

Notice of Determination

Irvine Ranch Water District

To:

- Office of Planning and Research
 U.S. Mail: Street Address:
P.O. Box 3044 1400 Tenth St., Rm 113
Sacramento, CA 95812-3044 Sacramento, CA 95814
- County Clerk
 County of: Orange
 Address: 601 N. Ross St.
Santa Ana, CA 92701

From:

Public Agency: Irvine Ranch Water District
 Address: 15600 Sand Canyon Avenue
Irvine, California 92618
 Contact: Andy Uk, Env. Compliance Analyst
 Phone: (949) 453-5326

Lead Agency (if different from above):
Department of Transportation
 Address: 1750 East Fourth St., #100
Santa Ana, CA 92705
 Contact: Bahar Heydari, Assoc. Env. Planner
 Phone: (657) 328 - 6155

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2018061026

Project Title: State Route (SR-) 133 Roadway and Safety Improvement Project

Project Applicant: Irvine Ranch Water District

Project Location (include county): The project is located on SR-133 from the SR 133/EI Toro Road intersection to the SR-133/SR-73 interchange northwest of Laguna Beach, in Orange County, California

Project Description:

Caltrans proposes operational improvements project on State Route 133 (SR-133) from 0.2 miles north of 133/405 separation (PM 8.3) to Irvine Center Drive Overcrossing (PM M9.3) City of Irvine, Orange County. The project proposes to construct new auxiliary lane on (SB) SR-133 from NB 1-405 connector to SB 1-5 connector. This new aux lane will become 2nd lane on NB 1-405 Connector.

As a result of Caltrans' proposed project activities, IRWD will construct and operate a temporary sewer bypass system during Caltrans' construction of the foundation of its widened bridge. IRWD will also construct sewer line repairs or sewer replacement should the existing 36-inch sewer be damaged by Caltrans' construction activities.

This is to advise that IRWD, acting as a responsible agency approved the above-described project on December 11, 2023 and made the following determinations regarding the above described project:

1. The project will not have a significant effect on the environment.
2. A mitigated negative declaration was prepared by the lead agency for the original project.
3. Additional mitigation measures were not made as a condition of IRWD's approval of the project.
4. A mitigation reporting or monitoring plan was not adopted by IRWD for this project.
5. A Statement of Overriding Considerations was not adopted by IRWD for this project.
6. Findings were made by IRWD pursuant to Public Resources Code § 21081(a). IRWD did, however, adopt findings to document its compliance with CEQA.

7. Compliance with the environmental filing fee requirement at Fish and Game Code § 711.4 (check one):

- Payment is submitted with this notice.
- A copy of a receipt showing prior payment was submitted to CDFW.

Responsible Agency statement: The Mitigated Negative Declaration prepared by the lead agency for the project is available to the public at the office location listed above for the lead agency.

POSTED
 DEC 12 2023
 BY: HUGH NGUYEN, CLERK-RECORDER DEPUTY

FILED

DEC 12 2023
 HUGH NGUYEN, CLERK-RECORDER
 BY: [Signature] DEPUTY

This is to certify that IRWD's administrative record of proceedings related to the Mitigated Negative Declaration with comments and responses and record of project approval is available to the General Public at:

15600 Sand Canyon Avenue, Irvine, California 92618

Signature (Public Agency):  Title: Environmental Compliance Analyst

Date: December 12, 2023

Date Received for filing at OPR: _____

POSTED

DEC 12 2023

HUGH NGUYEN, CLERK-RECORDER

BY:  DEPUTY

FILED

DEC 12 2023

HUGH NGUYEN, CLERK-RECORDER

BY:  DEPUTY

Notice of Determination

Appendix D

To:
Office of Planning and Research
U.S. Mail: P.O. Box 3044 Sacramento, CA 95812-3044
Street Address: 1400 Tenth St., Rm 113 Sacramento, CA 95814
County Clerk
County of: Orange
Address: 211 W. Santa Ana Blvd Santa Ana, CA 92701

From:
Public Agency: Caltrans District 12
Address: 1750 E. Fourth St. Suite #100 Santa Ana, CA 92705
Contact: Bahar Heydari
Phone: 657-328-6155

Lead Agency (if different from above):
Address:
Contact:
Phone:
FILED DEC 14 2023 HUGH NGUYEN, CLERK-RECORDER DEPUTY

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2020010158

POSTED

Project Title: State Route 133 Operational Improvements

Project Applicant: Caltrans District 12

DEC 12 2023

Project Location (include county): City of Irvine, Orange County

HUGH NGUYEN, CLERK-RECORDER

Project Description:

BY: DEPUTY

Caltrans proposes operational improvements project on State Route 133 (SR-133) from 0.2 miles north of 133/405 separation (PM 8.3) to Irvine Center Drive Overcrossing (PM M9.3) City of Irvine, Orange County. The project proposes to construct new auxiliary lane on (SB) SR-133 from NB I-405 connector to SB I-5 connector. This new aux lane will become 2nd lane on NB I-405 Connector.

This is to advise that the Caltrans D12 has approved the above (Lead Agency or Responsible Agency)

described project on 3/24/2020 and has made the following determinations regarding the above described project.

- 1. The project [] will [X] will not have a significant effect on the environment.
2. [] An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA. [X] A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [X] were [] were not made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [] was [X] was not adopted for this project.
5. A statement of Overriding Considerations [] was [X] was not adopted for this project.
6. Findings [X] were [] were not made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at: 1750 E 4th Street, Santa Ana, CA 92705

Signature (Public Agency): Smita Deshpande Title: Senior Environmental Planner

Date: 3/26/20 Date Received for filing at ORP Governor's Office of Planning & Research

Authority cited: Sections 21083, Public Resources Code. Reference Section 21000-21174, Public Resources Code.

MAR 27 2020 STATE CLEARINGHOUSE Revised 2011



State of California - Department of Fish and Wildlife
2020 ENVIRONMENTAL FILING FEE CASH RECEIPT
 DFW 753.5a (REV. 12/01/19) Previously DFG 753.5a

#143413



RECEIPT NUMBER:
 59 — 3/27/2020 — 036

STATE CLEARINGHOUSE NUMBER (If applicable)
 2020010158

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

LEAD AGENCY Caltrans, District 12 - Orange (California Department of Transportation, District 12)	LEAD AGENCY EMAIL	DATE 3/27/2020
COUNTY/STATE AGENCY OF FILING OPR/SCH	DOCUMENT NUMBER	

PROJECT TITLE
 State Route 133 Operational Improvements Project

PROJECT APPLICANT NAME Bahar Heydari	PROJECT APPLICANT EMAIL	PHONE NUMBER (657) 328-6155
PROJECT APPLICANT ADDRESS 1750 E. Fourth St. Suite #100	CITY Santa Ana	STATE CA
		ZIP CODE 92705

PROJECT APPLICANT (Check appropriate box)

Local Public Agency
 School District
 Other Special District
 State Agency
 Private Entity

CHECK APPLICABLE FEES:

- Environmental Impact Report (EIR) \$3,343.25 \$ 0.00
- Mitigated/Negative Declaration (MND)(ND) \$2,406.75 \$ 2,406.75
- Certified Regulatory Program (CRP) document - payment due directly to CDFW \$1,136.50 \$ 0.00
- Exempt from fee
 - Notice of Exemption (attach)
 - CDFW No Effect Determination (attach)
- Fee previously paid (attach previously issued cash receipt copy)
- Water Right Application or Petition Fee (State Water Resources Control Board only) \$850.00 \$ 0.00
- County documentary handling fee \$
- Other \$

PAYMENT METHOD:

Cash
 Credit
 Check
 Other

TOTAL RECEIVED \$ 2,406.75

SIGNATURE x Justin Le Digitally signed by Justin Le Date: 2020.03.27 10:11:46 -07'00'	AGENCY OF FILING PRINTED NAME AND TITLE J. Le, State Clearinghouse
--	---

FILED

DEC 12 2023
 HUGH NGUYEN, CLERK-RECORDER

BY: DEPUTY

POSTED

DEC 12 2023
 HUGH NGUYEN, CLERK-RECORDER

BY: DEPUTY



State of California - Department of Fish and Wildlife
2020 ENVIRONMENTAL FILING FEE CASH RECEIPT
 DFW 753.5a (REV. 12/01/19) Previously DFG 753.5a

FILED

DEC 12 2023

HUGH NGUYEN, CLERK-RECORDER

BY: _____ DEPUTY

NOTICE

POSTED

DEC 12 2023

HUGH NGUYEN, CLERK-RECORDER

BY: _____ DEPUTY

Each project applicant shall remit to the county clerk the environmental filing fee before or at the time of filing a Notice of Determination (Pub. Resources Code, § 21152; Fish & G. Code, § 711.4, subdivision (d); Cal. Code Regs., tit. 14, § 753.5). Without the appropriate fee, statutory or categorical exemption, or a valid No Effect Determination issued by the California Department of Fish and Wildlife (CDFW), the Notice of Determination is not operative, vested, or final, and shall not be accepted by the county clerk.

COUNTY DOCUMENTARY HANDLING FEE

The county clerk may charge a documentary handling fee of fifty dollars (\$50) per filing in addition to the environmental filing fee (Fish & G. Code, § 711.4, subd. (e); Cal. Code Regs., tit. 14, § 753.5, subd. (g)(1)). A county board of supervisors shall have the authority to increase or decrease the fee or charge, that is otherwise authorized to be levied by another provision of law, in the amount reasonably necessary to recover the cost of providing any product or service or the cost of enforcing any regulation for which the fee or charge is levied (Gov. Code, § 54985, subd. (a)).

COLLECTION PROCEDURES FOR COUNTY GOVERNMENTS

Filing Notice of Determination (NOD):

- Collect environmental filing fee or copy of previously issued cash receipt. *(Do not collect fee if project applicant presents a No Effect Determination signed by CDFW. An additional fee is required for each separate environmental document. An addendum is not considered a separate environmental document. Checks should be made payable to the county.)*
- Issue cash receipt to project applicant.
- Attach copy of cash receipt and, if applicable, previously issued cash receipt, to NOD.
- Mail filing fees for CRP document to CDFW prior to filing the NOD or equivalent final approval (Cal. Code Regs. Tit. 14, § 753.5 (b)(5)). The CRP should request receipt from CDFW to show proof of payment for filing the NOD or equivalent approval. Please mail payment to address below made attention to the Cash Receipts Unit of the Accounting Services Branch.

If the project applicant presents a No Effect Determination signed by CDFW, also:

- Attach No Effect Determination to NOD *(no environmental filing fee is due)*.

Filing Notice of Exemption (NOE) (Statutorily or categorically exempt project (Cal. Code Regs., tit. 14, §§ 15260-15285, 15300-15333))

- Issue cash receipt to project applicant.
- Attach copy of cash receipt to NOE *(no environmental filing fee is due)*.

Within 30 days after the end of each month in which the environmental filing fees are collected, each county shall summarize and record the amount collected on the monthly State of California Form No. CA25 (TC31) and remit the amount collected to the State Treasurer. Identify the remittance on Form No. CA25 as "Environmental Document Filing Fees" per Fish and Game Code section 711.4.

