
- **To assist in preparing for the risk associated with construction activities close to the New River, a model risk assessment is available on the Occupational Safety and Health Administration website (http:www.dir.ca.gov/dosh/).**

b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment? ☐ ☒ ☐ ☐

b) As previously stated, construction of the Proposed Project would require the use of chemicals and materials typically associated with precast concrete bridge structures, paving, and other chemicals associated with construction. The use of these materials would be temporary and would be limited by the construction duration and location and in quantity. Additionally, they would be transported, used, and disposed of in a manner that is consistent with the State requirements and manufacturers recommendations and would not create a significant hazard to the public or environment. As discussed above, the New River is a polluted waterway that flows underneath the Proposed Project. As a result of the pollution in the New River, the soils on the Proposed Project site may be contaminated and, if contaminated, could create a significant hazard and release of hazardous materials into the environment during grading. Implementation of mitigation measures MM-AQ-1 and MM-HAZ-1 through MM-HAZ-6 would ensure that the Proposed Project would not release hazardous materials into the environment and create a significant hazard if contaminated soils are encountered.

The Proposed Project, as a bridge replacement project, would not involve the use of hazardous materials during operation. Thus, operation of the Proposed Project would not create a significant hazard to the public or environment through the accidental release of hazardous materials into the environment. Therefore, implementation of mitigation measures would reduce impacts related to hazardous materials to less than significant levels.

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

c) The closest school, Westmorland Elementary School is located approximately 4.7 miles southeast of the Proposed Project site (Google Earth, accessed 2019). As previously noted in the responses to IXa and IXb above, while the Proposed Project may release hazardous materials into the environment with the disturbance of soil that may be contaminated by the polluted New River during construction, the Proposed Project would not emit hazardous emissions or handle hazardous materials within one-quarter mile of existing or proposed schools. As a result, the Proposed Project would not pose a risk to nearby schools and less than significant impacts would occur.

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? ☐ ☒ ☐ ☐

d) A review of the Department of Toxic Substances Control's (DTSC's) and State Water Resources Control Board's (SWRCB's) databases (EnviroStor and Geotracker) were completed for the Proposed Project. The nearest cleanup site is located approximately 1.6 miles northeast of the Proposed Project. This cleanup site was deemed complete and the case was closed as of August 25, 1992 (SWRCB, 2019). The Proposed Project crosses the New River, which is a Class 4 contaminated waterway (Appendix C). The New River is included in the 2006 Clean Water Act Section 303 (d) list, which identifies waters that are too polluted or otherwise degraded to meet water quality standards set by states, territories, or authorized tribes. The New River conveys agricultural runoff from Mexicali and Imperial Valley, as well as contamination from urban runoff from Mexicali. The New River exhibits very poor water quality as it is known to transport community and industrial wastewater, raw and inadequately treated sewage, toxic industrial waste, garbage and other solid wastes, animal wastes, and occasionally geothermal wastewaters. As discussed above, direct contact with the New River would not be necessary as part of the Proposed Project's construction activities as these activities would take place from the banks. While direct contact with the New River would not be necessary as part of the Proposed Project's construction activities, soils on the Proposed Project site encountered during grading may be contaminated from the New River. If these soils are contaminated, a significant hazard to the public and environment may be created. The Proposed Project would implement mitigation measures MM-AQ-1 and MM-HAZ-1 through MM-HAZ-6 to minimize associated risks and ensure applicable statutory and regulatory standards and requirements are complied with in the event contaminated soils are encountered. With implementation of these mitigation measures, impacts related to the creation of a significant hazard to the public or environment would be reduced to less than significant levels.

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	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
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?	☐	☐	☐	☒

e) The Proposed Project would not be located within an airport land use plan or within 2 miles of an airport and would not result in a safety hazard for people residing or working in the Proposed Project area. The nearest airport to the Proposed Project is the Cliff Hatfield Memorial Airport which is located approximately 7.2 miles northeast of the Proposed Project site.

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

f) The Proposed Project would be designed to applicable County and AASHTO standards and, as a result, provide adequate emergency access. The Proposed Project would not reduce the number of traffic lanes or create physical barriers along Lack Road. As the existing bridge has been closed to traffic for over one (1) year due to severe deterioration of some of the pile supports, implementation of the Proposed Project would improve all existing emergency access for adjacent properties and the surrounding community and reduce lengthy detours for all commuters that either live or work along that stretch of Lack Road. Therefore, implementation of the Proposed Project would not physically interfere or otherwise impair emergency response or emergency evacuation in the County.

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

g) There are no wildlands located adjacent to or within the vicinity of the Proposed Project. In addition, the California Department of Forestry and Fire Protection (CAL FIRE) maintains maps of recommended Very High Fire Hazard Severity Zones (VHFHSZs). According to the map prepared by CAL FIRE for the County, the Proposed Project is located within a Local Responsibility Area (LRA) classified as Unzoned, with the nearest VHFHSZ located approximately 25 miles northwest of the Proposed Project (CAL FIRE, 2007). The Proposed Project would not expose people or structures to the risk of loss, injury, or death as a result of wildland fires beyond existing conditions as a bridge replacement project outside a VHFHSZ. As such, neither people nor structures would be exposed to an anticipated significant risk or loss associated with wildland fires.

Cumulative Impacts:

The Proposed Project, as a bridge replacement project, does not pose a direct significant health threat either in the surrounding area or the County. The New River is a Class 4 contaminated waterway and flows underneath the Proposed Project site (Appendix C). As such, the Proposed Project may release hazardous materials into the environment with the disturbance of soil at the Proposed Project site during construction if the soils are contaminated by the polluted New River. However, potentially contaminated soil from the New River as a result of construction of the Proposed Project would be site specific and there is little cumulative relationship between potentially contaminated soils on the Proposed Project site and any related projects. As a result, less than significant cumulative impacts would occur.

X. *HYDROLOGY AND WATER QUALITY*

Would the project:

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

a) The Proposed Project would be completed in compliance with the established federal, State, and local water quality standards and these standards would apply to all related construction activities as well as storm water and waste discharge from the Proposed Project site during construction. A SWPPP is required for the Proposed Project, and coverage under the Statewide general National Pollutant Elimination System (NPDES) Permit (Construction General Permit [CGP], 2009-0009-DWQ [as amended by 2010-0014-DWQ and 2012-0006-DWQ] – General Permit No. CAS000002) is required. This coverage includes the preparation of a SWPPP prior to grading activities. The SWPPP would address:

- **Site Design BMPs;**
- **Routine structural and non-structural Source Control BMPs;**
- **Treatment Control BMPs, including consideration of a regional or watershed approach; and**
- **Inspection/Maintenance BMPs.**

The proposed grading activities that would occur in support of the Proposed Project would maintain the existing drainage

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pattern at the Proposed Project site.

The Draft Foundation Report (Appendix C) stated groundwater was encountered in exploratory borings at depths between approximately 18 and 19 feet below ground surface. Additionally, water elevation measurements were taken at the New River beneath the existing bridge at approximately 12 feet below the existing roadway. Per the County Health Department, the New River is polluted with both biological and chemical wastes and has been designated as a Class 4 contaminated waterway (Appendix C). As discussed above in Response IXd, the New River is included in the 2006 Clean Water Act Section 303 (d) list, which identifies waters that are too polluted or otherwise degraded to meet water quality standards set by states territories, or authorized tribes. The New River conveys agricultural runoff from Mexicali and Imperial Valley, as well as contamination from urban runoff from Mexicali. The New River exhibits very poor water quality as it is known to transport community and industrial wastewater, raw and inadequately treated sewage, toxic industrial waste, garbage and other solid wastes, animal wastes, and occasionally geothermal wastewaters. The Proposed Project, as a bridge replacement project, would not result in the discharge of pollutants into the already contaminated New River during operation. However, the grading phase of Proposed Project construction would require temporary disturbance of soils, which could potentially result in the degradation of water quality (surface and groundwater) if the soils are contaminated from the New River. Additionally, during grading and construction, pollutants including sediments, petroleum products, trash, concrete waste, sanitary waste, and chemicals may occur on-site which could also have detrimental effects on water quality. The Proposed Project would implement mitigation measures MM-WQ-1, MM-AQ-1 (see Section III, *Air Quality*, above), and MM-HAZ-1 through MM-HAZ-6 (see Section IX, *Hazards and Hazardous Materials*, above) to ensure impacts to water quality standards and surface and groundwater quality would be less than significant.

MM-WQ-1:

The Applicant shall implement and inspect BMPs. BMP implementation and maintenance for the SWPPP shall be verified through inspection, self-certification, survey or other effective measure by the Applicant, or authorized agent as approved by County Public Works Department. Records (maintenance, operations, inspections) of the BMPs will be made available to the County upon request.

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

b) As discussed above, the Draft Foundation Report (Appendix C) stated groundwater was encountered in exploratory borings at depths between approximately 18 and 19 feet below ground surface. Additionally, water elevation measurements were taken at the New River beneath the existing bridge at approximately 12 feet below the existing roadway. The existing bridge would be removed without the need to be in the New River. All construction activities are anticipated to take place from the banks. If temporary dewatering is necessary, the means and methods of any dewatering scheme shall be established by a local contractor and would require a permit and plan that complies with CRRWQCB regulations (MM-WQ-2). Minimal water use would be required for construction activities as part of the Proposed Project and would be limited to dust suppression. The water used for such activities would be obtained off-site and would not require the use of groundwater. Thus, the Proposed Project, as a bridge replacement project, is not expected to use any groundwater. Accordingly, with implementation of mitigation measure (MM-WQ-2), the Proposed Project would not substantially deplete groundwater supplies nor interfere substantially with groundwater recharge; therefore, impacts would be less than significant.

MM-WQ-2:

If temporary dewatering is necessary, the actual means and methods of any dewatering scheme shall be established by a contractor with local experience. Temporary dewatering shall require a permit and plan that complies with CRRWQCB regulations.

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;	☐	☐	☒	☐

(i) During Proposed Project construction, erosion could result from construction activities, including the operation of heavy machinery, grading activities, excavation, or wind or water erosion of stockpiled fill/excavated materials at staging areas. Erosion would be minimized through the implementation of BMPs such as limiting the amount of disturbed soil to the extent possible, preventing runoff from the site, and ensuring compliance with the SWPPP, discussed above. In addition, the Proposed Project site is relatively flat with low levels of natural erosion (County of Imperial, n.d.). As such, the Proposed Project would not result in substantial erosion or siltation on- or off-site with implementation of BMPs and compliance with the SWPPP. Therefore, impacts would be less than significant.

	(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or	☐	☐	☒	☐

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offsite;

(ii) The New River flows under the Proposed Project site. Water elevation measurements were taken at the New River beneath the existing bridge and were approximately 12 feet below the existing roadway. The Proposed Project includes the replacement of an existing bridge with a new bridge within the same alignment of the existing bridge. An IID culvert is located to the east of the Proposed Project site and empties into the New River. The Proposed Project would not result in alterations or relocation of the IID culvert. As such, the Proposed Project would not substantially increase the rate or amount of surface runoff that would result in flooding of the New River. Therefore, less than significant impacts would occur.

(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or; ☐ ☒ ☐ ☐

(iii) The Proposed Project consists of the replacement of an existing bridge with a new bridge structure within the alignment of the existing bridge over the New River. As a bridge replacement project, no increase in runoff water is expected to result from the design of the Proposed Project. As discussed above, an IID culvert is located to the east of the Proposed Project site that empties into the New River. The Proposed Project would not be expected to result in alterations or relocation of the IID culvert. Therefore, the Proposed Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. As discussed above, the Proposed Project would include grading during construction, which would disturb soils on-site. These soils may be contaminated from the New River, which could provide additional sources of polluted runoff. However, the Proposed Project would implement MM-WQ-1, MM-AQ-1 (see Section III, *Air Quality*, above), and MM-HAZ-1 through MM-HAZ-6 (see Section IX, *Hazards and Hazardous Materials*, above), which would reduce impacts related to the addition of polluted runoff sources to less than significant levels.

(iv) impede or redirect flood flows? ☐ ☐ ☒ ☐

(iv) The Proposed Project consists of the replacement of an existing bridge with a new bridge structure within the alignment of the existing bridge over the New River. Though the New River flows beneath the Proposed Project site, the existing bridge would be removed without the need to be in the New River. As all construction activities are anticipated to take place from the banks of the New River, the Proposed Project would not impede or redirect flood flows. Therefore, less than significant impacts would occur.

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

d) The Proposed Project is not within a tsunami zone (see Appendix C; California Department of Conservation, 2019). The Draft Foundation Report stated that though there have been no documented occurrences of seiches at the Salton Sea (located approximately 2.3 miles northwest of the Proposed Project site), it is likely that one (1) could occur due to the relatively shallow depth and seismic exposure. However, the Draft Foundation Report determined, given the Proposed Project site's distance to the Salton Sea and that the Proposed Project site is approximately 15 feet higher than the surface of the Salton Sea, the potential for seiches affecting the Proposed Project site is considered low.

The Proposed Project is located in Zone A, which is a special flood area and a 100-year flood hazard area by the Federal Emergency Management Agency (FEMA, 2008). The New River flows beneath the existing bridge within the Proposed Project site. As discussed above, the New River is polluted with both biological and chemical wastes and has been designated as a Class 4 contaminated waterway (Appendix C). Thus, should flooding of the New River occur, pollutants may be released. As discussed above, the existing bridge would be removed without the need to be in the New River. All Proposed Project construction activities are anticipated to take place from the banks. Nevertheless, while the release of pollutants would not be directly caused by Proposed Project, pollutants would indirectly be released from the polluted New River. Typical earthwork guidelines would be implemented for the Proposed Project, including taking precautions during site clearing, excavation, and grading to protect the Proposed Project site from flooding, ponding, or inundation (i.e., temporary provisions during the rainy season and pumps to remove water). In addition, the Proposed Project would implement BMPs, comply with the SWPPP, and comply with mitigation measures MM-AQ-1 (see Section III, *Air Quality*, above) and MM-HAZ-6 (see Section IX, *Hazards and Hazardous Materials*, above), which would reduce potential impacts to hydrology and water quality related to release of pollutants due to project inundation in a flood zone to less than significant levels.

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

e) As discussed, the increase in impervious surfaces posed by the Proposed Project would create and contribute to additional runoff. However, the Proposed Project is designed to include BMPs to capture and control the rate of runoff. Implementation of MM-WQ-1 would ensure that additional runoff water would not exceed the capacity of existing stormwater drainage systems or provide substantial additional sources of polluted runoff and therefore result in less than significant

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impacts.

Cumulative Impacts:

The Proposed Project could result in potential impacts related to water quality standards as a result of the Proposed Project's proximity to the polluted New River and the potential presence of contaminated soils on-site. Cumulative projects in the vicinity, individually and cumulatively, could potentially increase and contribute to the degradation of water quality, resulting in cumulative impacts to hydrology and surface water quality. However, as with the Proposed Project, each of the cumulative projects would also be subject to NPDES Permit requirements for both construction and operation. Projects would be required to develop a SWPPP and would be evaluated individually to determine appropriate BMPs to minimize water quality and hydrologic impacts. In addition, the County Public Works Department reviews all development projects on a case-by-case basis to ensure that sufficient local and regional drainage capacity is available. Furthermore, with implementation of mitigation measures discussed above, the Proposed Project's impacts to hydrology and water quality would be reduced to less than significant levels. Thus, the Proposed Project's contribution to cumulative impacts to hydrology and water quality would be less than significant.

XI. *LAND USE AND PLANNING*

Would the project:

The Proposed Project site is surrounded by land designated as Agriculture and zoned as A-3. The County's Zoning Code (Title 9, Chapter 9: A-3 [Heavy Agriculture]) provides the following description for the Heavy Agriculture land use district, and is provided below:

> **The purpose of the A-3 (Heavy Agriculture) [40 acres or larger typical] Zone is to designate areas that are suitable for agricultural land uses; to prevent the encroachment of incompatible uses onto and within agricultural lands; and to prohibit the premature conversion of such lands to non-agricultural uses. It is a land use that is to promote the heaviest of agricultural uses in the most suitable land areas of the County. Uses in the A-3 zoning designation are limited primarily to agricultural related uses and agricultural activities that are compatible with agricultural uses.**

The predominant land use in the vicinity of the Proposed Project is agricultural.

a)	Physically divide an established community?	☐	☐	☐	☒

a) The Proposed Project would be constructed within the same alignment as the existing bridge. The proposed use, design and scale would be consistent with the existing land use and development in the surrounding area. As the existing bridge has been closed for over a year due to severe deterioration, operation of a new and improved bridge as a result of the Proposed Project would improve all existing access to adjacent properties and the surrounding community and reduce lengthy detours for all commuters that either live or work along that stretch of Lack Road. The Proposed Project would not include any physical barriers or features that would divide an established community.

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?	☐	☐	☒	☐

b) While the Proposed Project is surrounded by land designated as Agriculture and zoned A-3 (Heavy Agriculture), the Proposed Project consists of the replacement of an existing bridge with a new and improved bridge structure that would be reconstructed in the same alignment as the existing bridge over the New River. The Proposed Project would not alter the existing use of the Proposed Project site and, as such, be consistent with all applicable land use plans, policies, and regulations. The Proposed Project would be consistent with the goals and policies of the County General Plan, County Municipal Code, and related ordinances. As further discussed in Section IV. *Biological Resources*, above, the Proposed Project is not located within an area covered by an adopted HCP or NCCP. Therefore, less than significant impacts would occur.

Cumulative Impacts:

As indicated above, Proposed Project implementation is consistent with the existing land use on the Proposed Project site and compatible with the surrounding land uses in the Proposed Project environs. Therefore, implementation of the Proposed Project will not result in any cumulative land use impacts.

XII. *MINERAL RESOURCES*

Would the project:

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

a) There are no locally-important mineral resources underlying the Proposed Project site (County General Plan, Conservation

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and Open Space Element, 2016). The Proposed Project would not contain elements that would remove, damage, or otherwise result in the loss of a known mineral resource. Therefore, the Proposed Project would not result in the loss of availability of a known mineral resource.

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? ☐ ☐ ☐ ☒

b) There are no mineral recovery sites within or neighboring the Proposed Project area (County General Plan, Conservation and Open Space Element, 2016). Therefore, the Proposed Project would not result in the loss of a locally-important mineral resource recovery site.

Cumulative Impacts:

As identified above, the Proposed Project is not designated for mineral resources either by the State of California or the County and is not known to contain such resources. As a result, no mineral resources would be lost with site development and no cumulative impacts would occur.

XIII. *NOISE*

The County has established noise standards and noise limitations for construction-related activities. The County General Plan Noise Element states construction noise from a single piece of equipment or a combination of equipment, shall not exceed 75 dB L_{eq}, when averaged over an eight (8) hour period, and measured from the nearest sensitive receptor. Additionally, operation of construction equipment in the County is limited to the hours of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. on Saturday with no commercial construction operations permitted on Sunday or holidays (County of Imperial, 2015).

The County has also established land use compatibility noise guidelines. The County General Plan Noise Element provides noise criteria for various land-use designations to determine land use compatibility (see Table 1, County Noise/Land Use Compatibility Guidelines).

TABLE 1: COUNTY NOISE/LAND USE COMPATIBILITY GUIDELINES

Land Use Category	Average-Daily Noise Level (dBA Community Noise Equivalent Level [CNEL])			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential	<60	60-70	70-75	>75
Transient Lodging-Motels, Hotels	<60	60-75	70-80	>80
Schools, Libraries, Churches, Hospitals, Nursing Homes	<60	60-70	70-80	>80
Auditoriums, Concert Halls, Amphitheaters	--	<70	--	>70
Sports Arena, Outdoor Spectator Sports	--	<70	70-75	>75
Playgrounds, Neighborhood Parks	<70	--	70-75	>75
Golf Courses, Riding Stables, Water Recreation, Cemeteries	<70	--	70-80	>80
Office Buildings, Business Commercial and Professional	<65	65-75	75-80	>80
Industrial, Manufacturing, Utilities, Agriculture	<70	70-75	75-80	>80

Source: County of Imperial, California, General Plan Noise Element, 2015.
Notes:
Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable: 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.
Normally Unacceptable: New construction or development should 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 Unacceptable: New construction or development clearly should not be undertaken.
CNEL is a measure of cumulative noise exposure or the weighted average sound level over a 24-hour period. Many cities and counties use CNEL to apply more conservative evening hour corrections to a 24-hour noise level in order to account for noise sensitive time periods during the evening and night hours when sound appears louder.

The County General Plan Noise Element states a substantial increase in noise levels would be an increase of 5.0 dBA Community Noise Equivalent Level (CNEL) or greater where noise levels are less than the County's normally acceptable noise levels without project implementation. If the noise level without project implementation exceeds the County's normally acceptable noise levels, an increase of 3.0 dBA CNEL or greater would be considered a substantial increase.

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The County Noise Abatement and Control Ordinance (Title 9 Division 7, 2017) provides property line noise limitations consistent with the County General Plan Noise Element. The one (1) hour average sound level limit for agricultural land uses is 70 dBA.

The County has also adopted a Right to Farm Ordinance (No.1031). The Right to Farm Ordinance requires a disclosure to land owners near agricultural land operations or areas zoned for agriculture. The disclosure advises land owners that discomfort and inconvenience from machinery and aircraft noise resulting from conforming and accepted agricultural operations as normal and necessary aspect of living in the agricultural areas of the County (County of Imperial, 2015).

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?	☐	☒	☐	☐

a) Construction Noise

The Proposed Project would be expected to generate short-term noise associated with construction activities. The Proposed Project would be required to comply with the County General Plan Noise Element, which as discussed above requires construction activities to be completed between the hours of 7 a.m. to 7 p.m. Monday through Friday, and from 9 a.m. to 5 p.m. on Saturday with no commercial construction operations permitted on Sunday or holidays (County of Imperial, 2015). The USEPA has compiled data regarding the noise generated by typical construction activities (see Table 2, Typical Construction Activity Noise). As shown in Table 2, noise levels would be reduced with distance from construction activities, approximately 6 dBA per doubling distance. As a bridge replacement project, not all typical construction activities presented in Table 2 apply, however, at a minimum grading would be required during construction of the Proposed Project.

TABLE 2: TYPICAL CONSTRUCTION ACTIVITY NOISE

Construction Phase	Noise Levels at 50 Feet with Mufflers (dBA L_{eq})	Noise Levels at 100 Feet with Mufflers (dBA L_{eq})	Noise Levels at 200 Feet with Mufflers (dBA L_{eq})
Ground Clearing	82	76	70
Excavation, Grading	86	80	74
Foundations	77	71	65
Structural	83	77	71
Finishing	86	80	74

Source: United States Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

Agricultural land surrounds the Proposed Project site. The nearest sensitive receptors are residences located approximately 1.1 miles south and 1.9 miles northeast of the Proposed Project. Based on the noise generated by typical construction activities shown in Table 2, above, and the fact that noise levels reduce approximately 6 dBA per doubling distance, noise experienced at the nearest sensitive receptors would not exceed the County's 75 dB L_{eq} threshold as a result of the Proposed Project's construction activities. Compliance with the County General Plan Noise Element and implementation of MM-NOISE-1 through MM-NOISE-3 would ensure that the Proposed Project's construction noise impacts would be less than significant.

Operational Noise

The existing bridge has been closed to traffic for over one (1) year due to severe deterioration of some of the pile supports. As such, noise generated from traffic does not currently exist at the Proposed Project site. The primary sources of noise in the Proposed Project area include vehicular traffic along the surrounding roadways (including Vail Road, located approximately 0.3 mile north of the Proposed Project site, and Foulds Road, located approximately 0.2 mile south of the Proposed Project site) and agricultural operations such as heavy equipment and vehicle use.

As discussed above, the County Noise Abatement and Control Ordinance (Title 9 Division 7, 2017) limits one (1) hour average sound in agricultural uses to 70 dBA. Additionally, as shown above in Table 1, the County's normally acceptable noise levels for agricultural land uses is less than 70 dBA CNEL. As discussed above, according to the County General Plan Noise Element, a substantial increase in noise levels would be an increase of 5.0 dBA CNEL or greater where noise levels are less than the County's normally acceptable noise levels without project implementation. If the noise level without project implementation exceeds the County's normally acceptable noise levels, an increase of 3.0 dBA CNEL or greater would be considered a substantial increase.

During operation, the Proposed Project's new bridge would generate traffic noise. Should the existing noise levels at the Proposed Project area be less than the County's normally acceptable noise levels for agricultural land uses (less than 70 dBA CNEL), than the Proposed Project would result in a substantial noise increase if the Proposed Project's traffic noise would generate approximately 73.2 dBA or more. Agricultural operations, which can typically include the use of heavy-duty equipment, could reach maximum noise levels of approximately 85 dBA at 50 feet. Should existing noise levels at the

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Proposed Project area be approximately 85 dBA and, therefore, exceed the County's normally acceptable noise levels, the Proposed Project would result in a substantial noise increase if the Proposed Project's traffic noise would generate approximately 84.9 dBA or more.

Levels of highway traffic noise typically range from 70 to 80 dBA at a distance of 50 feet from the highway (United States Department of Transportation Federal Highway Administration, 2017). The Proposed Project's new bridge would generate traffic noise. However, because the new bridge would be located on Lack Road, a Minor Collector road classified by the County, and only contain two travel lanes, it is anticipated the new bridge would be used by the surrounding community's marginal number of commuters that either live or work along that stretch of Lack Road. As such, it is expected that the traffic noise generated by the Proposed Project would be substantially lower than the typical 70 to 80 dBA at a distance of 50 feet from a highway. Thus, the Proposed Project's traffic noise would be expected to generate less than 73.2 dBA and 84.9 dBA and, therefore, not result in a substantial noise increase in ambient noise in the vicinity of the Proposed Project.

Noise generated from heavily traveled roads typically attenuates at about 3 dBA per doubling distance. The nearest sensitive receptors are residences located approximately 1.1 miles south and 1.9 miles northeast of the Proposed Project. Due to the anticipated traffic noise generated by the Proposed Project and traffic noise attenuation, a substantial increase in ambient noise levels at these sensitive receptors would not occur. Therefore, impacts would be less than significant.

MM-NOISE-1:

In compliance with the County General Plan Noise Element, operation of construction equipment shall be limited to the hours of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. on Saturday. No commercial construction operations shall be permitted on Sunday or holidays.

MM-NOISE-2:

Construction activities shall be operated in a manner that limits noise impacts on surrounding uses.

MM-NOISE-3:

Construction contractors shall equip all construction equipment with properly operating and maintained mufflers, consistent with the manufacturer's standards.

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

b) High levels of groundborne noise and groundborne vibration is generated during construction related activities such as excavation, large mechanical pile driving machines, or the use of heavy earthmoving equipment. According to the Federal Transit Administration (FTA), construction equipment could generate vibration velocities at a maximum of 0.089 peak particle velocity (PPV) from a large bulldozer (FTA, 2006). During operation, groundborne noise and groundborne vibration is generated by heavy-duty vehicular travel (e.g., refuse trucks, delivery trucks, and transit buses) on local roadways. Trucks and buses typically generate groundborne vibration velocity levels of around 63 VdB at 50 feet, and these levels could reach 72 VdB where trucks and buses pass over bumps in the road (FTA, 2006). Loaded trucks can result in a vibration level of approximately 0.076 PPV at a reference distance of 25 feet.

The most restrictive threshold for building damage is 0.12 PPV for historic buildings and buildings that are extremely susceptible to vibration damage (FTA, 2006). Regarding human annoyance resulting from groundborne vibration during construction, the FTA has established a vibration impact threshold of 80 VdB and above at residences and buildings where people normally sleep (FTA, 2006). The nearest building is approximately 1.1 miles south of the Proposed Project. The nearest sensitive receptors are residences located approximately 1.1 miles and 1.9 miles northeast of the Proposed Project. Due to distance, vibration generated by the Proposed Project during construction would not result in the generation of vibration in excess of vibration thresholds at the nearest building or the nearest noise sensitive receptors. Therefore, implementation of MM-NOISE-1 through MM-NOISE-3 would ensure that the Proposed Project's construction groundborne 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? ☐ ☐ ☐ ☒

c) The Proposed Project would not be located within an airport land use plan or within 2 miles of an airport and would not result in a safety hazard for people residing or working in the Proposed Project area. The nearest airport to the Proposed Project is the Cliff Hatfield Memorial Airport which is located approximately 7.2 miles northeast of the Proposed Project site.

Cumulative Impacts:

Cumulative noise impacts could occur as a result of increased traffic volumes on local roadways due to future growth and increased development in the vicinity of the Proposed Project site. Cumulative traffic noise impacts are based on the difference between existing traffic volumes and future traffic volumes after build out of the project and in combination with related projects currently

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being proposed or built within the vicinity of the Proposed Project site. There are no other projects in the vicinity of the Proposed Project such that a meaningful contribution of traffic or noise would result in a cumulative effect such that noise levels would substantially increase (a substantial increase in noise levels would be an increase of 5.0 dBA CNEL or greater where noise levels are less than the County's normally acceptable noise levels without project implementation. If the noise level without project implementation exceeds the County's normally acceptable noise levels, an increase of 3.0 dBA CNEL or greater would be considered a substantial increase). Cumulative impacts would be less than significant.

XIV. *POPULATION AND HOUSING*

Would the project:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)? ☐ ☐ ☐ ☒

a) The Proposed Project would consist of the replacement of the severely deteriorated existing bridge with a new precast concrete bridge along Lack Road over the New River. No housing units are proposed. While the Proposed Project would provide a few temporary employment opportunities during construction, it is expected that these jobs would be filled by the workforce in the surrounding communities; therefore, no indirect population growth is anticipated. As a bridge replacement project, no growth inducing extensions of infrastructure, including roadways, are proposed as part of the Proposed Project. As such, the Proposed Project would be consistent with the grown and development in the area and would not induce population growth in the area, either directly or indirectly.

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

b) As a bridge replacement project, there are no housing facilities located on the Proposed Project site. While there are a few scattered residences on the surrounding agricultural land, no housing units would be removed as part of the Proposed Project. As such, there would be no displacement of any person or persons. The Proposed Project would not alter the location, distribution, density, or growth of the human population in the area. Therefore, the Proposed Project would not be expected to result in impacts to population and housing related to displacement of people or housing necessitating the construction of replacement housing.

Cumulative Impacts:

The Proposed Project is consistent with the County's General Plan. As a bridge replacement project, the Proposed Project would not contribute to cumulative effect as no housing and no displacement of people or housing are proposed. Therefore, the Proposed Project's cumulative contribution would not significantly impact population and housing.

XV. *PUBLIC SERVICES*

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

1) Fire Protection? ☐ ☐ ☐ ☒

1) The Proposed Project area is serviced by the Imperial County Fire Department (ICFD). The ICFD has eight (8) stations and six (6) contracting agencies providing fire protection services throughout the County (ICFD, 2019). The nearest fire station to the Proposed Project site is the Westmorland Volunteer Fire Station, located approximately 4.5 miles southeast of the Proposed Project site. The fire station currently operates with 22 volunteers and one part-time fire chief. It serves the areas within the City of Westmorland and the County (City of Westmorland, 2019). The Proposed Project would replace the severely deteriorated existing bridge along Lack Road over the New River with a new precast concrete bridge. The existing bridge would be removed without the need to be in the New River. The new bridge dimensions would be 35 feet and 6 inches wide by 125 feet long, with a structure depth of 7 feet and 0.875 inches. The Proposed Project's new bridge would be reconstructed at approximately the same alignment with two (2) 12-foot lanes designed to support a 55 mph vehicular speed. Shoulder widths would be 4 feet on the bridge, and would transition to the existing width at the roadway conform points. All construction activities are anticipated to take place from the banks. The existing bridge has been non-operational for over a year. As such, no traffic detour plan or temporary signage would be needed during construction. The Proposed Project would

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not include any other land uses and, therefore, would not induce population growth in the Proposed Project area necessitating the need for additional fire protection. The Proposed Project would comply with applicable requirements of ICFD and construction plans would be subject to approval by ICFD. Therefore, the Proposed Project would not increase demand for fire protection services, nor degrade the quality of existing fire protection services.

2) Police Protection? ☐ ☐ ☐ ☒

2) The Imperial County Sheriff's Office (ICSO) provides law enforcement services in the County. The nearest ICSO station is located approximately 10.5 miles southeast of the Proposed Project. The Proposed Project would replace the severely deteriorated existing bridge along Lack Road over the New River with a new precast concrete bridge. As a bridge replacement project, the Proposed Project would not include any other land uses. The Proposed Project would therefore not induce population growth in the area. As a result, no additional police protection would be required. Therefore, the Proposed Project would not increase demand for police protection services, nor degrade the quality of existing police protection services.

3) Schools? ☐ ☐ ☐ ☒

3) The Proposed Project would not directly increase demand for public schools in the County. As a bridge replacement project, the Proposed Project would not generate employment that result in a substantial demand on school services. Furthermore, as discussed in Section XIV. *Population and Housing*, above, the Proposed Project would not directly or indirectly induce any population growth in the Proposed Project area. Therefore, the Proposed Project would not increase demand on schools.

4) Parks? ☐ ☐ ☐ ☒

4) The Parks and Recreation Division of the County Department of Public Works is dedicated to the improvement, repair, expansion, and implementation of parks and recreation through the County. The nearest County park is Red Hill Park, located approximately 7 miles northeast of the Proposed Project. As discussed in Section XIV. *Population and Housing*, above, the Proposed Project would not directly or indirectly induce any population growth in the Proposed Project area. Therefore, the Proposed Project, as a bridge replacement project, would not cause an increase in population that would create a need for additional parks. As a result, the Proposed Project would not increase demand for park facilities.

5) Other Public Facilities? ☐ ☐ ☐ ☒

5) The nearest public library, Imperial County Free Library, and post office are located approximately 7.8 miles east of the Proposed Project. As discussed in Section XIV. *Population and Housing*, above, the Proposed Project would not directly or indirectly induce any population growth in the Proposed Project area. No additional public facilities would be needed as a result of the Proposed Project. Therefore, the Proposed Project would not increase demand on other public facilities.

Cumulative Impacts:

The area in which the Proposed Project is located is currently supported by adequate public services, including fire protection, police protection, public school facilities, library, and park facilities. As a bridge replacement project, the Proposed Project would not substantially affect the existing level of public services provided in the area. Therefore, the Proposed Project's cumulative contribution to Public Services within the County would be considered less than significant.

XVI. *RECREATION*

The Parks and Recreation Division of the County Department of Public Works is dedicated to the improvement, repair, expansion, and implementation of parks and recreation through the County. The nearest County park is Red Hill Park, located approximately 7 miles northeast of the Proposed Project.

a) Would the project increase the use of the existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? ☐ ☐ ☐ ☒

a) The Proposed Project would entail the replacement of an existing bridge with a new and improved bridge structure within the same alignment as the existing bridge over the New River. As such, the Proposed Project would not directly or indirectly induce population growth in the project area necessitating the increase in use of existing neighborhood and regional parks. Accordingly, no impacts related to increased use of existing neighborhood and regional parks would occur.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse effect on the environment? ☐ ☐ ☐ ☒

b) The Proposed Project is a bridge replacement project and, therefore, would not include or require the construction or expansion of recreational facilities. No impact would occur.

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Cumulative Impacts:

The Proposed Project would not significantly increase the demand or wear for recreational facilities. Therefore, the Proposed Project would not contribute to cumulative adverse impacts to recreation facilities within the County.

XVII. *TRANSPORTATION*

Would the project:

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

a) During the construction of the new bridge along the same alignment as the existing bridge, Proposed Project-related traffic would be temporary. Traffic during construction would include workers traveling to and from the Proposed Project site, trucks hauling construction materials to the Proposed Project site, and transporting material off-site. Though the Proposed Project would generate construction traffic on the local roadway network and along this section of Lack Road which currently experiences no traffic since the existing bridge has been closed for over a year, the construction traffic would be temporary and occurring throughout the day, generally during non-peak hours. As such, the construction traffic would not generate a substantial impact to the surrounding roadways. Therefore, construction traffic would not be expected to conflict with a program plan, ordinance or policy addressing the circulation system, and impacts would be less than significant.

The County General Plan's Circulation and Scenic Highways Element was adopted in 2008, prior to the closure of the existing bridge. The Circulation and Scenic Highways Element was prepared in conjunction with the Southern California Association of Governments (SCAG) Regional Transportation Plan, "Destination 2030," and other related transportation planning documents (County of Imperial, 2008). The Circulation and Scenic Highways Element included projected street segment configurations and volumes throughout the County, including for Lack Road, which is designated as a Minor Collector road. Thus, traffic along this section of Lack Road and over the bridge was anticipated and accommodated for in the Circulation and Scenic Highways Element. As the new bridge would be within the same alignment and have the same number of lanes (one [1] in each direction) as the existing bridge, operation of the Proposed Project is not anticipated to generate an increase in traffic beyond the traffic accommodated for in the County's General Plan. Therefore, the Proposed Project would not conflict with a program plan, ordinance or policy addressing the circulation system, and operational impacts would be less than significant.

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

b) CEQA Guidelines 15064.3 states vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts. CEQA Guidelines 15064.3 subdivision (b) provides several criteria for analyzing transportation impacts, including analyzing a project's VMT qualitatively when lead agencies may not be able to quantitatively estimate VMT for a project type. The Proposed Project would replace an existing deteriorated bridge that has been closed for over a year with a new bridge within the alignment of the existing bridge. The new bridge would have the same number of lanes (one [1] in each direction) as the existing bridge. Though the Proposed Project would generate more vehicular traffic than existing vehicular traffic on the Proposed Project site, due to the closure of the bridge, implementation of the Proposed Project would improve vehicular traffic on adjacent properties and roads in the surrounding community as the Proposed Project would circulate the traffic as well as reduce lengthy detours for all commuters that either live or work along that stretch of Lack Road. Additionally, the Governor's Office of Planning and Research (OPR) has developed a Technical Advisory on Evaluating Transportation Impacts in CEQA, which states replacement projects designed to improve the condition of existing transportation assets, including bridges, would not likely lead to a substantial or measurable increase in vehicle travel and, therefore, generally should not require an induced travel analysis (OPR; 2018). Thus, the Proposed Project is anticipated to be consistent with CEQA Guidelines section 15064.3 subdivision (b) and impacts are expected to be less than significant.

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

c) The Proposed Project would consist of the replacement of an existing severely deteriorated bridge with a new bridge designed to applicable County and AASHTO standards. As such, the Proposed Project would not include a geometric design feature that would increase hazards or result in incompatible uses. As commuters currently that live and work along this stretch of Lack Road are required to utilize lengthy detours due to the closure of the existing bridge for over a year, the Proposed Project would improve passage for commuters. The Proposed Project would comply with the standards of Caltrans and ICFD. Additionally, the Proposed Project would utilize standards as set out in the California Manual on Uniform Traffic

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Control Devices for operational traffic control devices as appropriate and would further incorporate traffic control measures that are designed to ensure the safety of all road users. Therefore, the Proposed Project would result in less than significant impacts related to hazardous design features or incompatible uses.

d) Result in inadequate emergency access? ☐ ☐ ☒ ☐

d) The Proposed Project would be designed to applicable County and AASHTO standards and, as a result, provide adequate emergency access. The Proposed Project would not reduce the number of traffic lanes or create physical barriers along Lack Road. As the existing bridge has been closed to traffic for over one (1) year due to severe deterioration of some of the pile supports, implementation of the Proposed Project would improve all existing emergency access for adjacent properties and the surrounding community and reduce lengthy detours for all commuters that either live or work along that stretch of Lack Road. Therefore, the Proposed Project would not include or create any physical barriers on roadways that would impede emergency access within the area or to the Proposed Project site.

Cumulative Impacts:

Proposed Project implementation is anticipated to contribute traffic along Lack Road. However, the Proposed Project would not generate an increase in traffic compared to the traffic generated on the existing bridge prior to its closure over a year ago or anticipated in the County's General Plan, as the Proposed Project's new bridge would be within the same alignment and have the same amount of lanes as the existing bridge. In addition, the Proposed Project would be design to applicable County and AASHTO standards. Furthermore, implementation of the Proposed Project would improve vehicular traffic on adjacent properties and roads in the surrounding community, as the Proposed Project would circulate the traffic as well as reduce lengthy detours for all commuters that either live or work along that stretch of Lack Road. Thus, as indicated in the preceding analysis, the Proposed Project's traffic impacts would be less than significant. Therefore, the Proposed Project's cumulative contribution would not result in significant cumulative transportation impacts.

XVIII. *TRIBAL CULTURAL RESOURCES*

a) 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: ☐ ☒ ☐ ☐

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as define in Public Resources Code Section 5020.1(k), or ☐ ☒ ☐ ☐

(i) Should it be determined that the Proposed Project requires a Notice of Preparation or a Notice of ND/MND, the Lead Agency would be required to conduct formal consultation with California Native American Tribes who identify as being traditionally and culturally affiliated with the Proposed Project area pursuant to AB 52 to determine potential impacts to tribal cultural resources as defined in Public Resources Code Section 21074. The CEQA Lead Agency must begin the AB 52 consultation process prior to the release of a ND, MND, or EIR. The AB 52 consultation process shall begin with the Lead Agency providing written notification to California Native American Tribes who identify as being traditionally and culturally affiliated with the Proposed Project area. The written notification would include a brief description of the Proposed Project, its location, the contact information for the ICPDS, the Lead Agency for the Proposed Project, and notification that the California Native American Tribe has 30 days to request consultation. AB 52 consultation notification letter was sent by the ICPDS on December 10, 2019. Response comment letters were received from the Quechan Indian Tribe (via email) on December 13, 2019, December 23, 2019 and February 7, 2020 (see Appendix D). A comment letter from Campo Band of Mission Indians was received on December 19, 2019 (see Appendix D). The comments provided by the Quechan Indian Tribe have been acknowledged by the ICPDS and the Cultural Resources Survey Report (Appendix B) has been updated accordingly. Based on the information provided by the Campo Band of Mission Indians, the ICPDS is willing to implement MM-TCR-1 through MM-TCR-3 for the Proposed Project to ensure impacts to tribal cultural resources would be avoided or reduced to less than significant levels.

MM-TCR-1:

During ground disturbing activities for the Proposed Project, a Kumeyaay cultural monitor from the Campo Band of Mission Indians shall be present to ensure Kumeyaay cultural resource are not overlooked.

MM-TCR-2:

During construction, should the Proposed Project disturb the cultural landscape or the ancestors of the Campo

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Band of Mission Indians, the Applicant and the ICPDS shall coordinate with the Campo Band of Mission Indians to determine the best course of action.

MM-TCR-3:

Should ancestral remains of the Campo Band of Mission Indians be disturbed during the construction of the Proposed Project, the Applicant and the ICPDS shall coordinate with the Campo Band of Mission Indians to provide financial compensation for the disturbance and displacement of those ancestral remains.

2.	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 is 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.	☐	☒	☐	☐

(ii) As discussed above, the ICPDS sent AB 52 consultation notification letters on December 10, 2019 and received response comment letters from the Quechan Indian Tribe (via email) on December 13, 2019, December 23, 2019 and February 7, 2020. A comment letter was received from the Campo Band of Mission Indians on December 19, 2019 (see Appendix D). The comments provided by the Quechan Indian Tribe have been acknowledged by the ICPDS and the Cultural Resources Survey Report (Appendix B) has been updated accordingly. Based on the information provided by the Campo Band of Mission Indians, the ICPDS is willing to implement MM-TCR-1 through MM-TCR-3, above, for the Proposed Project. The Proposed Project would comply with these mitigation measures to avoid or reduce impacts to tribal cultural resources to less than significant levels.

Cumulative Impacts:

Based on the response comment letters from the Campo Band of Mission Indians received by the ICPDS, implementation of MM-TCR-1 through MM-TCR-3, above, would avoid or reduce impacts to tribal cultural resources to less than significant levels. Similar to the Proposed Project, any related projects would be required to conduct AB 52 consultation and analyze and mitigate potential impacts to tribal cultural resources. Any related project sites that contain tribal cultural resources would be required to comply with site specific mitigation measures to avoid or reduce potential impacts. Therefore, cumulative impacts would be less than significant.

XIX. *UTILITIES AND SERVICE SYSTEMS*

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 telecommunications facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

a) The Proposed Project consists of the replacement of an existing bridge with a new and improved bridge structure within the same alignment as the existing bridge over the New River. Minimal water use would be required for construction activities as part of the Proposed Project. Construction water use would be limited to dust suppression. The water used for such activities would be obtained off-site and would not require any new water connections. An IID culvert is located to the east of the Proposed Project site that empties into the New River. The Proposed Project would not be expected to result in alterations or relocation of the IID culvert. As such, the Proposed Project would not cause for the relocation or construction of water or wastewater. Therefore, Proposed Project impacts associated with the relocation or construction of water or wastewater would be considered less than significant.

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

b) As discussed in Response XIXa, above, water for the Proposed Project would be obtained off-site for construction activities limited to dust suppression. Water would be trucked in since the amount anticipated for dust suppression would not necessitate the need for new water facilities or expansion of existing water facilities. Therefore, less than significant impacts related to water supplies would occur.

c)	Result in a determination by the wastewater treatment	☐	☐	☒	☐

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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?

c) The Proposed Project would consist of the replacement of an existing bridge with a new and improved bridge structure within the same alignment as the existing bridge over the New River. Accordingly, the Proposed Project would not generate wastewater and there would be no change from existing conditions and no need for additional wastewater treatment during operation. During construction, sanitation waste and wastewater (i.e., human generated waste) would be disposed of at a local wastewater treatment plant in accordance with sanitation waste management practices. The Proposed Project would not hinder the local wastewater treatment provider's service capacity. Therefore, impacts associated with wastewater treatment capacity would be less than significant.

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? ☐ ☐ ☒ ☐

d) Implementation of the Proposed Project would generate an incremental increase in solid waste volumes requiring off-site disposal during construction activities including wood, metal, soil, and vegetation. Solid waste materials generated during the Proposed Project's construction would be collected, analyzed for contaminants, and characterized based on analytical results. All construction materials and debris would be removed from the area and recycled or properly disposed of off-site at County approved facilities (i.e., landfills). The County administers and operates nine (9) landfills. The Proposed Project would not generate a considerable increase in solid waste that would exceed the capacity of the 9 County operated landfills. Additionally, all work would be completed pursuant to applicable State, local, and County regulations and policies related to solid waste, including the County's Solid Waste Ordinance (Imperial County Municipal Code, Chapter 8.72 – Solid Waste Management). Compliance with all applicable State, local, and County regulations and policies would ensure impacts related to solid waste would be less than significant.

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

e) As discussed in XIXd, above, the Proposed Project would be required to comply with the County's Solid Waste Ordinance (Imperial County Municipal Code, Chapter 8.72 – Solid Waste Management). As a bridge replacement project, the Proposed Project would generate a limited amount of solid waste during construction activities. As a result, the Proposed Project would not generate a considerable increase in solid waste. However, solid waste generated by the Proposed Project during construction would include soil. While the material excavated for the Proposed Project would be collected, analyzed for contaminants and sent for recycling or disposed of off-site at a licensed waste facility, as discussed in Section IX, *Hazards and Hazardous Materials*, the Proposed Project may release hazardous materials into the environment with the disturbance of soil at the Proposed Project site during construction as the soil may be contaminated by the polluted New River, which the Proposed Project crosses. Site grading during construction of the Proposed Project would redistribute on-site soils that may need disposal. These soils may be contaminated from the New River. If these soils are contaminated, the temporary disturbance and potential disposal of these soils during grading may create a significant hazard to the public and environment. However, implementation of mitigation measures MM-AQ-1 and MM-HAZ-1 through MM-HAZ-6 would ensure that potentially contaminated soils are identified, removed, and properly disposed of to prevent the creation of significant hazard to the public and the environment to the maximum extent feasible and reduce impacts to less than significant levels.

Cumulative Impacts:

As a bridge replacement project, the Proposed Project would not require water use or generate solid waste during operation. During construction, the Proposed Project implementation would require minimal water use and generate solid waste. The Proposed Project would adhere to and be consistent with applicable State, local, and County regulations and policies. As discussed in Response XIXe, above, the Proposed Project would implement mitigation measures MM-AQ-1 and MM-HAZ-1 through MM-HAZ-6 should soils on-site be contaminated by the polluted New River and reduce impacts to less than significant levels. Thus, the Proposed Project's contribution to cumulative impacts to utilities would be less than significant.

XX. *WILDFIRE*

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

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

a) According to the map prepared by CAL FIRE for the County, the Proposed Project is located within an LRA classified as Unzoned, with the nearest VHFHSZ located approximately 25 miles northwest of the Proposed Project (CAL FIRE, 2007). The Proposed Project would be designed to applicable County and AASHTO standards and, as a result, provide adequate emergency access. The Proposed Project would not reduce the number of traffic lanes or create physical barriers along Lack Road. As the existing bridge has been closed to traffic for over one (1) year due to severe deterioration of some of the pile

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supports, implementation of the Proposed Project would improve all existing emergency access for adjacent properties and the surrounding community and reduce lengthy detours for all commuters that either live or work along that stretch of Lack Road. Therefore, implementation of the Proposed Project would not impair emergency response or emergency evacuation in the County, but would actually improve it. Additionally, the Proposed Project would not include or create any physical barriers on roadways that would impede emergency access within the area or to the Proposed Project site. Therefore, no impacts would occur.

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? ☐ ☐ ☐ ☒

b) As discussed above, the Proposed Project is located within an LRA classified as Unzoned, not within a VHFHSZ. The nearest VHFHSZ is located approximately 25 miles northwest of the Proposed Project. The Proposed Project is a bridge replacement project, which would not contain project occupants. The nearest sensitive receptors are residences located approximately 1.1 miles south of the Proposed Project and approximately 1.9 miles northeast of the Proposed Project. Therefore, the Proposed Project would not expose project occupants to wildfire and no impacts would occur.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? ☐ ☐ ☐ ☒

c) As a bridge replacement project, the Proposed Project would not require installation or maintenance of additional infrastructure that may exacerbate fire risk. Therefore, no impacts would occur.

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? ☐ ☐ ☐ ☒

d) The Proposed Project site is located in a flat area with no high or steep natural slopes. The Draft Foundation Report stated no indications of landslides or deep-seated instability were observed at the Proposed Project site during the geotechnical study (Appendix C). As such, the potential for landslides would be considered low. There would be no potential for the Proposed Project to expose people or structures to landslides. Therefore, the Proposed Project would not result in impacts related to the exposure of people or structures to significant risks as a result of runoff, post-fire slope instability or drainage changes. No impacts would occur.

Cumulative Impacts:

The Proposed Project would not result in impacts related to wildfire. The nearest VHFHSZ is located approximately 25 miles northwest of the Proposed Project. As a bridge replacement project, the Proposed Project would not substantially affect the potential for wildfire to occur in the Proposed Project area. Therefore, the Proposed Project would not contribute to significant cumulative impacts related to wildfire within the County.

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; Sundstrom v. County of Mendocino,(1988) 202 Cal.App.3d 296; Leonoff v. Monterey Board of Supervisors, (1990) 222 Cal.App.3d 1337; Eureka Citizens for Responsible Govt. v. City of Eureka (2007) 147 Cal.App.4th 357; Protect the Historic Amador Waterways v. Amador Water Agency (2004) 116 Cal.App.4th at 1109; San Franciscans Upholding the Downtown Plan v. City and County of San Francisco (2002) 102 Cal.App.4th 656.

Revised 2009- CEQA
Revised 2011- ICPDS
Revised 2016 – ICPDS
Revised 2017 – ICPDS
Revised 2019 – ICPDS

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SECTION 3
III. MANDATORY FINDINGS OF SIGNIFICANCE

The following are Mandatory Findings of Significance in accordance with Section 15065 of the CEQA Guidelines.

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, eliminate tribal cultural resources or eliminate important examples of the major periods of California history or prehistory?**

☐ ☒ ☐ ☐

As discussed in Section IV. *Biological Resources*, above, burrowing owl, a CDFW Species of Special Concern, and Yuma Ridgway's Rail, a federally endangered species, are both known to occur in the vicinity of the Proposed Project site. However, the Proposed Project's BSA did not have any sign of either species and no burrows were located within the BSA. Additionally, no nesting birds or bats were observed during the pedestrian survey. With removal of vegetation during construction that is suitable for nesting birds and since the Proposed Project is subject to the jurisdiction of USACE, CRRWQCB and the CDFW, implementation of MM-BIO-2 and MM-BIO-3 would ensure that potential impacts to biological resources would be below the level of significance.

As discussed in Section V. *Cultural Resources*, above, there are no known resources located within the API. Additionally, with regard to paleontological resources, though the Proposed Project area is underlain by Quaternary lake sediments (Ql), which have a high sensitivity for paleontological resources, the potential to encounter a paleontological resource would be considered low given the previously disturbed nature of the Proposed Project area. Therefore, less than significant impacts would occur with implementation of mitigation measures.

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.)**

☐ ☒ ☐ ☐

Cumulative impacts associated with the Proposed Project are being considered in connection with the past, present, or reasonably foreseeable future projects in the area. As concluded in this analysis, the Proposed Project's incremental contribution to cumulative impacts related to aesthetics, agriculture and forestry resources, cultural resources, energy, land use/planning, mineral resources, population/housing, public services, recreation, transportation, utilities and service systems, and wildfire would be less than significant. Additionally, the Proposed Project would result in less than significant impacts with mitigation related to air quality, biological resources, cultural resources, geology and soils, greenhouse gases, hazards and hazardous materials, hydrology and water quality, noise, and tribal cultural resources. The mitigation measures that have been developed for the Proposed Project would assist in the assurance that cumulatively considerable contributions would result in less than significant impacts.

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	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Cumulative impacts associated with the Proposed Project would result in less than significant impacts.

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IV. PERSONS AND ORGANIZATIONS CONSULTED

This section identifies those persons who prepared or contributed to preparation of this document. This section is prepared in accordance with Section 15129 of the CEQA Guidelines.

- **COUNTY OF IMPERIAL**

V. Jim Minnick, Director of Planning & Development Services
VI. Michael Abraham, AICP, Assistant Director of Planning & Development Services
VII. Mariela Moran, Project Planner
VIII. Imperial County Air Pollution Control District
IX. Department of Public Works
X. Fire Department
XI. Ag Commissioner
XII. Environmental Health Services
XIII. Sheriff's Office

B. OTHER AGENCIES/ORGANIZATIONS

(i) Engineering Consultant
  a. NV5
     Jack Abcarius, P.E., Project Manager
     Hilary Brinegar, Environmental Project Manager

(ii) Environmental Consultants
  a. Environmental Intelligence, LLC
     Amariah Lebsock, Senior Project Manager
     Leanna Williams, Project Manager
     Rebecca Gilbert, Senior Archaeologist
     Michael Flores, Senior Biologist
     Robyn Walker, Technical Editor
  b. Barrett's Biological Surveys
     Marie Barrett, Biologist

(Written or oral comments received on the checklist prior to circulation)

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V. REFERENCES

California Department of Forestry and Fire Protection (CAL FIRE). 2007. Imperial County Draft Fire Hazard Severity Zones in LRA. Available online: https://osfm.fire.ca.gov/media/6682/fhszl06_1_map13.pdf. Accessed: September 19, 2019.

California Air Resources Board (CARB). 2005. Air Quality and Land Use Handbook: A Community Health Perspective. Available online: https://ww3.arb.ca.gov/ch/handbook.pdf. Accessed: November 11, 2019.

California Air Resources Board (CARB). 2011. Appendix 1. Five Factor Analyses for California Air Basins. Available online: https://www.arb.ca.gov/desig/so2a1.pdf. Accessed: January 18, 2019.

California Air Resources Board (CARB). 2019. *California Greenhouse Gas Emissions for 2000 to 2017*. Available online: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf. Accessed: November 14, 2019.

California Department of Conservation. 2010. Fault Activity Map of California. Web. Available online: http://maps.conservation.ca.gov/cgs/fam/. Accessed July 2, 2019.

California Department of Conservation. 2016a. Imperial County Important Farmland 2016. Available online: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/imp16.pdf. Accessed: April 11, 2019.

California Department of Conservation. 2016b. The California Land Conservation Act of 1965 2016 Status Report. Available online: https://www.conservation.ca.gov/dlrp/wa/Documents/stats_reports/2016%20LCA%20Status%20Report.pdf. Accessed November 11, 2019.

California Department of Conservation. 2019. California Geological Survey Map, Available online: http://maps.conservation.ca.gov/cgs/informationwarehouse/. Accessed September 23, 2019.

California Department of Fish and Wildlife (CDFW). 2003. California Fish and Game Code. Chapter 6. Fish and Wildlife Protection and Conservation [1600 – 1617]. Available Online: http://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=FGC&division=2.&title=&part=&chapter=6.&article=&op_statues=&op_chapter=&op_section=. Accessed November 12, 2019.

California Department of Transportation (Caltrans). 2018. "California Scenic Highway Mapping System." Web. Available online: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed: June 11, 2019.

California State Legislature. 2004. Senate Bill 50 (Greene).

California State Legislature. 2006. Assembly Bill 32 (Nunez).

California State Legislature. 2014. Assembly Bill 52 (Gatto).

City of Westmorland. 2019. Welcome to the City of Westmorland, Fire Dept. Web. Available online: http://www.cityofwestmorland.net/fire-dept/. Accessed: July 3, 2019.

County of Imperial, California. 2008. General Plan Circulation and Scenic Highways Element. Available online: http://www.icpds.com/CMS/Media/Circulation-Scenic-Highway-Element-(2008).pdf. Accessed September 19, 2019.

County of Imperial, California. 2015. General Plan Noise Element. Available online: http://www.icpds.com/CMS/Media/Noise-Element-2015.pdf. Accessed September 19, 2019.

County of Imperial, California. 2016. General Plan Conservation and Open Space Element. Available online: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed November 6, 2019.

County of Imperial, California. 2019a. General Plan Land Use Map. Available online: http://icpds.maps.arcgis.com/apps/Viewer/index.html?appid=0b3d07a31d5346919f3ea89ed2bc3940. Accessed July 3, 2019.

EEC ORIGINAL PKG

County of Imperial, California. 2019b. Land Use Zoning Map. Available online: http://icpds.maps.arcgis.com/apps/webappviewer/index.html?id=19214b2467784942a0cd8c8801dbaaa0. Accessed: July 3, 2019.

County of Imperial, California. n.d. General Plan Seismic and Public Safety Element. Available online: http://www.icpds.com/CMS/Media/Seismic-and-Public-Safety-Element.pdf. Accessed August 23, 2019.

Federal Emergency Management Agency (FEMA). (2008). Flood Insurance Rate Map Number 06025C1000C. Effective Date September 26, 2008. Available online: https://msc.fema.gov/portal/home. Accessed September 18, 2019.

Federal Transit Administration (FTA). 2006. *Transit Noise and Vibration Impact Assessment*. Available online: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed: November 14, 2019.

Google Earth. 2019. Schools near Lack Road Bridge, Imperial County, California, 33° 5'59.81"N, 115°38'55.83"W. Accessed: September 17, 2019.

Governor's Office of Planning and Research (OPR). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. Available online: http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed: October 3, 2019.

Imperial County Air Pollution Control District. 2017. *2007 Imperial County CEQA Air Quality Handbook*. Available online: https://www.co.imperial.ca.us/AirPollution/PlanningDocs/CEQAHandbk.pdf. Accessed: November 13, 2019.

Imperial County Fire Department (ICDFD). 2019. Imperial County Fire Department Operations. Available online: https://www.co.imperial.ca.us/firedept/index.asp?fileinc=operations. Accessed: July 3, 2019.

Jennings, C.W. 1967. Geologic map of California: Salton Sea sheet: California Division of Mines and Geology, scale 1:250,000.

State Water Resources Control Board (SWRCB). 2019. Geotracker. Available online: https://geotracker.waterboards.ca.gov/map/. Accessed September 30, 2019.

United States Department of Transportation, Federal Highway Administration, Federal Highway Administration Research and Technology, 2017. *Living with Noise*. Available Online: https://www.fhwa.dot.gov/publications/publicroads/03jul/06.cfm. Accessed: September 19, 2019.

United States Environmental Protection Agency (USEPA). 1971. *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717*.

United States Environmental Protection Agency (USEPA). 2016. *Criteria Air Pollutants*. Available online: https://www.epa.gov/criteria-air-pollutants. Accessed July 2019.

United States Environmental Protection Agency (USEPA). 2018. *Particulate Matter (PM) Pollution*. Available online: https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm. Accessed July 2019.

United States Fish and Wildlife Service (USFWS). National Wetlands Inventory (NWI). Available online: https://www.fws.gov/wetlands/. Accessed: September 17, 2019.

(ii) "County of Imperial General Plan EIR", prepared by Brian F. Mooney & Associates in 1993; and as Amended by County in 1996, 1998, 2001, 2003, 2006 & 2008, 2015, 2016.

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VI. MITIGATED NEGATIVE DECLARATION – County of Imperial

The following Mitigated Negative Declaration is being circulated for public review in accordance with the California Environmental Quality Act Section 21091 and 21092 of the Public Resources Code.

Project Name: Imperial County Public Works Department Lack Road Bridge Replacement Project

Project Applicant: Imperial County Public Works

Project Location: The Proposed Project is located approximately 5.8 miles northwest of the City of Westmorland where Lack Road crosses the New River at bridge No. 58C0101 in Imperial County, California (Exhibit 1, *Regional Vicinity*). The existing bridge is a seven (7) span, simply supported untreated DF stringers bridge with laminated timber decking and AC cover, supported by treated timber pile bents and pile bent abutments with timber seating walls that runs north and south over the New River. The existing bridge is approximately 106 feet in length and 27 feet wide. The approximate limits of the Proposed Project area would extend along Lack Road from approximately 300 feet south to 350 feet north of the New River. Lack Road is a north/south road that supports direct access from State Route (SR-) 86 to Imperial County Route S-30. The Proposed Project is located 0.3 mile south of Vail Road and 0.2 mile north of Foulds Road (Exhibit 2, *Project Location*).

Description of Project: Due to severe deterioration of some of the pile supports, the existing bridge has been closed to traffic (inactive) for over one (1) year. The County Public Works Department (Applicant) proposes to replace the existing seven (7) span timber bridge with a new precast concrete bridge designed to current American Association of State Highway and Transportation Officials (AASHTO) standards with California amendments (Exhibits 5 and 6, *Site Plan and Typical Section*). The proposed new bridge design would consist of a single-span bridge with four (4) precast/prestressed bulb-tee girders supported on two (2) abutments. The new bridge dimensions would be 35 feet and 6 inches wide by 125 feet long, with a structure depth of 7 feet and 0.875 inches. The selection of a precast bridge structure would eliminate the need for construction to take place within the New River.

The proposed roadway would remain a single travel lane in each direction, and geometry for the Proposed Project would be based on applicable County and AASHTO standards. The new bridge would be reconstructed in the same alignment with two (2) 12-foot-wide lanes designed for a 55 mile per hour (mph) vehicular speed. Shoulder widths would be 4 feet on the bridge, and would transition to the existing width at the roadway conform points. The new bridge would be designed to withstand a 100-year flood event.

The existing bridge would be removed without having to enter the New River as all construction activities were designed to take place from the river banks. It is estimated that the Proposed Project would be constructed over a nine (9)-month period beginning in March 2020 and concluding in November 2020.

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VII. FINDINGS

This is to advise that the County of Imperial, acting as the lead agency, has conducted an Initial Study to determine if the project may have a significant effect on the environmental and is proposing this Mitigated Negative Declaration based upon the following findings:

☐ The Initial Study shows that there is no substantial evidence that the project may have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

☒ The Initial Study identifies potentially significant effects but:

(1) Proposals made or agreed to by the applicant before this proposed Mitigated Negative Declaration was released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur.

(2) There is no substantial evidence before the agency that the project may have a significant effect on the environment.

(3) Mitigation measures are required to ensure all potentially significant impacts are reduced to levels of insignificance.

A MITIGATED NEGATIVE DECLARATION will be prepared.

If adopted, the Mitigated Negative Declaration means that an Environmental Impact Report will not be required. Reasons to support this finding are included in the attached Initial Study. The project file and all related documents are available for review at the County of Imperial, Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 (442) 265-1736.

NOTICE

The public is invited to comment on the proposed Negative Declaration during the review period.

3/2/20
Date of Determination

Jim Minnick, Director of Planning & Development Services

The Applicant hereby acknowledges and accepts the results of the Environmental Evaluation Committee (EEC) and hereby agrees to implement all Mitigation Measures, if applicable, as outlined in the MMRP.

JMGuerrero
Applicant Signature

2/27/20
Date

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SECTION 4

VIII. RESPONSE TO COMMENTS

(ATTACH DOCUMENTS, IF ANY, HERE)

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IX. MITIGATION MONITORING & REPORTING PROGRAM (MMRP)

(ATTACH DOCUMENTS, IF ANY, HERE)

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Mariela Moran

From: Jenell Guerrero
Sent: Monday, March 2, 2020 11:27 AM
To: Mariela Moran
Cc: John Gay
Subject: RE: Public Works Projects

Good Morning Ms. Mariela:

As of current there is no set list of regulatory agencies. The list of agencies relates to the "Contaminated Soils Management Plan" that shall be prepared and implemented during construction. Therefore, the contractor and/or contracted conslutant will have the responsibility to prepare the plan and provide the list. This task will therefore, be conducted at later date.

A list of potential regulatory agencies is provided below for use and information for the time being:

- Imperial County Public Health Department – Environmental Health
- California Department of Toxic Substance Control
- Regional Water Quality Control Board
- CalRecycle (if applicable)
- Applicable Disposal Agency (i.e. South Yuma County Landfill)

Should you have any questions please do not hesitate to let me know. Thank you in advance.

Jenell Guerrero, MPA | *Administrative Analyst III*
Imperial County Department of Public Works
155 S. 11th St., El Centro, CA 92243
Cell: (760) 604-2162

From: Mariela Moran <MarielaMoran@co.imperial.ca.us>
Sent: Thursday, February 27, 2020 2:59 PM
To: Jenell Guerrero <JenellGuerrero@co.imperial.ca.us>
Subject: RE: Public Works Projects

Good afternoon Jenell,

As discussed during EEC Public Hearing, under Section IX Hazards and Hazardous Materials, Section a) Mitigation Measure MM-HAZ-3 under page 38, please provide a list with regulatory agencies to be incorporated in the Initial Study.

Thank you

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APPENDIX "A"

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(Minimal Impacts)

Lack Road Bridge (over New River) Improvement Project

Imperial County, California north of the City of Westmoreland and West of the City of Brawley

Lack Road Bridge No. 58C0101

August 2019

Prepared By and Certified as performed in accordance with established biological practices by:



Marie Barrett
Biologist
Barrett's Biological Surveys
Imperial County
(760) 352 4159

Date: 26 August 2019

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Summary

This report presents the findings of general reconnaissance biological surveys of the project site. No special-status plant and two special-status wildlife species and migratory bird nesting have limited potential to occur within the Biological Study Area, therefore preconstruction surveys are recommended.

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1. Introduction

1.1 History

The project is located approximately 5.8 miles north of the city of Westmorland where Lack Road crosses the New River at bridge No. 58C0101 in Imperial County, California. The approximate limits of the project area will extend along Lack Road from approximately 300 feet south to 350 feet north of the New River. Due to severe deterioration of some of the pile supports, the existing bridge has been closed to traffic for well over a year now. The County proposes to replace the existing 7-span timber bridge with a new precast concrete bridge designed to current AASHTO standards with California amendments.

Project Purpose and Need

The proposed new bridge will be a single-span bridge with four precast/prestressed bulb-tee girders supported on two abutments. The new bridge dimensions will be 35 feet and 6 inches wide by 125 feet long, with a structure depth of 7 feet and 0.875 inches. The selection of a precast bridge structure eliminates the need for construction to take place within the New River.

The proposed roadway would remain one travel lane in each direction, and geometry for the project will be based on applicable Imperial County (County) and American Association of State Highway and Transportation Officials (AASHTO) standards. Lack Road Bridge will be reconstructed the same alignment with two 12-foot lanes designed for a 55-mile-per-hour (mph) vehicle speed. Shoulder widths will be four feet on the bridge and will transition to the existing width at the roadway conform points. The new bridge is designed to accommodate the 100-year flood event of the New River.

The existing bridge will be removed without the need to be in the New River. All operations are anticipated to take place from the banks. If the existing timber piles cannot be completely extracted, they will be cut-off above the current water surface elevation and left in place.

Lack Road is a farm to market roads. Lack Road is a north/south road that offers direct access from SR 86 to S30 which accesses Westmorland, Brawley and Calipatria for local commuters as well as farming and geothermal vehicles. Re-opening the structure to traffic will reduce the lengthy detour for all commuters that either live, or work along that stretch of Lack Road.

2. Study Methods

2.1 Regulatory Requirements

The primary regulations affecting biological resource impacts are discussed in this section. If construction of this project, or related activities associated with construction, impact federal- and/or state-listed species, the project may be subject to the California Endangered Species Act (CEPA) and the federal Endangered Species Act (ESA). If activities directly impact migratory birds or cause the destruction or abandonment of nests, the project would be subject to the

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Migratory Bird Treaty Act. Additional regulations could also apply to the project. The following paragraphs provide a brief summary of the applicable provisions of these regulations.