The county clerk shall mail the following documents to CDFW on a monthly basis:

- ✓ A photocopy of the monthly State of California Form No. CA25 (TC31)
- ✓ CDFW/ASB copies of all cash receipts (including all voided receipts)
- ✓ A copy of all CDFW No Effect Determinations filed in lieu of fee payment
- ✓ A copy of all NODs filed with the county during the preceding month
- ✓ A list of the name, address and telephone number of all project applicants for which an NOD has been filed. If this information is contained on the cash receipt filed with CDFW under California Code of Regulations, title 14, section 753.5, subdivision (e)(6), no additional information is required.

DOCUMENT RETENTION

The county shall retain two copies of the cash receipt (for lead agency and county clerk) and a copy of all documents described above for at least 12 months.

RECEIPT NUMBER

- # The first two digits automatically populate by making the appropriate selection in the County/State Agency of Filing drop down menu.
- # The next eight digits automatically populate when a date is entered.
- # The last three digits correspond with the sequential order of issuance for each calendar year. For example, the first receipt number issued on January 1 should end in 001. If a county issued 252 receipts for the year ending on December 31, the last receipt number should end in 252. CDFW recommends that counties and state agencies 1) save a local copy of this form, and 2) track receipt numbers on a spreadsheet tabbed by month to ensure accuracy.

DO NOT COMBINE THE ENVIRONMENTAL FEES WITH THE STATE SHARE OF FISH AND WILDLIFE FEES.

Mail to:

California Department of Fish and Wildlife
 Accounting Services Branch
 P.O. Box 944209
 Sacramento, California 94244-2090

LSA

POSTED

CARLSBAD
 FRESNO
 IRVINE
 LOS ANGELES
 PALM SPRINGS
 POINT RICHMOND
 RIVERSIDE
 ROSEVILLE
 SAN LUIS OBISPO

DEC 12 2023
 HUGH NGUYEN, CLERK-RECORDER
 BY: _____ DEPUTY

TRANSMITTAL

To: Kate Gordon
 Director
 State Clearinghouse
 1400 Tenth Street
 Sacramento, CA 95814

DATE: March 26, 2020

- FOR YOUR REVIEW FOR YOUR FILES
 AT YOUR REQUEST FOR YOUR INFORMATION
 FOR YOUR APPROVAL DISTRIBUTION

SUBJECT: Notice of Determination (NOD), Notice of Completion (NOC), and Summary Form

PROJECT: SR-133 Operational Improvements
 PROJECT NUMBER: CDT1609.62

FILED

ITEMS BELOW ARE TRANSMITTED:

- HEREWITH
 UNDER SEPARATE COVER
 VIA: FEDEX OVERNIGHT DELIVERY

DEC 12 2023
 HUGH NGUYEN, CLERK-RECORDER
 BY: _____ DEPUTY

DATE	COPIES	DESCRIPTION
March 2020	1	NOD
March 2020	1	CDFW Filing Fee for a MND (\$2,406.75)
March 2020	1	NOC
March 2020	1	1 Summary Form
March 2020	15	CDs containing NOD, NOC, and Summary Form

GENERAL REMARKS:

On behalf of the California Department of Transportation, District 12, LSA is transmitting 1 hard copy of the Notice of Determination (NOD) with the California Department of Fish & Wildlife filing fee for a MND (\$2,406.75), 1 hard copy of the Notice of Completion (NOC), 1 hard copy of the Summary Form, and 15 CDs containing the aforementioned items for the above referenced project. Caltrans District 12 approved the project on March 25, 2020.

LSA requests an electronic version of the stamped copy of the NOD for proof of receipt along with an electronic version of the filing fee receipt. The proof of receipt for CDFW fees must be filed with the County Clerk within 5 business days of project approval (March 25, 2020). Please send the electronic copy to Elise Miller at Elise.Miller@lsa.net as soon as possible. Please contact Elise Miller ((949) 553-0666 ext. 7277, or by email) with any questions.

COPIES TO: Project File (LSA)

BY: Elise Miller

Governor's Office of Planning & Research

MAR 27 2020

Summary Form for Electronic Document Submittal

Form F

Lead agencies may include 15 hardcopies of this document when submitting electronic copies of Environmental Impact Reports, Negative Declarations, Mitigated Negative Declarations, or Notices of Preparation to the State Clearinghouse (SCH). The SCH also accepts other summaries, such as EIR Executive Summaries prepared pursuant to CEQA Guidelines Section 15123. Please include one copy of the Notice of Completion Form (NOC) with your submission and attach the summary to each electronic copy of the document.

SCH #: 2020010158

Project Title: State Route 133 Operational Improvements Project

Lead Agency: Caltrans District 12

Contact Name: Bahar Heydari, Associate Environmental Planner, Caltrans District 12, Division of Environmental Analysis

Email: Bahar.Heydari@dot.ca.gov Phone Number: 657-328-6155

Project Location: Irvine, Orange County
City County

Project Description (Proposed actions, location, and/or consequences).

The California Department of Transportation (Caltrans) proposes an operational improvements project on State Route 133 (SR-133) from 0.2 miles north of Route 133/405 separation (PM 8.3) to Irvine Center Drive Overcrossing (PM M9.3) in the City of Irvine, in the County of Orange. The project proposes to construct new auxiliary lane on southbound (SB) SR-133 from NB I-405 connector to SB I-5 connector. This new aux lane will become the 2nd lane on NB I-405 Connector. The number 3 lane on SB SR-133 will be extended approximately 300 feet south of San Diego Creek to match existing roadway pavement.

Identify the project's significant or potentially significant effects and briefly describe any proposed mitigation measures that would reduce or avoid that effect.

Under CEQA Checklist Section 2.7 Geology and Soils, there may be a potential to significantly impact a paleontological resource due to excavation depths. Impacts to paleontological resources would be mitigated to a level less than significant with mitigation measure PAL-1 to prepare, implement, and adhere to a Paleontological Mitigation Plan. The project area contains younger Quaternary Alluvium in less elevated terrain, marine early Miocene Vaqueros Formation in more elevated terrain, and majority of project area contains Young Alluvial Fan Deposits below a depth of 10 ft and the Vaqueros Formation.

FILED

DEC 12 2023

HUGH NGUYEN, CLERK-RECORDER

BY: [Signature] DEPUTY

POSTED

DEC 12 2023

HUGH NGUYEN, CLERK-RECORDER

BY: [Signature] DEPUTY

Governor's Office of Planning & Research

MAR 27 2020

STATE CLEARINGHOUSE

If applicable, describe any of the project's areas of controversy known to the Lead Agency, including issues raised by agencies and the public.

No areas of controversy related to the proposed project are known to the Lead Agency.

Provide a list of the responsible or trustee agencies for the project.

California Transportation Commission

FILED

DEC 12 2023

HUGH NGUYEN, CLERK-RECORDER

BY: _____ DEPUTY

POSTED

DEC 12 2023

HUGH NGUYEN, CLERK-RECORDER

BY: _____ DEPUTY

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2020010158

POSTED
DEC 12 2023
HUGH NGUYEN, CLERK-RECORDER
BY: [Signature]
DEPUTY

Project Title: State Route 133 Operational Improvements Project

Lead Agency: Caltrans District 12

Contact Person: Bahar Heydari

Mailing Address: 1750 East Fourth St Suite 100

Phone: (657) 328-6155

City: Santa Ana

Zip: 92705

County: Orange

Project Location: County: Orange City/Nearest Community: Irvine

Cross Streets: Route 133/405 Grade Separation & Irvine Center Drive Overcrossing

Zip Code: 92618

Longitude/Latitude (degrees, minutes and seconds): 33 ° 39 ' 15.5 " N / 117 ° 45 ' 34.2 " W **Total Acres:** More than 1 acre

Assessor's Parcel No.: Section: Twp.: Range: Base:

Within 2 Miles: State Hwy #: SR-133, I-405, I-5 **Waterways:** San Diego Creek

Airports: John Wayne **Railways:** Irvine Park Railroad, Metrolink, Amtrak **Schools:** Multiple (3)

Document Type:

- CEQA: NOP Draft EIR NEPA: NOI Other: Joint Document
- Early Cons Supplement/Subsequent EIR EA Final Document
- Neg Dec (Prior SCH No.) Draft EIS Other: Categorical Exclusion
- Mit Neg Dec Other:

Local Action Type:

- General Plan Update Specific Plan Rezone Annexation
- General Plan Amendment Master Plan Prezone Redevelopment
- General Plan Element Planned Unit Development Use Permit Coastal Permit
- Community Plan Site Plan Land Division (Subdivision, etc.) Other:

MAR 27 2020

STATE CLEARINGHOUSE

Development Type:

- Residential: Units _____ Acres _____
- Office: Sq.ft. _____ Acres _____ Employees _____
- Commercial: Sq.ft. _____ Acres _____ Employees _____
- Industrial: Sq.ft. _____ Acres _____ Employees _____
- Educational: _____
- Recreational: _____
- Water Facilities: Type _____ MGD _____
- Transportation: Type Operational Improvement
- Mining: Mineral _____
- Power: Type _____ MW
- Waste Treatment: Type _____ MGD
- Hazardous Waste: Type _____
- Other: _____

FILED

DEC 12 2023

HUGH NGUYEN, CLERK-RECORDER
BY: [Signature]
DEPUTY

Project Issues Discussed in Document:

- Aesthetic/Visual Fiscal Recreation/Parks Vegetation
- Agricultural Land Flood Plain/Flooding Schools/Universities Water Quality
- Air Quality Forest Land/Fire Hazard Septic Systems Water Supply/Groundwater
- Archeological/Historical Geologic/Seismic Sewer Capacity Wetland/Riparian
- Biological Resources Minerals Soil Erosion/Compaction/Grading Growth Inducement
- Coastal Zone Noise Solid Waste Land Use
- Drainage/Absorption Population/Housing Balance Toxic/Hazardous Cumulative Effects
- Economic/Jobs Public Services/Facilities Traffic/Circulation Other: Climate Change

Present Land Use/Zoning/General Plan Designation:

Transportation, and Mixed Commercial and Industrial

Project Description: (please use a separate page if necessary)

The California Department of Transportation (Caltrans) proposes an operational improvements project on State Route 133 (SR-133) from 0.2 miles north of Route 133/405 separation (PM 8.3) to Irvine Center Drive Overcrossing (PM M9.3) in the City of Irvine, in the County of Orange. The project proposes to construct new auxiliary lane on southbound (SB) SR-133 from NB I-405 connector to SB I-5 connector. This new aux lane will become the 2nd lane on NB I-405 Connector. The number 3 lane on SB SR-133 will be extended approximately 300 feet south of San Diego Creek to match existing roadway pavement.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X".
If you have already sent your document to the agency please denote that with an "S".