2.1.1 Federal Endangered Species Act

The federal ESA provides protection for plants and animals listed as threatened or endangered by U.S. Wildlife and Forestry Service (USWFS) and the National Oceanic and Atmospheric Administration (NOAA) Marine Fisheries Service. Section 9 of the ESA (50 CFR 17.3) prohibits the take, possession, sale, or transport of any federal ESA-listed species. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, capture, collect, or attempt to engage in any such conduct" (16 U.S. Code [USC] Section 1532(19)). Federal regulation 50 CFR 17.3 further defines the term harm in the take definition to mean any act that actually kills or injures a federally listed species, including significant habitat modification or degradation. For plants, the federal ESA prohibits removing, possessing, maliciously damaging, or destroying any listed plant on areas under federal jurisdiction, and removing, cutting, digging up, damaging, or destroying any listed plant on non-federal land in knowing violation of state law (16 USC Section 1538(a)(2)(B)).

The federal ESA requires the federal government to designate critical habitat for any species listed under the federal ESA but also allows areas to be excluded from critical habitat (16 USC Section 1533(b)(2)). Critical habitat is a specific area(s) that is essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may also include specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation.

Section 7 of the federal ESA requires federal agencies to consult with USFWS and/or NOAA Marine Fisheries Service for any federal activity that may affect any federally listed species or its critical habitat. Informal consultation may precede, and obviate the need for formal consultation if USFWS and/or NOAA Marine Fisheries Service concur that the proposed agency action is not likely to adversely affect listed species. In the formal consultation process, USFWS and/or NOAA Marine Fisheries Service must issue a Biological Opinion as to the potential for effect to listed species. USFWS and/or NOAA Marine Fisheries Service may issue an incidental take permit, allowing take of the species that is incidental to an authorized activity, provided that the action will not jeopardize the continued existence of the species. Section 10(a) of the ESA provides for issuance of incidental take permits for private actions that have no federal involvement, through the development of a Habitat Conservation Plan (HCP).

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) provides protection for migratory birds. Conditions for permits to "take" migratory birds (as defined in the MBTA) are set forth in 50 CFR Part 13 [General Permit Procedures] and 50 CFR Part 21 [Migratory Bird Permits]). Unless expressly authorized in the regulations or by permit, activities such as hunting, pursuing, capturing, killing, selling, and shipping migratory birds are prohibited. The MBTA allows USFWS to issue permits to qualified applicants for certain types of activities. This protection extends to all migratory birds, parts, nests, and eggs. The full list of species protected under this act is found in 50 CFR 10.13.

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2.1.3 California Endangered Species Act

The California Endangered Species Act (CESA) provides protection for candidate plants and animal species as well as those listed as threatened or endangered by CDFW. CESA prohibits the take of any such species unless authorized; however, California case law has not interpreted habitat destruction, alone, as included in the state's definition of take. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" (Cal. Fish and Game Code §86). CDFW administers the act and authorizes take through Section 2081 agreements, Section 2080.1 consistency determinations (for species that are also listed under the federal ESA) or NCCPs.

2.1.4 Porter-Cologne Water Quality Control Act, as amended

This act is administered by the State Water Resource Control Board (SWRCB) to protect water quality and is an avenue to implement CA responsibilities under the federal Clean Water Act. This act regulates discharge of waste into a water resource.

2.1.5 Clean Water Act, 1972 (CWA 33 U.S.C. 1251 et seq.)

This act regulates discharges into waters of the U.S. Army Corp of Engineers (ACOE) is given the responsibility to implement programs to prevent pollution.

2.2 Studies Required

2.2.1 Literature Search

Prior to conducting field surveys, a review of pertinent literature, regulatory requirements, special-status species lists and recorded occurrences was conducted to determine if the proposed bridge repairs are within the range of sensitive resources such as state and/or federal listed threatened and/or endangered species. Available literature was reviewed including the California Natural Diversity Database (CNDDB) for the Westmoreland E U.S. Geological Survey (USGS) 7.5-minute Topographic Quadrangle and the surrounding eight quadrangles within the United States including Wiest, Iris, Niland, Obsidian Butte, Westmoreland W, Brawley NW, Brawley, Alamorio.

Survey Methodologies
Marie Barrett and Jacob Calanno performed the biological assessment surveys within and adjacent to the Biological Study Area (BSA).

All proposed impact areas within the BSA were visited on foot and any nests were evaluated for activity.

2.2.2 Personnel and Survey Dates

Marie Barrett and Jacob Calanno of Barrett's Biological Surveys performed the biological assessment survey on July 25, 2019 (85-88°F, clear, 3-4 mph between 0645-0800). Resumes are attached.

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2.2.3 Limitations That May Influence Results

Due to a wet fall and winter, rain fall was sufficient to germinate seeds and therefore, botanical specimens were present.

This area is highly disturbed by vehicles during all seasons and typical damage was observed.

3. Results: Environmental Setting

3.1 Description of the Existing Biological and Physical Conditions

3.1.1 Biological Study Area (BSA)

This site is located within the Colorado Desert which is a subdivision of the larger Sonoran Desert and covers approximately 7 million acres. The desert encompasses Imperial County and includes parts of San Diego County, Riverside County, and a small part of San Bernardino County. This site is in Imperial County.

This desert lies at a relatively low elevation, below 1,000 feet, with the lowest point of the desert floor is 275 feet below sea level at the Salton Sea; northeast of the site. The highest peaks of the Peninsular Ranges which reach elevations of nearly 10,000 feet are to the west of the site.

The Colorado Desert's climate differs from other deserts. The region experiences greater summer daytime temperatures (up to 120°F) than higher-elevation deserts and rarely experiences frost. In addition, the Colorado Desert experiences two rainy seasons per year usually in the winter and late summer in this portion. This area is within the agricultural portion that is irrigated by Colorado River water delivered through water conveyance structures maintained by the Imperial Irrigation District (IID). This Lack Road Bridge spans the New River which drains into the Salton Sea

3.1.2 Physical Conditions

The original timber bridge has degraded requiring replacement. While the bridge is closed, traffic is rerouted via a five mile detour to bypass the closed bridge and access the nearest bridge over New River.

3.1.3 Biological Conditions in the Study Area

The top of the bridge is wooden and is not biologically sensitive. Underneath the bridge, over the New River, little flora or fauna were observed. No swallows were observed nesting beneath the bridge. Tables 1 and 2 (below) list species observations within the buffer zone of the site.

Table 1: Vegetation Found in Vicinity

Common Name	Scientific Name	Cal-IPC Rating*
Iodine bush	*Allenrolfea occidentalis*	
Saltcedar	*Tamarix spp.*	*Ca Noxious Weed* *Cal-IPC rating: High*

No vegetation was found that would be considered endangered, threatened or species of concern.

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Table 2: Animals/Insects Found in Vicinity

Common Name	Scientific Name
Blackbird	*Turdus merula*
Canine tracks	*unknown*
Cottontail rabbit	*Sylvilagus audubonii*
Cabbage butterfly	*Pieris rapae*
Bees	*Aphis sp.*

No animals were found that would be considered endangered, threatened or species of concern.

3.1.4 Habitat Connectivity

The habitat is divided by Lack Road which runs from SR 78 to S30. Lack Road can be accessed by wildlife. This project will not change the existing connectivity.

3.2 Regional Species and Habitats/Natural Communities of Concern

3.2.1 Habitat/Natural Communities of Special Concern

There are no Habitat/Natural Communities of Special Concern found within the BSA.

3.2.2 Special-Status Plant Species

Appendix: Sensitive Botanical and Zoological Species (CNDDB/CNPS) Westmoreland E Quadrangle (Nine Quad Search) July 2019 (attached) listed 4 botanical species within the 9 Quadrangles searched. Of these, none would be expected within the site.

3.2.3 Special-Status Animal Species

Appendix: Sensitive Botanical and Zoological Species (CNDDB/CNPS) Westmoreland E Quadrangle (Nine Quad Search) July 2019 (attached) listed 36 zoological species within the 9 Quadrangles searched. Of these, two species Ridgeway's Rail (*Rallus obsoletus)* and Burrowing owl (*Athene cunicularia*) could be expected within the BSA.

4. Results: Biological Resources, Discussion of Impacts & Mitigation

4.1 Habitats/Natural Communities of Special Concern

There are no habitats/Natural Communities of Special Concern.

4.2 Special-Status Plant Species

No special-status plant species are expected as there is no habitat to support them.

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4.2.1 Discussion of Plant Species

Survey Results
None observed within the BSA during survey.

Project Impacts
None are expected.

Avoidance and Minimization Efforts/Compensatory Mitigation
A preconstruction survey should be conducted by a qualified biologist.

4.3 Special-Status Animal Species

Ridgway Rail (Yuma clapper rail) is rated Federally as Endangered. It is a chickenlike marsh bird with a long, slightly drooping bill and an often upturned tail. Light brownish with dark streaks above. Rust-colored breast; bold, vertical gray and white bars on the flanks; white undertail coverts and lives in freshwater and brackish marshes. Prefers dense cattails, bulrushes, and other aquatic vegetation. Nests in riverine wetlands near upland, in shallow sites dominated by mature vegetation, often in the base of a shrub. Prefers denser cover in winter than in summer and is very shy. None observed or heard; Cattails found in a limited dense stand within Q lateral west of bridge replacement; no suitable habitat on site or in adjacent drains.

Burrowing Owl (*Athene cunicularia*) is considered a California Department of Fish and Wildlife: Species of Special Concern. They are small raptors that nest in burrows that have been borrowed from other species or by the raptor in open grassland areas and water conveyance structures in Imperial County. BUOW have adapted well in Imperial County using canals/drains/ditches to establish burrows and foraging for insects in agricultural fields. Owls/burrows not found on site or off site on IIDROW/field ditches. Observed in area over one mile outside of BSA

4.3.1 Discussion of Animal Species

Survey Results

BUOW or Ridgway Rail were not found within the BSA during the survey. No bulrushes, cattails were observed within the study area. BUOW were observed approximately one mile outside the survey area.

Project Impacts
No impacts are expected with avoidance and minimization efforts.

Avoidance and Minimization Efforts/Compensatory Mitigation
1. Nesting bird surveys by qualified biologists during nesting season (February through August); preferably time construction during non nesting season (September through January). Time nesting surveys within 3-5 days prior to start of construction. BUOW preconstruction survey within 14 days of start of construction.

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2. Worker environmental awareness training for nesting birds and Burrowing Owl(BUOW) which will include the following aspects:

    - Biology and status of the BUOW;
    - Protection measures designed to reduce potential impacts to the species, function of flagging designating authorized work areas;
    - Reporting procedures to be used if a BUOW is encountered in the field; and driving procedures and techniques, for commuting, and driving on, to the project site
    - Identification of nesting birds and procedures to follow if nesting is suspected.

3. Areas outside of the project footprint will be designated as an "Environmentally Sensitive Area" (ESA) on project plans. No project-related activities will take place within the ESA-designated areas.

5. Conclusions & Regulatory Determination

5.1 Agency Coordination

Consultation should begin with U.S. Army Corps of Engineers Regulatory Division to obtain the required permit for working within a waterway that drains into waters of the United States.

California Department of Fish and Wildlife, Bermuda Dunes, should be contacted regarding a Streambed Alteration Permit.

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6. References

Baldwin, Bruce G., et al, The Jepson Desert Manual, Los Angeles, University of California Press, 2002.

Behler, Jack L., and F. Wayne King, Natural Audubon Society Field Guide to North American Reptiles & Amphibians, New York, Chanticleer Press, 1996.

Borror, Donald J. and Richard E. White, Insects, The Easton Press, Norwalk, Ct. 1970.

Bowers, Nora, Rick Bowers, Kenn Kaufman, Mammals of North America, Houghton Mifflin Company, Singapore, 2004.

California Native Plant Society, CNPS Inventory of Rare and Endangered Plants, online: www. Northcoast.com, July, 2019.

California Natural Diversity Database, July, 2019. Sacramento, Ca California Department of Fish and Wildlife.

Griggs, Jack, American Bird Conservancy's Field Guide, All the Birds of North America, New York HarpersCollins Publishers, Inc. 1997.

Imperial County Planning and Building Department, General Plan, September 1, 2016.

Jameson, E.W., Hans J. Peeters, Mammals of California, Los Angeles, University of California, 2004.

Sawyer, John O. and Todd Keeler-Wolf, A Manual of California Vegetation, California Natural Plant Society, 2008.

Sibley, David Allen, The Sibley Guide To Birds, Alfred A. Knopf, New York, 2000.

United States Fish and Wildlife Service, Birds of Conservation Concern 2016.

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7. Appendix

Sensitive Botanical and Zoological Species (CNDDB/CNPS) Niland Quadrangle (Nine Quad Search) July, 2019

Biological Study Area Map

Photographs

Engineering Plans

Resumes

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SENSITIVE BOTANICAL AND ZOOLOGICAL SPECIES (CNDDB/CNPS) SPECIES

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APPENDIX A SENSITIVE BOTANICAL AND ZOOLOGICAL SPECIES (CNDDB/CNPS) Westmorland E Quadrangle (Nine Quad Search) July 2019				
BOTANICAL SPECIES	**STATUS[1]**	**DESCRIPTION OF SPECIES**	**HABITAT**	**OBSERVATION/ SITE POTENTIAL**
gravel milk-vetch *Astragalus sabulonum*	2B.2	Desert brush scrub	a dicot, is an annual herb that is native to California and is also found outside of California but is confined to western North America.	L No desert brush scrub habitat
Abrams' spurge *Euphorbia abramsiana*	2B.2	CNPS list: 2	Annual herbaceous blooms Sept/Nov. Common spurge in area has large purple spot and is prostrate; Abram's is not as colorful. Sonoran Desert Shrub	L No Sonoran desert scrub habitat
Glandular ditaxis *Ditaxis claryana*	CNPS: 2.2	Staminate flower: sepals 5, edges abutting in bud; petals 5; stamens 5–15, generally in 2 sets, some > others, filaments fused into a column, staminodes 0–3 at column tip	Sandy soils, Creosote Bush Scrub	L No Creosote brush scrub habitat

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BOTANICAL SPECIES	STATUS[1]	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Munz's Cholla *Opuntia munzii*	CNDDB Ranks: G3, S1.2; CNPS: 1B.3	Shrub to tree-like, 6.4 - 12.8 feet (2-4 meters) tall, almost as wide. Main trunk 4-6 inches (10-15cm) thick. Stem succulent. Lower branches rather bare. Tubercles (small, wart-like projections) strongly raised, 3/8 - 5/8 inches (10-16mm) long, 2/8 inch (5-6mm) wide. Areoles (area bearing spines) with short, tan bristles, and 10-12 yellowish, somewhat equal spines, 3/8 - 5/8 inches (1-2cm) long. Flowers few. Petals yellowish-green, 5/8 - 6/8 inches (1.5-2cm) long. Fruit is dry. Seeds are somewhat rounded, 1/8 inch (3mm).	Dry, gravelly or sandy places. Creosote bush scrub. Elevation 480 - 1,920 feet (150-600 meters).	L No habitat

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ZOOLOGICAL SPECIES	STATUS[1]	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Yellow Warbler *Dendroica petechia brewsteri*	CNDDB Rank: G5T3, S2; CDFW: SC	A Family of seed-eating, small to moderately large passerine birds that have strong, stubby beaks, which in some species can be quite large. They have a bouncing flight, alternating flapping with gliding on closed wings. Most sing well.	Yellow warblers in southern California breed in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland (Garrett and Dunn 1981). During migration, they occur in lowland and foothill woodland habitats such as desert oases, riparian woodlands, oak woodlands, mixed deciduous-coniferous woodlands, suburban and urban gardens and parks, groves of exotic trees, farmyard windbreaks, and orchards (Small 1994).	L Sparse thickets
Crissal Thrasher *Toxostoma crissale*	CDFW Species of Special Concern	A large thrasher found in the Southwestern United. The bird grows to 32 cm (12.5 inches), and has a deeply	Dense vegetation along streams/washes in mesquite/willows/arrowweed	L

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		curved bill. It can be found near water in dense underbrush, and in the low desert near canyon chaparral; seldom flies in the open.		None observed; scarce habitat
Black Skimmer *Rynchops niger*	Fed: - CDFW: SSC	A medium-sized to large waterbird with long red and black bill. Black back and cap.Underparts white with very short red legs.	Fairly common summer resident at the Salton Sea. Forages on small fishes and crustaceans in calm, shallow water. Roosts on sandy beaches or gravel bars	L No suitable habitat
Short-eared owl *Asio flammeus*	CDFW: SSC	Medium sized with light and dark brown mottled upperparts with dark-streaked, pale buff underparts. The head has large, round, pale buff facial disk with fine, brown tinges, black around eyes, and small ear tufts. Eyes are yellow and bill is black. Flight is erratic with flopping wing beats. Hunts day or night.	Found in fresh and saltwater swamplands, lowland meadows and irrigated alfalfa fields. Requires tall grass or cattail patches for nesting and cover. Nests on dry ground in depression concealed in vegetation.	L Irrigated alfalfa in vicinity could provide hunting area. No nesting areas on site

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black storm-petrel *Oceanodroma melania*	CDFW: SSC Species of Special Concern	a small seabird of the storm petrel family Hydrobatidae. It is 23 cm in length, with a wingspan of 46–51 cm.	The species breeds colonially on islands off the southern California coast of the United States and off the Baja Peninsula and Gulf of California of Mexico. Nesting sites are usually in rock crevices, occasionally in small burrows in soft earth.	L No suitable habitat
black tern *Chlidonias niger*	SSC	As its name suggests, it has predominantly dark plumage.	generally found in or near inland water in Europe and North America.	L No habitat

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ZOOLOGICAL SPECIES	STATUS[1]	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
California Black Rail *Laterallus jamaicensis coturniculus*	CDFW: Threatened	The smallest of all rails, the black rail is slate-colored, with a black bill, red eyes and a white-speckled back. The legs are moderately long and the toes are unwebbed. The sexes are similar.	Most commonly occurs in tidal emergent wetlands dominated by pickleweed or in brackish marshes with bulrushes in association with pickleweed. In freshwater, usually found in bulrushes, cattails, and saltgrass and in immediate vicinity of tidal sloughs. Typically occurs in the high wetland zones near upper limit of tidal flooding, not in low wetland areas with considerable annual or daily fluctuations in water levels. Nests are concealed in dense vegetation, often pickleweed, near upper limits of tidal flooding	L None observed; no habitat on site
Gila woodpecker *Melanerpes uropygialis*	CDFW: SSC	a medium-sized woodpecker	Found in the desert regions of the southwestern United States and western Mexico. In the U.S., they range through southeastern California, southern Nevada, Arizona, and New Mexico.	L No suitable habitat; no palm trees for nesting

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ZOOLOGICAL SPECIES	STATUS[1]	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
American white pelican *Pelecanus erythrorhynchos*	CDFW: Unlisted	The American white pelican rivals the trumpeter swan, with a similar overall length, as the longest bird native to North America. Both very large and plump, it has an overall length of about 50–70 in (130–180 cm), courtesy of the huge beak which measures 11.3–15.2 in (290–390 mm) in males and 10.3–14.2 in (260–360 mm) in females. It has a wingspan of about 95–120 in (240–300 cm).	American white pelicans nest in colonies of several hundred pairs on islands in remote brackish and freshwater lakes of inland North America. The most northerly nesting colony can be found on islands in the rapids of the Slave River between Fort Fitzgerald, Alberta, and Fort Smith, Northwest Territories. About 10–20% of the population uses Gunnison Island in the Great Basin's Great Salt Lake as a nesting ground. The southernmost colonies are in southwestern Ontario and northeastern California.	L None observed; no habitat
California least tern *Sternula antillarum browni*	CDFW: SSC	Both the Californian subspecies and the nominate race of least tern are approximately 23 centimeters in length. Both have conspicuous black markings on their outermost primaries and fly over water with a distinctive hunchback appearance, with bills pointing slightly downward.	Wintering locations are actually unknown, but suspected to include the South American Pacific Coast. The California least tern arrives at its breeding grounds in late April.	L None observed; no habitat

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ZOOLOGICAL SPECIES	STATUS[1]	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Northern harrier *Circus cyaneus hudsonius*	CDFW Species of Concern	The northern harrier is 41–52 cm (16–20 in) long with a 97–122 cm (38–48 in) wingspan.	It breeds throughout the northern parts of the northern hemisphere in Canada and the northernmost USA. While many taxonomic authorities split the northern harrier and the hen harrier into distinct species, others consider them conspecific.	L Irrigated alfalfa in vicinity could provide hunting area. No nesting areas on site
Le Conte's thrasher *Toxostoma lecontei*	CDFW: SC Species of Concern	Large, long-tailed songbird. Pale sandy gray all over. Long, down-curved bill. Dark tail. Pale reddish undertail.	Desert scrub, mesquite, tall riparian brush and, locally, chaparral.	L No habitat
Loggerhead shrike *Lanius ludovicianus*	CDFW: SC Species of Concern	It measures approximately 9 inches from bill to tail. The wing and tail length is about 3.82 and 3.87 inches long, respectively. It weighs on average 50 grams, with a range of 45-60 grams for a healthy adult shrike.	The bird requires an open habitat with an area to forage, elevated perches and nesting sites.	L No prey on site

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ZOOLOGICAL SPECIES	STATUS[1]	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Gull-billed tern *Gelochelidon nilotica*	CDFW: SSC Species of Speical Concern	This is a fairly large and powerful tern, similar in size and general appearance to a Sandwich tern, but the short thick gull-like bill, broad wings, long legs and robust body are distinctive.	It breeds in warmer parts of the world in southern Europe, temperate and eastern Asia, both coasts of North America, eastern South America. This bird has a number of geographical races, differing mainly in size and minor plumage details.	L No habitat
Least Bell's vireo *Vireo bellii pusillus*	Fed: Endangered State: Endangered	Little brown bird	The Least Bell's Vireo, Vireo bellii pusillus, is one of four subspecies of Bell's Vireo recognized by the American Ornithologist's Union (AOU 1957). It is the western-most subspecies, breeding entirely within California and northern Baja California.	L No habitat
Least bittern *Lxobrychus exilis*	CDFW: SSC Species of Special Concern	The least bittern is one of the smallest herons in the world, with perhaps only the dwarf bittern and the black-backed bittern averaging smaller in length. It can measure from 28 to 36 cm (11 to 14 in) in length, and the wingspan ranges from 41 to 46 cm (16 to 18 in).	These birds nest in large marshes with dense vegetation from southern Canada to northern Argentina. The nest is a well-concealed platform built from cattails and other marsh vegetation. The female lays four or five eggs, in extreme cases from two to seven.	L No habitat

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ZOOLOGICAL SPECIES	STATUS[1]	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Wood stork *Mycteria americana*	CDFW: SSC Species of SpecialConcern	The adult wood stork is a large bird which stands 83 to 115 cm (33–45 in) tall with a wingspan of 140 to 180 cm (55–71 in). The male typically weighs 2.5 to 3.3 kg (5.5–7.3 lb), with a mean weight of 2.7 kg (6.0 lb); the female weighs 2.0 to 2.8 kg (4.4–6.2 lb), with a mean weight of 2.42 kg (5.3 lb).	It is found in subtropical and tropical habitats in the Americas, including the Caribbean. In South America, it is resident, but in North America, it may disperse to as far as South America.	L No habitat
Southwestern willow flycatcher *Empidonax traillii extimus*	Fed: Endangered State: Endangered	Adults have brown-olive upperparts, darker on the wings and tail, with whitish underparts; they have an indistinct white eye ring, white wing bars and a small bill. The breast is washed with olive-gray. The upper part of the bill is gray; the lower part is orangish.	Their breeding habitat is deciduous thickets, especially willows and often near water, across the United States and southern Canada. They make a cup nest in a vertical fork in a shrub or tree.	L No habitat
Western snowy plover *Charadrius alexandrinus nivosus*	Fed: Threatened CDFAW: Species of Special Concern	A pale plover with a sand-colored dorsum, white venter, thin dark bill, dark or grayish feet and legs, and (in adults)	along Pacific coast north to Washington (most numerous from San Francisco Bay south), south to Oaxaca, and locally (but in larger numbers) inland	L No habitat

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		a partial breast band and dark ear patch (females may lack the black areas in the plumage); immatures have light edges on dorsal body feathers, resulting in a scaly pattern	from Oregon and California (especially the San Joaquin Valley, Mojave Desert, and Salton Sea regions)	
ZOOLOGICAL SPECIES	**STATUS[1]**	**DESCRIPTION OF SPECIES**	**HABITAT**	**OBSERVATION/ SITE POTENTIAL**
Mountain plover *Charadrius montanus*	CDFW: SSC Species of Speical Concern	is a medium-sized ground bird in the plover family	it lives on level land. Unlike most plovers, it is usually not found near bodies of water or even on wet soil; it prefers dry habitat with short grass (usually due to grazing) and bare ground.	L Irrigated alfalfa in vicinity could provide forage area during winter if grazed or burned. No nesting areas on site
Willow Flycatcher *Empidonax trailii*	State: Endangered	Willow Flycatchers are brownish olive overall with a slight yellow wash to the belly. They have 2 whitish wingbars and a white throat that contrasts with the brownish olive breast.	Breeds in moist, shrubby areas, often with standing or running water. Winters in shrubby clearings and early successional growth.	L No habitat

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ZOOLOGICAL SPECIES	STATUS[1]	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Yellow-headed blackbird *Xanthocephalus xanthocephalus*	CDFW: SSC Species of SpecpialConcern	Adults have a pointed bill. The adult male is mainly black with a yellow head and breast; they have a white wing patch sometimes only visible in flight. The adult female is mainly brown with a dull yellow throat and breast.	These birds forage in the marsh, in fields or on the ground; they sometimes catch insects in flight. They mainly eat seeds and insects. Outside the nesting period, they often feed in flocks, often with related species.	L No habitat; none observed
Sonoran Desert toad *Incillius alvarius*	CDFW: SSC	Smooth, typically olive-green/brown skin, cranial crests, and prominent, elongated glands on both sides of the back of the head and on the hind legs. Young toads have small dark, orange-tipped spots on the back. Larger tadpoles are gray or brown with a rounded tail tip, and grow to about 2.25".	Sonoran Desert scrub, semi-desert grasslands. May be found many miles from water, particularly during the summer monsoons. Most Sonoran Desert toads are found at night during the monsoon season, but they may emerge a month or more before the summer rains begin, particularly in areas of permanent water. Can be found in rodent burrows or underground retreats.	L None observed. No habitat present on site.

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ZOOLOGICAL SPECIES	STATUS[1]	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Lowland leopard frog *Lithobates yavapaiensis*	Species of Special concern	Tan, gray-brown or light gray-green to green above; yellow below. Vague upper lip stripe, tuberculate skin. Dark network on rear of thighs; yellow groin color often extends onto rear of belly and underside of legs. Male will exhibit a swollen and darkened thumb base.	Find in desert grassland and in woodlands. Uses permanent water sources, stays near water. Breed Feb-April. Bullfrogs are predators	L No habitat

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ZOOLOGICAL SPECIES	STATUS[1]	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Flat-tailed horned lizard *Phrynosoma mcallii*	CNDDB Rank: G3; S2 CDFW: SSC	A small (up to 87 mm or 3.4" from snout to vent), exceptionally flat and wide lizard with a long (for a horned lizard) broad, flat tail and a dark stripe running down the middle of the back.	Occupy a small range in the Sonoran Desert of southwestern California, southwestern Arizona, and extreme northern Mexico.	L No habitat
American Badger *Taxidea taxus*	CDFW: Species of Concern	Burrowing animals that feed on ground squirrels, rabbits, gophers and other small animals. Prefer grasslands, agricultural areas.	Found in drier open areas with friable soils	L None seen; no burrows observed with badger characteristics observed. Not expected because of farming activities
Yuma hispid cotton rat *Sigmodon hispidus eremicus*	CDFW: Species of Special Concern	Adult size is total length 202–340 mm (7.9–13 in); tail 87–122 mm (3.4-4.8 in), frequently broken or stubbed; hind foot 29–35 mm (1-1.3 in); ear 16–20 mm (0.6-0.9 in); mass 50-250 g (1.7-9 oz)	The southern edge of the S. hispidus distribution is likely near the Rio Grande, where it meets the northern distribution of S. toltecus (formerly S. h. toltecus). The northern extent of S. hispidus distribution is to the Platte River in Nebraska and from Arizona to Virginia.	L No habitat

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ZOOLOGICAL SPECIES	STATUS[1]	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Colorado Desert fringe-toed lizard *Uma notata*	CDFW: SSC	A medium-sized, flat-bodied, smooth-skinned lizard	inhabits areas of loose sand. Sparsely-vegetated arid areas with fine wind-blown sand, including dunes, flats with sandy hummocks formed around the bases of vegetation, washes, and the banks of rivers. Needs fine, loose sand for burrowing.	L No habitat
coastal whiptail *Aspidoscelis tigris stejnegeri*	CDFW: SSC	A slim-bodied lizard with a long slender tail, a pointed snout, and large symmetrical head plates. Scales on the back are small and granular, and scales on the tail are keeled.	Found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas.	L No habitat
Palm Springs pocket mouse	CDFG: SC	Small heteromyid rodent with length of about 110 to 151 mm and weight from 8 to 11 g. There are usually two small patches of lighter hairs at the base of the ear. There is no a tail-crest, and an unlobed antitragus in the outer ear.	Creosote scrub, desert scrub, and grasslands, with loosely packed or sandy soils with sparse tomoderately dense vegetative cover. P. l. bangsi occurs only in the Coachella Valley, where substantial agricultural and urban/suburban conversion of habitat, especially in the valley floor, has occurred over the last century. The species occurs only in native habitats.	L No habitat

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ZOOLOGICAL SPECIES	STATUS[1]	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Desert Pupfish *Cyprinodon macularius*	CNDDB Rank: G1; S1 Federal: Endangered; Cal: Endangered	The body of the desert pupfish is thickened and markedly compressed laterally in adult males. The mouth is superior, highly protractile, armed with tricuspid teeth. The scales bear spine-like projections. The dorsal profile of the fish is smoothly rounded.	The pupfish occupies shallow waters of springs, small streams, and marshes.	L No drains located near Salton Sea near site
Razorback Sucker *Xyrauchen texanus*	Fed/CA: Endangered	One of the largest suckers in North America can grow to up to 13 pounds and lengths exceeding 3 feet. The razorback is brownish-green with a yellow to white-colored belly and has an abrupt, bony hump on its back shaped like an upside-down boat keel	Colorado River	L No habitat

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ZOOLOGICAL SPECIES	STATUS[1]	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Pocketed free-tailed bat *Nyctinomops femorosaccus*	CNDDB Rank: G4, S2S3; CDFG: SC	A small fold, or "pocket" in the wing membrane of the free-tailed bat, near its knee, gives this bat its common name. Pocketed free-tailed bats have large ears and long wings, and fly rapidly, generally pursuing insects on the wing. They eat many kinds of insects, but seem to prefer small moths.	It occurs in the arid lowlands of the desert Southwest, and primarily roosts in crevices in rugged cliffs, slopes, and tall rocky outcrops.	L No habitat
Western Mastiff Bat *Eumops perotis californicus*	CNDDB Rank: G5T4, S3; CDFG: SC	Eumops perotis can be distinguished from all other North American molossid (free-tail) species based on size. With a forearm of 73-83 mm, it is North America's largest species.	In California, the E. perotis is most frequently encountered in broad open areas. Generally, this bat is found in a variety of habitats, from dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, montane meadows, and agricultural areas.	L None observed under bridge

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ZOOLOGICAL SPECIES	STATUS[1]	DESCRIPTION OF SPECIES	HABITAT	OBSERVATION/ SITE POTENTIAL
Pallid Bat *Antrozous pallidus*	Species of concern	Pallid bats have larger eyes than most other species of bats in North America and have pale, long, and wide ears; their fur is generally lightly colored. They have on average a total length of 92 to 135 mm (3.6 to 5.3 in).	They primarily sleep in rock crevices and buildings. Pallid bats are skilled at climbing and crawling.	L None observed under bridge
California Leaf-nosed Bat *Macrotus californicus*	Species of concern	The California leaf-nosed bat weighs between 12 and 20 grams, has a wingspan of over 30 centimeters and a body length of over 6 centimeters, and is brown in color. As its name implies, it has a triangular fleshy growth of skin, called a noseleaf, protruding above the nose.	Its natural habitat is hot deserts.	L No habitat

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Special Status Species that Occur in Imperial County (USFWS)				
Common Name ***Scientific Name***	**Status[1]** **Federal/CDFW / CNPS**	**DESCRIPTION OF SPECIES**	**Habitat**	**Suitability Of Habitat In Survey Area**
Plants				
Peirson's milk-vetch *Astragalus magdalenae var. peirsonii*	T/E/1B	Silvery, short-lived perennial plant that is somewhat broom like in appearance. A member of the pea and bean family, it can grow to 2.5 feet tall and is notable among milkvetches for its greatly reduced leaves. Peirson´s milkvetch produces attractive, small purple flowers, generally in March or April, with 10 to 17 flowers per stalk. It yields inflated fruit similar to yellow-green pea pods with triangular beaks.	Desert dune habitats. In California, known from sand dunes in the Algodones Dunes system of Imperial County. Was known historically from Borrego Valley in San Diego County and at a site southwest of the Salton Sea in Imperial County	L No dune habitat

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Common Name *Scientific Name*	Status[1] Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Birds				
California brown pelican *Pelecanus occidentalis* No longer endangered	Unlisted; CDFW Protected species	Large size and brown color. Adults weigh approximately 9 pounds, and have a wingspan of over 6 feet. They have long, dark bills with big pouches for catching and holding fish. Pelicans breed in nesting colonies on islands without mammal predators. Roosting and loafing sites provide important resting habitat for breeding and non-breeding birds.	Open water, estuaries, beaches; roosts on various structures, such as pilings, boat docks, breakwaters, and mudflats	L None observed. No open water

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Common Name *Scientific Name*	Status[1] Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Southwestern willow *Empidonax tpllii extimus*	E/-/-	Small; usually a little less than 6 inches in length, including tail. Conspicuous light-colored wingbars. Lacks the conspicuous pale eye-ring of many similar *Empidonax* species. Overall, body brownish-olive to gray-green above. Throat whitish, breast pale olive, and belly yellowish. Bill relatively large; lower mandible completely pale. The breeding range of extimus includes Arizona and adjacent states.	At low elevations, breeds principally in dense willow, cottonwood, and tamarisk thickets and in woodlands, along streams and rivers. Migrants may occur more widely. Prefers riparian willow/cottonwood but will use salt cedar thickets	L No habitat

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Common Name *Scientific Name*	Status[1] Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Mountain plover *Charadrius montanus*	FPT/SC/-	Medium-sized plover with pale brown upperparts, white underparts, and brown sides. Head has brown cap, white face, and dark eyestripe. Upperwings are brown with black edges and white bars; underwings are white. Tail is brown-black with white edges. Sexes are similar.	Avoids high and dense cover. Uses open grass plains, plowed fields with little vegetation, and open sagebrush areas. Likes to follow livestock grazing or burned off fields.	L Irrigated alfalfa in vicinity could provide forage area during winter if grazed or burned. No nesting areas on site
Black rail *Laterallus jamaicensis coturniculus*	-/T/-	The smallest of all rails, the black rail is slate-colored, with a black bill, red eyes and a white-speckled back. The legs are moderately long and the toes are unwebbed. The sexes are similar.	Most commonly occurs in tidal emergent wetlands dominated by pickleweed or in brackish marshes with bulrushes in association with pickleweed. In freshwater, usually found in bulrushes, cattails, and saltgrass and in immediate vicinity of tidal sloughs. Typically occurs in the high wetland zones near upper limit of tidal flooding, not in low wetland areas with considerable annual or daily fluctuations in water levels. Nests are concealed in dense vegetation, often pickleweed, near upper limits of tidal flooding	L None observed; no habitat

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Common Name *Scientific Name*	Status[1] Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Raptors				
Peregrine Falcon *Falco peregrinus*	D/E/-	Large, powerful falcon; pointed winged falcon silhouette. Strong shallow wingbeats may dive at speeds up to 100 mph. Dark with dark hooded effect. Blue gray below with narrow bars Long-winged, long tailed hawk. Habitually flies low over open fields and marshes watching and listening for prey such as rodents and birds. (I observed Harrier with a white faced ibis as prey). Perches low or on ground. Low slow flight. Nests in reeds. Grey with black wingtips.	Most often found along coastlines or marshy habitats. Nest in cliffs and have been known to nest in tall buildings	L None observed; rare visitors to area outside of the Salton Sea. No waterfowl for prey or cliffs/tall buildings for nesting

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Common Name *Scientific Name*	Status[1] Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Northern harrier *Circus cyaneus*	-/SC/-	Blue gray above pale reddish below; small size. Tip of tail squared off. Nesting occurs in dense tree stands which are cool, moist, well shaded and usually near water. Hunt in openings at the edges of woodlands and also brushy pastures.	Marshes, open fields. Nests in reeds	L Irrigated alfalfa in vicinity could provide hunting area. No nesting areas on site
Sharp-shinned Hawk *Accipiter striatus*	-/SC/-	Gray and white with black on shoulders and under bend of wing. Graceful flyer. Adults have bright red eyes. Medium size hawk; about 15 inches long and about 12 ounces. Males pale with rufous shoulders and thigh feathers. White tail washed with rufous. Wide head wings in shallow v when soaring.	Sharp-shinned hawks may appear in woodland habitats during winter and migration periods and are often common in southern California in the coastal lowlands and desert areas; winters in woodlands and other habitats except alpine, open prairie and bare desert	L Irrigated alfalfa in vicinity could provide hunting area. No nesting areas on site

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Common Name *Scientific Name*	Status[1] Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
White tailed Kite *Elanus leucurus*	/E/		Found in open country; like to perch on treetop. May be seen hovering prior to attack of a rodent.	L Irrigated alfalfa in vicinity could provide hunting area. No nesting areas on site
Ferruginous hawk *Buteo regalis*	/SC/		Found in arid to semiarid regions, as well as grasslands and agricultural areas in southwestern Canada, western United States, and northern Mexico.	L Irrigated alfalfa in vicinity could provide hunting area. No nesting areas on site
Mammals				
Bighorn sheep *Ovis canadensis*	E/E/-	Sheep have short hair which is light gray to grayish brown, except around their stomachs and rump, where it is creamy white. Their tails are about four inches long. Full-grown rams weigh between 180 and 240 pounds,	Desert Bighorn sheep occupy a variety of plant communities, ranging from mixed-grass hillsides, shrubs. Avoids dense vegetation	L None observed; no habitat

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Common Name *Scientific Name*	Status[1] Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Jaguar *Panthera onca*	-/-/-	Typically yellow-brown with black spots, called rosettes, but they can also be black with black spots. They are nocturnal and have a keen sense of smell and hearing. Excellent swimmers, tree climbers, and move easily on the ground.	Occurs in tropical rainforests, arid scrub, and wet grasslands. Prefers dense forests or swamps with a ready supply of water	L None observed; no habitat

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Common Name *Scientific Name*	Status[1] Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Reptiles and Amphibians				
Desert tortoise *Gopherus agassizii*	T/T/-	A herbivore that may attain a length of 9 to 15 inches in upper shell (carapace) length. The tortoise is able to live where ground temperature may exceed 140 degrees F because of its ability to dig underground burrows and escape the heat. At least 95% of its life is spent in burrows. Their shells are high-domed, and greenish-tan to dark brown in color. Desert tortoises can grow from 4–6"in height and weigh 8–15 lb (4–7 kg) when fully grown. The front limbs have heavy, claw-like scales and are flattened for digging. Back legs are more stumpy and elephantine	Dry, flat, and gravelly or sandy ground in desert shrub communities where annual and perennial grasses are abundant. Frequent habitats with a mix of shrubs, forbs, and grasses	L None observed; habitat not favorable

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Common Name *Scientific Name*	Status[1] Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Flat-tailed horn lizard *Phrynosoma mcallii*	PT/-/-	Closely related to Desert horned lizard (scat indistinquishable); only found in Imperial, Riverside County,Ca and Yuma area, Az. Small round lizard with distinquishing round spots on back. Diet of ants; needs sandy soil, shade bushes to survive.	Desert washes/sandy areas with vegetative cover. Diet of ants	L No habitat; none observed
Fish				
Desert pupfish *Cyprinodon macularius*	E/E/-	Small, silvery-colored fish with 6 to 9 dark bands on its sides. Grows to a full average length of only 2.5 inches; develop quickly, sometimes reaching full maturity within 2 to 3 months. Although their average life span is 6 to 9 months, some survive more than one year. Pupfish have a short, scaled head with an upturned mouth.	Springs, seeps, and slow-moving streams in Salton Sink basin and backwaters and sloughs of the Colorado River	L None observed; no habitat; drains not adjacent to Salton Sea

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Common Name *Scientific Name*	Status[1] Federal/CDFG /CNPS	DESCRIPTION OF SPECIES	Habitat	Suitability Of Habitat In Survey Area
Razorback Sucker *Xyrauchen texanus*	Fed/CA: Endangered	One of the largest suckers in North America can grow to up to 13 pounds and lengths exceeding 3 feet. The razorback is brownish-green with a yellow to white-colored belly and has an abrupt, bony hump on its back shaped like an upside-down boat keel	Colorado River	L None observed; no habitat

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USFWS Birds of Conservation Concern					
Common Name	**Species Name**	**Habitat**	**Potential Onsite**	**Region 8 Imperial County**	**National Rating**
Bald Eagle	*Haliaeetus leucocephalus*	Nests on tall trees or on cliffs in forested areas near large bodies of water. Winters in coastal areas, along large rivers, and large unfrozen lakes.	Low Not expected. No tall trees; not observed in area	X	X
Swainson's Hawk	*Buteo swainsoni*	Breeds in open country such as grassland, shrubland, and agricultural areas. Usually migrates in large flocks often with Broad-winged Hawks. Winters in open grasslands and agricultural areas of Southern America.	L May migrate through. Not observed in area		X
Peregrine Falcon	*Falco peregrinus*	Inhabits open wetlands near cliffs for nesting. Also uses large cities and nests on buildings.	M No open wetlands or nesting area; could hunt in vicinity	X	X

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Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	Common Name
Black Rail	*Laterallus jamaicensis*	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation.	Low	X	X
			No salt or freshwater marshes; no vegetation		
Snowy Plover	*Chardrius alexandrinus*	Barren to sparsely vegetated sand beaches, dry salt flats in lagoons, dredge spoils deposited on beach or dune habitat, levees and flats at salt-evaporation ponds, river bars, along alkaline or sailne lakes, reservoirs, and ponds.	Low No habitat; not observed	X	X
Mountain Plover	*Charadrius montanus*	Breeds on open plains at moderate elevations. Winters in short-grass plains and fields, plowed fields, and sandy deserts.	Low Irrigated alfalfa in vicinity could provide forage area during winter if grazed or burned. No nesting areas on site	X	X
Black Oystercatcher	*Haematopus bachmani*	Rocky seacoasts and islands, less commonly sandy beaches.	Low No habitat; not observed	X	X

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Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	Common Name
Solitary Sandpiper	*Tringa solitaria*	Breeds in taiga, nesting in trees in deserted songbird nests. In migration and winter found along freshwater ponds, stream edges, temporary ponds, flooded ditches and fields, more commonly in wooded regions, less frequently on mudflats and open marshes.	Low No habitat; not observed		X
Lesser Yellowlegs	*Tringa flavipes*	Breeds in open boreal forest with scattered shallow wetlands. Winters in wide variety of shallow fresh and saltwater habitats.	Low No habitat; not observed		X
Upland Sandpiper	*Bartramia longicauda*	Native prairie and other dry grasslands, including airports and some croplands.	Low No habitat; not observed		X
Whimbrel	*Numenius phaeopus*	Breeds in various tundra habitat, from wet lowlands to dry heath. In migration, frequents various coastal and inland habitats, including fields and beaches. Winters in tidal flats and shorelines, occasionally visiting inland habitats.	Low Could use fields for foraging vicinity if planted to alfalfa or bermuda	X	X

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Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	Common Name
Long-billed Curlew	*Numenius americanus*	Nests in wet and dry uplands. In migration and winter found on wetlands, grain fields, lake and river shores, marshes, and beaches.	Low Could use fields for foraging in vicinity if planted to alfalfa or bermuda	X	X
Short-billed Dowitcher	*Limnodromus griseus*	Breeds in muskegs of taiga to timberline, and barely into subarctic tundra. Winters on coastal mud flats and brackish lagoons. In migration prefers saltwater tidal flats, beaches, and salt marshes. Also found in freshwater mud flats and flooded agricultural fields.	Medium Could use fields for foraging if planted to alfalfa or bermuda	X	X
Aleutian Tern	*Sterna aleutica*	Nest on flat vegetated islands on or near the coast. Vegetation includes dwarf-shrub tundra, grass and sedgemeadows, and coastal marsh. Migration and winter habitat not known, probably pelagic.	Low No habitat; not observed		X
Least Tern	*Sterna antillarum*	Seacoasts, beaches, bays, estuaries, lagoons, lakes and rivers, breeding on sandy or gravelly beaches and banks of rivers or lakes, rarely on flat rooftops of buildings.	Low No habitat; not observed		X

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Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	Common Name
Gull-billed Turn	*Sterna nilotica*	Breeds on gravelly or sandy beaches. Inters in salt marshes, estuaries, lagoons and plowed fields, along rivers, around lakes and in freshwater marshes.	Low No habitat; not observed		X
Black Skimmer	*Rynchops niger*	Breeds in large colonies on sandbars and beaches. Forages in shallow bays, inlets, and estuaries.	Low No habitat; not observed	X	X
Yellow-billed Cuckoo	*Coccyzus americanus*	Open woodlands with clearings, orchards, dense scrubby vegetation, mainly cottonwood, willow, and adler, often along water.	Low No habitat; not observed	X	X
Black Swift	*Cypseloides niger*	Nests on steep ledges on cliffs or canyons. Migrates and winters over coastal lowlands.	Low No habitat; no swifts observed in area	X	X
Costa's Hummingbird	*Calypte costae*	Primarily low deserts and arid brushy foothills, but also chaparral and coastal sage scrub closer to the coast. Often visits ornamental plantings and feeders in desert communities. In migration and winter frequents a wider variety of habitats, occasionally ranging into pine-oak woodlands.	Low No habitat; not observed – no feeders or nectar sources in area	X	X

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Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	Common Name
Calliope Hummingbird	*Stellula calliope*	Open montane forest, mountain meadows, and thickets of willow and alder. In migration and winter also in chaparral, oak and pine-oak woodlands, deserts, and gardens.	Low No habitat; not observed	X	X
Rufous Hummingbird	*Selasphorus rufus*	Breeds in a variety of forested habitats where flowers are found. Frequents montane meadows and just about anywhere else with flowers or feeders during migration. Winters primarily in pine and pine-oak forests in Mexico, but most birds wintering farther north are attracted either to flowers or feeders in gardens.	Low No habitat; not observed – no feeders or nectar in area.		X
Allen's Hummingbird	*Selasphorus sasin*	Breeds in coastal sage scrub, chaparral, and riparian corridors within coastal forests. In Mexico winters in forest edge and scrub clearings with flowers. The resident population on the mainland of southern California is largely restricted to suburban neighborhoods where feeders and flowers are plentiful.	Low No habitat; not observed. No feeders or nectar in area	X	X

EEC ORIGINAL PKG

Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	Common Name
Lewis's Woodpecker	*Melanerpes lewis*	Breeds in open arid conifer, oak, and riparian woodlands: rare in coastal areas. Winters in breeding habitat, and oak savannas, orchards, and even in towns.	Low No habitat; not observed	X	X
Olive-sided Flycatcher	*Contopus cooperi*	Montane and northern coniferous forests, at forest edges and openings such as meadows, and at ponds and bags. Winters at forest edges and clearings where tall trees or snags are present.	Low No habitat; not observed	X	X
Willow Flycatcher	*Empidonax traillii*	Breeds in moist, shrubby areas, often with standing or running water. Winters in shrubby clearings and early successional growth.	Low No habitat; not observed	X	X
Loggerhead Shrike	*Lanius ludovicianus*	Open or brushy areas.	Low No habitat; not observed. No thickets or thorny trees available. Could pass through fields	X	X
Bell's Vireo	*Vireo bellii*	Dense, low, shrubby vegetation generally early successional stages in riparian areas, brushy fields, young second-growth forest or woodland, scrub oak, coastal chaparral, and mesquite brushlands, often near water in arid regions.	Low No habitat; not observed. No thickets available. Could pass through fields	X	X

EEC ORIGINAL PKG

Common Name	Species Name	Habitat	Potential Onsite	Region 8 Imperial County	Common Name
Black-chinned Sparrow	*Spizella atrogularis*	Arid brushland, commonly in tall and fairly dense sagebrush, and dry chaparral. Often in rocky, rugged country from sea level to around 8,900 ft (2700m).	Low No habitat; not observed	X	X
Tricolored Blackbird	*Agelaius tricolor*	Breeds in marsh vegetation, particulalry cattails, near grain fields, riparian scrublnd, and forests, but always near water. Dairies and feedlots also commonly used for foraging. Urban and suburban areas occasinoally utilized, particularly park lawns. Cultivated lands also suitable for foraging. Large night-time roosts form during nonbreeding season in cattail marshes near foraging grounds.	Low No habitat; not observed	X	X
Lawrence's Goldfinch	*Carduelis lawrencei*	Prefers dry interior foothills, mountain valleys, open woodlands, chaparral, and weedy fields. Often found near isolated water sources such as springs and cattle troughs.	Low No habitat; not observed	X	X

EEC ORIGINAL PKG

CNPS Species or Community Level	
G1 = Less than 6 viable element occurrences (EOs) OR less than 1,000 individuals OR less than 2,000 acres.	
G2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres.	
G3 = 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres.	
G4 = Apparently secure; this rank is clearly lower than G3 but factors exist to cause some concern; i.e., there is some threat, or somewhat narrow habitat.	
G5 = Population or stand demonstrably secure to ineradicable due to being commonly found in the world.	
State Ranking	
The state rank (S-rank) is assigned much the same way as the global rank, except state ranks in California often also contain a threat designation attached to the S-rank.	The R-E-D Code contains information on Rarity, Endangerment, and Distribution, ranked as a 1, 2, or 3 for each value (as below). This code was originally known as the R-E-V-D Code (through the 3rd edition 1980), and the V (Vigor) was removed in the 4th edition (1984).
S1 = Less than 6 EOs OR less than 1,000 individuals OR less than 2,000 acres	**R - Rarity**
S1.1 = very threatened	1 – Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time
S1.2 = threatened	2 – Distributed in a limited number of occurrences, occasionally more if each occurrence is small
S1.3 = no current threats known	3 – Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported
S2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres	**E - Endangerment**
S2.1 = very threatened	1 – Not very endangered in California
S2.2 = threatened	2 – Fairly endangered in California
S2.3 = no current threats known	3 – Seriously endangered in California
S3 = 21-80 EOs or 3,000-10,000 individuals OR 10,000-50,000 acres	**D - Distribution**
S3.1 = very threatened	1 – More or less widespread outside California
S3.2 = threatened	2 – Rare outside California
S3.3 = no current threats known	3 – Endemic to California
S4 = Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern; i.e. there is some threat, or somewhat narrow habitat. NO THREAT RANK.	
S5 = Demonstrably secure to ineradicable in California. NO THREAT RANK.	

EEC ORIGINAL PKG

Sources: CDFW/CNDDB 2019, California Wildlife 2018; CNPS 2019; USFWS, 2016	
State/CDFW:	**[1]Status: Federal:**
E = Listed as an endangered species; or previously known as "rare, fully protected"	E = Listed as an endangered species
T = Listed as a threatened species	T = Listed as a threatened species
SC = species of special concern (designation intended for use as a management tool and for information; species of special concern have no legal status (www.dfg.ca.gov/wildlife/species/ssc/birds.html))	C = Candidate for listing
CNPS (California Native Plant Society):	D = Delisted
1B = Rare, threatened, or endangered in California or elsewhere	PD = Proposed for delisting/PT = Proposed for threatened status
2= Plants rare, threatened, or endangered in Ca, but more common elsewhere	
3=Plants about which more information is needed	
Habitat Suitability Codes: H = Habitat is of high suitability for this species M = Habitat is of moderate suitability for this species L = Habitat is of low suitability for this species	

EEC ORIGINAL PKG

BIOLOGICAL RESOURCES MAP

EEC ORIGINAL PKG



EEC ORIGINAL PKG

ENGINEERING PLANS

EEC ORIGINAL PKG

COUNTY OF IMPERIAL

LACK ROAD BRIDGE REPLACEMENT OVER NEW RIVER, BR. NO. 58C-XXXX

COUNTY PROJECT NO. 6421

GENERAL NOTES

STREET IMPROVEMENT GENERAL NOTES

1. COUNTY ENCROACHMENT PERMIT CONDITIONS AND PROVISIONS SHALL TAKE PRECEDENCE OVER THE APPROVED PLANS AND SPECIFICATIONS FOR ANY CONFLICTS.
2. THE STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH IMPERIAL COUNTY STANDARDS (OR CALTRANS 9" IN STATE R/W) AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR (OR CALTRANS).
3. APPROVAL OF THESE IMPROVEMENT PLANS AS SHOWN DOES NOT CONSTITUTE APPROVAL OF ANY CONSTRUCTION OUTSIDE THE PROJECT BOUNDARY.
4. ALL UNDERGROUND UTILITIES WITHIN THE STREET RIGHT-OF-WAY SHALL BE CONSTRUCTED, CONNECTED AND TESTED PRIOR TO CONSTRUCTION OF BERM, CURB, CROSS GUTTER AND PAVING.
5. THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO OTHER EXISTING FACILITIES EXCEPT AS SHOWN ON THESE PLANS, HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING FACILITY SHOWN HEREON AND ANY OTHER THAT IS NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
6. LOCATION AND ELEVATIONS OF IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK. CONTRACTOR WILL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES.
7. UTILITIES COORDINATION

NO LESS THAN 3 WORKING DAYS PRIOR TO ANY EXCAVATION OR TRENCHING, EACH CONTRACTOR DOING SUCH WORK SHALL CONTACT THE FOLLOWING AGENCIES SO THAT EXISTING UNDERGROUND UTILITIES MAY BE LOCATED. THE AGENCY MAY REQUIRE AN INSPECTOR TO BE PRESENT.

1. IMPERIAL IRRIGATION DISTRICT (POWER)	(760) 339-9280
2. IMPERIAL IRRIGATION DISTRICT (WATER)	(760) 339-9263
3. AT&T	(800) 422-4133
4. SOUTHERN CALIFORNIA GAS CO.	811
5. THE CABLE COMPANY (SBC)	(760) 312-6512

EXISTING UNDERGROUND UTILITIES

BEFORE EXCAVATING FOR THIS CONTRACT, VERIFY LOCATION OF UNDERGROUND UTILITIES. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM AVAILABLE RECORDS ONLY AND MAY NOT REFLECT ALL EXISTING UTILITIES. LOCATION OF ALL EXISTING UTILITIES SHALL BE CONFIRMED BY FIELD MEASUREMENTS BY CONTRACTOR PRIOR TO CONSTRUCTION OF WORK.

CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

ACCURATE VERIFICATIONS AS TO SIZE, LOCATION AND DEPTH OF EXISTING UNDERGROUND SERVICES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL NOTIFY THE SOUTHERN CALIFORNIA GAS COMPANY, AT&T, IMPERIAL IRRIGATION DISTRICT AND ANY OTHER AFFECTED UTILITY AGENCIES PRIOR TO STARTING HIS WORK NEAR SUCH UTILITY FACILITIES AND SHALL COORDINATE HIS WORK WITH UTILITY REPRESENTATIVES. FOR LOCATION OF UNDERGROUND UTILITIES AND APPURTENANCES, CONTACT "UNDERGROUND SERVICE ALERT" AT 811.

8. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO CONTACT THE UTILITY AGENCIES, ADVISE THEM OF THE PROPOSED IMPROVEMENTS AND BEAR THE COST OF RELOCATIONS, IF NEEDED.
9. NO PAVING SHALL BE DONE UNTIL EXISTING POWER POLES ARE RELOCATED OUTSIDE THE AREAS TO BE PAVED.
10. PRIVATE ROAD IMPROVEMENTS SHOWN HEREON ARE FOR INFORMATION ONLY. COUNTY OFFICIALS SIGNATURE HEREON DOES NOT CONSTITUTE APPROVAL OR RESPONSIBILITY OF ANY KIND FOR THE DESIGN OR CONSTRUCTION OF THESE PRIVATE IMPROVEMENTS.
11. ALL SIGNS TO BE ALUMINUM WITH 3M HIGH INTENSITY TYPE REFLECTIVE FACE OR EQUIVALENT.
12. CONTRACTOR WILL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY STRIPING, PAVEMENT MARKERS, OR LEGENDS OBLITERATED BY THE CONSTRUCTION OF THIS PROJECT.
13. THE CONTRACTOR SHALL DO ALL NEW STRIPING AND SANDBLASTING OF REDUNDANT STRIPING.
14. THE CONTRACTOR SHALL BE RESPONSIBLE TO SECURE AN ENCROACHMENT PERMIT FROM THE COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS FOR ANY EXCAVATION OR CONSTRUCTION WITHIN COUNTY ROAD RIGHT-OF-WAY. FOR INSPECTIONS, 48 HOUR MINIMUM NOTICE IS REQUIRED, (760) 482-4462. ADDITIONALLY, UNDERGROUND SERVICE ALERT (USA) MUST BE CALLED TWO WORKING DAYS BEFORE THE CONTRACTOR MAY EXCAVATE. THEIR CONTACT NUMBER IS 811. ALL WORK AND MATERIALS ARE SUBJECT TO THE INSPECTION AND APPROVAL FROM THE COUNTY DEPARTMENT OF PUBLIC WORKS OR THEIR REPRESENTATIVE.
15. NO REVISIONS OF ANY KIND SHALL BE MADE TO THESE PLANS WITHOUT THE PRIOR WRITTEN APPROVAL OF BOTH THE COUNTY ENGINEER (OR HIS REPRESENTATIVE) AND THE ENGINEER OF RECORD. A REPRODUCIBLE AS-BUILT PLAN SET WILL BE PROVIDED TO THE PUBLIC WORKS DEPARTMENT AS A CONDITION OF SUBSTANTIAL CONSTRUCTION COMPLETION AND PRIOR TO ACCEPTANCE.
16. ALL WORK AND MATERIALS SHALL CONFORM TO THESE PLANS AND SPECIFICATIONS, THE IMPERIAL COUNTY DEPARTMENT OF PUBLIC WORKS STANDARDS AND ENCROACHMENT PERMIT CONDITIONS, AND ANY REFERENCED STANDARDS AND SPECIFICATIONS OF THE AGENCIES REFERRED TO HEREIN. ALL WORK SHOWN OR INDICATED BY THESE PLANS SHALL BE COMPLETED IN ACCORDANCE WITH THE STANDARDS, POLICIES AND REGULATIONS OF IMPERIAL COUNTY, WHERE, OR IF, CONFLICTS OCCUR, THEN THE IMPERIAL COUNTY REQUIREMENTS SHALL GOVERN.
17. UNLESS SPECIFICALLY INDICATED OTHERWISE METHODS EMPLOYED AND MATERIAL USED IN THE CONSTRUCTION OF ALL OFFSITE IMPROVEMENTS SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE "STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2018", ALL WORK IS SUBJECT TO INSPECTION AND APPROVAL AS REQUIRED.
18. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AN EXCAVATION PERMIT FROM THE STATE OF CALIFORNIA DIVISION OF SAFETY AND TO ADHERE TO ALL PROVISIONS OF THE STATE CONSTRUCTION SAFETY ORDERS AND STANDARDS.
19. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO OBTAIN A GENERAL CONSTRUCTION ACTIVITY STORM WATER PERMIT FROM THE STATE WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY, CONTACT "STATE WATER RESOURCES CONTROL BOARD, DIVISION OF WATER QUALITY, ATTENTION: STORM WATER PERMIT UNIT, P.O. BOX 1977, SACRAMENTO, CALIFORNIA, 95812".
20. CONSTRUCTION PROJECTS DISTRUBING MORE THAN ONE ACRE MUST OBTAIN A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT. OWNER/DEVELOPERS ARE REQUIRED TO FILE A NOTICE OF INTENT (NOI) WITH THE STATE WATER RESOURCES CONTROL BOARD, PREPARE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND MONITORING PLAN FOR THE SITE.
21. EXISTING STORM DRAIN PIPES/CULVERTS WHETHER TO BE CONNECTED TO, EXTENDED, ADJUSTED, DRAINED TO, OR JUST IN PROJECT VICINITY SHALL BE REPAIRED AND/OR CLEANED TO MAKE THEM FUNCTIONAL AND ACCEPTABLE AS DIRECTED BY THE PUBLIC WORKS DIRECTOR.
22. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CURRENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE CALIFORNIA SUPPLEMENT AS DIRECTED BY THE IMPERIAL COUNTY TRAFFIC ENGINEER.
23. ANY EXISTING SURVEY MONUMENTS OR COUNTY RECOGNIZED BENCHMARKS SHALL BE PROTECTED BY THE CONTRACTOR. SHOULD ANY SUCH MONUMENTS OR BENCHMARKS BE REMOVED, DAMAGED, OBLITERATED OR ALTERED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER RESETTING OF THE SAME AS PER THE SUBDIVISION MAP ACT, THE PROFESSIONAL LAND SURVEYORS ACT AND THE SATISFACTION OF THE COUNTY SURVEYOR/DIRECTOR OF PUBLIC WORKS. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEYOR OR A REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. A CORNER RECORD OR RECORD OF SURVEY AS APPROPRIATE SHALL BE FILED BY THE LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER.
24. DUST SHALL BE CONTROLLED BY THE CONTRACTOR IN ACCORDANCE WITH ALL IMPERIAL COUNTY AIR POLLUTION CONTROL DISTRICT (APCD) FUGITIVE DUST CONTROL RULES AND REGULATIONS AND SHALL COMPLY WITH THEIR PERMITTING REQUIREMENTS, IF APPLICABLE.

ABBREVIATIONS

AB	AGGREGATE BASE	LF	LINEAR FEET
AC	ASPHALT CONCRETE	Lt	LEFT
BB	BEGINNING OF BRIDGE	LVC	LENGTH OF VERTICAL CURVE
BC	BEGIN HORIZONTAL CURVE	Max	MAXIMUM
BVC	BEGIN VERTICAL CURVE	Min	MINIMUM
℄	CENTERLINE	N	NORTH
Ctr	CENTER	No.	NUMBER
Dwg	DRAWING	OG	ORIGINAL GROUND
E	EAST	(P)	PROPOSED
(E)	EXISTING	PCC	PORTLAND CEMENT CONCRETE
EB	END OF BRIDGE	PG	PROFILE GRADE
EC	END HORIZONTAL CURVE	PVI	POINT OF VERTICAL INTERSECTION
Elev	ELEVATION	R	RADIUS
EP	EDGE OF PAVEMENT	RCP	REINFORCED CONCRETE PIPE
ETW	EDGE OF TRAVELED WAY	Rd	ROAD
EVC	END VERTICAL CURVE	Rt	RIGHT
FG	FINISH GRADE	RW	RIGHT OF WAY
FO	FIBER OPTIC	S	SOUTH
GB	GRADE BREAK	Sta	STATION
Horiz	HORIZONTAL	Typ	TYPICAL
HP	HIGH POINT, HINGE POINT	Var	VARIES
ICDPW	IMPERIAL COUNTY DEPARTMENT OF PUBLIC WORKS	Vert	VERTICAL
		W	WEST
IID	IMPERIAL IRRIGATION DISTRICT	WS	WATER SURFACE

BENCHMARK

PROJECT BASIS OF BEARING:

THE BASIS OF BEARING IS THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, NAD83, ZONE 6, BASED LOCALLY ON CONTROL STATION "DM0612", VERTICAL CONTROL IS BASED ON NAVD88.

PROJECT BENCHMARK:

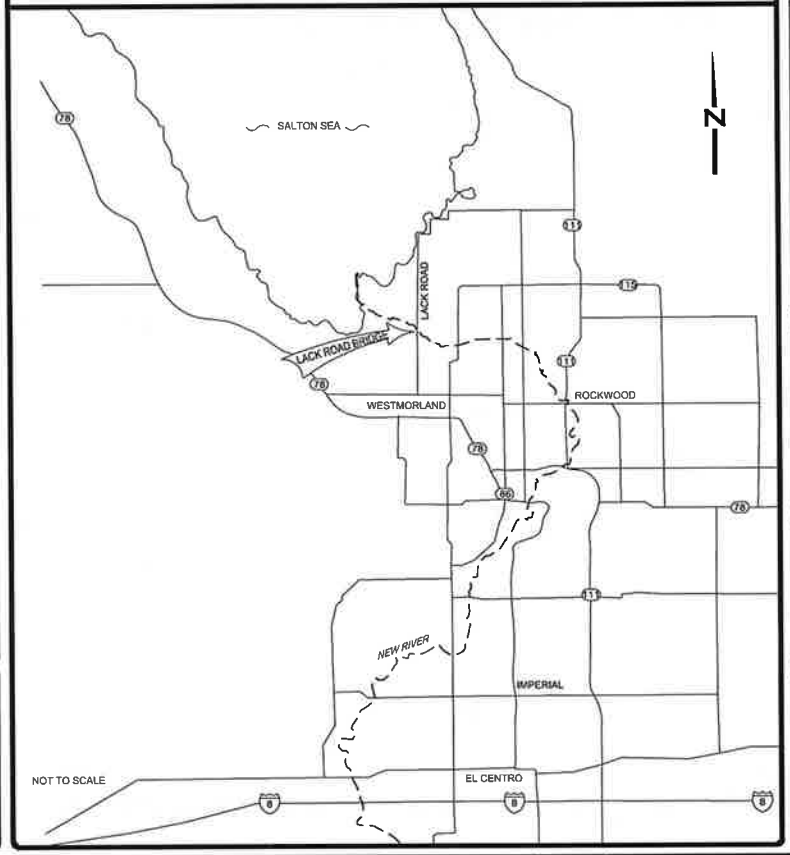
TOP OF BRASS DISK STAMPED "CO C 24 1973 CA-025" SET ON TOP OF NORTHEAST CORNER OF THE CONCRETE HEADWALL FOR THE SIPHON OF DELIVERY 190 RUNNING UNDER FOULDS ROAD, LOCATED AT THE SOUTHWEST QUADRANT OF THE INTERSECTION OF LACK ROAD AND FOULDS ROAD.

NATIONAL GEODETIC SURVEY DESIGNATION "CO C 24" AND PID "DM0612".

ELEVATION = -227.24 (NAVD 88)

EQUATION = ADD 996.61 FEET TO OBTAIN POSITIVE ELEVATION NUMBER VALUES = 769.37

VICINITY MAP



SYMBOLS

ITEM NO.	ITEM	SYMBOL
1	RIGHT OF WAY	
2	CENTERLINE/BASELINE	
3	(E) GAS LINE	
4	(E) OVERHEAD ELECTRICAL LINE	
5	(E) STORM DRAIN LINE	
6	ABANDON (E) UTILITY	
7	(E) EDGE OF PAVEMENT	
8	(P) EDGE OF PAVEMENT	
9	DAYLIGHT LINE	
10	COLD PLANE AC PAVEMENT	
11	ASPHALT CONCRETE PAVING	
12	ASPHALT CONCRETE (TYPE A)	
13	CLASS 2 AGGREGATE BASE	
14	CRASH CUSHION	
15	DIRECTION OF FLOW	
16	LINE AND CURVE NUMBER	1
17	CONTOURS - MAJOR	950
18	CONTOURS - MINOR	
19	CONTROL	Δ R=13'
20	SPOT ELEVATION	+ 881.44

SHEET INDEX

		BRIDGE PLANS	
1. TITLE SHEET	T-1	5. GENERAL PLAN	S-01
2. TYPICAL SECTIONS AND DETAILS	X-1	6. FOUNDATION PLAN	S-02
3. PLAN AND PROFILE	PP-1	7. DECK CONTOURS PLAN	S-03
4. STRIPING PLAN	PD-1	8. ABUTMENT 1 LAYOUT	S-04
		9. ABUTMENT 2 LAYOUT	S-05
		10. ABUTMENT DETAILS-1	S-06
		11. ABUTMENT DETAILS-2	S-07
		12. TYPICAL SECTION	S-08
		13. GIRDER LAYOUT	S-09
		14. PCPS BULB-TEE GIRDER	S-10
		15. PCPS BULB-TEE GIRDER DETAILS	S-11
		16. SOIL LEGEND	S-12
		17. SOIL LEGEND	S-13
		18. LOG OF TEST BORINGS	S-14

DIGALERT

CALL USA (811 OR) TWO WORKING DAYS BEFORE YOU DIG

TOLL FREE 811

A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE COUNTY OF IMPERIAL IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR THE PROJECT DESIGN.