- | | |
|---|--|
| <input checked="" type="checkbox"/> Air Resources Board | <input checked="" type="checkbox"/> Office of Historic Preservation |
| <input type="checkbox"/> Boating & Waterways, Department of | <input type="checkbox"/> Office of Public School Construction |
| <input type="checkbox"/> California Emergency Management Agency | <input type="checkbox"/> Parks & Recreation, Department of |
| <input checked="" type="checkbox"/> California Highway Patrol | <input type="checkbox"/> Pesticide Regulation, Department of |
| <input checked="" type="checkbox"/> Caltrans District # <u>12</u> | <input type="checkbox"/> Public Utilities Commission |
| <input type="checkbox"/> Caltrans Division of Aeronautics | <input checked="" type="checkbox"/> Regional WQCB # <u>9</u> |
| <input checked="" type="checkbox"/> Caltrans Planning | <input type="checkbox"/> Resources Agency |
| <input type="checkbox"/> Central Valley Flood Protection Board | <input type="checkbox"/> Resources Recycling and Recovery, Department of |
| <input type="checkbox"/> Coachella Valley Mtns. Conservancy | <input type="checkbox"/> S.F. Bay Conservation & Development Comm. |
| <input type="checkbox"/> Coastal Commission | <input type="checkbox"/> San Gabriel & Lower L.A. Rivers & Mtns. Conservancy |
| <input type="checkbox"/> Colorado River Board | <input type="checkbox"/> San Joaquin River Conservancy |
| <input type="checkbox"/> Conservation, Department of | <input type="checkbox"/> Santa Monica Mtns. Conservancy |
| <input type="checkbox"/> Corrections, Department of | <input type="checkbox"/> State Lands Commission |
| <input type="checkbox"/> Delta Protection Commission | <input type="checkbox"/> SWRCB: Clean Water Grants |
| <input type="checkbox"/> Education, Department of | <input checked="" type="checkbox"/> SWRCB: Water Quality |
| <input type="checkbox"/> Energy Commission | <input type="checkbox"/> SWRCB: Water Rights |
| <input checked="" type="checkbox"/> Fish & Game Region # <u>5</u> | <input type="checkbox"/> Tahoe Regional Planning Agency |
| <input type="checkbox"/> Food & Agriculture, Department of | <input type="checkbox"/> Toxic Substances Control, Department of |
| <input type="checkbox"/> Forestry and Fire Protection, Department of | <input type="checkbox"/> Water Resources, Department of |
| <input type="checkbox"/> General Services, Department of | |
| <input type="checkbox"/> Health Services, Department of | <input checked="" type="checkbox"/> Other: <u>California Transportation Commission</u> |
| <input type="checkbox"/> Housing & Community Development | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Native American Heritage Commission | |

Local Public Review Period (to be filled in by lead agency)

Starting Date January 13th, 2020 Ending Date February 11th, 2020

Lead Agency (Complete if applicable):

Consulting Firm: <u>LSA Associates, Inc.</u>	Applicant: <u>Bahar Heydari, Caltrans, District 12</u>
Address: <u>20 Executive Park</u>	Address: <u>1750 E 4th Street, St #100</u>
City/State/Zip: <u>Irvine, CA 92614</u>	City/State/Zip: <u>Santa Ana, CA 92705</u>
Contact: <u>King Thomas</u>	Phone: <u>657-328-6155</u>
Phone: <u>949-553-0666</u>	

Signature of Lead Agency Representative: Smita Deshpande Digitally signed by Smita Deshpande
Date: 2020.03.23 02:17:50 -0700 Date: 3/24/20

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

FILED

DEC 12 2023

HUGH NGUYEN, CLERK-RECORDER

BY: [Signature] SCPL/13

POSTED

DEC 12 2023

HUGH NGUYEN, CLERK-RECORDER

BY: [Signature] SCPL/13

Notice of Determination

To:
 Office of Planning and Research
For U.S. Mail:
P.O. Box 3044
Sacramento, CA 95812-3044

Street Address:
1400 Tenth Street
Sacramento, CA 95814

From:
Department of Fish and Wildlife (CDFW)
South Coast Region (R5)
3883 Ruffin Road, San Diego CA 92123
Contact: Simona Altman
Phone: (858) 467-4250

Lead Agency
Department of Transportation
1750 East Fourth St., #100
Santa Ana, CA 92705
Contact: Kedest Ketsela
Phone: (657) 328-6134

POSTED
DEC 12 2023
HUGH NGUYEN, CLERK-RECORDER
DEPUTY

SUBJECT: Filing of Notice of Determination pursuant to Public Resources Code § 21108
State Clearinghouse Number: 2018061026

Project Title: State Route (SR-) 133 Roadway and Safety Improvement Project

Project Location (include county): The project is located on SR-133 from the SR 133/El Toro Road intersection to the SR-133/SR-73 interchange northwest of Laguna Beach, in Orange County, California.

Project Description: This proposed project involves constructing a check dam in the SR-73 off-ramp loop, realigning Laguna Canyon Creek including lining a portion of the creek with articulated concrete blocks, widening the highway and adding bike lanes, and undergrounding the utilities.

The Project will result in impacts including temporary impacts to 0.03 acre of streambed and riparian habitat and 0.11 acre of permanent impacts to streambed and riparian habitat.

This is to advise that CDFW, acting as the lead agency / a responsible agency] approved the above-described project on June 11, 2020 and made the following determinations regarding the above described project:

1. The project will / will not have a significant effect on the environment (This determination is limited to effects within CDFW's permitting jurisdiction as a responsible agency).
 2. An environmental impact report / A mitigated negative declaration was prepared by the lead agency for the original project.
 3. Additional mitigation measures were / were not] made a condition of CDFW's approval of the project.
 4. A mitigation reporting or monitoring plan was / was not] adopted by CDFW for this project.
 5. A Statement of Overriding Considerations was / was not] adopted by CDFW for this project.
 6. Findings were / were not] made by CDFW pursuant to Public Resources Code § 21081(a). CDFW did, however, adopt findings to document its compliance with CEQA.
 7. Compliance with the environmental filing fee requirement at Fish and Game Code § 711.4 (check one):
 - Payment is submitted with this notice.
 - A copy of a receipt showing prior payment was submitted to CDFW.
- Responsible Agency statement: The Mitigated Negative Declaration prepared by the lead agency for the Project is available to the general public at the office location listed above for the lead agency. CDFW's administrative record of proceedings related to the streambed alteration agreement is available to the public for review at CDFW's regional office.

DocuSigned by:
David Mayer
070084629375400...

David A. Mayer, Environmental Program Manager
Governor's Office of Planning & Research

Date: 6/11/2020

Date Received for filing at OPR: Jun 12 2020

STATE CLEARINGHOUSE

FILED
DEC 12 2023
HUGH NGUYEN, CLERK-RECORDER
BY: *[Signature]* DEPUTY
CDFW Rev. 2013 1 1



ORANGE COUNTY
CLERK-RECORDER
CEQA FILING COVER SHEET

Recorded in Official Records, Orange County
Hugh Nguyen, Clerk-Recorder



NO FEE

* \$ R 0 0 1 4 6 9 7 0 0 1 \$ *
202385001097 11:08 am 12/12/23
381 SC4A Z01
0.00 50.00 0.00 0.00 0.00 0.00 0.00 0.00

THIS SPACE FOR CLERK'S USE ONLY

Complete and attach this form to each CEQA Notice filed with the County Clerk-Recorder

TYPE OR PRINT CLEARLY

Project Title

STATE ROUTE (SR-) 133 ROADWAY AND SAFETY IMPROVEMENT PROJECT

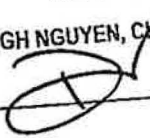
Check Document being Filed:

- Environmental Impact Report (EIR)
- Mitigated Negative Declaration (MND) or Negative Declaration (ND)
- Notice of Exemption (NOE)
- Other (Please fill in type):

FILED

DEC 12 2023

HUGH NGUYEN, CLERK-RECORDER

BY:  DEPUTY

POSTED

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FILED IN THE OFFICE OF THE ORANGE

COUNTY CLERK-RECORDER ON December 12, 2023

Posted for 30 days

DEPUTY Dianna V.

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Hugh Nguyen
Orange County Clerk-Recorder
601 N. Ross Street
Santa Ana, CA 92701

County

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NEPA/CEQA RE-VALIDATION FORM

DIST-CO-RTE: 12-ORA-133
PM/PM: 8.3/M9.3
EA or Fed-Aid Project No.: 0N890 (1214000130)
Other Project No. (specify): N/A
Project Title: STATE ROUTE 133 OPERATIONAL IMPROVEMENTS
Environmental Approval Type: MND/CE 326
Date Approved: 3/24/2020
Reason for Consultation (23 CFR 771.129), check one: <input checked="" type="checkbox"/> Project proceeding to next major federal approval <input checked="" type="checkbox"/> Change in scope, setting, effects, mitigation measures, requirements <input type="checkbox"/> 3-year timeline (EIS only) <input type="checkbox"/> N/A (Re-Validation for CEQA only)
Description of Changed Conditions: <i>Change in project scope is on this revalidations continuation page and project is proceeding to next major federal approval.</i>

NEPA CONCLUSION – VALIDITY

- The original environmental document or CE remains valid. No further documentation will be prepared.
- The original environmental document or CE is in need of updating; further documentation has been prepared and is included on the continuation sheet(s) or is attached. With this additional documentation, the original ED or CE remains valid.
Additional public review is warranted (23 CFR 771.111(h)(3)) Yes No
- The original document or CE is no longer valid.
Additional public review is warranted (23 CFR 771.111(h)(3)) Yes No
Supplemental environmental document is needed. Yes No
New environmental document is needed. Yes No (If “Yes,” specify type:)

CONCURRENCE WITH NEPA CONCLUSION

I concur with the NEPA conclusion above.

Smita Deshpande

Signature: Environmental Branch Chief

4/25/2023

Date

RMS

Signature: Project Manager/DLAE

April 25, 2023

Date

NEPA/CEQA RE-VALIDATION FORM

CEQA CONCLUSION (Only mandated for projects on the State Highway System.)

- Original document remains valid. No further documentation is necessary.**
- Only minor technical changes or additions to the previous document are necessary. An addendum has been or will be prepared and is included on the continuation sheets or will be attached. It need not be circulated for public review. (CEQA Guidelines, §15164)**
- Changes are substantial, but only minor additions or changes are necessary to make the previous document adequate. A Supplemental environmental document will be prepared, and it will be circulated for public review. (CEQA Guidelines, §15163)**
- Changes are substantial, and major revisions to the current document are necessary. A Subsequent environmental document will be prepared, and it will be circulated for public review. (CEQA Guidelines, §15162)**
(Specify type of subsequent document, e.g., Subsequent FEIR):
- The CE is no longer valid. New CE is needed. Yes No**

CONCURRENCE WITH CEQA CONCLUSION

I concur with the CEQA conclusion above.

Smita Deshpande

Signature: Environmental Branch Chief



Signature: Project Manager/DLAE

4/25/2023

Date

April 25, 2023

Date

NEPA/CEQA RE-VALIDATION FORM

CONTINUATION SHEET(S)

Changes in project design, e.g., scope change; a new alternative; change in project alignment.