NV5
15222 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128

DATE

EEC ORIGINAL PKG

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:

PHILLIP REUSS, P.E. — No. 82850 — R.C.E. No.
NV5
9/6/19 — DATE — 9/30/20 — REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:

JOHN A. GAY, P.E. — No. 62028 — R.C.E. No.
ROAD COMMISSIONER
DATE — 9/30/19 — REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

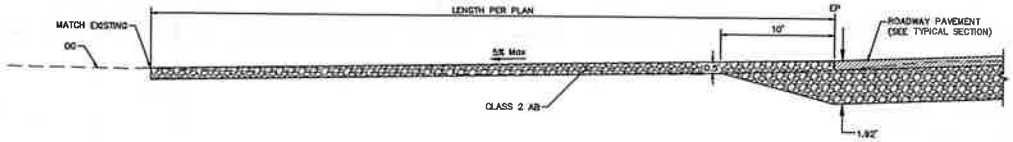
DATE	9/6/2019
DRAWN	PAR
SCALE	AS SHOWN
CHECKED	JLA

LACK ROAD BRIDGE REPLACEMENT OVER NEW RIVER BRIDGE NO. 58C-XXXX

TITLE SHEET

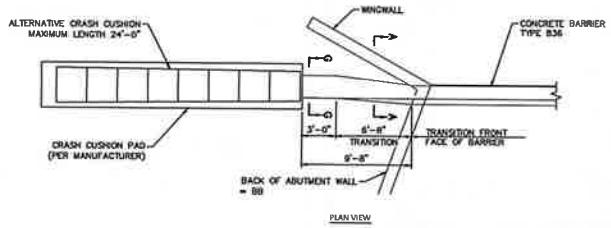
REFERENCE T-1

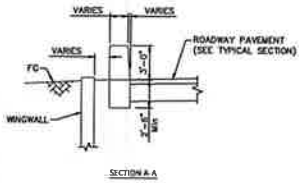
SHEET 1 OF 18

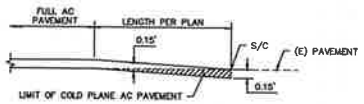


DRIVEWAY DETAIL
NO SCALE

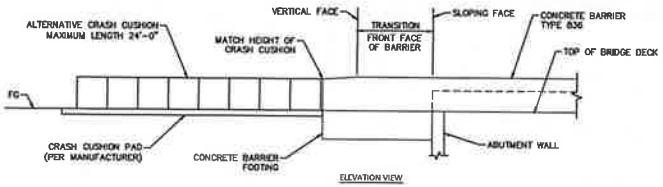
NOTES:
1. PARTIAL VIEW OF ALTERNATIVE CRASH CUSHION IS SHOWN FOR REFERENCE ONLY. FOR COMPLETE DETAILS, SEE MANUFACTURERS' PRODUCT MANUAL OF SELECTED CRASH CUSHION.
2. FOR ABUTMENT AND WINGWALL DETAILS, SEE BRIDGE PLANS.
3. FOR CONCRETE BARRIER DETAILS NOT SHOWN, SEE CALTRANS REVISED STANDARD PLAN RSP B11-79 AND RSP B11-80.

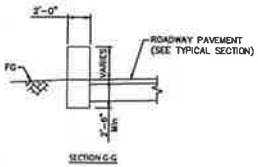






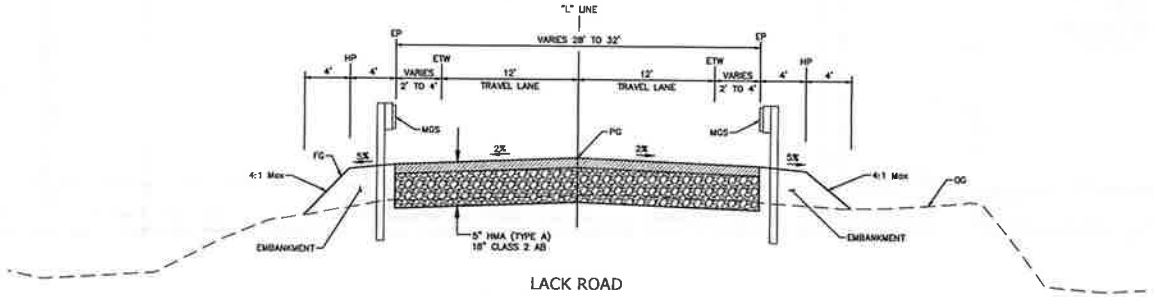
PAVEMENT CONFORM DETAIL
NO SCALE





CRASH CUSHION DETAIL
NO SCALE

NOTE:
FOR LOCATION OF MGS, SEE DRAWING PP-1.



LACK ROAD
"L" Sta 18+00.00 TO Sta 20+23.58 (BB)
"L" Sta 21+48.58 (EB) TO Sta 24+50.00

TYPICAL SECTION
NO SCALE

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
PHILLIP REUSS, P.E.
NV5
82850 R.C.E. No.
9/5/19 DATE
9/30/20 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E.
ROAD COMMISSIONER
62028 R.C.E. No.
DATE
9/30/19 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 9/6/2019
DESIGNED PAR
SCALE AS SHOWN
CHECKED JLA

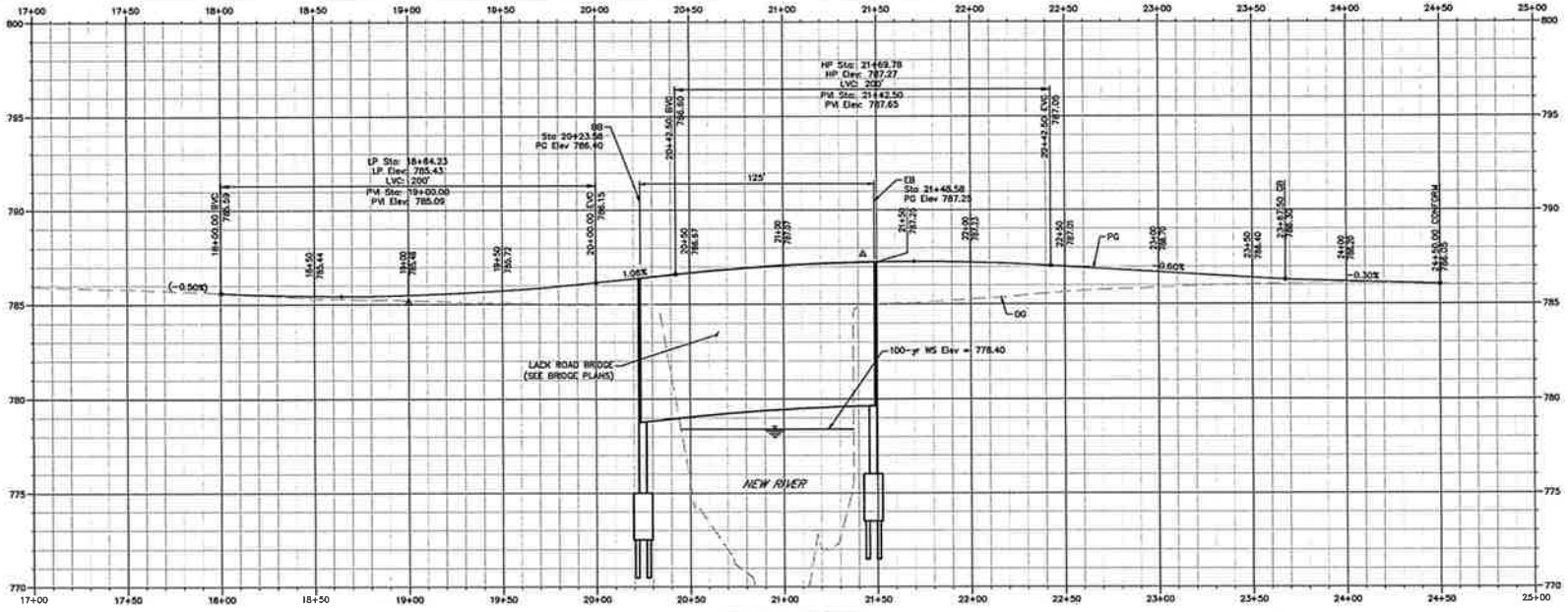
LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

TYPICAL SECTION
AND DETAILS

REFERENCE X-1

SHEET 2 OF 18

EEC ORIGINAL PKG



LACK ROAD - PROFILE

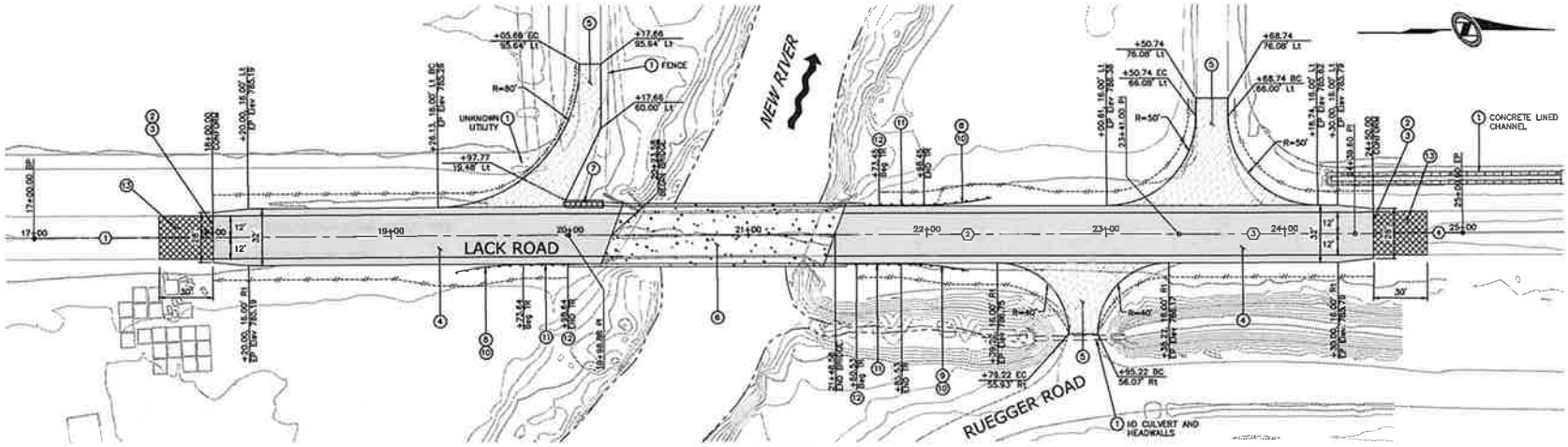
SCALES: Horiz 1"=30'
Vert 1"=3'

CONSTRUCTION NOTES

1. PROTECT IN PLACE.
2. SAWCUT EXISTING ASPHALT CONCRETE PAVEMENT.
3. MATCH EXISTING PAVEMENT. SEE (CDPW Dwg No. 453 FOR ADDITIONAL DETAILS.
4. NEW PAVEMENT SECTION PER TYPICAL SECTIONS, SEE (CDPW Dwg No. 440 FOR ADDITIONAL DETAILS.
5. GRADED DRIVEWAY. SEE DRAWING X-1 FOR DETAILS.
6. LACK ROAD BRIDGE. SEE BRIDGE PLANS.
7. ALTERNATIVE CRASH CUSHION, SEE CONSTRUCTION DETAIL ON DRAWING X-1.
8. MIDWEST GUARDRAIL SYSTEM FOR STRUCTURE APPROACH (TYPE 12B LAYOUT) PER CALTRANS STANDARD PLAN A77Q1.
9. MIDWEST GUARDRAIL SYSTEM FOR STRUCTURE DEPARTURE (TYPE 12BB LAYOUT) PER CALTRANS REVISED STANDARD PLAN A77Q4.
10. ALTERNATIVE FLARED TERMINAL SYSTEM, SEE SPECIAL PROVISIONS.
11. MIDWEST GUARDRAIL SYSTEM TRANSITION RAILING (TYPE WB-31) PER CALTRANS REVISED STANDARD PLAN A77U4.
12. MIDWEST GUARDRAIL SYSTEM CONNECTION TO BRIDGE RAILING PER CALTRANS STANDARD PLAN A77U1 AND A77U2.
13. COLD PLANE ASPHALT CONCRETE PAVEMENT. SEE DRAWING X-1 FOR DETAILS.

LINE DATA		
No.	BEARING	LENGTH
1	N0°28'33"W	298.88'
2	N0°11'42"W	342.12'
3	N0°18'50"W	88.60'
4	N0°40'08"W	60.40'

GRAPHIC SCALE
0' 30' 60' 90'
SCALE 1"= 30'



LACK ROAD - PLAN

SCALE: 1"=30'

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
PHILLIP REUSS, P.E.
NVS
82850
R.C.E. No.
9/6/19
DATE
9/30/20
REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E.
ROAD COMMISSIONER
62028
R.C.E. No.
DATE
9/30/19
REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 9/6/2019
DRAWN PAR
SCALE AS SHOWN
CHECKED JLA

LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

PLAN AND PROFILE
LACK ROAD

REFERENCE
PP-1

SHEET 3 OF 18

EEC ORIGINAL PKG

LEGEND

PAINTED TRAFFIC STRIPE PER CALTRANS STRIPING DETAILS. SEE STANDARD PLAN A20A THRU A20E.

EXISTING OBJECT MARKER

SURVEY CONTROL

SURVEY CONTROL DIAGRAM

BASIS OF COORDINATES

COORDINATES SHOWN HEREON ARE IN TERMS OF THE CALIFORNIA COORDINATE SYSTEM ZONE 6, NAD83, EPOC 2009.00. EXISTING FIRST ORDER GPS CONTROL POINTS FOUND AND USED TO CONSTRAIN NETWORK.

FIRST HORIZONTAL ORDER (NAD 83) REPEATER STATION IDENTIFIED AS "CRRS" "WESTMORLAND" LOCATED AT 7.7 MILES APPROXIMATELY NORTH AND ALONG STATE HIGHWAY 86 FROM THE CITY OF WESTMORLAND, THE STATION IS LOCATED IMMEDIATELY EAST OF THE NORTH BOUND LANE OF SAID STATE HIGHWAY 86 AND BY THE SOUTH CORNER OF THE EXISTING WATER RESERVOIR AND WAS USED FOR HORIZONTAL CALIBRATION, ACCORDING TO PUBLICATION FROM THE CALIFORNIA REAL TIME NETWORK (CRTN) AT SCRIPPS ORBIT AND PERMANENT ARRAY CENTER (SOPAC).

DESIGNATION – WESTMORLAND, CODE CRRS
NORTHING = 1989415.9770; EASTING = 6719424.2770

VERTICAL CONTROL

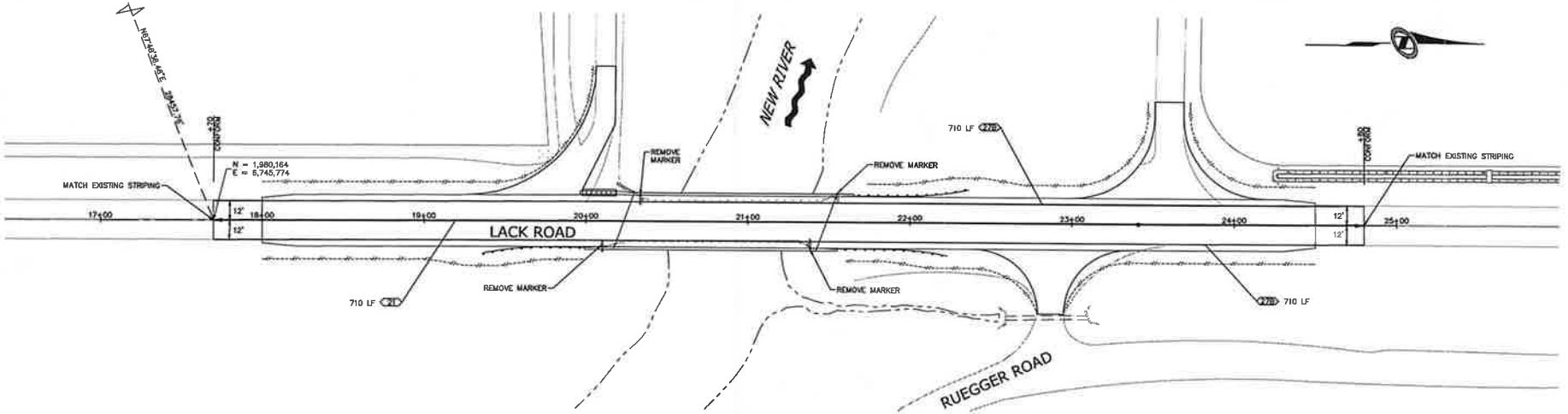
PROJECT BENCHMARK:

TOP OF BRASS DISK STAMPED "CO C 24 1971 CA-025" SET ON TOP OF NORTHEAST CORNER OF THE CONCRETE HEADWALL FOR THE SIPHON OF DELIVERY 180 RUNNING UNDER FOULDS ROAD, LOCATED AT THE SOUTHWEST QUADRANT OF THE INTERSECTION OF LACK ROAD AND FOULDS ROAD.

NATIONAL GEODETIC SURVEY DESIGNATION "CO C 24" AND PID "DW052".

ELEVATION = -207.24 (NAVD 88)

EQUATION = ADD 996.91 FEET TO OBTAIN POSITIVE ELEVATION NUMBER VALUES = 789.67



LACK ROAD - PLAN
SCALE: 1"=30'

GRAPHIC SCALE
0' 30' 60' 90'
SCALE 1"= 30'

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
PHILLIP REUSS, P.E. NVS — 82850 R.C.E. No. — 9/8/19 DATE — 9/30/20 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E. ROAD COMMISSIONER — 62028 R.C.E. No. — DATE — 9/30/19 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 9/6/2019
DRAWN PAR
SCALE AS SHOWN
CHECKED JLA

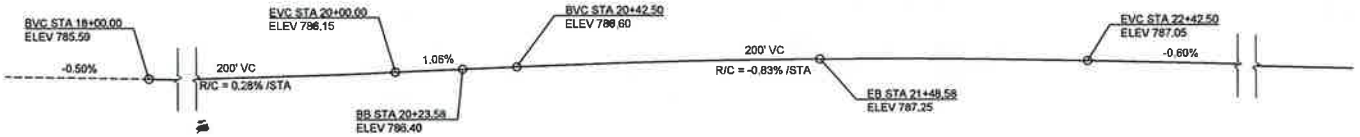
LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

STRIPING PLAN
LACK ROAD

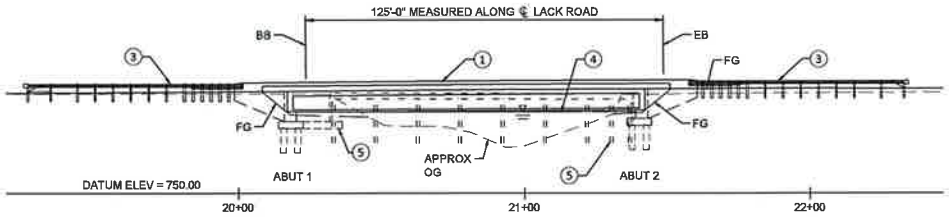
REFERENCE PD-1

SHEET 4 OF 18

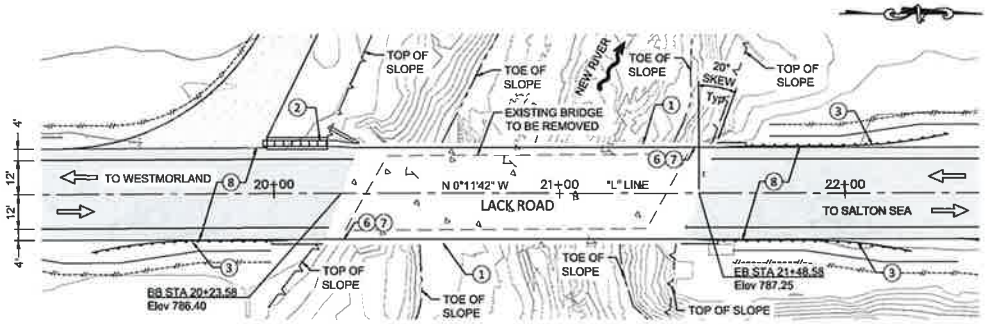
EEC ORIGINAL PKG



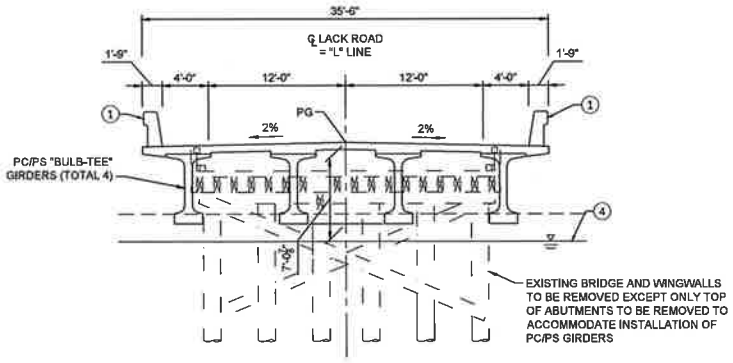
PROFILE GRADE
SCALE: 1"=20'



ELEVATION
SCALE: 1"=20'



PLAN
SCALE: 1"=20'



TYPICAL SECTION
SCALE: 1"=5'

LEGEND:

- INDICATES DIRECTION OF TRAFFIC
- INDICATES EXISTING BRIDGE
- INDICATES PROPOSED BRIDGE
- INDICATES DIRECTION OF FLOW

NOTES :

1. CONCRETE BARRIER (TYPE 836)
2. CRASH CUSHION, SEE ROADWAY PLANS
3. MIDWEST GUARDRAIL SYSTEM, SEE ROADWAY PLANS
4. Q100 WATER SURFACE ELEVATION = 778.40
5. EXISTING BRIDGE ABUTMENT REMAINS IN PLACE, CUT TOP PORTION TO AVOID NEW BRIDGE GIRDERS
6. PAINT BRIDGE NAME "LACK ROAD BRIDGE"
7. PAINT BRIDGE NUMBER "58C-0101"
8. AC PAVEMENT OVER AGGREGATE BASE, SEE "PLAN AND PROFILE" SHEET

GRAPHIC SCALE
0' 10' 20' 30' 40' 60' 80'
SCALE 1"= 20'

NOTES :
ANY UTILITIES LOCATED BY THE CONTRACTOR NOT SHOWN ON THESE PLANS SHALL BE PROTECTED IN PLACE OR REPLACED IN KIND IF DAMAGED BY THE CONTRACTOR.

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
DANIEL SUN, P.E.
NVS
40064 R.C.E. No.
9/5/19 DATE
12/30/19 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E.
ROAD COMMISSIONER
62028 R.C.E. No.
DATE
9/30/19 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

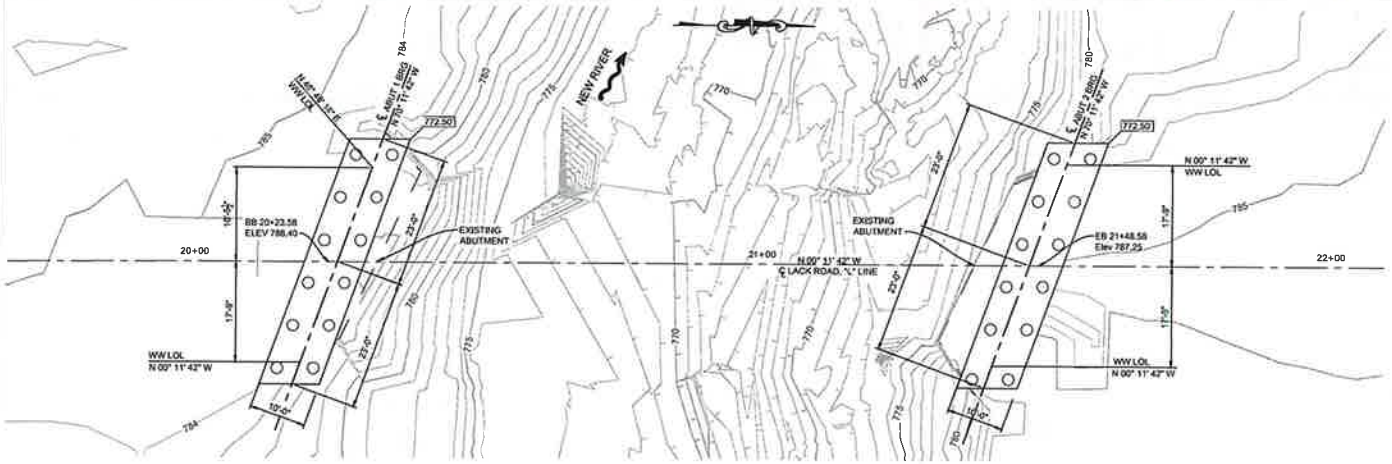
DATE 9/4/2019
DRAWN SRD
SCALE AS SHOWN
DESIGNED CDS

LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

GENERAL PLAN
REFERENCE S-01
SHEET 5 OF 18

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EEC ORIGINAL PKG



PLAN

SCALE: 1"=10'-0"

GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

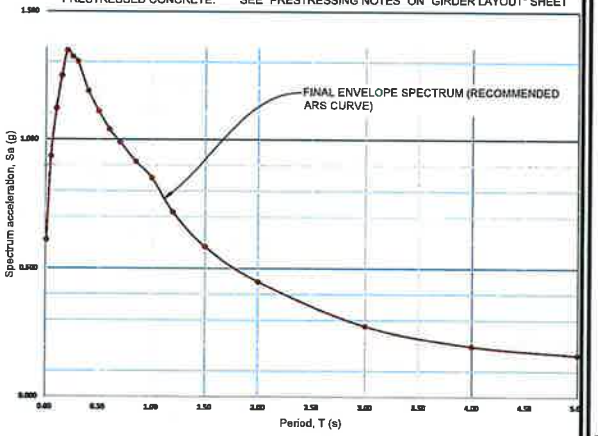
DESIGN:	AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION AND THE CALTRANS AMENDMENTS, PREFACE DATED MARCH 10, 2015
SEISMIC DESIGN:	CALTRANS SEISMIC DESIGN CRITERIA (SDC), VERSION 2.0 DATED APRIL 2019
DEAD LOAD:	INCLUDES 35 PSF FOR FUTURE WEARING SURFACE.
LIVE LOAD:	HL93 AND PERMIT DESIGN LOAD

SEISMIC LOAD:

SOIL PROFILE: (VS30 = 985 ft/sec)
MAXIMUM MAGNITUDE: 7.7
PEAK GROUND ACCELERATION: 0.59g

REINFORCED CONCRETE: fy = 60 ksi
f'c = 4.0 ksi
n = 8

PRESTRESSED CONCRETE: SEE "PRESTRESSING NOTES" ON "GIRDER LAYOUT" SHEET



ARS CURVE

SITE SPECIFIC ACCELERATION RESPONSE SPECTRA CURVE

LEGEND:

- INDICATES EXISTING ABUTMENT
- INDICATES NEW BRIDGE
- INDICATES DIRECTION OF FLOW
- INDICATES BOTTOM OF FOOTING ELEVATION
- INDICATES CAST-IN DRILLED HOLE CONCRETE PILE

NOTES:

FOR SURVEY CONTROL AND BENCHMARK, SEE "STRIPING PLAN" SHEET PD-1.

HYDROLOGIC SUMMARY			
	DESIGN FLOOD	BASE FLOOD	OVER TOPPING FLOOD
FREQUENCY (YEARS)	100 YEAR	100 YEAR	>>> 500 YEAR
DISCHARGE (CUBIC FEET/SEC)	1550	1550	X
WATER SURFACE (ELEVATION AT BRIDGE)	778.7 ft	778.7 ft	X

* FEMA Q100 = 1200 CFS, WATER SURFACE ELEVATION = 777.9 FT
* IID MEASURED Q = 1550CFS MEASURED AT DOWNSTREAM STATION 5000FT FROM BRIDGE ON AUGUST 2ND, 2012

SCOUR DATA TABLE		
SUPPORT NO.	LONG TERM (DEGRADATION AND CONTRACTION) SCOUR ELEVATION (FT)	SHORT TERM (LOCAL) SCOUR DEPTH (FT)
ABUT 1	0.0	2.0
ABUT 4	0.0	2.0

PILE DATA TABLE					
LOCATION	PILE TYPE	NOMINAL RESISTANCE (KIPS)		DESIGN TIP ELEVATION (FT)	SPECIFIED TIP ELEVATION (FT)
		COMPRESSION	TENSION		
ABUT 1	CLASS 200 24" CIDH	400	0	681.5 (A), 713.5 (B), 686.5 (C)	681.5'
ABUT 2	CLASS 200 24" CIDH	400	0	681.5 (A), 728.0 (B), 688.0 (C)	681.5'

PILE DATA NOTES:
1. DESIGN TIP ELEVATIONS ARE CONTROLLED BY: (A) COMPRESSION, (B) LATERAL LOAD, (C) SETTLEMENT.
2. THE SPECIFIED TIP ELEVATION SHALL NOT BE RAISED ABOVE THE DESIGN TIP ELEVATIONS FOR TENSION, LATERAL, AND TOLERABLE SETTLEMENT.
3. THE NOMINAL DRIVING RESISTANCE REQUIRED IS EQUAL TO THE NOMINAL RESISTANCE NEEDED TO SUPPORT FACTORED LOAD PLUS DRIVING RESISTANCE FROM THE LIQUEFIABLE SOIL LAYER WHICH DOES NOT CONTRIBUTE TO THE DESIGN RESISTANCE.

CALTRANS STANDARD PLANS DATED APRIL 2018

	A3A	ABBREVIATIONS (SHEET 1 OF 3)
	A3B	ABBREVIATIONS (SHEET 2 OF 3)
	A3C	ABBREVIATIONS (SHEET 3 OF 3)
	A10A	LEGEND - LINES AND SYMBOLS (SHEET 1 OF 5)
	A10B	LEGEND - LINES AND SYMBOLS (SHEET 2 OF 5)
	A10C	LEGEND - LINES AND SYMBOLS (SHEET 3 OF 5)
	A10D	LEGEND - LINES AND SYMBOLS (SHEET 4 OF 5)
	A10E	LEGEND - LINES AND SYMBOLS (SHEET 5 OF 5)
	A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE
RSP	B0-1	BRIDGE DETAILS
	B0-3	BRIDGE DETAILS
	B0-5	BRIDGE DETAILS
	B0-13	BRIDGE DETAILS
	B2-3	24" CAST IN DRILLED HOLE CONCRETE PILE
	B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
	B8-5	CAST-IN-PLACE POST TENSIONED GIRDER DETAILS
RSP	B11-79	CONCRETE BARRIER TYPE 836 DETAIL No 1
RSP	B11-80	CONCRETE BARRIER TYPE 836 DETAIL No 2



REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
DANIEL SUN, P.E. NVS — 40064 R.C.E. No. — 9/5/19 DATE — 12/30/19 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E. ROAD COMMISSIONER — 62028 R.C.E. No. — DATE — 9/30/19 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 5/4/2018 | DRAWN SRD | SCALE AS SHOWN | CHECKED CDS

LACK ROAD BRIDGE REPLACEMENT OVER NEW RIVER BRIDGE NO. 58C-XXXX

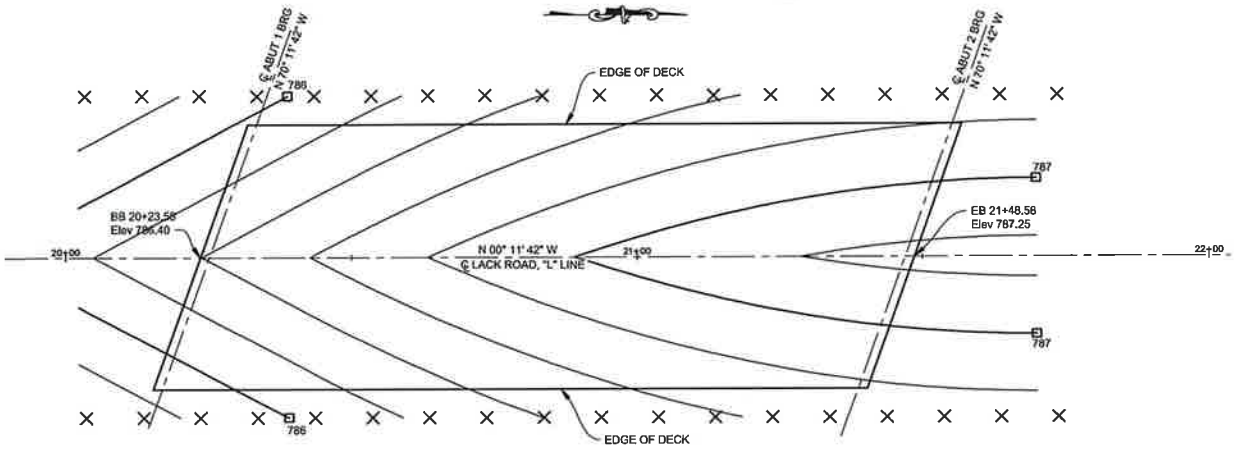
FOUNDATION PLAN

REFERENCE S-02

SHEET 6 OF 18

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EEC ORIGINAL PKG

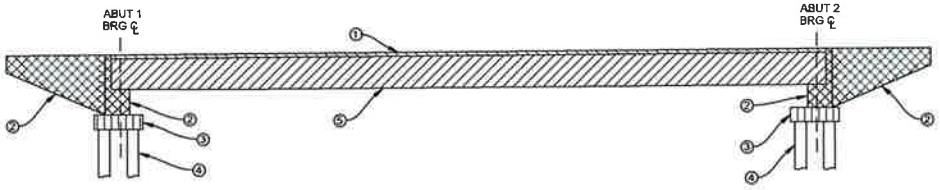


DECK CONTOURS

SCALE: 1"=10'

NOTES

1. CONTOUR INTERVALS = 0.20 FT.
2. CONTOURS DO NOT INCLUDE CAMBER
3. □ - INDICATES EVEN FOOT CONTOUR
4. × - INDICATES 10FT INTERVALS



① STRUCTURAL CONCRETE, BRIDGE (F'C = 4,500 PSI AT 28 DAYS)
② STRUCTURAL CONCRETE, BRIDGE (F'C = 4,000 PSI AT 28 DAYS)
③ STRUCTURAL CONCRETE, BRIDGE FOOTING (F'C = 4,000 PSI AT 28 DAYS)
④ STRUCTURAL CONCRETE, BRIDGE PILE (F'C = 4,000 PSI AT 28 DAYS)
⑤ STRUCTURAL CONCRETE, BRIDGE GIRDER (F'C = 6,500 PSI AT 28 DAYS)

CONCRETE TYPE LIMITS

SCALE: NTS

REVISION	DATE	COMMENTS

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DANIEL SUN, P.E. NVG — 40064 R.C.E. No. — 9/6/19 DATE — 12/30/19 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E.
ROAD COMMISSIONER — 62028 R.C.E. No. — DATE — 9/30/19 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DES 9/4/2019
DRWN SRO
CHK'D AS SHOWN
CHKD CDS

LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

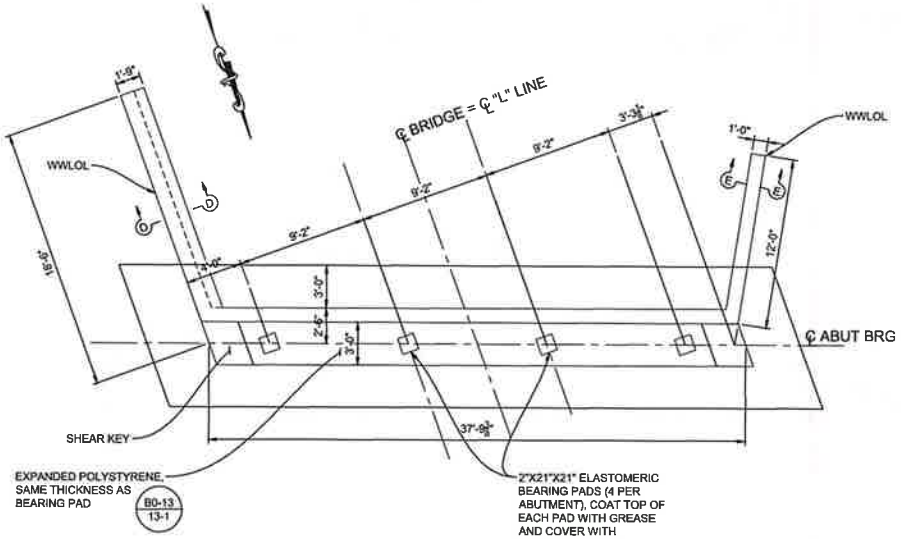
DECK CONTOURS

REFERENCE S-03

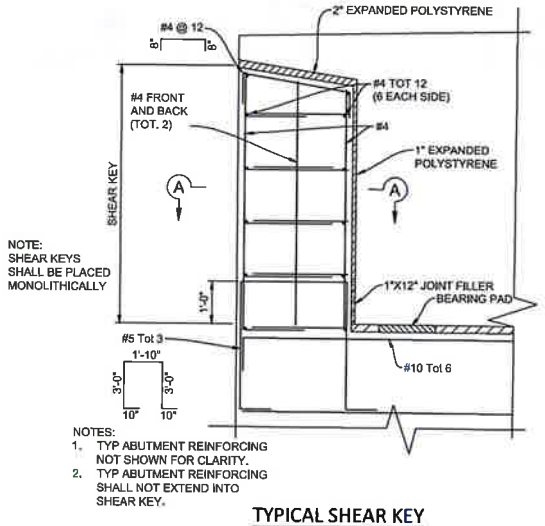
SHEET 7 OF 18

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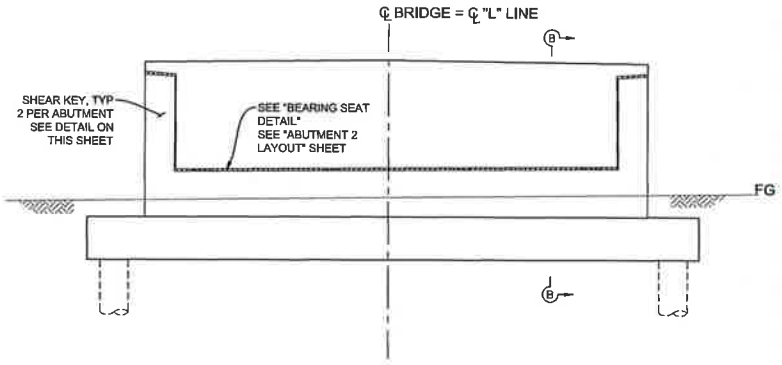
EEC ORIGINAL PKG



ABUTMENT 1 PLAN
SCALE: ¼" = 1'-0"

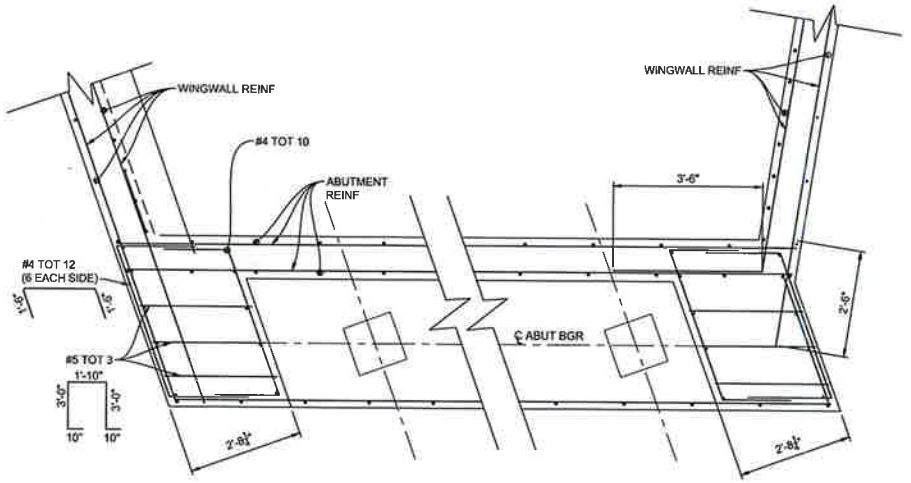


TYPICAL SHEAR KEY
SCALE: ¾" = 1'-0"



ABUTMENT 1 ELEVATION
SCALE: ¼" = 1'-0"

NOTE:
FOR SECTION B-B, D-D AND E-E SEE "ABUTMENT DETAILS -1" SHEET



SECTION A-A
SCALE: ¾" = 1'-0"

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
DANIEL SUN, P.E.
NVS
40064 R.C.E. No.
9/5/19 DATE
12/30/19 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
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62028 R.C.E. No.
DATE
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PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 9/4/2019
DRAWN SRD
SCALE AS SHOWN
CHECKED CDS

LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

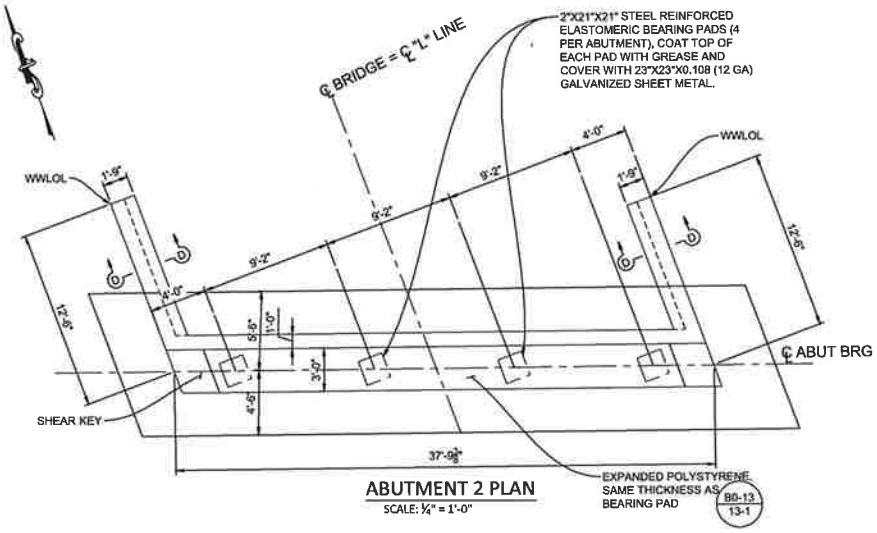
ABUTMENT 1 LAYOUT

REFERENCE S-04

SHEET 8 OF 18

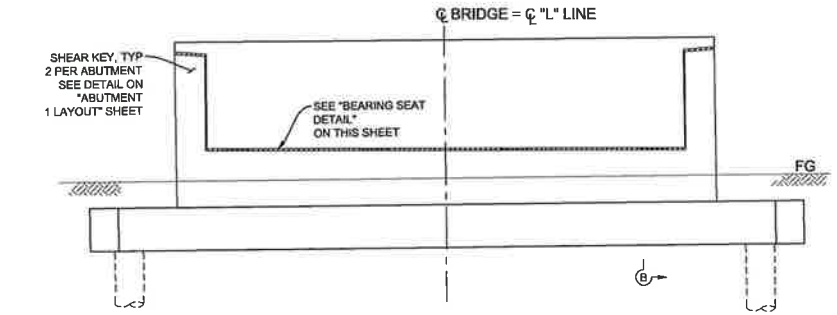
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ABUTMENT 2 PLAN

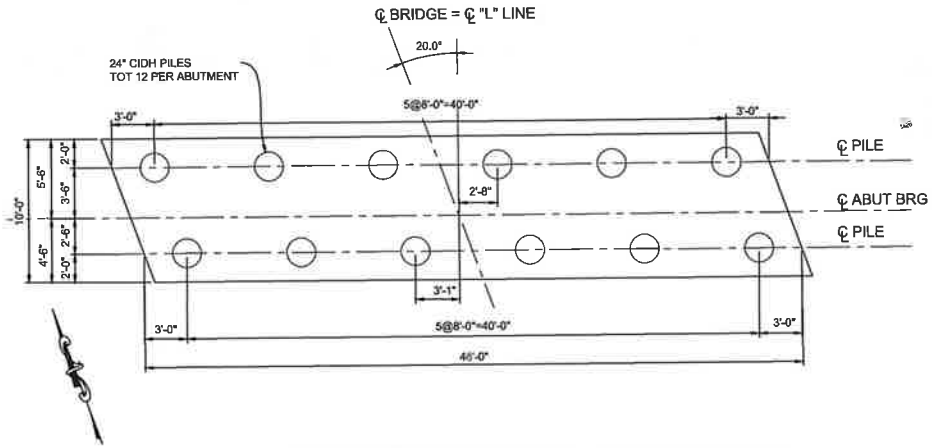
SCALE: ¼" = 1'-0"



ABUTMENT 2 ELEVATION

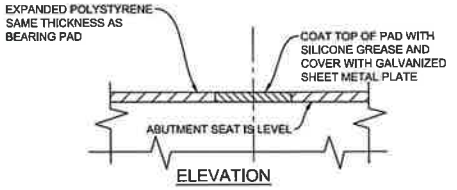
SCALE: ¼" = 1'-0"

NOTE:
FOR SECTION B-B AND D-D, SEE "ABUTMENT DETAILS -1" SHEET

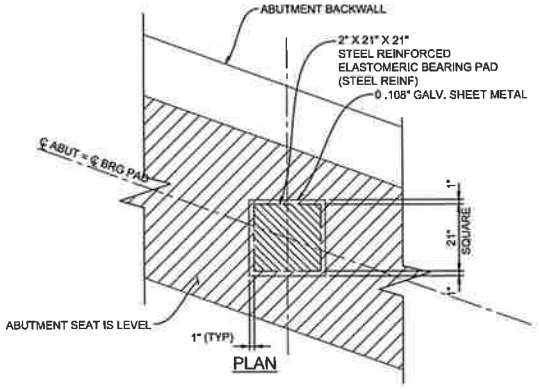


ABUTMENT 2 FOOTING LAYOUT - ABUTMENT 1 SIMILAR

SCALE: ¼" = 1'-0"



ELEVATION



PLAN

BEARING SEAT DETAIL

SCALE: 1" = 1'-0"

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
DANIEL SUN, P.E. NVS — 40064 R.C.E. No. — 9/6/19 DATE — 12/30/19 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E. ROAD COMMISSIONER — 62028 R.C.E. No. — DATE — 9/30/19 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 9/4/2019
DESIGNED SRD
DRAWN AS SHOWN
CHECKED CDS

LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

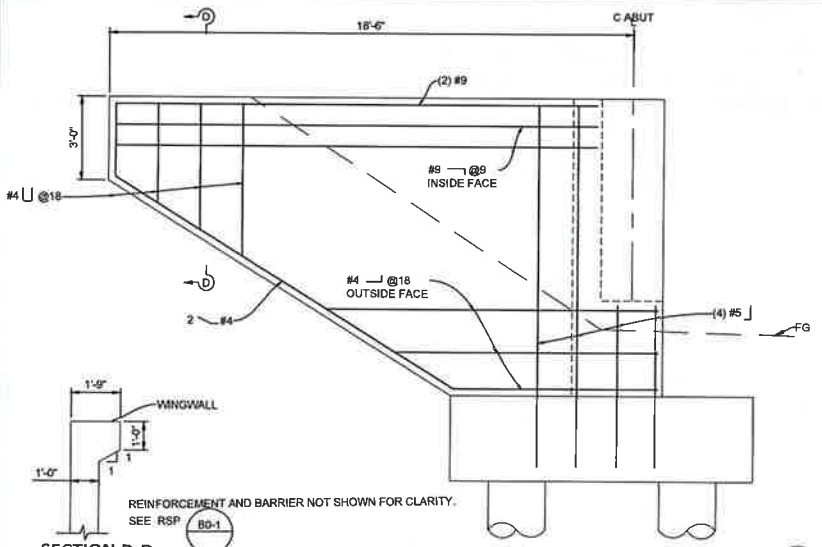
ABUTMENT 2 LAYOUT

REFERENCE S-05

SHEET 9 OF 18

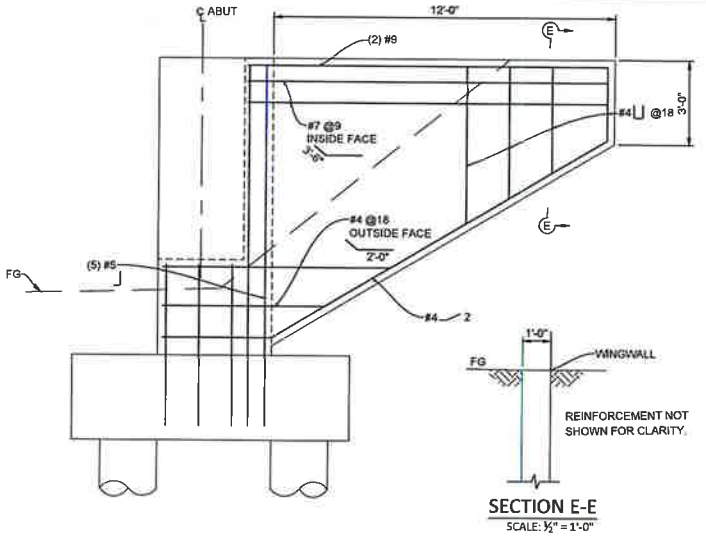
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EEC ORIGINAL PKG



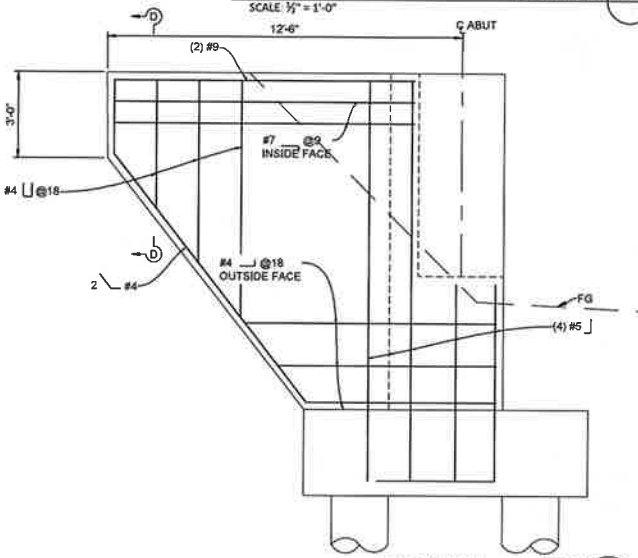
SECTION D-D
SCALE: ½" = 1'-0"

ABUTMENT 1 EAST WINGWALL ELEVATION B0-1
SCALE: ½" = 1'-0"

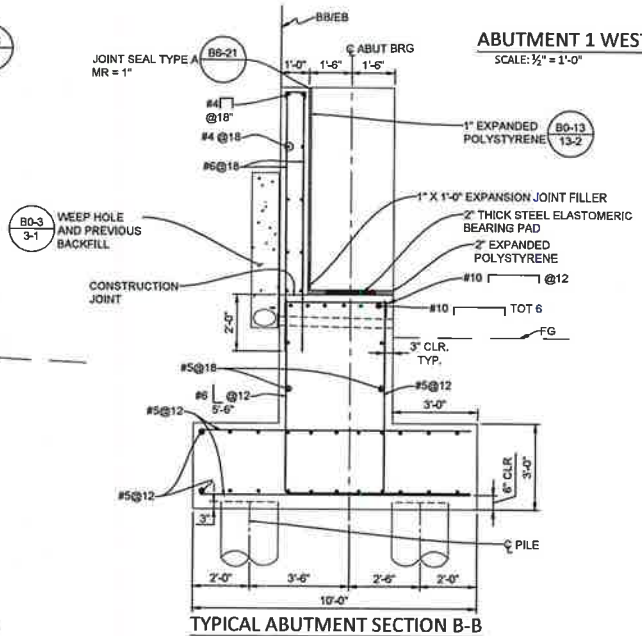


ABUTMENT 1 WEST WINGWALL ELEVATION B0-1
SCALE: ½" = 1'-0"

SECTION E-E
SCALE: ½" = 1'-0"



ABUTMENT 2 WINGWALL ELEVATION B0-1
SCALE: ½" = 1'-0"



TYPICAL ABUTMENT SECTION B-B
SCALE: ½" = 1'-0"

NOTES:
1. ABUTMENT BACKWALL TO BE PLACED AFTER DECK CONSTRUCTION.
2. GIRDER TO BE FABRICATED FOR LEVEL BEARING

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
DANIEL SUN, P.E. NV5 — 9/6/19 DATE — 40084 R.C.E. No. — 12/30/19 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E. ROAD COMMISSIONER — DATE — 62028 R.C.E. No. — 9/30/19 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 9/4/2019 | DESIGNED SRO | DRAWN AS SHOWN | CHECKED COS

LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

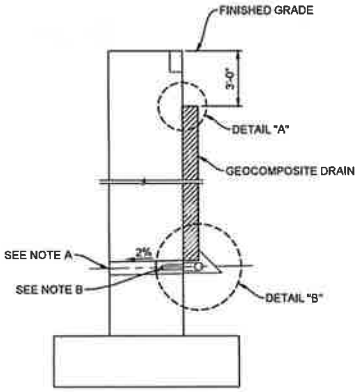
ABUTMENT DETAILS-1

REFERENCE S-06

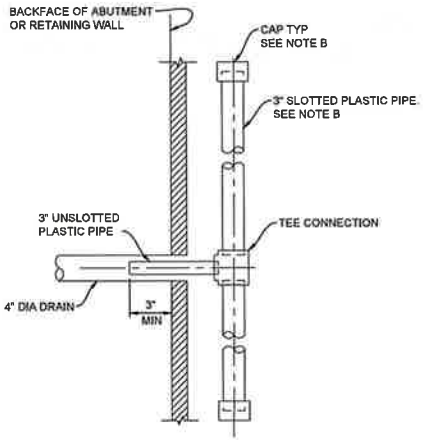
SHEET 10 OF 18

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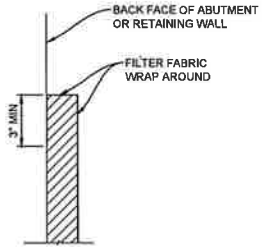
EEC ORIGINAL PKG



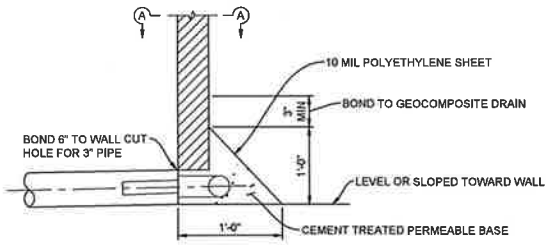
WALL SECTION
SCALE: NTS



SECTION A-A
SCALE: NTS



DETAIL A
SCALE: NTS



DETAIL B
SCALE: NTS

WEEP HOLE AND GEOCOMPOSITE DRAIN

ALTERNATIVE TO BRIDGE DETAIL B0-3 / 3-1

NOTES:

A. 4" DIA DRAINS AT INTERMEDIATE SAG POINTS AND AT 25' MAX. CENTER TO CENTER. EXPOSED WALL DRAINS SHALL BE LOCATED 4" ± ABOVE FINISHED GRADE.

B. GEOCOMPOSITE DRAIN, CEMENT TREATED PERMEABLE BASE, AND 3" DIA SLOTTED PLASTIC PIPE CONTINUOUS BEHIND RETAINING WALLS AND ABUTMENTS. CAP ENDS OF PIPE. PROVIDE "TEE" CONNECTION AT EACH 4" DIA DRAIN.

C. CONNECT THE LOW END OF PLASTIC PIPE TO THE MAIN OUTLET PIPE AS APPLICABLE.

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
DANIEL SUN, P.E. NV5 — 40084 R.C.E. No. — 9/6/19 DATE — 12/30/19 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E. ROAD COMMISSIONER — 62028 R.C.E. No. — DATE — 9/30/19 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 5/4/2019
DESIGNED SRD
DRAWN AS SHOWN
CHECKED CDS

LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

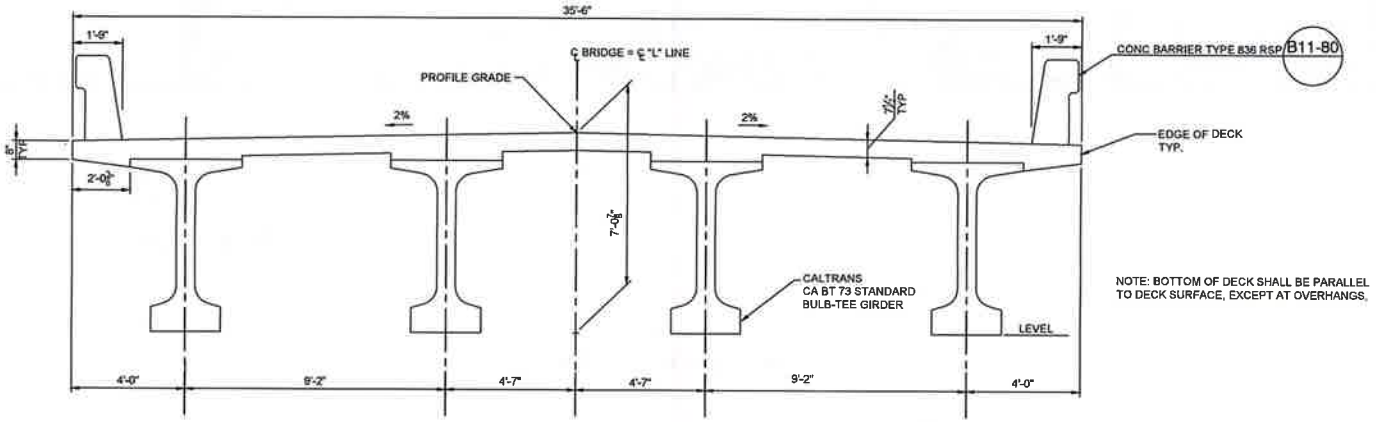
ABUTMENT DETAILS-2

REFERENCE S-07

SHEET 11 OF 18

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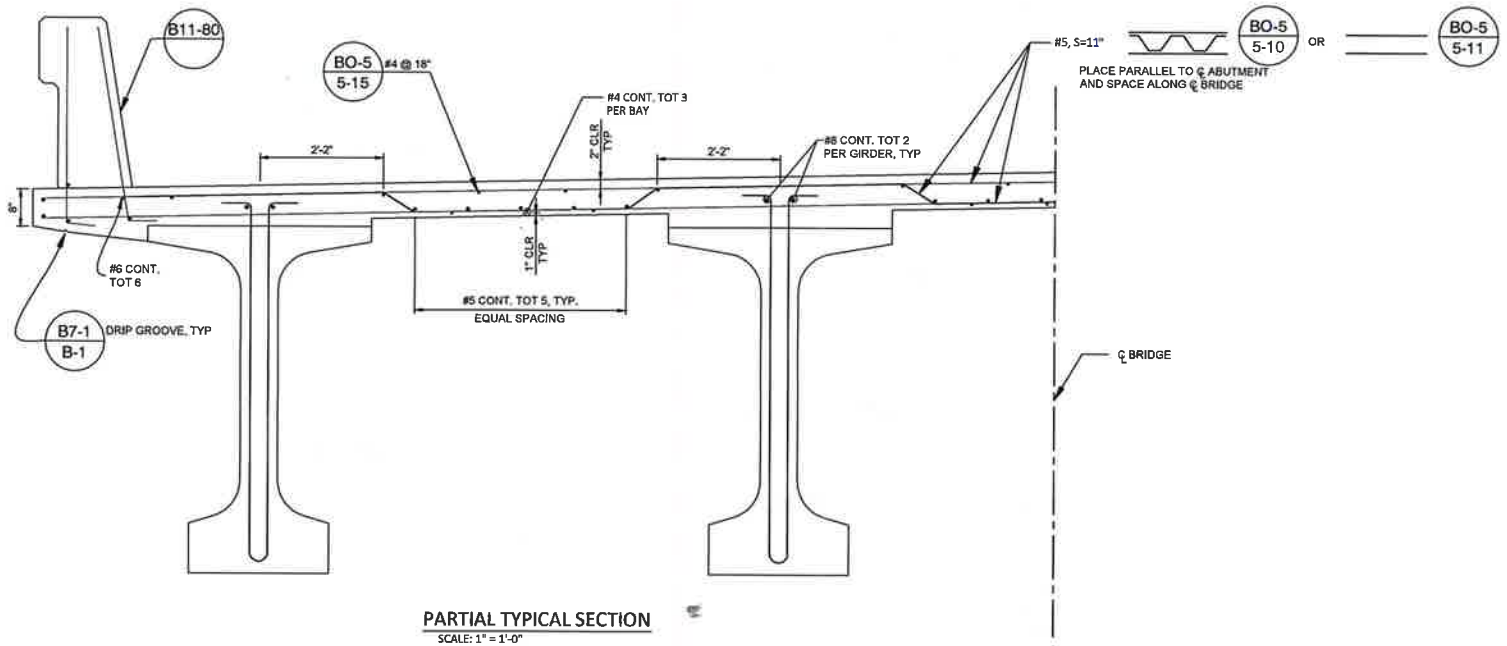
EEC ORIGINAL PKG



NOTE: BOTTOM OF DECK SHALL BE PARALLEL TO DECK SURFACE, EXCEPT AT OVERHANGS.

TYPICAL SECTION

SCALE: ½" = 1'-0"



PARTIAL TYPICAL SECTION

SCALE: 1" = 1'-0"

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
DANIEL SUN, P.E. NVS — 40064 R.C.E. No. — 9/6/19 DATE — 12/30/19 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E. ROAD COMMISSIONER — 62028 R.C.E. No. — DATE — 9/30/19 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

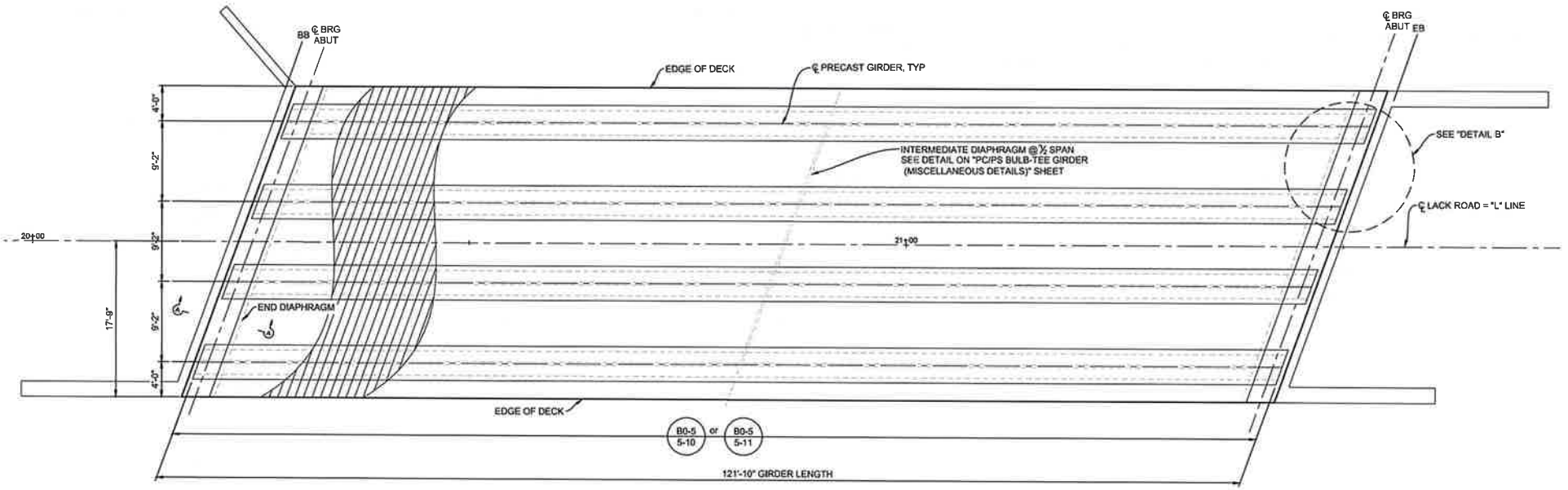
DATE 9/4/2019
DRAWN SAD
SCALE AS SHOWN
CHECKED CDS

LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

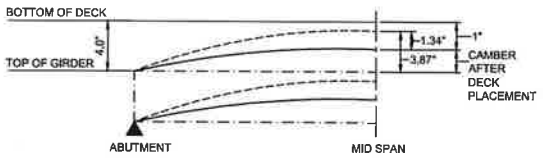
TYPICAL SECTION
REFERENCE S-08
SHEET 12 OF 18

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EEC ORIGINAL PKG

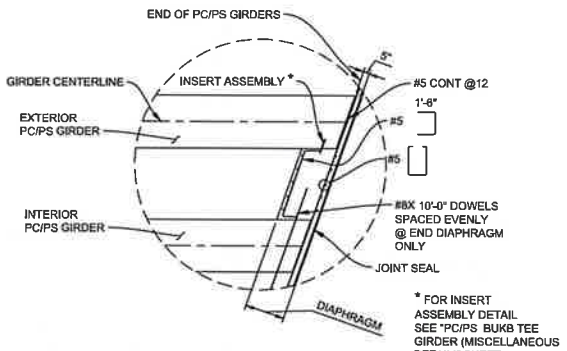


PLAN
SCALE: 3/16" = 1'-0"



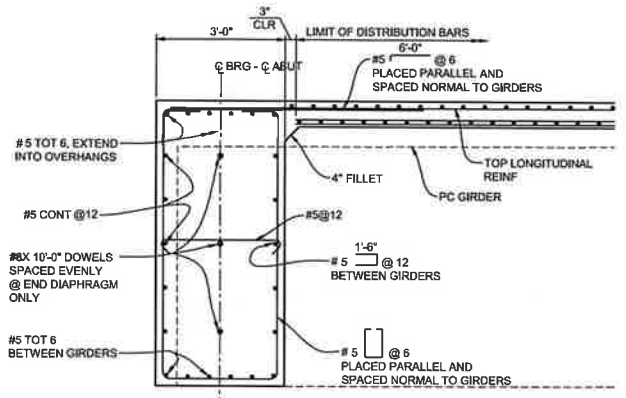
LEGEND:
- UN-DEFORMED SHAPE
- DEFORMED SHAPE (BEFORE DECK PLACEMENT)
- DEFORMED SHAPE (AFTER DECK PLACEMENT)

GIRDER HAUNCH THICKNESS
SCALE: NTS



* FOR INSERT ASSEMBLY DETAIL SEE "PC/PS BUKB TEE GIRDER (MISCELLANEOUS DETAIL)" SHEET

DETAIL B
SCALE: ½" = 1'-0"



SECTION A-A
NOT TO SCALE

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
DANIEL SUN, P.E. NVS — 40064 R.C.E. No. — 9/5/19 DATE — 12/30/19 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E. ROAD COMMISSIONER — 62028 R.C.E. No. — DATE — 9/30/19 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 9/4/2019 | DRAWN SRD | SCALE AS SHOWN | CHECKED CDS

LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

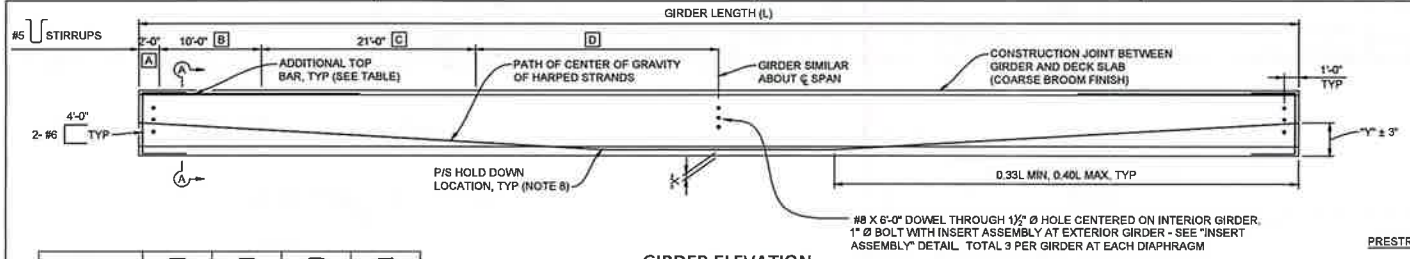
GIRDER LAYOUT

REFERENCE S-09

SHEET 13 OF 18

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EEC ORIGINAL PKG



GIRDER ELEVATION

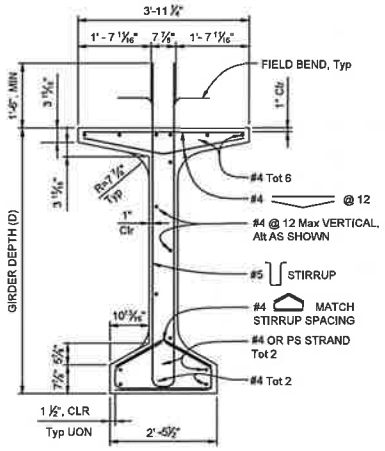
LOCATION	A	B	C	D
GIRDER ALL	#5 @ 3"	#5 @ 6"	#5 @ 12"	#5 @ 18"

NOTE:
GIRDER ENDS TO BE CAST SUCH THAT A LEVEL SURFACE IS PROVIDED AT BEARING PADS

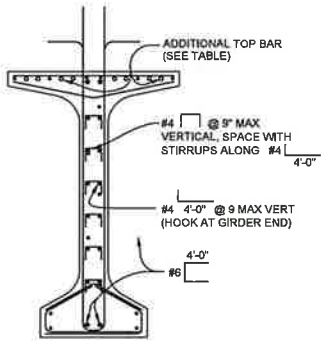
LOCATION	GIRDER LENGTH (L)	GIRDER DEPTH (D)	"X" (in)	JACKING FORCE (P) (kips)	As, Min (in^2)	"Y" (in)	CONCRETE STRENGTH (ksi) f'ci	CONCRETE STRENGTH (ksi) f'c	MIDSPAN DEAD LOAD DEFLECTION (in) DECK	MIDSPAN DEAD LOAD DEFLECTION (in) RAIL	ADDITIONAL TOP BAR (EACH END)
ALL	121'-10"	6'-0 7/8"	4	1640	9.24	35	6.0	6.5	2.77	0.50	8 # 4 x 15' Tot 8
			6	1690	9.78						