New work includes replacement of approximate 175' of the existing Reinforced Concrete Channel (RCC) with a Reinforced Concrete Box on both sides of Barranca On-ramp loop to SB Route 133, removal of existing MBGR and replacement with concrete curb (type A2-8) at Barranca Parkway On-ramp Loop to SB SR-133, converting of 3rd lane on SB SR-133 from Hot Mix Asphalt (HMA) to Continuously Reinforced Concrete Pavement (CRCP) from station 9057+30 to 9089+06, removal and replacement of existing Rock Slope Protection (RSP) at the San Diego Creek Bridge (55-0290) between Pier 4 and 5 with Engineered Streambed Material (ESM) to create a low-flow channel; within the entire upstream area of San Diego creek, there would be removal and replacement of existing materials (RSP and/or native materials) with Engineered Streambed Material (ESM) to create a cutoff wall. This design modification is limited from the State Right of Way line to the pier noses. Temporary sewer line bypass is proposed by Irvine Ranch Water District (IRWD) during San Diego Creek bridge (55-0290L) construction. The new work referenced in this revalidation are Design Components 25-29 in the Supplemental Project Report (SPR) dated April 2023. Design component No. 25 and 26 were added per the recommendation of District Safety Engineer. Design component No. 27 was added due to lifecycle analysis of pavement durability and cost effectiveness of maintaining of the CRCP pavements versus asphalt concrete structure of the road section (see attachment Project Plans). Design component No. 28 was added per California Department Fish and Wildlife requirement. Component No. 29 is proposed due to the existing sewer line is very closed to the proximity of bridge footing construction. The project is proceeding to the next major federal approval.

Changes in environmental setting, e.g., new development affecting traffic or air quality.

No changes in environmental settings.

Changes in environmental circumstances, e.g., a new law or regulation; change in the status of a listed species.

No changes in environmental circumstances.

Changes to environmental impacts of the project, e.g., a new type of impact, or a change in the magnitude of an existing impact.

No changes to environmental impacts of the project.

Changes to avoidance, minimization, and/or mitigation measures since the environmental document was approved.

Additional AMMMS will be included in the updated ECR as per Amended Permits.

NEPA/CEQA RE-VALIDATION FORM

Changes to environmental commitments since the environmental document was approved, e.g., the addition of new conditions in permits or approvals. When this applies, append a revised Environmental Commitments Record (ECR) as one of the Continuation Sheets.

The ECR will be updated accordingly to capture changes/additions in permits and approvals and will be attached.

State Route 133 Operational Improvements

ORANGE COUNTY, CALIFORNIA
DISTRICT 12 – ORA – 133 (PM 8.3/ M9.3)
EA 0N890 / 1214000130

Initial Study with Mitigated Negative Declaration



Prepared by the
State of California, Department of Transportation



March 2020

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General Information About this Document

What's in this document:

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration, has prepared this Initial Study with a Mitigated Negative Declaration for the proposed project located in Orange County, California. Caltrans is the lead agency under the California Environmental Quality Act (CEQA). The document tells you why the project is being proposed, what alternatives we have considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures. The Initial Study circulated to the public for 30 days between January 7th, 2020 and February 6th, 2020. Comments received during this period are included in Appendix I. Elsewhere throughout this document, a vertical line in the margin indicates a change made since the draft document circulation. Minor editorial changes and clarifications have not been so indicated. Additional copies of this document and the related technical studies are available for review at the Caltrans District Office, 1750 E. Fourth Street, Santa Ana, CA. 92705.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans District 12, Division of Environmental Analysis, 1750 East 4th Street, Suite 100, Santa Ana, California 92705, Attn: Bahar Heydari; (657) 328-6155 (voice), or use the California Relay Service, 1 (800) 735-2929 (TTY), 1 (800) 735-2922 (voice), or 711.

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Construct new auxiliary lane on SB SR-133 from NB I-405 connector (PM 8.3) to SB I-5 connector (PM 9.3) and extend number three lane on SB SR-133 approximately 300 feet south of the San Diego Creek, in the City of Irvine.

INITIAL STUDY WITH MITIGATED NEGATIVE DECLARATION

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

Responsible Agency:

California Transportation Commission

March 24, 2020
Date


Chris Flynn
Deputy District Director
California Department of Transportation
CEQA Lead Agency

The following person may be contacted for more information about this document:

Bahar Heydari, Associate Environmental Planner
California Department of Transportation, District 12
Division of Environmental Analysis
1750 East 4th Street, Suite 100
Santa Ana, California 92705
(657) 328-6155

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MITIGATED NEGATIVE DECLARATION
Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: 2020010158

DIST-CO-RTE-PM: 12-ORA-133 PM 8.3/M9.3

EA: 0N890 (1214000130)

Project Description: Construct new auxiliary lane on Southbound (SB) SR-133 from Northbound (NB) I-405 connector (PM 8.3) to SB I-5 Connector (PM 9.3).

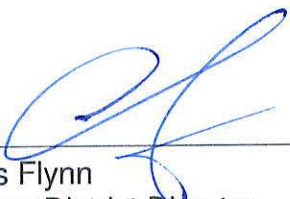
Determination

An Initial Study has been prepared by the California Department of Transportation (Caltrans), District 12.

On the basis of this study it is determined that the proposed action with the incorporation of the identified mitigation measures will not have a significant effect on the environment for the following reasons:

PAL-1: Some of these excavation activities would occur in deposits that are sensitive for paleontological resources. As such, excavation for some of these construction activities may have the potential to significantly impact paleontological resources. However, with implementation of Measure **PAL-1**, which would require the preparation and implementation of a Paleontological Mitigation Plan (PMP), potentially significant impacts to geology and soils (paleontological resources) would be reduced to a less than significant level.

Signature



Chris Flynn
Deputy District Director
Division of Environmental Analysis
Caltrans District 12

March 24, 2020

Date

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Chapter 1 – Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) proposes an operational improvements project on State Route 133 (SR-133) from 0.2 miles north of Route 133/405 separation (PM 8.3) to Irvine Center Drive Overcrossing (PM M9.3) in the City of Irvine, in the County of Orange. The project proposes to construct new auxiliary lane on southbound (SB) SR-133 from NB I-405 connector to SB I-5 connector. This new aux lane will become the 2nd lane on NB I-405 Connector. The number 3 lane on SB SR-133 will be extended approximately 300 feet south of San Diego Creek to match existing roadway pavement. Caltrans is the Lead Agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). An Initial Study (IS) with proposed Mitigated Negative Declaration (MND) has been prepared pursuant to CEQA and a Categorical Exclusion will be prepared pursuant to NEPA. Figures 1-1 shows the project location map.

This proposed project is included in the Southern California Association of Governments (SCAG) 2016/2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and the 2019 Federal Transportation Improvement Program (FTIP) (RTIP/FTIP ID # ORA001105) listed as Grouped Project for Safety Improvements. (see Appendix E). The FTIP is included by reference in the Certified Federal Statewide Transportation Improvement Program (FSTIP). This project is to be funded from SHOPP under program code 20.10.201.310 Operational Improvements Program, for funding in 2021/2022 fiscal year.

SR-133 is a north-south route located completely within Orange County. It provides access between the south coast of Orange County and the Irvine area. The total length of SR-133 is 13.73 miles. This includes 4.21 miles of the east leg of the Eastern Transportation Corridor which is a tolled facility. SR-133 passes through the cities of Laguna Beach, Irvine, and unincorporated Orange County. While the route lies completely within the urban boundary of Orange County, much of the land surrounding the route is designated as a wilderness preserve, with the exception of the downtown Laguna Beach and Irvine Spectrum areas. SR-133 operates as a conventional highway, an expressway, controlled access freeway, and toll road.

Within the project limits, SR-133 is mainly a four-lane freeway with various widths and unpaved medians. SB SR-133, north of I-5, has two lanes which become four lanes when it joins with the SB I-5 connector. The fourth lane of SB SR-133 ends at the Barranca Parkway on-ramp and the single lane on-ramp from Barranca Parkway merges with the third lane of SB SR-133, eventually exiting at the NB I-405 connector.

A concrete channel runs along the SB SR-133 roadbed, and San Diego Creek crosses under the freeway north of the I-405 connector.

Purpose and Need

Purpose: The purpose of this project is to enhance traffic operations and flow and shorten queue length of vehicles on SR-133 between SB I-5 and NB I-405 connectors by providing a new auxiliary lane and extend the number 3 lane on SB SR-133.

Need: This segment of SB SR-133 is operating under severe congestion during morning peak hours. The number three lane of SB SR-133 experiences long traffic queues which back up all the way to the SB I-5 connector and the SB SR-133 mainline (north of the SB I-5 connector), and restrict traffic flow.

Figure 1-1: Project Location Map



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1.2 Project Description

This section describes the proposed action and the project alternatives that were developed to meet the identified purpose and need of the project, while avoiding or minimizing environmental impacts.

Build Alternative:

This alternative proposes to improve operations and safety of this facility by constructing a new auxiliary lane on SB Rte-133 from the SB I-5 connector to the NB I-405 connector. This proposed auxiliary lane will become the second lane on the NB I-405 connector. This alternative also proposes to extend the number three lane on SB Rte-133 approximately 300 feet south of San Diego Creek to match the existing roadway pavement. Project work activities improvements include the following:

1. Construct additional asphalt concrete pavement to provide a twelve-foot auxiliary lane from the SB I-5 connector to NB I-405 connector and twelve-foot lane from the gore area to 300 feet south of San Diego Creek.
2. Construct additional asphalt concrete pavement to provide a second twelve-foot lane on the SB Rte-133/NB I-405 connector.
3. Realign the Barranca Parkway (Pkwy) loop on-ramp and reconstruct the ramp entrance. Convert the existing HOV lane to GP lane, reinstall the existing ramp meter system, reconstruct loop detectors, and modify the MGS along the on-ramp left shoulder if needed.
4. Reconstruct maintenance vehicle pullouts.
5. Construct tie back walls at Barranca Pkwy OC and Alton Pkwy OC.
6. Construct approximately 472 feet long retaining wall (retaining wall No. 55) from the end of San Diego Creek off-ramp bridge (55-0290F) towards North.
7. Construct approximately 210 feet long retaining wall (retaining wall No. 61) from the beginning of San Diego Creek off-ramp bridge (55-0290F) towards South.
8. Construct approximately 512 feet long retaining wall (retaining wall No. 46) along the off-ramp from SB SR-133 to I-405. (The limits will be finalized once district provided the necessary information to Structures.).
9. Replace approximately 520 ft of the existing Reinforced Concrete Channel (RCC) with a Reinforced Concrete Box (RCB) between Barranca Pkwy and Alton Pkwy.
10. Relocate and modify two existing overhead signs to accommodate pavement widening.
11. Remove and replace light poles along shoulder of SB Rte-133 and Barranca Pkwy on-ramp.
12. Remove and replace signing as needed.
13. Construct approximately 500 feet long of MGS between retaining wall No. 62 and the tie back wall at Alton Pkwy OC.
14. Remove existing MBGR and end treatments at the gore area of SB Rte-133 and SB Rte-133/NB I-405 connector.

15. Construct approximately 1200 square feet of additional bridge pavement, construct bridge rail with 20:1 taper and install alternative safety device to shield the end of bridge railings beyond the gore area of SB Rte-133 and SB Rte-133/NB I-405 connectors.
16. Relocate 3 drainage inlets along right shoulder of SB Rte-133 and 2 drainage inlets along right shoulder of SB Rte-133/NB I-405 connector.
17. Refresh all striping and markers.
18. San Diego Creek Left Bridge (55-0290L) will be widened to cover the gore area. Bridge Super-Structure will be constructed to accommodate the new lane configuration.
19. San Diego Creek off-ramp bridge (55-0290F) will be widened by 14.5 feet. New Sub-Structure and Super-Structure will be constructed to accommodate the new lane configuration.
20. Approach and departure slabs, paving notch and joint seals will be added at the left bridge (55-0290L) and the off-ramp bridge (55-0290F).
21. Existing Barriers, Type 25 at the Left Bridge (55-0290L) and the Off-Ramp Bridge (55-0290F) will be replaced with Concrete Barrier Type 836.
22. Rock Slope Protection (RSP) will be replaced along Piers and Abutments of San Diego Creek Off-Ramp Bridge (55-0290F) Widening for a length of approximately 15 feet and extend 10 feet beyond the bridge widening on downstream side. The RSP will be placed 6 feet below the Top of Pile Cap between the Piers/Abutment footings and flush with the footings and adjacent ground. The RSP used should be ½ ton (24 inches in diameter) installed in a pre-excavated 6-foot hole.
23. TCEs are needed for constructing RCB, bridge widening.
24. Clearing and grubbing
25. Highway planting
26. Replace damaged landscape irrigation in kind where needed between Irvine Boulevard Over-Crossing to Barranca Parkway on-ramp.

The project scope will include the following nonstandard design feature, a 500-foot long 2:1 side slope on SB Rte-133 between Alton and Barranca Pkwy, 2:1 slope in front of retaining wall No. 46, 55, and 62. Per the HDM 304.1, new and modified embankment slopes should be 4:1 or flatter.

Other Project Elements (Standardized Project Measures)

The Build Alternative contains several standardized project measures that are employed on most, if not all, Caltrans projects. The use of these measures with the Build Alternative is described in more detail in Chapter 2 of this Initial Study as Project Features (PF) are numbered. For example, a Project Feature applicable to water quality would be titled and listed as PF-WQ-1.

Air Quality

- **Caltrans Standard Specifications in Section 14-9 Air Quality**

PF-AQ-1: The construction contractor must comply with Caltrans Standard Specification in Section 14-9, Air Quality, which specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and ordinances.

Biology

- **Caltrans Standard Specification 14-6.03B Bird Protection**

- **PF-BIO-1 Caltrans Standard Specification 14-6.03B Bird Protection. Nesting Bird Season:** To avoid impacts to any nesting birds, ground disturbance and vegetation removal that occurs during the nesting bird season (February 1 – September 30) will require nesting bird surveys by The Caltrans Biologist; the Caltrans biologist will be contacted at least one week prior to any construction activities to schedule a survey. If nesting birds are found, the biologist will create a buffer zone and Environmentally Sensitive Area (ESA) fence will be placed around the buffer zone. No construction work shall occur within the buffer zone until the nest is no longer active and all young birds have fledged.

- **PF-BIO-2 Comply with Executive Order Number 13112: Invasive Species.** Vegetation species known to be invasive in the state of California will not be installed (e.g. Mexican fan palm, pampas grass, tree of heaven, etc.). An invasive plant species list can be found at the California Invasive Plant Inventory Council (Cal-IPC) website <http://www.cal-ipc.org/paf/>. The Landscape Architect will coordinate with the Caltrans Biologist to ensure an appropriate plant palette is created for this project. -During construction, the contractor shall inspect and clean construction equipment at the beginning of each day and prior to transporting equipment into the creek. During construction, soil and vegetation disturbance will be minimized to the greater extent feasible. Contractor shall use weed-free straw and fiber rolls to use for erosion control During construction, the contractor shall ensure that all material stockpiled within the creek is sufficiently watered and covered to prevent growth of invasive plants. During construction, gravel and rock will be obtained from weed free source.

Cultural

- **Caltrans Standard Specification 14-2.03A: Discovery of Cultural Materials.**

PF-CUL-1: If cultural materials are discovered during construction activities, the construction Contractor will divert all earthmoving activity within and around the immediate discovery area until a qualified archaeologist can assess the nature and significance of the find. At that time, coordination will be maintained with the California Department of Transportation District 12 Environmental Branch Chief or the District 12 Native American Coordinator to determine an appropriate course of action

- **Caltrans Standard Specification 14-2.03A: Discovery of Human Remains.**

PF-CUL-2 If human remains are discovered during construction activities, California State Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the Orange County Coroner shall be contacted. If the remains are thought to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC), who pursuant to California Public Resources Code (PRC) Section 5097.98, will then notify the Most Likely Descendant (MLD). At that time, the persons who discovered the remains will contact the Caltrans District 12 Environmental Branch Chief or the District 12 Native American Coordinator so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of California PRC 5097.98 are to be followed as applicable.

Geology/Soil/Seismicity/Topography

- **Caltrans Standard Specifications 48-2.02. B and Section 19 Earthwork General:**

PF-GEO-1: The project will comply with the most current Caltrans procedures and design criteria regarding seismic design to mitigate any adverse effects related to seismic ground shaking. Earthwork will be performed in accordance with Caltrans Standard Specifications, Section 19, which require standardized measures related to compacted fill, over-excavation, and re-compaction, among other requirements. Moreover, Caltrans Highway Design Manual (HDM) Topic 113, requires the project engineer to review a Geotechnical Design Report, if any, to ascertain the scope of geotechnical involvement for a project.

Paleontology

- **Caltrans Standard Specification 14-7.03:**

PF-PAL-1: If unanticipated paleontological resources are discovered all work within 60 feet of the discovery must cease and the construction resident engineer must be notified. Work cannot continue near the discovery until authorized.

Hazardous Materials

- **Caltrans Standard Specification 14-10:**

PF-HAZ-1: Solid Waste Disposal and Recycling Section 14.10 of CT 2018 SSPs. to reduce GHG emissions and potential climate change impacts.

- **Caltrans Standard Specification 14-11.12:**

PF-HAZ-2: Should construction activities result in the disturbance of traffic striping and pavement marking materials, the generated wastes would be disposed of at an appropriate permitted disposal facility as determined by a lead specialist

- **Caltrans Standard Specification 13-4.03E(2) and Unknown Hazards Procedures in Caltrans Construction Manual (July 2017):**

PF-HAZ-3: During construction, the construction contractor will monitor soil excavation for visible soil staining, odor, and the possible presence of unknown hazardous material sources. If hazardous material contamination or sources are suspected or identified during project construction activities, the construction contractor will be required to cease work in the area and to have an environmental professional evaluate the soils and materials to determine the appropriate course of action required, consistent with the Unknown Hazards Procedures in Chapter 7 of the Caltrans' Construction Manual

Water Quality and Storm Water Runoff

- **Caltrans Standard Specification 13-1.01D (2)-Regulatory Requirements:**

PF-WQ-1: The project will comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for the State of California Department of Transportation, Order No. 2012-0011-DWQ, NPDES No. CAS000003 and any subsequent permits in effect at the time of construction.

- **Caltrans Standard Specification 13-3.01D (2)-Regulatory Requirements:**

PF-WQ-2: The project will comply with the provisions of the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) Order No. 2009-0009-DWQ, NPDES General Permit No. CAS000002 and any subsequent permits in effect at the time of construction.

- **Caltrans Standard Specification 13-3 Storm Water Pollution Prevention Plan:**

PF-WQ-3: The project will comply with the Construction General Permit by preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) to address all construction-related activities, equipment, and materials that have the potential to impact water quality for the appropriate Risk Level. The SWPPP will identify the sources of pollutants that may affect the quality of Storm water and include BMPs to control the pollutants, such as: sediment control, catch basin inlet protection, construction materials management, and non-storm water BMPs. All work must conform to the Construction Site BMP requirements specified in the latest edition of the Storm Water Quality Handbooks: Construction Site Best Management Practices Manual to control and minimize the impacts of construction and construction related activities, material and pollutants on the watershed. These include, but are not limited to temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and other non-storm water BMPs

PF-WQ-4: Design Pollution Prevention BMPs will be implemented such as preservation of existing vegetation, slow/surface protection systems (permanent soil stabilization), concentrated flow conveyance systems such as ditches, berms, dikes and swales, overside drains, flared end sections, and outlet protect/velocity dissipation devices.

PF-WQ-5: Caltrans approved treatment BMPs will be implemented consistent with the requirements of NPDES permit and Waste Discharge Requirements for the State of California, Department of Transportation, Order No. 2012-001-DWQ, NPDES No. CA200003 and any subsequent permits in effect at the time of construction.

PF-WQ-6: Any discharges of groundwater to surface waters during construction will be subject to the General Waste Discharge Permit for Discharges to Surface Waters of Groundwater Resulting from Groundwater Dewatering Operations and/or Groundwater Cleanup Activities at Sites Within the San Diego Creek/ Newport Bay Watershed Polluted by Petroleum Hydrocarbons, Solvents, Metals, and/ or Salts (Order No. R8-2007-0042, NPDES NO. CAG918002) and any subsequent updates to the permit at the time of construction.

Noise

- **Caltrans Standard Specifications Section 14.8-02 Noise Control**

PF-N-1: During construction of the Project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Noise associated with construction is controlled by 2018 Caltrans Standard Specification Section 14-8.02, “Noise Control,” which states the following: Control and monitor noise resulting from work activities. Do not exceed 86 dBA Lmax at 50 feet from the job site activities from 9 p.m. to 6 a.m.

Recreation

PF-REC-1: The property used for temporary construction easement will be restored to a condition at least as good as it was prior to easement being granted

Traffic

- **Caltrans Standard Specifications Section 12-4 Maintaining Traffic**

PF-TRA-1: A Transportation Management Plan (TMP) shall be included in the design plans for implementation by the contractor prior to and during construction of any improvements. The TMP shall consist of prior notices, adequate sign posting, detours, phased construction, and temporary driveways where necessary. The TMP shall specify implementation timing of each plan element (e.g., prior notices, sign posting, detours) as determined appropriate by Caltrans. Adequate local emergency access shall be provided at all times to adjacent uses. Proper detours and warning signs shall be established to ensure public safety. The TMP shall be devised so that construction shall not interfere with any emergency response or evacuation plans. Construction activities shall proceed in a timely manner to reduce impacts.

No Build Alternative

The No Build alternative retains the existing roadway condition. This Alternative will not address congestion during morning peak hours within the project limits. This is not the preferred alternative.

Table 1-1 Permits and Approvals Needed

The following permits, reviews, and approvals would be required for project construction:

Agency	PLAC	Status
Santa Ana Regional Water Quality Control Board (RWQCB)	Section 401 Water Quality Certification	Coordination with the agency will occur during PS&E
U.S. Army Corps of Engineers/(USACOE)	Section 404 Clean Water Act, Letter of Permission	Coordination with the agency will occur during PS&E
California Department of Fish and Wildlife (CDFW)	CA. Fish and Game Code 1602 , Lake or Streambed Alteration Agreement	Coordination with the agency will occur during PS&E
City of Irvine	Section 4(f) De Minimis Concurrence	Obtained Concurrence from the City of Irvine 3-9-2020
Orange County Flood Control District (OCFCD)	Encroachment Permit	Coordination with the agency will occur during PS&E

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Chapter 2 – CEQA Checklist

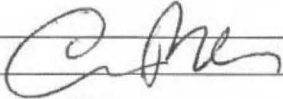
The environmental factors checked below would be potentially affected by this project. Please see the checklist beginning on page 3 for additional information.