PRESTRESSING NOTES:

1. THE JACKING FORCE (P) IS THE JACKING FORCE REQUIRED AT THE POINT OF CONTROL ALONG THE SPAN. THE JACKING FORCE DOES NOT INCLUDE ANY FABRICATION SPECIFIC LOSSES
2. THE MAXIMUM TENSILE STRESS IN THE PRESTRESSING STEEL UPON RELEASE SHALL NOT EXCEED 75% OF THESPECIFIED MINIMUM ULTIMATE TENSILE STRENGTH OF THE PRESTRESSING STEEL
3. THE MAXIMUM TEMPORARY TENSILE STRESS (JACKING STRESS) IN THE PRESTRESSING STEEL SHALL NOT EXCEED 80% OF THE SPECIFIED MINIMUM ULTIMATE TENSILE STRENGTH OF THE PRESTRESSING STEEL
4. CONCRETE STRENGTH:
   F'CI IS AT TIME OF INITIAL STRESSING
   F'C IS AT 28 DAYS
5. DEFLECTION COMPONENTS ARE INFORMATIONAL AND WILL BE USED TO SET SCREED LINE ELEVATIONS
6. SCREED LINE ELEVATIONS FOR DECK CONCRETE WILL BE DETERMINED BY THE ENGINEER
7. CONTRACTOR MAY INTERPOLATE "P" AND "X" VALUES BETWEEN THE LIMITS SHOWN, AS APPROVED BY THE ENGINEER
8. THERE SHALL BE A MINIMUM OF TWO HOLD DOWNS PER GIRDER FOR THE PRESTRESSING
9. PRESTRESSING STRAND SHALL BE 270 KSI LOW RELAXATION
10. AS, MIN IS THE MINIMUM AREA REQUIRED OF PRESTRESSING STEEL

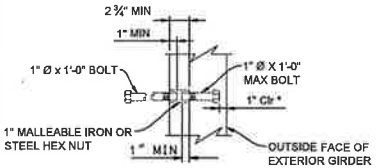


TYPICAL GIRDER SECTION



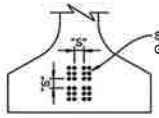
NOTE:
FOR DETAILS NOT SHOWN, SEE "TYPICAL GIRDER SECTION"

SECTION A-A



* DIMENSION MAY BE INCREASED WHEN INSERT ASSEMBLY IS USED AT END BLOCK

INSERT ASSEMBLY



CLEARANCES FOR PRETENSIONED STRANDS

NOTES:

1. Strands may be bundled in groups consisting of 3 vertically, 2 horizontally, and separated at the ends
2. The minimum distance "S" between groups or individual strands is 1-3/4" for 1/2" Ø strands and 2" for 0.6" Ø strands
3. "S" is measured between centers of adjacent strands
4. Approval by Engineer is required for deviation

NOTE:
For "WELDED WIRE REINFORCEMENT (WWR) ALTERNATIVE", see "PC/PS BULB-TEE GIRDER (MISCELLANEOUS DETAILS)" sheet

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	IMP	N/A		10	18

C. DANIEL SUN
REGISTERED CIVIL ENGINEER — 9/6/19 DATE

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

5-10

STANDARD DRAWING
FILE NO. xs8-010
APPROVAL DATE July 2014

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 58C-XXXX
POST MILE X

LACK ROAD BRIDGE REPLACEMENT OVER NEW RIVER
PC/PS BULB-TEE GIRDER (HARPED STRANDS)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: X
PROJECT NUMBER & PHASE: X
CONTRACT NO.: X

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
				10	18

FILE => $REQUEST

September 6, 2019 Jarrod Epley

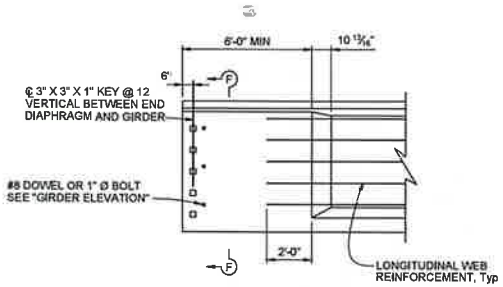
EEC ORIGINAL PKG

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	IMP	N/A		10	18

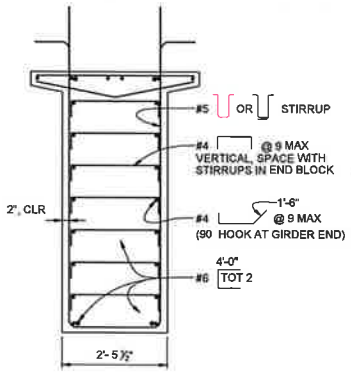
C. DANIEL SUN
REGISTERED CIVIL ENGINEER — 9/6/19 DATE

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



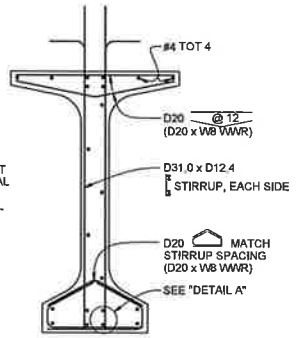
OPTIONAL END BLOCK - ELEVATION
SCALE: NTS



NOTE:
FOR DETAILS NOT SHOWN, SEE "TYPICAL GIRDER SECTION" DETAIL

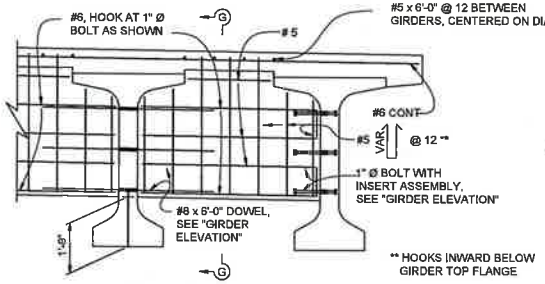
SECTION F-F
SCALE: NTS

NOTE:
1. FOR DETAILS SHOWN BUT NOT NOTED, SEE "TYPICAL
2. GIRDER SECTION" DETAIL W8 WWR NOT SHOWN



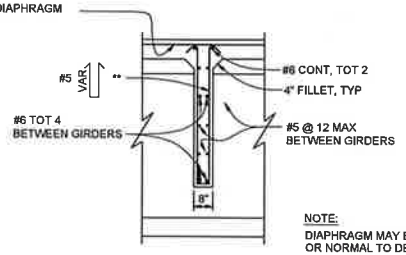
WELDED WIRE REINFORCEMENT (WWR) ALTERNATIVE
SCALE: NTS

NOTE:
FOR "GIRDER ELEVATION" AND "TYPICAL GIRDER SECTION", SEE "PC/PS BULB-TEE GIRDER (DEBONDED STRANDS)" SHEET



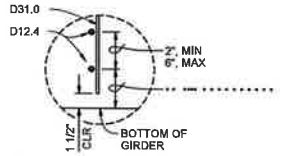
** HOOKS INWARD BELOW GIRDER TOP FLANGE

INTERMEDIATE DIAPHRAGM
SCALE: NTS



NOTE:
DIAPHRAGM MAY BE VERTICAL OR NORMAL TO DECK GRADE

SECTION G-G
SCALE: NTS



DETAIL A
SCALE: NTS

NOTE:
1. BOTTOM OF STIRRUP WWR DETAIL SHOWN, TOP SIMILAR
2. LONGITUDINAL WIRE AREA SHALL BE 40% OR GREATER OF VERTICA DEFORMED WIRE'S AREA

S-11

STANDARD DRAWING
FILE NO. xs8-010
APPROVAL DATE July 2014

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 58C-XXXX
POST MILE X

LACK ROAD BRIDGE REPLACEMENT OVER NEW RIVER
PC/PS BULB-TEE GIRDER (MISCELLANEOUS DETAILS)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: X
PROJECT NUMBER & PHASE: X
CONTRACT NO.: X
FILE => $REQUEST

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
			–	11	18

September 6, 2019 Jarrod Epley

EEC ORIGINAL PKG

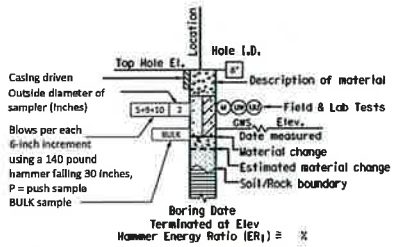
REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring
	R P	Rotary drilled boring Rotary percussion boring (air)
	R	Rotary drilled diamond core
	HD HA	Hand driven (1-inch soil tube) Hand Auger
●	D	Dynamic Cone Penetration Boring
▲	CPT	Cone Penetration Test (ASTM D 5778-95)
	O	Other
Note: Size in inches.		

CONSISTENCY OF COHESIVE SOILS				
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	< 0.25	< 0.25	< 0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

PLASTICITY OF FINE-GRAINED SOILS	
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.



HOLLOW STEM AUGER

EEC ORIGINAL PKG

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
2885 G.E. No.
8/30/19 DATE
6/30/21 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E.
ROAD COMMISSIONER
62028 R.C.E. No.
DATE
9/30/19 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

8/30/19
GC
CH

LOG OF TEST BORINGS-1

LACK ROAD BRIDGE REPACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

SOIL LEGEND

S-12

SHEET 16 OF 18

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

GROUP SYMBOLS AND NAMES

Graphic/Symbol	Group Names
GW	Well-graded GRAVEL Well-graded GRAVEL with SAND
GP	Poorly graded GRAVEL Poorly graded GRAVEL with SAND
GW-GM	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND
GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)
GP-GM	Poorly graded GRAVEL with SILT Poorly graded GRAVEL with SILT and SAND
GP-GC	Poorly graded GRAVEL with CLAY (or SILTY CLAY) Poorly graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)
GM	SILTY GRAVEL SILTY GRAVEL with SAND
GC	CLAYEY GRAVEL CLAYEY GRAVEL with SAND
GC-GM	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND
SW	Well-graded SAND Well-graded SAND with GRAVEL
SP	Poorly graded SAND Poorly graded SAND with GRAVEL
SW-SM	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL
SW-SC	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)
SP-SM	Poorly graded SAND with SILT Poorly graded SAND with SILT and GRAVEL
SP-SC	Poorly graded SAND with CLAY (or SILTY CLAY) Poorly graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)
SM	SILTY SAND SILTY SAND with GRAVEL
SC	CLAYEY SAND CLAYEY SAND with GRAVEL
SC-SM	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL
PT	PEAT
	COBBLES COBBLES and BOULDERS BOULDERS

Graphic/Symbol	Group Names
CL	Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
CL-ML	SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
ML	SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
OL	ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
CH	Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
MH	Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
OH	ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
OH	ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
OL/OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND

FIELD AND LABORATORY TESTING

- (C) Consolidation (ASTM D 2435)
- (CL) Collapse Potential (ASTM D 5333)
- (CP) Compaction Curve (CTM 216)
- (CR) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CU) Consolidated Undrained Triaxial (ASTM D 4767)
- (DS) Direct Shear (ASTM D 3080)
- (EI) Expansion Index (ASTM D 4829)
- (M) Moisture Content (ASTM D 2216)
- (OC) Organic Content-% (ASTM D 2974)
- (P) Permeability (CTM 220)
- (PA) Particle Size Analysis (ASTM D 422)
- (PI) Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
- (PL) Point Load Index (ASTM D 5731)
- (PM) Pressure Meter
- (PP) Pocket Penetrometer
- (R) R-Value (CTM 301)
- (SE) Sand Equivalent (CTM 217)
- (SG) Specific Gravity (AASHTO T 100)
- (SL) Shrinkage Limit (ASTM D 427)
- (SW) Swell Potential (ASTM D 4546)
- (TV) Pocket Torvane
- (UC) Unconfined Compression-Soil (ASTM D 2166)
Unconfined Compression-Rock (ASTM D 2938)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850)
- (UW) Unit Weight (ASTM D 4767)
- (VS) Vane Shear (AASHTO T 223)

APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N_{60} (Blows / 12 inches)
Very loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE

Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

PERCENT OR PROPORTION OF SOILS

Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

PARTICLE SIZE

Description		Size
Boulder		> 12"
Cobble		3" to 12"
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
Chad Venden
2886 G.E. No.
8/30/19 DATE
6/30/21 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E.
ROAD COMMISSIONER
62028 R.C.E. No.
DATE
9/30/19 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 8/30/19
DESIGN GC
FIELD AS SHOWN
CHECK CH

LOG OF TEST BORINGS-2

LACK ROAD BRIDGE REPACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

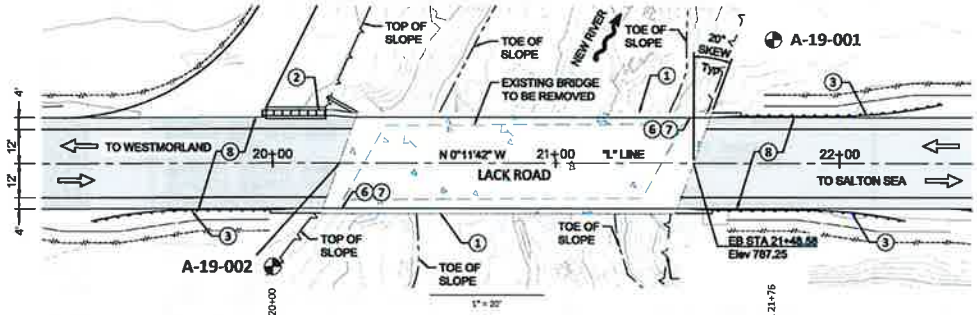
SOIL LEGEND

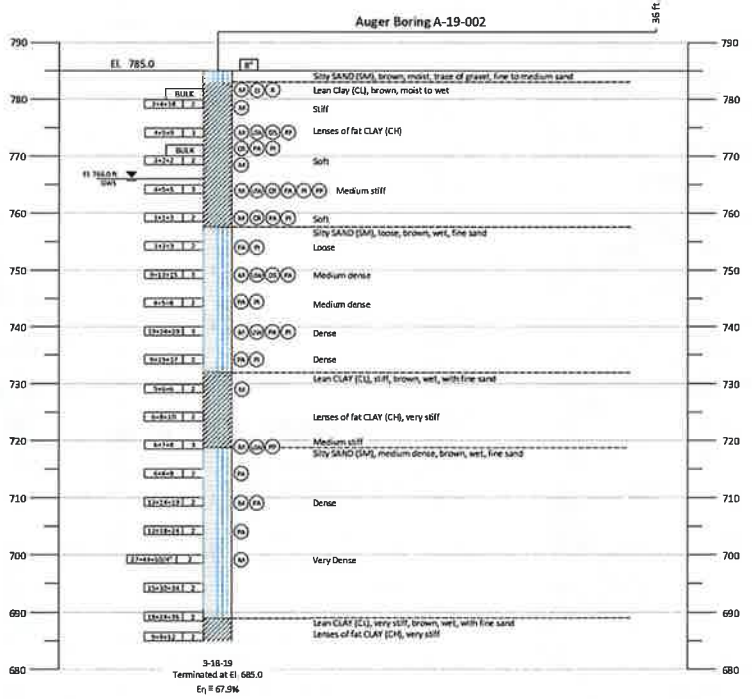
S-13

SHEET 17 OF 18

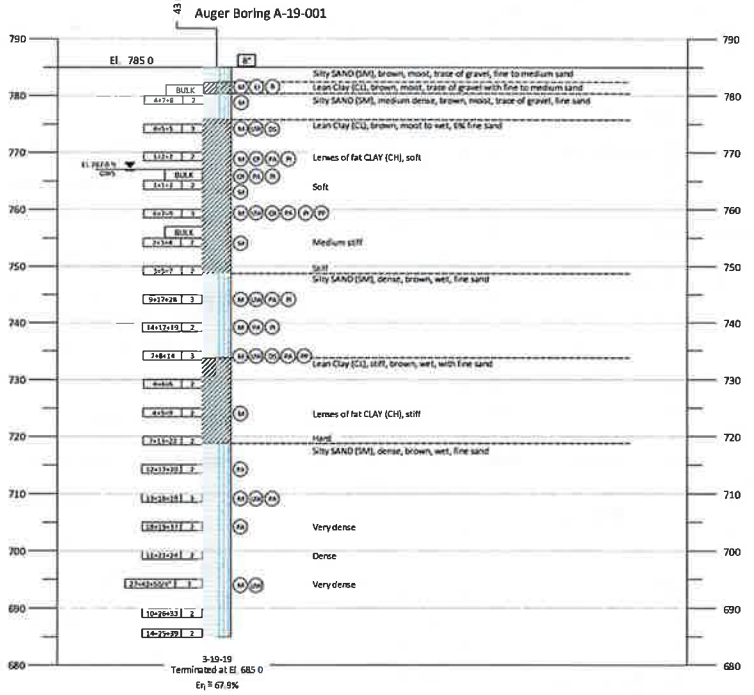
EEC ORIGINAL PKG

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)





PROFILE
Vertical Scale 1" = 10'



REVISION	DATE	COMMENTS

PREPARED UNDER THE DIRECT SUPERVISION OF:
Carl Hoedlmayer
8/30/19 DATE
2886 G.E. No.
6/30/21 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
JOHN A. GAY, P.E.
ROAD COMMISSIONER
DATE
62028 R.C.E. No.
9/30/19 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

8/30/19
GC
AS SHOWN
CH

LOG OF TEST BORINGS-3

LACK ROAD BRIDGE REPACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-XXXX

LOG OF TEST BORINGS

S-14

SHEET 18 OF 18

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PHOTOGRAPHS

EEC ORIGINAL PKG

PHOTOGRAPHS



1. New River bridge on Lack Rd. looking north.



2. On Lack Road; west to the left is Sudan grass and to the right and salt cedar to the right.

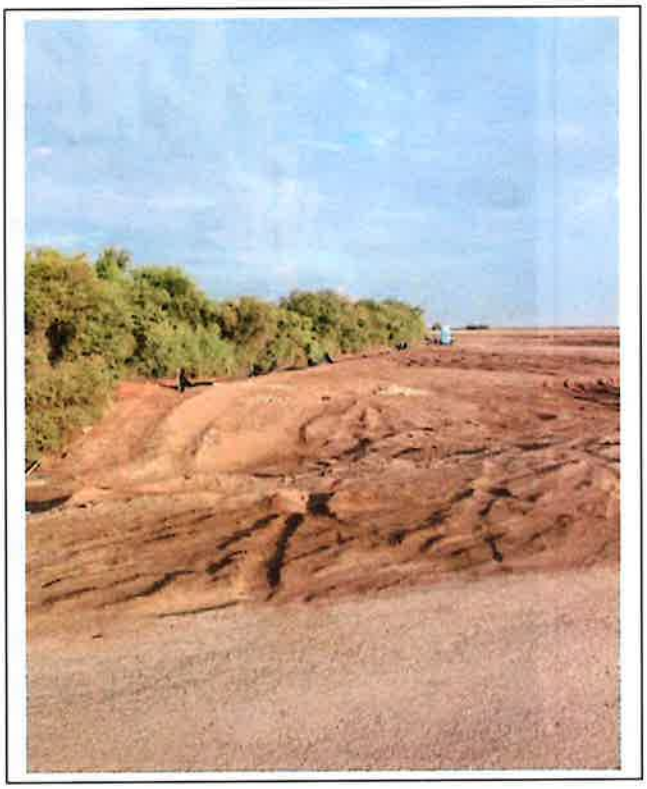


3. South end of the New River bridge looking south on Lack Rd.



4. On Lack Rd. looking south across the New River Bridge.

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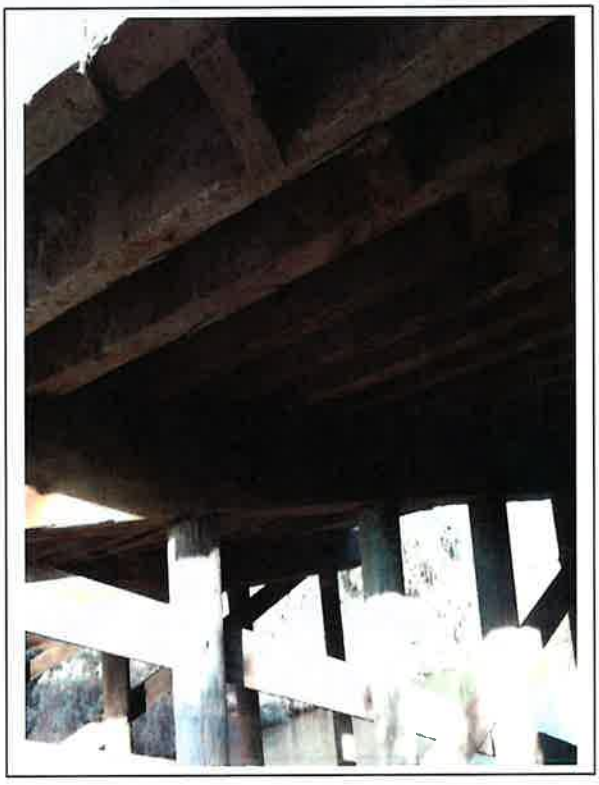
5. On north side of river on Lack Rd. looking west.



6. North side of river on Lack Rd. looking east.

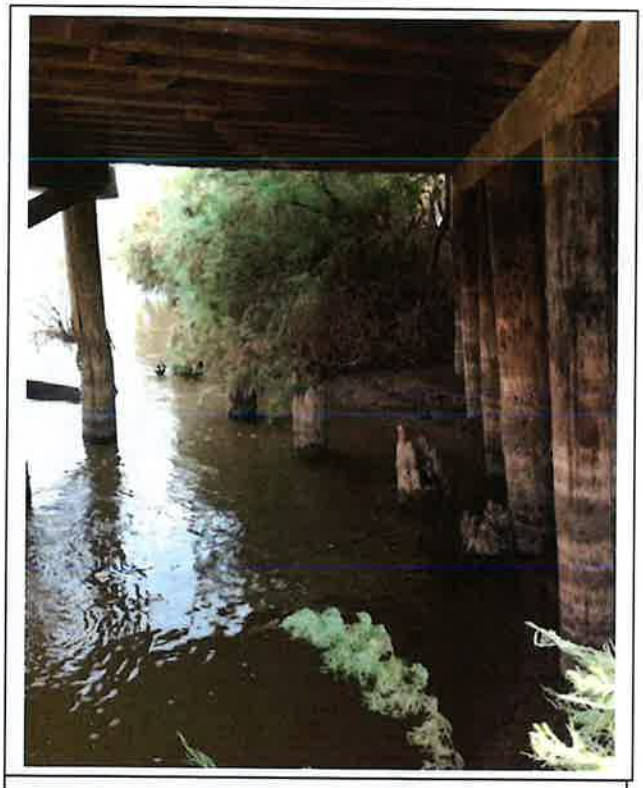


7. Under the bridge on the north bank no nesting birds or bats were observed.

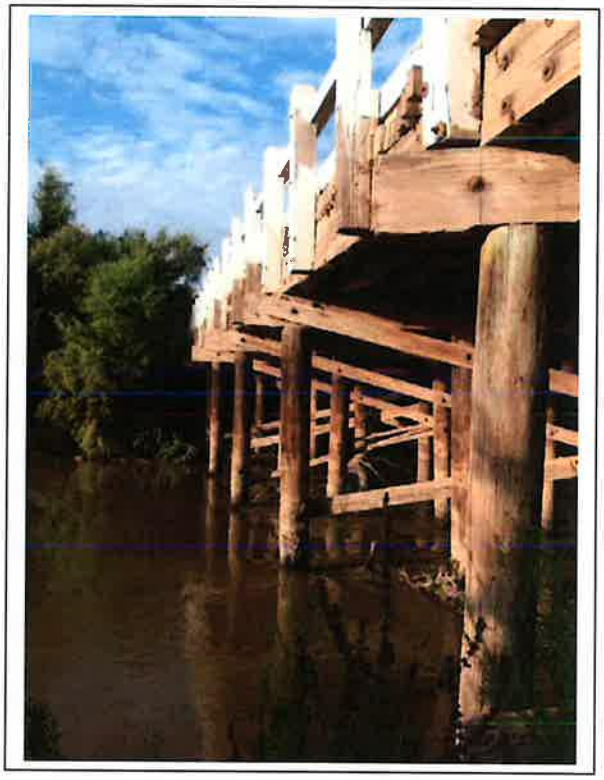


8. From the south Bank of the New River the picture taken is from the midsection of the bridge looking south, no nesting birds or bats were observed.

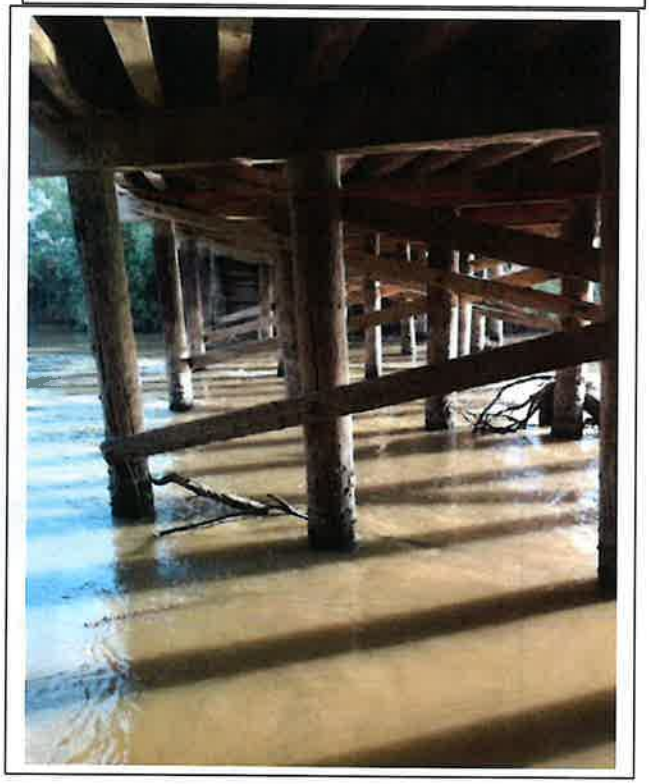
EEC ORIGINAL PKG



9. Under the New River Bridge on the east side looking west, no nesting birds or bats were observed.



10. From the north bank east side of New River Bridge looking south.



11. South bank looking at the north bank, no nesting birds or bats were observed.



12. East side of the New River Bridge looking west.

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QUALIFICATIONS

EEC ORIGINAL PKG

MARIE S. BARRETT 2035 Forrester Road, El Centro, CA 92243 (760) 352 4159 mariebarrett@roadrunner.com

LICENSES/CERTIFICATES

Flat Tailed Horn Lizard Surveyor CDFG/BLM
Burrowing Owl Surveyor (CDFG/USFWS)
USFW Desert Tortoise Egg Handling Desert Tortoise Council Survey Techniques Workshop Certificate
BCI Bat Conservation and Management Workshop (Acoustic) Certificate
Southwestern Willow Flycatcher Workshop Kernville, CA 2010
CA Scientific Collection Permit 126/USFWS Salvage Permit MB52633B-1

CAREER HISTORY

Barrett's Biological Surveys, El Centro, California *BIOLOGIST* 3/95 -present

Helped established protocol and perform Vegetative Baseline Studies and Biological Surveys for Mining Reclamation Plans in Imperial County. Have performed numerous (over 20,000 acres) surveys involving varied wildlife including burrowing owl, nesting birds and plant species and writing reports and biological assessments. Certified to perform Flat Tailed Horned Lizard Surveys; completed Desert Tortoise workshops; approved to handle desert tortoise (American Girl Mine/BLM project, 1/2013). Work closely with governmental agencies such as such as Bureau of Land Management, State Office of Mining Reclamation, California Department of Fish and Game. Written over ten Environmental Assessments for BLM, El Centro office. Over 150 days spent in field monitoring/surveying for FTHL; 98 days in field monitoring/surveying for desert tortoise and 32,000 acres surveyed for burrowing owl and nesting birds; 2 IID Burrowing owl surveys with AECOM (2011/12- 226 hrs). Wrote Imperial Irrigation District Artificial Burrow Installation Manual (2009). Over 25 active burrowing owl burrows passively relocated and 50 artificial burrows installed. Volunteered for desert tortoise work (20 hrs) with Dr. Jeff Lovich. Coachella Valley Projects: Torres-Martinez (Desert Cahuilla Composting Facility Biological Resource Technical Report/Surveys 60 acres, SR 86/Ave 84, 2013; Augustine Tribe (Solar Farm Biological Resource Technical Report/Surveys 10 acres, La Quinta,CA, 2010); Benitez Family Trust Therapeutic Community, Dillon and Cabazon Roads, 10 acres,2008); Chandri Group (Dairy Queen Chill/Grill Project, 1.5 acres, Date Palm Drive/I-10, La Quinta, CA, 2014). Blythe 8Minutenergy Mt. Signal Solar 5000 acres Preconstruction surveys/construction monitoring and BUOW Post construction monitoring; Biological report. 2010-2017
Black Mt. MetTower Installation: desert tortoise survey and monitoring approved by BLM, El Centro office
Salton City Burrtec Landfill FTHL monitoring/clearance 2010-2014 (42.5 hrs); Superior Redi Mix: FTHL surveys, Oat Pit Environmental Assessment for BLM, El Centro, 2009-14. (20 hours) SDG&E La Rosite Pole Replacement FTHL Monitoring 2012-2013(410 hrs); Imperial County Department of Public Works, FTHL surveys for Coyote Mine Environmental Assessment, BLM, El Centro, 2008. (10 hours) All American Aggregates, FTHL surveys, Boyd Road Mine Environmental Assessment, BLM El Centro, 2007. (9.5 hours) All American Aggregates, FTHL surveys, Wheeler Road Mine Environmental Assessment, BLM, El Centro, 2006. (8.5 hours); ValRock, FTHL surveys, Ocotillo ByPass Road Environmental Assessment, County of Imperial/BLM, El Centro, 2004. (7 hours). USFWS Authorized desert tortoise biologist: American Girl Mine and Mesquite Mine.

Citizens' Congressional Task Force on the New River, Brawley, Ca *PROGRAM COORDINATOR* 1/98 - present

Assisted with design, construction, planting and monitoring of four constructed wetlands in Imperial County. Responsible for coordinating activities relating to student and public outreach education to promote the water quality opportunities of wetlands ponding systems on the New River.

Imperial Valley College, Imperial, California *ENVIRONMENTAL MANAGEMENT PROJECT COORDINATOR* 9/95-12/99

Responsible for establishing an Environmental Technology curriculum, presenting public forums, short courses and certificate courses in hazardous materials and safety areas. In conjunction with Division Chairman, established a budget for 96-98 program and obtained funding of $131,000 based on 95-96 program performance. Established short courses that trained over 700 people in hazardous materials safety programs. Compiled a survey of employers, which provided direction for the program.

VOLUNTEER ORGANIZATIONS

CALIFORNIA NATIVE PLANT SOCIETY: Imperial Valley Coordinator, 2006-2016.
SALTON SEA INTERNATIONAL BIRD FESTIVAL: Coordinator: 2001-2010. Organize bird festival in the Imperial Valley that attracts over 300 birders.
COLORDO RIVER WATER QUALITY CONTROL BOARD: Board member Dec 05-Sept 06.
FRIENDS OF SONNY BONO NATIONAL WILDLIFE REFUGE: Board Chairman, May 2015- 16

EDUCATION

University of Arizona, Tucson, Arizona
Masters of Science Degree – AGRICULTURAL EDUCATION
Thesis: Survey and training protocol for documenting burrowing owls and habitat in Imperial County, California
California State Polytechnic College, Kellogg-Voorhis Campus, Pomona, California
Bachelor of Science Degree.- AGRICULTURAL BIOLOGY
Imperial Valley College, Imperial, California *Associate of Science Degree. AGRICULTURE*

EEC ORIGINAL PKG

Jacob Calanno
Post Office Box 458
Niland, California 92257
760-550-4214

SPECIALTIES: Environmental Remediation and Monitoring, Mechanical Process Applications, Field operations.

EDUCATION: Imperial Valley College, Imperial, Ca. - Municipal Water and Waste Water Treatment; Licensing pending.

COMPUTER SKILLS: Basic computer skills, Lab View for Engineers.

SPECIALIZED TRAINING: Environmental Review & Compliance for Natural Gas Facilities Seminar- June 5-7, 2012
Desert tortoise Surveying, Monitoring and Handling Techniques Certificate Nov. 5-6, 2012
Flat Tail Horn Lizard Training- June 20, 2012
40 Hour Hazwoper Feb. 8, 2013
CALIFORNIA OSHA TITLE-2011
Confine Space Training, 2005
Lockout/Tagout , 2005
Respirator Training, 2005
Operators Safety Training, 2005
Foreman Field Crew Supervisory and Operations Training, 2005

SUMMARY: Field Operations Crew Foreman/Operations Technician
I have 15 years' experience in the environmental remediation industry. My area of expertise is in remedial mechanical applications, equipment operations and maintenance programs. For the past 5 years I have been specifically working on construction, operation and maintenance for soil vapor direct and indirect fire extraction systems, applied to groundwater remediation projects. I have strong equipment application, organization and field crew tasking skills. I communicate well, ascertain direction and always work as a team player.

Training and hands on experience working in the field with endangered species; Desert Tortoise and the Flat Tail Horned Lizard, followed compliance policy and procedure when encountering endangered species. This training was received while working on specific projects such as:
USDOD, Navy Clean I Program, Salton Sea, Imperial, California; Barrett's Biological Surveys field work and monitoring.

WORK EXPERIENCE:

2013-18 Barrett's Biological Surveys
Project Salton City Burrtec Landfill: 320 acre FTHL clearance and provided FTHL training to construction crew/Nesting bird surveys (52 hrs)
Project Mesquite Mine: 30 acre desert tortoise clearance; fence installation monitoring (25 hrs)
Project: North Baja Bore Hole Project desert tortoise monitoring (12 hrs)
Project Oat Mine: FTHL monitoring (186 hrs)
Project CalTrans: FTHL monitoring (50 hrs)
Project Niland Wastewater Project BUOW/Biological surveys (5 days)
BLM, El Centro, CA office: Volunteer Bat Surveys with Pat Brown (20 hours)

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APPENDIX "B"

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Environmental Intelligence, LLC

CULTURAL RESOURCES SURVEY REPORT FOR THE LACK ROAD BRIDGE REPLACEMENT, IMPERIAL COUNTY, CALIFORNIA

Prepared For:

Imperial County
Public Works Department
155 S. 11th Street
El Centro, California 92243

and

NV5 West, Inc.
15092 Avenue of Science, Suite 200
San Diego, CA 92128

Prepared By:

Rebecca Gilbert, M.A. and Amber Lopez-Johnson, M.A.
Environmental Intelligence, LLC.
177 E. Colorado Blvd., Suite 200
Pasadena, CA 91105

Date: November 6, 2019 (*Updated January 30, 2020)*

EEC ORIGINAL PKG

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EXECUTIVE SUMMARY

Purpose and Scope: Environmental Intelligence, LLC (EI) was retained by NV5 to conduct a Phase 1 cultural resources study for the Lack Road Bridge Replacement Project (Project), located in Imperial County, California. The Project is expected to require construction permits from Imperial County (County), and therefore, will be subject to compliance with the California Environmental Quality Act (CEQA).