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

DETERMINATION:

On the basis of this initial evaluation:

<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	I find 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.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	I find 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.
<input type="checkbox"/>	I find 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.

Signature:		Date:	1/2/20
Printed Name:	Charles Baker	For:	

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects will indicate that there are no impacts to a resource. A NO IMPACT answer in the last column reflects this determination. The words “significant” and “significance” used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project, and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices (BMPs) and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below.

2.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.1.1 Discussion of Environmental Evaluation Questions

- a) **No Impact:** The project will not have a significant adverse effect on scenic vistas because there are no scenic vistas within the project limits.
- b) **No Impact:** The proposed project will not substantially damage scenic resources because there are minimal scenic resources within the project limits and no work is anticipated that would cause substantial damage to these resources.
- c) **No Impact:** The proposed project will not substantially degrade the existing visual character or quality of public views of the state and its surroundings, or conflict with applicable zoning and other regulations governing scenic quality. This is because the project area is flat and lacks substantial visual character and quality views.

- d) **No Impact:** The proposed project will not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area because there will be minimal changes to the existing landscape and driving views within the project limits.

Avoidance, Minimization and/or Mitigation:

None Required

2.2 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 Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.2.1 Discussion of Environmental Evaluation Questions

- a) **No Impact:** According to the Department of Conservation California Important Farmland Finder database, there is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the project area. It is classified as Urban and Built-Up Land.
- b) **No Impact:** The project area does not conflict with existing zoning for agricultural use, or a Williamson Act Contract. Per the City of Irvine General Plan Land Use Element, the project area’s surrounding land is designated as Business/Industrial.
- c) **No Impact:** There is no land within the project area zoned as forest land or timberland.
- d) **No Impact:** See response to c)
- e) **No Impact:** The project would not involve other changes in the existing environment resulting in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

Avoidance, Minimization, and/or Mitigation Measures

None Required

2.3 Air Quality

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

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2.3.1 Discussion of Environmental Evaluation Questions

- a) **Less Than Significant Impact:** The project limits are located in the South Coast Air Basin and is within the jurisdiction of the South Coast Air Quality Management District

(SCAQMD) and the California Air Resources Board (CARB). The SCAQMD is the primary agency responsible for writing the Air Quality Management Plan (AQMP) in cooperation with the Southern California Association of Governments (SCAG), local governments, and the private sector. The AQMP provides the blueprint for meeting State and Federal ambient air quality standards. The Build Alternative would improve vehicular traffic operations on these segments of the SB SR-133. The Build Alternative is included in SCAG's 2016–2040 Regional Transportation Plan (RTP) and the 2019 Federal Transportation Improvement Program (FTIP), both of which were found to be conforming (see section 3.2.3 and 3.4.1, Air Quality). Therefore, the Build Alternative would not conflict with the AQMP, violate any air quality standard, result in a net increase of any criteria pollutant, or expose sensitive receptors to substantial pollutant concentrations.

b) Less than Significant Impact. The Build Alternative would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is in nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors). CO_{2e} in the Build Year 2044 (2,891 MT/Year) is less than in the Existing Year 2018 (2,905 MT/Year) and in No Build Year 2044 (2,998 MT/Year) (See Table 3.1.4). Thus, impacts for the Build Alternative would be less than significant (Caltrans, 2019); Interim Guidance: Determining CEQA Significance for Greenhouse Gas Emissions for Projects on the State Highway system). No mitigation is required.

c) Less than Significant Impact. The Build Alternative would not expose sensitive receptors to substantial pollutant concentrations. Any impacts associated with the Build Alternative would be less than significant. No mitigation is required.

d) Less than Significant Impact. Temporary construction activities including clearing, cut-and-fill activities, grading, and paving could generate fugitive dust from soil disturbance and other emissions from the operation of construction equipment. The Build Alternative would comply with construction standards adopted by the South Coast Air Quality Management District (SCAQMD) as well as Caltrans standardized procedures for minimizing air pollutants during construction. See Section 3.1.3.4. of this report for a list of standardized Project Features (PF-AQ-1) that would avoid and/or minimize air quality impacts resulting from construction activities. Objectionable odors are not currently present within the project limits and construction activities, including the use of diesel equipment, would be temporary in nature and are not anticipated to emit significant odors. Similarly, impacts from the Build Alternative would be less than significant with the Project Features listed above. No mitigation is required.

Avoidance, Minimization and/or Mitigation Measures:

None required, the following project features will be implemented:

PF-AQ-1 The construction contractor must comply with Caltrans Standard Specification in Section 14-9, Air Quality, which specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and ordinances.

2.4 Biological Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service, or NOAA Fisheries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2.4.1 CEQA Significance Determinations for Biological Resources

The potential for the Build Alternative to result in adverse impacts to biological resources was assessed in the *Natural Environment Study* (NES) (December 2019) in this Initial Study. The following discussions are based on these analyses.

a) No impact. A total of 15 special status plant species were considered for their potential to occur within the BSA. Due to the lack of suitable habitats within the BSA and none observed within the BSA, the project is not anticipated to impact special status plant species. 26 special status wildlife species listed as Species of Special Concern under the California Department of Fish and Wildlife are considered to occur within the BSA. Due to the lack of suitable habitat and modifications to San Diego Creek, most of the species aren't expected to inhabit the BSA. Based on literature reviews 19 Federal and State plant and wildlife

species are expected to occur within the BSA. None of the species are expected to occur within the BSA due to the lack of suitable habitat in the BSA. The project will result in no direct and indirect impacts to listed plant or wildlife species. Caltrans is making a no effect determination for all federally listed species obtained for this project. Therefore, no section 7 consultations or coordination with the California Department of Fish and Wildlife under the Endangered Species Act (ESA) or California Endangered Species Act (CESA) are required for this project respectively. No impacts are anticipated, and no mitigation is required.

b) Less Than Significant Impact. The Biological Study Area (BSA) is located within a developed area surrounded by buildings and ornamental vegetation. San Diego Creek is the only natural community considered sensitive by the CDFW, US Army Corps of Engineers and Regional Water Quality Control Board. The creek within the BSA support no riparian or sensitive habitat identified in local or regional plans, policies, regulation or by the CDFW or USFWS. Therefore, there will be less than significant impacts and no mitigation is required.

c) Less Than Significant Impact. Based on the results of the jurisdictional delineation reports, San Diego Creek is the only drain that is subject to USACE under Section 404 of the Clean Water Act (CWA). This creek is a naturally occurring drainage feature that conveys ephemeral flows from adjacent drains and natural flood water during rain fall. San Diego creek is a blue line stream and a direct tributary to the Pacific Ocean (Navigable water). Since the creek within the BSA lacks vegetation to meet Corps wetland criteria, the creek is subject to Corps Jurisdiction under non-wetland waters of the US. The Water Board jurisdiction under Section 401 of the CWA is similar to the area subject to the Corps jurisdiction. The creek is also a flood control channel and is mainly maintained by the County of Orange throughout the watershed. To maintain protection of bridge structures and improve the flow within the creek, the creek within the watershed has been altered from the original condition. As a result, the creek within the BSA was altered from its natural condition due to the installation of Rock Slope Protection (RSP), check dam, concrete line embankments on both sides of the channel, and routine sediment removal activities. Also, portion of San Diego Creek within this BSA support no riparian vegetation and is subject to CDFW as an unvegetated streambed.

The project will result in no impacts to federally protected wetlands. However, the project will result in a total of 1.5 acres of temporary impacts to CDFW unvegetated streambed and 0.9 acres of Corps non-wetland waters of the U.S. Upon completion of construction, temporary impact area will be restored to original conditions. Therefore, no mitigation is required for federally protected wetlands.

The project will result in 0.006 acres of permanent impacts to Corps non-wetland waters of the US/CDFW unvegetated streambed. Based on the RWQCB's comment on the Draft Environmental Document, Caltrans acknowledges the request and will compensate accordingly for impacts to non-wetland waters of the U.S./unvegetated streambed at a 1:1 ratio. Credits will be purchased from the San Luis Rey or Soquel Canyon Bank. See Appendix I for Caltrans' response to the RWQCB's comments and compensatory measure **B-1**. The compensation measure has been included to minimize this impact. Therefore, impacts are considered less than significant.

The project may require a Letter of Permission (LOP)/Watershed Streambed Alteration Agreement (WSAA) from the US Army Corps of Engineers and a California Department of

Fish and Wildlife. A Section 401 water quality certification from the Regional Water Quality Board is also required for this project.

d) Less Than Significant Impact. Although the project is located within a developed area, wildlife movement is expected to occur within the BSA. Existing drainages, mainly San Diego Creek, provide habitat for wildlife corridors for large and small animals. During construction period, implementation of the project is expected to result in temporary impacts to wildlife movement or decrease the functionality of the wildlife crossing within the creek. Caltrans is required by Senate Bill (SB) 857 to assess and remediate barriers to fish passage at stream crossings along the State Highway System that currently or historically supported anadromous fish. Literature reviews and a reconnaissance-level fish passage assessment were conducted for this project. A fish passage assessment was done within San Diego Creek, the only natural creek found within the BSA. Due to extensive modification and the lack of historic evidence of anadromous fish passages within the creek, this project isn't expected to affect fish passage within the BSA. Also, proposed bridge widening within the project footprint does not constitute a complete barrier to anadromous fish within the BSA. Therefore, with the implementation of avoidance and minimization measures below, project impacts to wildlife movement and fish passage will be less than significant and no mitigation is required

e) Less Than Significant Impact. Native and non-native plants are scattered throughout the BSA. Several migratory and game birds were observed during the field survey. Mud swallow nests were observed under the SR-133 bridge over San Diego Creek. Suitable nesting habitat for Cooper's hawks observed within the BSA. The project will require vegetation clearing and trimming during the construction period. Furthermore, the San Diego Creek bridge will be widened to accommodate the additional auxiliary lane. The project may impact nesting birds and their nests during nesting season. With the implementation of avoidance and minimization measures, the project will avoid and minimize impacts to nesting birds/raptors and their nests. A bat habitat assessment was conducted for this project. No sign of bats was observed within the BSA. Due to the presence of suitable habitat within the BSA, one year prior to construction, bat assessment survey will be conducted to determine the presence of bats within the bridge. Based on the finding of the future assessment, additional appropriate measures will be included during the project design phase. With implementation of the appropriate measures below, impacts will be less than significant, and no mitigation is required.

f) Less Than Significant Impact. The project is located within a Special Area Management Plan (SAMP) area designated by the US Army Corps of Engineers. The US Army Corps of Engineer has an alternative permitting process to facilitate reasonable economic development and infrastructure while also providing for aquatic resource protection. Therefore, the project is subject to the abbreviated alternative permitting process associated with the SAMP. The project may require a Letter of Permission (LOP)/Watershed Streambed Alteration Agreement (WSAA) from the US Army Corps of Engineers and a California Department of Fish and Wildlife. A Section 401 certification from the Regional Water Quality Board is also required for this project. By obtaining any potential necessary permits from the regulatory agencies mentioned above, the Build Alternative would not conflict with the provisions of Special Area Management Plan. Furthermore, the project is located outside an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, impacts would be less than significant.

Avoidance, Minimization and/or Mitigation Measures:

- **B-1:** The project will result in 0.006 acres of permanent impacts to Corps non-wetland waters of the U.S and CDFW unvegetated streambed. In compliance with RWQCB's request, Caltrans will compensate for permanent impacts to waters of the U.S/unvegetated streambed off-site at a minimum of 1:1 Ratio by purchasing riparian credits from the San Luis Rey or Soquel Canyon Mitigation Bank.
- **PF-BIO-1 Caltrans Standard Specification 14-6.03B Bird Protection. Nesting Bird Season:** To avoid impacts to any nesting birds, ground disturbance and vegetation removal that occurs during the nesting bird season (February 1 – September 30) will require nesting bird surveys by The Caltrans Biologist; the Caltrans biologist will be contacted at least one week prior to any construction activities to schedule a survey. If nesting birds are found, the biologist will create a buffer zone and Environmentally Sensitive Area (ESA) fence will be placed around the buffer zone. No construction work shall occur within the buffer zone until the nest is no longer active and all young birds have fledged.
- **PF-BIO-2 Comply with Executive Order Number 13112: Invasive Species.** Vegetation species known to be invasive in the state of California will not be installed (e.g. Mexican fan palm, pampas grass, tree of heaven, etc.). An invasive plant species list can be found at the California Invasive Plant Inventory Council (Cal-IPC) website <http://www.cal-ipc.org/paf/>. The Landscape Architect will coordinate with the Caltrans Biologist to ensure an appropriate plant palette is created for this project. - During construction, the contractor shall inspect and clean construction equipment at the beginning of each day and prior to transporting equipment into the creek. During construction, soil and vegetation disturbance will be minimized to the greater extent feasible. Contractor shall use weed-free straw and fiber rolls to use for erosion control. During construction, the contractor shall ensure that all material stockpiled within the creek is sufficiently watered and covered to prevent growth of invasive plants. During construction, gravel and rock will be obtained from weed free source.
- **BIO-1** Prior to any construction, highly visible barriers (ESA fence) will be installed around the project disturbance limits to designate Environmentally Sensitive Areas within San Diego creek. The ESA fence shall be installed under the direction of a qualified Biologist. Silt fence barriers will be installed at the ESA boundary to prevent accidental deposition of fill material in areas.
- **BIO-2** Prior to the beginning of construction adjacent to the ESAs, a qualified biologist will survey areas adjacent to the ESA boundaries to flush any wildlife species present prior to construction and ensure all avoidance measures are properly implemented
- **BIO-3** A Storm Water Pollution Prevention Plan (SWPPP) will be developed and implemented to comply with the National Pollutant Discharge Elimination System (NPDES) Statewide Construction General Permit (CGP). The SWPPP will identify

and implement temporary Best Management Practices (BMPs) during construction to address the temporary impacts to water quality.

- **BIO-4** Equipment including but not limited to excavators, motor vehicles and trucks shall not be allowed to operate in the ESAs. No equipment and material storage will be allowed within or adjacent to ESAs. All equipment maintenance, staging dispensing of fuel oil or any other such activities shall occur in developed or designated non-sensitive areas. This area shall be reviewed and approved by the District Biologist. Upon completion of construction, the ESA fence shall be removed.
- **BIO-5** In the event that suitable trees for Cooper's hawk nests are required to be removed during nesting season, a qualified biologist will conduct pre-construction nesting bird surveys. If nesting Cooper's hawk are found, the biologist will create a buffer zone and an ESA fence will be placed around the buffer zone. No construction work shall occur within the buffer zone until the nest is no longer active and all young birds fledged.
- **BIO-6** Although suitable roosting habitats are present within the BSA and no evidence of bats was observed this year, it is possible that the hinges within the San Diego Creek bridge or palm trees may be used at other times of the year or during the construction period. Therefore, one year prior to the beginning of construction, a bat assessment survey and day/nighttime emergence surveys will be conducted during maternity season. The survey includes a combination of suitable habitat assessment, exit counting, and acoustic surveys. If maternity roosting bats are found, additional avoidance and minimization measures will be included at the time of the survey.
- **BIO-7** A bat survey will be conducted two weeks prior to beginning of construction work within San Diego creek bridges. If the bridges are determined to be occupied outside maternity roosting period, bat exclusion devise (one-way doors) will be installed. A qualified bat biologist will monitor the installation and exclusion of bats during construction period. If maternity roost is present, no work under the bridge will occur during maternity season (April-August) and exclusion devise will be installed after September 1 or after all young leave the structure.
- **BIO-8** Appropriate permits from the US Army Corps of Engineers, the California Department of Fish and Wildlife, and the Regional Water Quality Control Board will be obtained prior to construction.

2.5 Cultural Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2.5.1 CEQA Significance Determination for Cultural Resources

The potential for the Build Alternative to result in significant impacts related to cultural resources was assessed in the Historic Property Survey Report (HPSR; January 2020).

- a) **Less Than Significant impact.** CEQA defines a “historical resource” as a resource that meets one or more of the following criteria: (1) listed in, or determined eligible for listing in, the California Register of Historical Places (California Register); (2) listed in a local register of historical resources as defined in the California Public Resources Code (PRC) §5020.1(k); (3) identified as significant in a historical resource survey meeting the requirements of PRC §5024.1(g); or (4) determined to be a historical resource by a project’s Lead Agency (PRC §21084.1 and State CEQA Guidelines §15064.5(a)). A record search of the Area of Potential Effects (APE) and a 1-mile radius around the APE was conducted on July 24, 2019, at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS), located at California State University, Fullerton. On July 26, 2019, an archaeological field survey was conducted. No cultural resources have been previously recorded in the APE. No cultural resources were identified during the field survey. As such, no known historical resources exist in the APE. The proposed project would not cause a substantial change in the significance of a historical resource as defined in §15064.5. No mitigation is required.

b) .Less Than Significant Impact

Based on the results of background research and the archaeological field survey, no archaeological resources are within the APE. No cultural resources were identified as a result of the HPSR preparation, and the field survey showed that the area in the APE exhibited high levels of disturbance from previous road and drainage construction, from shoulder and slope maintenance, and from recent grading. While 31 cultural resources have been recorded within 1.0 mile of the APE, no cultural resources have been previously recorded within the APE. Previously recorded resources include prehistoric (17), historic (13), and combination prehistoric/historic (1). Many of prehistoric sites in the record search area are located on knolls and areas of higher elevation. Some of these knolls have been graded and levelled as a result of construction, resulting in destruction of the knolls and the sites atop them. This is true of the prehistoric archaeological site closest to the APE (CA-ORA-391). The APE is located at a lower elevation than the knoll recorded as containing

CA-ORA-391, and previous excavation to a depth of 3 ft at the site resulted in the recovery of no artifacts. Given that the original location of site CA-ORA-391 was atop a knoll that has been since levelled and that trenching monitored by an archaeologist in 1984 on the eastern side of the knoll containing the site produced no subsurface artifacts, CA-ORA-391 is considered to no longer exist.

As such, although excavation for retaining walls will extend approximately 3 ft deep into native soil near San Diego Creek, it is unlikely that archaeological resources will be encountered during project construction activities.

While not anticipated, if cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area would be diverted until a qualified archaeologist can assess the nature of the find. **Project Feature PF-CUL-1** addresses the possibility of discovery of cultural materials during construction.

PF-CUL-1 Discovery of Cultural Materials. If cultural materials are discovered during site preparation, grading, or excavation, the construction Contractor will divert all earthmoving activity within and around the immediate discovery area until a qualified archaeologist can assess the nature and significance of the find. At that time, coordination will be maintained with the California Department of Transportation (Caltrans) District 12 Environmental Branch Chief or the District 12 Native American Coordinator to determine an appropriate course of action. If the discovery of cultural materials occurs outside the Caltrans right-of-way, then coordination with the appropriate local agency will be conducted as well.

- c) **Less Than Significant Impact** No human remains or burial sites were identified during the field survey. A search of the Sacred Lands File by the Native American Heritage Commission failed to indicate the presence of Native American cultural resources (including burials) in the project site. According to the record search results, no human burials have been previously recorded within 1.0 mile of the project site.

While not anticipated, if human remains are discovered during construction, all earthmoving activity within and around the immediate discovery area would be diverted until the Orange County Coroner can assess the nature of the find. **Project Feature PF-CUL-2** addresses the possibility of discovery of human remains during construction.

PF-CUL-2 Discovery of Human Remains. If human remains are discovered during site preparation, grading, or excavation, California State Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the Orange County Coroner shall be contacted. If the remains are thought to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC), who pursuant to California Public Resources Code (PRC) Section 5097.98, will then notify the Most Likely Descendant (MLD). At that time, the persons who discovered the remains will contact the Caltrans District 12 Environmental Branch Chief or the District 12 Native American Coordinator so that they may work with the MLD on the respectful treatment

and disposition of the remains. Further provisions of California PRC 5097.98 are to be followed as applicable.

Avoidance, Minimization and/or Mitigation Measures:

None required, the following project features will be implemented; PF-CUL-1 and PF-CUL-2

2.6 Energy

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.6.1 Discussion of Environmental Evaluation Questions

- a) Less Than Significant Impact.** The construction of the proposed project will primarily consume diesel and gasoline through operation of heavy-duty construction equipment, material deliveries, and debris hauling. Energy use associated with proposed project construction is estimated to increase the short-term energy demand through related construction activities. This short-term energy demand would cease once the construction of the project is complete. Regarding long-term and permanent energy consumption, operational activities would primarily require energy for transportation fuel, electricity for lighting and maintenance activities; the dominant energy use being consumption of transportation fuel. However, this project will improve traffic flow by reducing congestion and operational deficiencies in this segment of the SR-133 corridor, thereby reducing idling and improving the flow the traffic. Therefore, the project will not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. The impact would be less than significant and no mitigation is required.
- b) No impact.** The project would be consistent with regional and State energy conservation plans. The Southern California Association of Governments' (SCAG) 2016/2035 Regional Transportation Plan / Sustainable Communities Strategy^[1], or Plan, includes information about efforts to encourage energy efficiency and renewable energy use. Regional plans for renewable energy and energy efficiency would not be impacted from the construction and operation of the project. Energy efficient building development is not applicable to this project and renewable energy policies are encouraged for all Caltrans projects where applicable and feasible. The result of this

[1] 2016/2030 RTP/SCS, Southern California Association of Governments. Accessed July 15, 2019. Website <http://scagrtpscscs.net/Documents/2016/final/f2016RTPSCS.pdf>

project will not conflict with or obstruct regional plans for renewable energy or energy efficiency. The project would be consistent with regional and State energy conservation plans. Planning documents with relevant energy assessments include the 2016–2040 RTP/SCS published by SCAG and the 2018 IERP (CEC 2018). The 2016–2040 RTP/SCS includes a comprehensive assessment of regional energy consumption primarily focused on residential and commercial electricity, natural gas, and water use. The 2016–2040 RTP/SCS Draft EIR (Sapphos 2015b) includes a brief analysis of transportation fuel consumption. SCAG concluded in the Draft EIR that the 2016-2040 RTP/SCS would have a less than significant impact on increasing petroleum and non-renewable fuel usage because fuel consumption is expected to result in a 26.7 percent net reduction in the SCAG region from the 9.3 billion gallons consumed in 2012 to the projected 6.8 billion gallons consumed in 2040. Transportation fuel use would be less in the project opening and design years than existing/baseline condition. Furthermore, transportation fuel use in 2035 would be less with the project than without the project. A slight increase would occur in 2055 due to increased VMT, although the additional transportation fuel use would represent less than 1 percent increase in fuel use from the No Build Alternative. The project would be consistent with the energy findings in the 2016-2040 RTP/SCS and would not interfere with implementation of the 2016-2040 RTP/SCS. The 2018 IERP includes key goals to guide the State’s energy policy, including reducing petroleum use in cars and trucks by up to 50 percent. The discussion related to this goal broadly focuses on increasing the number of zero- or near-zero emission vehicles operating on the roadway network. It is also noteworthy that improving driving conditions reduces petroleum use. concluding that AM and PM peak-period vehicle delays would decrease by 19 percent and 6 percent, respectively, in 2035. The AM and PM peak-period vehicle delays would decrease by 14 percent and 4 percent, respectively, in 2055. The congestion improvement would reduce vehicle idling and associated fuel consumption. This would be consistent with the goal of reducing petroleum use in cars and trucks by up to 50 percent, and the project would not interfere with implementation of the 2018 IERP. Accordingly, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. No impact and no mitigation is required.