The purpose of this study is to identify cultural resources within the Area of Potential Impacts (API) and to assess the Project's potential impacts on historical resources in compliance with CEQA. This report documents the results of a cultural resources records search and intensive pedestrian survey of the API. The API totals 3.27 acres.

Results: A cultural resources records search was conducted by staff at the South Coastal Information Center (SCIC) at San Diego State University on August 30, 2019. No previous cultural resource studies have been conducted within the API or within a ¼-mile radius. Additionally, no cultural resources have been previously recorded within the records search extent.

EI also reviewed the California Department of Transportation (Caltrans) Historic Bridge Inventory for Local Agency Bridges. The New River (Lack Rd) bridge (number 58C0101) was constructed in 1940 and the historical significance is listed as a Category 5 (Bridge not eligible for NRHP).

An intensive pedestrian survey of the API was conducted on September 26, 2019. No cultural resources were identified as a result of the survey efforts. As such, no impacts are expected to occur to historical resources as part of the Project.

Recommendations: As a result of the current survey, no cultural resources were identified within the API. As the Project is subject to compliance with CEQA, the County will be required to conduct Native American consultation pursuant to Assembly Bill (AB) 52. With the expectation of AB52 consultation by the County, no further work for cultural resources is recommended, unless the scope changes to include areas not reviewed as part of this study.

EEC ORIGINAL PKG

1.0 INTRODUCTION

Environmental Intelligence, LLC (EI) was retained by NV5 to conduct a Phase 1 cultural resources study for the Lack Road Bridge Replacement Project (Project), located in Imperial County, California. The Project is expected to require construction permits from Imperial County, and therefore, will be subject to compliance with the California Environmental Quality Act (CEQA). This report documents the results of the cultural resources records search and intensive pedestrian survey of the API for the Project.

1.1 Project Description and Location

Due to severe deterioration of some of the pile supports, the existing Lack Road bridge has been closed to traffic for over one (1) year. The County proposes to replace the existing seven-span timber bridge with a new precast concrete bridge designed to current American Association of State Highway and Transportation Officials (AASHTO) standards. The proposed new bridge would be a single-span bridge with four (4) precast/prestressed bulb-tee girders supported on two (2) abutments. The new bridge dimensions will be 35 feet and 6 inches wide by 125 feet long, with a structure depth of 7 feet and 0.875 inches. The selection of a precast bridge structure will eliminate the need for construction to take place within the New River.

The proposed roadway would remain one (1) travel lane in each direction, and geometry for the proposed Project would be based on applicable County and AASHTO standards. The proposed Project's new bridge would be reconstructed in the same alignment with two (2) 12-foot lanes designed for a 55-mile-per-hour (mph) vehicle speed. Shoulder widths would be 4 feet on the bridge, and would transition to the existing width at the roadway conform points. The new bridge is designed to accommodate the 100-year flood of the New River. The existing bridge will be removed.

The Project is located approximately 5.8 miles north of Westmorland, where Lack Road crosses the New River in Imperial County, California. Specifically, the Project is located in Sections 29 and 30 of Township 12 South, Range 13 East, SBBM, as shown on the Calipatria SW United States Geological Survey (USGS) 7.5-minute topographic quadrangle (Exhibit 1).

1.2 Area of Potential Impacts

The API for the Project is defined as the bridge replacement, graded driveways, and staging areas (Exhibit 2). The API totals 3.27 acres.

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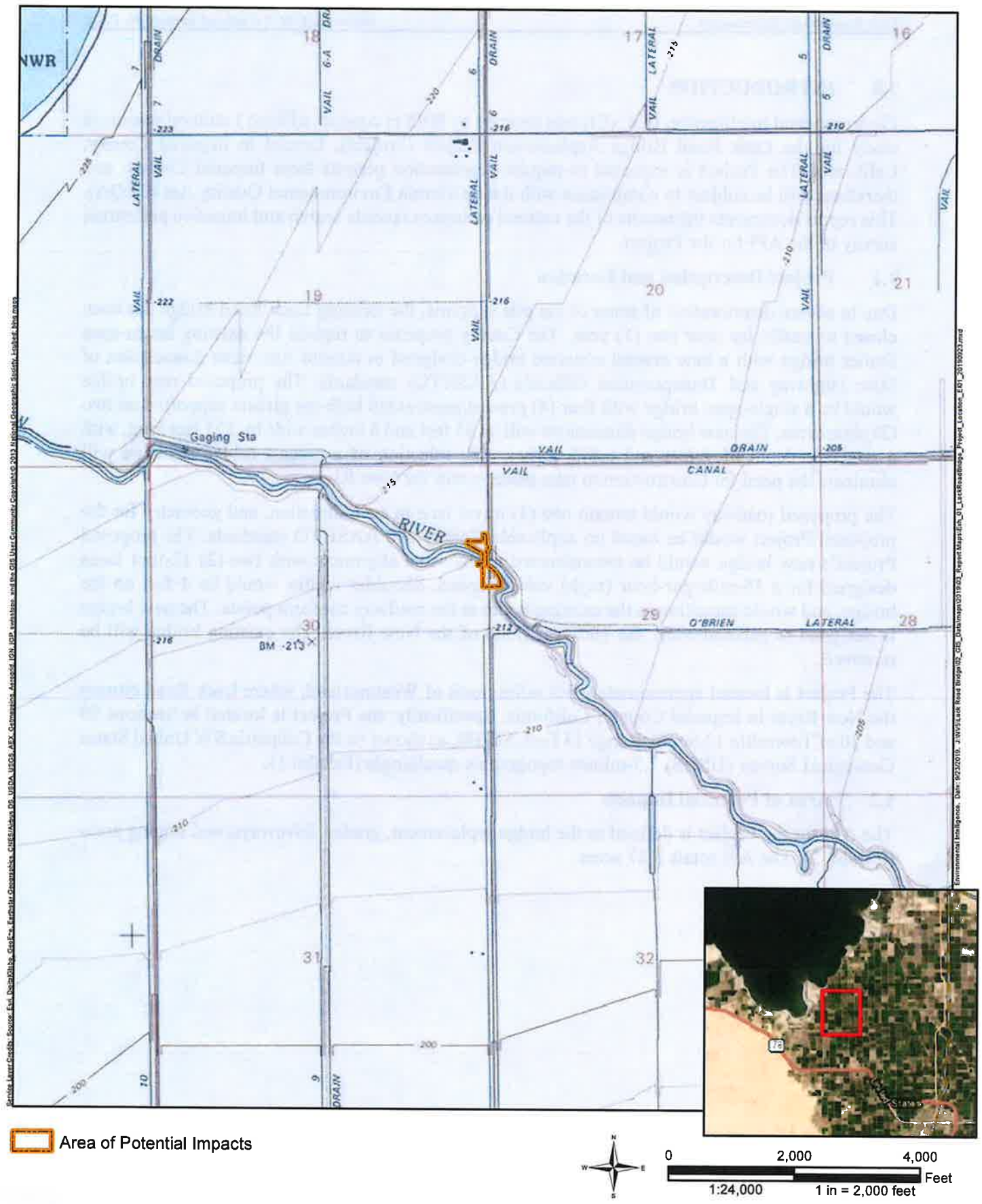


EXHIBIT 1: PROJECT LOCATION

LACK BRIDGE ROAD REPLACEMENT | IMPERIAL COUNTY, CA

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EXHIBIT 2: AREA OF POTENTIAL IMPACTS

LACK ROAD BRIDGE REPLACEMENT | IMPERIAL COUNTY, CA

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2.0 REGULATORY CONTEXT

2.1 State

2.1.1 California Environmental Quality Act

CEQA requires that a lead agency determine whether a project may have a significant effect on historical resources (Section 21084.1). If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of the resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (Section 21083.2[a], [b], and [c]).

Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

2.1.2 California Register of Historical Resources

The California Register of Historical Resources (CRHR) was established in 1992 as a guide to be used by state and local agencies to identify California's historical resources and to identify what properties are to be protected from adverse change. A resource may be listed on the CRHR if it meets at least one of the following four criteria, which are directly modeled on NRHP criteria.

1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. It is associated with the lives of persons who are significant in our past.
3. It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.
4. It has yielded, or may be likely to yield, information important in prehistory or history.

Resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reason for their significance. A resource that has lost its historic character may still be eligible to the CRHR under Criterion 4 if it has the potential to yield scientifically important information.

2.1.3 Assembly Bill 52

Assembly Bill (AB) 52, signed by the California Governor in September of 2014, requires lead CEQA agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a project only if they have requested to be notified of projects subject to AB 52. Consultation as defined under AB 52 includes, but is not limited to, discussing the type of environmental review necessary, the significance of tribal cultural resources (TCRs), the

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significance of the project impacts on the TCRs, and alternatives and mitigation measures recommended by the tribe. Parties must consult in good faith and consultation is deemed concluded when (1) the parties agree to measures to avoid or reduce a significant impact on a TCR (if such a significant impact exists) or (2) when a party concludes that mutual agreement cannot be reached. Further, under AB 52, mitigation measures agreed upon during consultation must be included in the environmental document and, if no formal agreement on the appropriate mitigation has been established, mitigation measures that avoid or substantially lessen potential significant impacts should be implemented.

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3.0 BACKGROUND INFORMATION

3.1 Environmental Setting

Located approximately 2.23 miles south of the Salton Sea, the Project area is situated within the southcentral extent of the Colorado Desert Province. On the eastern side of the province is the Imperial Valley consisting of the Colorado River running down to the Mexican border. West of the Colorado River and east of the Project area are the Chocolate Mountains, with the Algodones Dunes and the Cargo Muchacho Mountains to the southeast. The Chocolate Mountains and Cargo Muchacho Mountains are comprised of Proterozoic crystalline gneisses, anorthosites, and schists, with younger plutonic rocks in the Chocolate Mountains dating to 23 to 31 million years (early Miocene and to late Oligocene; Norris and Webb 1990).

The Colorado Desert is the warmest desert in California and is known as the "low desert" due to the long, deep valley making up the Salton Trough. The Salton Trough is 180 feet (58 m) below sea level (Schoenherr 1992). The Salton Sea began to fill around 1905 when an irrigation canal burst near the Mexican border, creating the New River that now flows into the Salton Sea from its southern end. Other major drainages flow into the Salton Sea from multiple directions; however, the New River and Alamo River account for most of the flow into the Salton Sea (Norris and Webb 1990). Both the New River and the Alamo River cross agricultural farmland and collect water from seepage and flooding from irrigation. The New River, per the Imperial County Health Department, is polluted with both biological and chemical wastes and has been designated as a Class 4 contaminated waterway.

The Colorado Desert is a subdivision of the larger Sonoran Desert located to the east. Vegetation is characterized by numerous cacti and trees of the legume family (*Fabaceae*), including the Smoke tree (*Psorothamnus spinosus*), a grayish, leafless legume, and Ocotillo (*Fouquieria splendens*), a large, stalk-like shrub with long, spiny, whip-like branches. The most common shrub of the lower slopes and flats of the Colorado Desert is Creosote bush (*Larrea tridentata*), with upper slopes occupied by a mixture of drought-deciduous shrubs and succulent plants that occur in the Cactus Scrub community (Schoenherr 1992).

Mammals in the Colorado Desert include desert bighorn sheep (*Ovis canadensis*), desert kit fox (*Vulpes macronis*), coyote (*Canis latrans*), western spotted skunk (*Ipilogale gracilis*), spotted bat (*Euderma maculatum*), black-tailed jackrabbit (*Lepus californicus*), ground squirrel (*Ammospermophilus leucurus*), and desert kangaroo rat (*Dipodomys deserti*). Birds in the region include eagles, hawks, owls, quail, white-winged dove, roadrunners, finches, warblers and orioles, with the Salton Sea providing habitat for a wide variety of waterfowl and shorebirds. Reptiles include several species of rattlesnakes.

3.2 Prehistoric Overview

California has been occupied for more than 12,000 years and several chronological sequences have been developed to study cultural change in California over the past 75 years (Bettinger and Taylor 1974; Moratto 1984; Wallace 1962; Warren 1984; Warren and Crabtree 1986).

The Colorado Desert region has its own unique natural and cultural history, but is also embedded in the large context of the Mojave Desert to the north, the Sonoran Desert to the east, and the mountains and coastlines of southern California and northern Baja California to the west and south (Schaefer and Laylander 2007).

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3.2.1 PLEISTOCENE

Although pre-Clovis sites have been recorded elsewhere on the North American continent, there is no firm evidence of a pre-Clovis occupation within Southern California. The earliest documented occupation in Southern California is recorded from the Arlington Springs Woman skeleton from Santa Rosa Island, which produced radiocarbon dates of approximately 11,000 B.C (Glassow et al. 2007). Opposite Santa Rosa Island, on the mainland, site CA-SBA-1951 yielded a basal corner of a Clovis point that may indicate occupation of comparable age (Glassow et al. 2007).

The earliest cultural complex in the Mojave Desert that has been confidently identified is Clovis (ca. 10,000-8,000 B.C.; Sutton et al. 2007). The characteristic projectile points, consisting of large, lanceolate shaped bifaces with a fluted hafting technology, are exceedingly rare in the area. Isolated Clovis points have been found in the Mojave Desert, with concentrations reported around pluvial Lake China (Sutton et al. 2007). Based on the isolated nature of the finds consisting solely of lithic material, Clovis populations are typically viewed as consisting of small, mobile groups that employed a hunting and gathering subsistence strategy, with temporary camps located near permanent water sources such as pluvial lakes.

3.2.2 EARLY HOLOCENE

The early Holocene is marked by the Lake Mojave archaeological complex, which generally dates to between 8,000 and 6,000 B.C. and is typified by the projectile points of the Great Basin Stemmed Series (e.g., Lake Mojave, Silver Lake). In the Mojave Desert and southern Great Basin, stemmed archaeological assemblages have often been found near Pleistocene/Holocene transition lake beds and drainages. A number of articles have been written discussing whether early Holocene populations were specifically targeting lacustrine resources or whether seasonal resource populations located around water sources were of primary importance (e.g., Willig 1988). As Sutton et al. (2007) discuss, climate shifts, including the drying of the lake basins, would likely have caused increasing unpredictability in resource populations and locations, thereby causing high levels of residential mobility and the need for diversified subsistence strategies. Lithic assemblages consistent with the long-term curation and transport of material (abundant bifaces, unifaces, crescents, core tools and smaller amounts of ground stone tools) and more diversified archaeofaunal assemblages are indicative of a similar strategy.

3.2.3 MIDDLE HOLOCENE

The middle Holocene is marked by increasing aridity throughout the region. Woodland habitats receded to modern elevations during this time period and characteristic desert scrub communities, including creosote bush that expanded throughout the Mojave Desert by approximately 5,000 years ago (Spaulding 1991; West et al. 2007). The Pinto Complex is the primary cultural complex identified in the middle Holocene. Pinto Complex lithic assemblages show continuity from the Lake Mojave Complex in the use of similar material (i.e., material other than obsidian and cryptocrystalline silica [CCS]) and an emphasis on bifacial and unifacial core tools. The characteristic Pinto projectile points typically show high amounts of reworking and appear to have been used as thrusting spears (Sutton et al. 2007).

While large game was undoubtedly sought after, the change in suitable habitat for large artiodactyls likely played a major role in shifting settlement and subsistence patterns. Additionally, flat and shallow-basined millingstones and other ground stone implements increase notably within the period (Warren and Crabtree 1986), which is often viewed as a result of an increasing reliance

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on hard seed exploitation. While Warren (1990) views this development as a result of increased subsistence strategy diversification brought on by environmental changes, Sutton et al. (2007) note that the Mojave Desert data demonstrates an emergence of heavy plant exploitation before the onset of middle Holocene aridity.

3.2.4 Late Holocene

The start of the late Holocene is marked by the Gypsum complex (2,000 B.C.-200 A.D.), which is characterized by smaller, dart-sized projectile points (e.g., Elko, Humboldt, and Gypsum series). The Gypsum complex emerged during a more mesic climate than the middle Holocene, and an increase in the abundance and diversity of lithic (knives, flake scrapers, large scraper planes, choppers) and ground stone (mortar and pestle) assemblages demonstrate an increasingly broad subsistence strategy. Increased evidence of ritual activity (split-twig figurines, petroglyphs quartz crystals) is present at locations such as Newberry Cave (Davis and Smith 1981; Warren and Crabtree 1986), and trade items from the coast suggest more contact between the regions.

Artifact assemblages from the Rose Springs Complex (ca. A.D. 200 to 1100) are characterized by Eastgate and Rose Springs projectile points, drills, pipes, bone awls, milling implements, marine shell, and large amounts of obsidian (Warren and Crabtree 1986). The large number of sites of this complex and the presence of more well-developed middens indicate a large increase in population size. This is likely due to the more productive environment, the introduction of a more effective hunting technology (the bow and arrow), or a combination of both (Sutton et al. 2007). Evidence from Anasazi agricultural populations is also present at archaeological sites in the eastern Mojave Desert at this time, including the area north of the Providence Mountains (Sutton et al. 2007).

The emergence of the Late Prehistoric cultural complexes coincides with the increasing aridity of the Medieval Climate Anomaly (MCA). Artifact assemblages are generally characterized by Desert series projectile points, buffware and brownware ceramics, steatite beads, a variety of milling implements, and an increase in the use of CCS over obsidian in tool production (Sutton et al. 2007). The development of regional interaction spheres within the Mojave Desert during this period may be viewed as forerunners to the known ethnographic groups (Warren 1984; Sutton et al. 2007).

3.3 Ethnographic Overview

The Project area falls within the traditional ethnographic territory of the Kumeyaay, Cahuilla, and Quechan tribes.

3.3.1 Kumeyaay

The Kumeyaay, as they are preferred to be called, are also known as Southern Diegueño, Diegeño-Kamia, Ipai-Tipai, and Mission Indians (Pico 2019). The Kumeyaay consisted of self-governing clans that stretched from the coastal region to the Colorado River, north to Warner Springs Valley, and as far south as Ensenada. There were three main groups: the Tipai (Tie-Pie) occupied the northern area of present-day San Diego County, while the Ipai (ie-pie) occupied the southern area into Baja California, and the Kamei (cam-ie) gathered in the eastern part of San Diego County. They were a Yuman-speaking people and shared characteristics with neighboring tribes like the San Luiseño, Cupeño, and Cahuilla.

A dome-shaped hut called an e'waa [ee-wah'] approximately 15 to 20 feet in diameter provided shelter. It was constructed with sycamore and oak tree branches, tied with string made from yucca, and included an opening for smoke to escape during fires.

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Acorns were a main staple in the Kumeyaay diet. Collected from oak trees, the acorns were then pounded into flour by mortar and pestle, rinsed to rid tannin acid, and prepared into a mush over a fire. Berries, nuts, seeds, roots, and bulbs were also gathered and eaten. The stalks from the mescal plant were gathered for food and as fiber to produce nets and sandals. The berries from the manzanita was made into a drink similar to "Kool-Aid" (Wilken 2012). The Kumeyaay also planted and grew crops like squash, beans, and corn, and gathered plants for medicinal purposes (Pico 2019; Wilken 2012). They also hunted different animals in the area including big game like antelope and mountain sheep, and trapped small animals like rabbits, birds, and quail. Local fish, as well as mollusks, shellfish, and seaweed were part of their diet too and nets and spears were used to fish in the ocean and rivers.

Clay collected from the river banks would be coiled and smoothed into utilitarian pottery for storing water or beans and nuts (King 2017). Fibers made from plants were twisted into string to make tightly knotted baskets, nets for fishing, sandals, and to construct shelter huts.

The Kumeyaay were first encountered in 1542 by European, Juan Rodriguez Cabrillo, and again in 1769 when the Spanish arrived (King 2017).

3.3.2 CAHUILLA

The Cahuilla's territory, located near the geographic center of Southern California, was bisected by a major travel trade route, the Cocopa-Maricopa Trail. The Colorado Desert separated the Cahuilla from the Mohave, Hachidoma, Ipai, and Tapai and the mountains, hills, and plains separated them from the Luiseño, Serrano, and Gabrielino (Bean 1978). Subsistence included hunting of large and small game animals, such as deer, antelope, mountain sheep, rabbits, squirrels, and ducks by the men. Women were responsible for the gathering of plant foods, with the most important being acorns (six varieties of oaks), mesquite and screw beans, pinon nuts, and the fleshy bulbs of various types of cacti (Bean 1978).

The Cahuilla were organized into political-ritual-corporates units (clans), composed of 3-10 lineages. The founding lineages often owned the office of ceremonial leader, the ceremonial house, and a ceremonial bundle, or *máyswut*. Cahuilla villages were usually situated in canyons or on alluvial fans near adequate sources of water or food material that offered protection from strong, prevailing winds. The lands surrounding the village were divided into tracts that were owned by clans, families, and individuals. Trail networks used for hunting, trading, and social interaction interconnected the villages. The villages were permanent, with movement out of them for a specific purpose such as hunting, gathering, trade, ritual, or social visiting. Buildings varied in size from small brush shelters to dome-shaped or rectangular house, 15-20 feet long depending on the needs of each individual family, along with village ceremonial houses (Bean 1978).

3.3.3 QUECHAN

Quechan are also known as the *Kwatsan* (which is derived from their creation myth and means "those who descended"), Yuma, or Yuman. Their settlements were centered to the east of the Project area along the confluence of the Gila and Colorado rivers in present-day Yuma, but their territory also stretched west into California and south into Baja California.

Quechan villages consisted of small family settlements located along the Colorado and Gila rivers. The households, or composite families, lived together and would move as a unit between seasonal settlements based on the continually changing floodplains of the rivers. The changing floodplains altered the locations of villages, camp sites, and horticultural plots, as the annual flooding eroded

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some areas or buried others under silt. Possessions and houses of the dead were burned by the Quechan, which also contributed to their movement of villages over time (Bee 1983).

The Quechan were known for having a stable horticulture and gathering subsistence strategy. Large winter and spring settlements were located along the terraces above the Colorado River floodplains. In the spring when the waters receded from the floodplains, the Quechan would disperse into smaller, extended family camps near two to three-acre horticultural plots, where major crops included maize, squash, pumpkin, watermelon, and wheat (Bee 1983). After the fall harvest, the Quechan would return to the settlements on the terraces to escape the winter and spring floods from the Colorado River.

The Quechan were first encountered in 1540 by Hernando de Alarcón, followed Juan Oñate who visited the area in 1604. It is estimated that 4,000 Quechan people were living in their territory at the time of contact (Bee 1983).

3.4 Historic Overview

In California, the historic era is commonly divided into three periods: the Spanish or Mission period (1769–1822), the Mexican or Rancho period (1822–1848), and the American period (1848–present). These periods are described below, beginning with the earliest.

3.4.1 Spanish Period (1769-1822)

The earliest historic exploration of California was conducted by Juan Rodriguez Cabrillo in 1542, when contact was made with the Gabrielino on Santa Catalina Island. Contacts were amicable, and the Spanish were again received with hospitality during a return visit in 1602 by Sebastian Vizcaino (Bean and Smith 1978). While exploration of California continued throughout the 1700s, Spanish occupation and development of the region did not occur until over two centuries later, when Spain made the decision to colonize Alta California in an effort to prevent foreign invasion (Hoover et al. 2002). A series of 21 missions would eventually be established between San Diego and San Francisco, and they evolved into extensive operations containing churches, quarters for Indian laborers and soldiers, and a padre's residence. No missions were located in the vicinity of the Project area, the closest mission was located in present day San Diego. Spanish colonization was destructive to native populations of southern California. Besides infectious diseases, which severely decreased population rates of groups such as the Kumeyaay, the incorporation of young and healthy individuals into the Mission system had an undeniable impact on the cultural systems of native populations.

3.4.2 Mexican Period (1822-1848)

The Republic of Mexico was established in 1822, and Mexican rule brought significant changes from that of Spain. The missions were viewed as major economic forces by the Mexican government due to their vast landholdings. In 1834, the secularization of missions began and the mission properties were taken over by the state and sold to the highest bidders. Tracts of land, called *ranchos*, up to 1,000 acres in size were granted to citizens. These ranchos mark the first attempts to make specific identifications of land, and approximately 500 land grants were made during Mexican rule (Hoover et al. 2002). These land grants helped begin the proliferation of ranching throughout the region, as property owners often used their vast tracts of land for grazing cattle and sheep. No large tracts of land or ranchos were located near the Project area, as the eastern California deserts were still largely unoccupied.

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3.4.3 AMERICAN PERIOD (1848-PRESENT)

The United States took possession of California after the signing of the Treaty of Guadalupe Hidalgo in 1848. The Land Act of 1851 established a Board of Land Commissioners to review land ownership and grants. While the 1848 treaty had bound the United States to honor the legitimate land claims of Mexican citizens, many of the original rancho owners eventually lost their land to the new government and rejected land claims reverted the property back to public domain. Americans had begun trickling into California after Jedediah Smith became the first American to lead an overland party into Spanish California during the Mexican Period. After the initial discovery of gold in Northern California in 1849, the rush west began in full swing and population increased as Americans began venturing west.

3.4.4 PROJECT AREA HISTORY

3.4.4.1 Imperial Valley

In 1781, gold in the Cargo Muchacho Mountains attracted settlers and miners into the area. Tumco became a well-known mining area by the 1900s and had a population of 2,000. The town's name is an acronym for The United Mining Company, now a ghost town with a few structures still standing. The value of gold resurged interest in the Tumco district and other parts of the Cargo Muchacho Mountains in the 1980s.

Besides mining for gold, the area became a destination to irrigate the desert. In 1859, Dr. O.M. Wozencraft was granted 1,600 square miles to irrigate a canal from the Colorado River to supply water for the agricultural farmlands and the settlers moving into the valley. By 1892, Mr. C.R. Rockwood was hired to irrigate the Sonoran Desert using water from the Colorado River, but took interest in Wozencraft's pending project in the Colorado Desert. Financing the project was slow, leading Rockwood to hire a successful Australian engineer, George Chaffey. Chaffey began dredging multiple areas in August of 1900. By 1905, 80 miles of main canals and 700 miles of distribution canals stretched over 67,000 irrigated acres (California Department of Fish and Wildlife [CDFW] 2019). The Southern Pacific Railway extended a rail line into the valley eventually connecting Niland to Imperial and then to Calexico. By 1919, a rail line connected El Centro to San Diego.

In 1907, Imperial County was formed to separate itself from San Diego County. The area has become one of the world's most productive agricultural regions producing year-round crops due to the warm climate and abundance of irrigated farmland. A few of the crops grown during winter months include lettuce, broccoli, and cauliflower.

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4.0 METHODS

4.1 Records Search

A cultural resources records search was conducted by staff at the California Historical Resources Information System (CHRIS), South Coastal Information Center (SCIC) at San Diego State University on August 30, 2019. The records search identified all previously recorded cultural resources and cultural resource studies within the records search extent, which is defined as a ¼-mile radius around the API. The records search included a review of the NRHP, the CRHR, the California Points of Historical Interest list (CPHI), the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all historic USGS 7.5- and 15-minute quadrangle maps.

4.2 Caltrans Historic Bridge Inventory

EI reviewed the California Department of Transportation (Caltrans) Historic Bridge Inventory for Local Agency Bridges to determine the potential historical significance of the Lack Road Bridge.

4.3 Field Survey

EI archaeologist Amber Lopez-Johnson (M.A.) conducted an intensive pedestrian survey of the API on September 26, 2019. The API was surveyed using transects spaced no greater than 15 meters apart. The archaeologist examined exposed ground surface for artifacts (e.g., flaked stone tools, tool-making debris, milling tools, ceramics, ecofacts [e.g., marine shell and bone], soil discoloration that might indicate the presence of a cultural midden, and features indicative of the former presence of structures or buildings [e.g., standing exterior walls, postholes, foundations] or historic debris [e.g., metal, glass, ceramics]). Ground disturbances such as burrows were visually inspected. EI used EOS Arrow GNSS 100 Series GPS units with sub-meter accuracy and ArcGIS Collector Software to confirm all API footprints and record any geospatial data for newly or previously recorded resources. All new and previously recorded resources within the API were documented, photographed, and recorded on California Department of Parks and Recreation (DPR) 523 forms.

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5.0 RESULTS

5.1 Records Search Results

No previous cultural resource studies have been conducted within the API or within a ¼-mile radius. Additionally, no cultural resources have been previously recorded within the records search extent.

5.2 Caltrans Historic Bridge Inventory Results

A review of the Caltrans Historic Bridge Inventory for Local Agency Bridges lists the Lack Road Bridge as bridge number 58C0101 - New River (Lack Rd). It was constructed in 1940 and its location is listed as 4.2MI N/O SR-86. The bridge's historical significance is listed as a Category 5 (Bridge not eligible for NRHP).

5.3 Field Survey Results

All portions of the API were accessible during the pedestrian survey (Exhibits 3-4). The API is located among agricultural fields and is bisected by the New River. Surface visibility was excellent (>90%), with most of the staging areas and graded driveways devoid of vegetation, though the soils were very wet and muddy from recent rains. Lack Road and the existing bridge are paved so no natural ground surface was visible at these locations.

No cultural material was identified within the API during the pedestrian survey. The API is located within an area that has been previously disturbed by agricultural activities, that are ongoing. Based on the agricultural activities within the API, the potential for encountering subsurface cultural deposits within the API is considered low.



EXHIBIT 3: OVERVIEW OF API/STAGING AREA, VIEW NORTHWEST.

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EXHIBIT 4: OVERVIEW OF EXISTING BRIDGE, VIEW SOUTH.

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6.0 SUMMARY AND MANAGEMENT RECOMMENDATIONS

As a result of the current survey, no cultural resources were identified within the API for the proposed Project. As the Project is subject to compliance with CEQA, the County will be required to conduct Native American consultation pursuant to AB 52. With the expectation of AB52 consultation by the County, no further work for cultural resources is recommended, unless the scope changes to include areas not reviewed as part of this study. In the event that cultural resources are discovered during ground-disturbing activities for the proposed Project, work must be halted until the resource can be evaluated by a qualified archaeologist. Further, should human remains be encountered, all work in the immediate vicinity must cease and the County Coroner must be immediately notified.

EEC ORIGINAL PKG

7.0 REFERENCES

Bean, L.J.

1978 Cahuilla. In *Handbook of North American Indians*, Vol. 8: California, edited by R.F. Heizer, pp. 575-588. Smithsonian Institution, Washington, D.C.

Bean, L.J., and C.R. Smith

1978 Gabrielino. In *Handbook of North American Indians*, Vol. 8: California, edited by R.F. Heizer, pp. 538-549. Smithsonian Institution, Washington, D.C.

Bee, R.L.

1983 Quechan. In *Handbook of North American Indians*, Vol. 10: Southwest, edited by Alfonso Ortiz, pp. 86-98. Smithsonian Institution, Washington, D.C.

Bettinger, R.L., and R.E. Taylor

1974 Suggested Revisions in Archaeological Sequences of the Great Basin in Interior Southern California. *Nevada Archaeological Survey Research Papers* 5:1-26. Reno, Nevada.

California Department of Fish and Game (CDFW)

2019 A History of the Imperial Valley…Part I. Electronic document, accessed online at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=8630. Accessed on July 23, 2019.

Davis, C.A., and G.A. Smith

1981 *Newberry Cave*. San Bernardino County Museum Association, Redlands, California.

Glassow, M.A., Gamble, L.H., Perry, J.E., Russell, G.S. and Klar, K.A.,

2007 Prehistory of the Northern California Bight and the Adjacent Transverse Ranges. In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 215-228. Altamira Press, New York.

Hoover, M.B., H.E. Rensch, E.G. Rensch, and W.N. Abeloe

2002 *Historic Spots in California*. Stanford University Press, Stanford, CA.

King, N.

2017 *Treasures from the Basement: Kumeyaay/Tipai Pottery*. Electronic document, accessed online at https://www.pgmuseum.org/blog/2017/8/18/treasures-from-the-basement-kumeyaaytipai-pottery. Accessed on July 23, 2019.

Moratto, M.J.

1984 *California Archaeology*. Academic Press, New York.

Norris, R.M., and R.W. Webb

1990 *Geology of California* (2nd ed.). New York: John Wiley & Sons, Inc.

Pico, R.

EEC ORIGINAL PKG

2019 *The Kumeyaay Millenium*. Electronic document, accessed online at http://www.kumeyaay.com/the-kumeyaay-millenium.html. Accessed July 22, 2019.

Schoenherr, A.A.

1992 *A Natural History of California*. University of California Press, Los Angeles, California.

Schaefer, J., and D. Laylander

2007 The Colorado Desert: Ancient adaptations to wetlands and wastelands. In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 247-257. Altamira Press, New York.

Spaulding, W.G.

1991 A Middle Holocene Vegetation Record from the Mojave Desert and its Paleoclimatic Significance. *Quaternary Research* 35:427-437.

Sutton, M.Q., M.E. Basgall, J.K. Gardner, and M.W. Allen

2007 Advances in Understanding Mojave Desert Prehistory. In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 229-246. Altamira Press, New York.

Wallace, W. J.

1962 Prehistoric Cultural Developments in the Southern California Deserts. *American Antiquity* 28(2):172-180.

Warren, C.N.

1984 The Desert Region. In *California Archaeology*, edited by Michael J. Moratto, pp. 338-430. Academic Press, New York.

1990 *Archaeological Investigations at Nelson Wash, Fort Irwin, California*. Fort Irwin Archaeological Project Research Report Number 23, Volumes I and II Interagency Archaeological Services, National Park Service Western Region. San Francisco, California.

Warren, C.N., and R.H. Crabtree

1986 Prehistory of the Southwestern Area. In *Handbook of North American Indians*, Vol. 8, California, edited by R. F. Heizer, pp. 183-193. Smithsonian Institution, Washington, D.C.

West, J.G., W. Woolfenden, J.A. Wanket, and R.S. Anderson

2007 Late Pleistocene and Holocene Environments. In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 11-34, Altamira Press, New York.

Wilken, M.A.

EEC ORIGINAL PKG

2012 An ethnobotany of Baja California's Kumeyaay Indians. Diss. Arts and Letters, 2012.

Willig, J.A.

1988 Paleo-Archaic adaptations and lakeside settlement patterns in the Northern Alkali Basin. *Early Human Occupation in Far Western North America: The Clovis-Archaic Interface*, 417-482.

EEC ORIGINAL PKG