Avoidance, Minimization, and/or Mitigation Measures

None required

2.7 Geology and Soils

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The potential for the Build Alternative to result in adverse impacts related to paleontological resources was assessed in the Paleontological Identification Report/Paleontological Evaluation Report (PIR/PER, September 2019) and the Supplemental PIR/PER memorandum (January 2020).

2.7.1 Discussion of Environmental Evaluation Questions

- i) **No Impact:** The project site is not located within an Alquist-Priolo Earthquake Fault Zone (EFZ) as defined by the California Geologic Survey, nor is it within 1000 feet of an un-zoned fault that is Holocene (11,000 years) or younger in age and have surface rupture potential. Therefore, there is no risk of surface fault rupture hazard for this project. No mitigation is required.
- ii) **No Impact:** The location of the project site is an area that could experience moderate seismic ground shakings from possible earthquakes. The Peak Ground Acceleration (PGA) for this site is about 0.6 to 0.7g. However, the project would not cause strong seismic ground shaking and all structures would be designed with special design considerations for seismic features. Therefore, there is no impact and no mitigation is required.
- iii) **Less Than Significant Impact:** Due to the location of the project site, there could be moderate seismic ground shakings from possible earthquakes. The construction of the

project would be implemented with consideration of seismic influences to minimize any effects of liquefaction in the event of seismic activity in the project area. Therefore, the impacts would be less than significant, and no mitigation is required.

- iv) **No Impact:** The project is not located in an area with high steep slopes that would be potentially vulnerable to deep-seated landslides. No mitigation is required.
- b) **Less Than Significant Impact:** Within the San Diego Creek area under the bridge, scouring issues have been observed and reported. During Design, remedial treatments will be recommended by Structure Hydraulics for the existing scour. Slopes will be designed according to Caltrans Requirements for erosion control.
- c) **No Impact:** The potential for landslides, lateral spreading, collapse and subsidence is minimal at the project site, as well as potential for liquefaction. Foundations will be designed with special considerations.
- d) **Less Than Significant Impact:** Geotechnical investigatory boring results have shown that much of the project site has non-expansive soil. Any effects of expansive soil would be minimized or eliminated by incorporation of appropriate foundation types and subsurface soil preparations. For pavements, measures such as pre-wetting, moisture control with proper surface and subsurface drainage facilities will be implemented.
- e) **No Impact:** There are no soils incapable of supporting the use of septic tanks or alternative waste water disposal systems within the project limits. No mitigation is required.
- f) **Less Than Significant Impact with Mitigation Incorporated:** Geologic mapping indicates that the project area contains Young Alluvial Fan Deposits and the Vaqueros Formation. Artificial Fill is also likely present from the surface to varying depths throughout much of the project area where it was placed during the construction of SR-133. The Young Alluvial Fan Deposits have low sensitivity for paleontological resources from the surface to a depth of 10 ft and high sensitivity below that mark. The Vaqueros Formation has high paleontological sensitivity. Artificial Fill has no paleontological sensitivity.

Construction of the Build Alternative would not result in temporary impacts to paleontological resources because any impacts to those types of resources during construction would be considered permanent. Excavation depths for the various components of the Build Alternative range from 2 inches for replacement of the loop detectors at Barranca Parkway on-ramp to 30-50 ft for driving 18-inch diameter piles to support the new San Diego Creek on-ramp bridge. The pile caps for these supports would be 8 ft in diameter and extend to a depth of 3 ft. Excavation for replacing and installing sign structures would extend to a depth of 25 ft. Replacing light poles would require excavation to a depth of 5 ft. Constructing additional asphalt/concrete pavement and bridge pavement would extend to depths of 3-5 ft. Realigning/reconstructing the Barranca Parkway loop on-ramp and ramp entrance, as well as maintenance vehicle pullouts, would extend to a depth of 3.10 ft. Excavation for tieback walls at Barranca Parkway OC and Alton Parkway OC would reach a depth of 3.5 ft, and excavation for the retaining walls would reach 5.5 ft. Excavation to a depth of 6 ft would be required for installing the ramp metering system and the Rock Slope Protection/Partially Grouted Rock Slope Protection. Installation of the Midwest Guardrail System and replacement of barriers would involve excavation to a depth of 7 ft. Relocating drainage inlets would extend to 10 ft. Clearing and grubbing would extend to less than 1 ft, while planting and landscaping would extend to 1.5 ft.

Some of these excavation activities would occur in deposits that are sensitive for paleontological resources. As such, excavation for some of these construction activities may

have the potential to significantly impact paleontological resources. However, with implementation of Measure PAL-1, which would require the preparation and implementation of a Paleontological Mitigation Plan (PMP), potentially significant impacts to paleontological resources would be reduced to a less than significant level.

Avoidance, Minimization and/or Mitigation Measures:

With the incorporation of mitigation measure **PAL-1**, impacts to paleontological resources will be reduced to less than significant

PAL-1: A Paleontological Mitigation Plan (PMP) shall be prepared during the Plans, Specifications, and Estimates (PS&E) phase. The PMP shall be developed concurrently with the final design plans and shall follow the Caltrans guidelines in the *SER, Environmental Handbook, Volume 1, Chapter 8 – Paleontology* (Caltrans, 2017), as well as guidelines from the Society of Vertebrate Paleontology (SVP). Following these guidelines, the PMP shall include sections describing project activities, the geologic units within the project area and their paleontological sensitivities, the work plan for mitigating project impacts to paleontological resources, estimates of monitoring schedules and costs, decision thresholds for monitoring levels and fossil collections, a recommended repository for recovered fossils, any necessary permits, and the appropriate documentation at the end of the monitoring program. Once the PMP has been prepared, the paleontological resource protocols and procedures within it shall be incorporated into the project plans, specifications, and estimates.

2.8 Greenhouse Gas Emissions

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Assembly Bill 32 (AB 32), Chapter 488, 2006: Núñez and Pavley, The Global Warming Solutions Act of 2006: Assembly Bill 32 codified the 2020 GHG emissions reduction goals as outlined in State Executive Order S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.” The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

CEQA Guidelines Section 15064.4 states that when assessing the significance of impacts from Greenhouse Gas (GHG) emissions on the environment, the lead agency should

consider, among other factors, the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting. While comparing future build to future no-build conditions may be useful in determining significant and in establishing the extent of project-level measures to reduce GHG emissions from the project, CEQA and the CEQA Guidelines remain in focused on the comparison of future conditions with the project compared to existing conditions.

2.8.1 Discussion of Environmental Evaluation Questions

Less Than Significant Impact: The purpose of the project is to improve traffic flow and reduce the heavy congestion that occurs in this segment of SR-133. This will improve the existing and future regional mobility and traffic flow on SB Route 133 and the connectors. Reduction in delays and congestions will help to reduce GHG emissions by decreasing amount of idling. By improving traffic flow, the project will help reduce the level of operational emissions and less traffic idling equals less GHG emissions produced. Travel Demand Management (TDM) and Transportation System Management (TSM) strategies are designed to influence an individual’s travel behavior by reducing the demand for signal occupant vehicle travel, especially during peak commute periods. The project scope includes TSM/TDM elements including ramp metering on Barranca Parkway loop on-ramp which would provide air quality improvements by helping to reduce emissions from transportation sources. CO₂ emissions were calculated for the Base Year (2018), Opening Year (2024), and Design Year (2044). The results of the modeling were used to calculate the CO_{2e} emissions listed in Table 3.2. This table shows that the Build Alternative would result in a net decrease in CO_{2e} emissions in the opening year 2024 and in the design year 2044, compared to the base year 2018. The Build Alternative in both opening and design years would result in lower CO_{2e} emissions in the region when compared to the No Build Alternative, even as VMT increases over time due to anticipated growth (Table 3.2). Improved operations and smoother traffic flow, along with use of cleaner fuels and cleaner vehicle technology in the future, contribute to reducing the GHG emissions in the future years compared to the Existing Year 2018.

Table 3.2: Modeled Annual CO_{2e} Emissions and Vehicle Miles Traveled, by Alternative

Alternative	CO _{2e} Emissions (metric tons/year)	Annual Vehicle Miles Traveled ^a
Existing/Baseline 2018	2,905	7,647,880
Open to Traffic 2024		
No Build	2,703	8,487,620
Build Alternative 1	2,644	8,487,620
20-Year Horizon/Design-Year 2044		
No Build	2,998	12,179,700
Build Alternative 1	2,891	12,179,700

Source: CT-EMFAC (2017), OCTAM 4.0 (2012 base year network and 2040 MPAH network)

CO₂ = carbon dioxide

CO_{2e} = carbon dioxide, nitrous oxide, and methane.

^{an} Annual vehicle miles traveled (VMT) values derived from Daily VMT values multiplied by 347, per ARB methodology (ARB 2008: I-19).

The Build Alternative shows decrease in long-term regional vehicle GHG emissions compared to the Existing Condition. The Build Alternative in both opening and design years would result in decrease in CO2 emissions in the region when compared to the No Build Alternative in each year. VMT would be the same under the No Build Alternative and Build Alternative. Operation with this project in this area would not increase the CO2e. Therefore, impacts to generating GHG emissions both directly and indirectly to the environment would be less than significant. No mitigation is required.

- a) **No Impact:** The project limits are within the South Coast Air Basin, within the jurisdiction of the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB). The project is included in Southern California Association of Governments (SCAG) 2016-2040 Regional Transportation Plan (RTP) and the 2019 Federal Transportation Improvement Program (FTIP), both of which are conforming to State and Federal ambient air quality standards provided in the Air Quality Management Plan (AQMP). Therefore, the project would not conflict with the AQMP or violate any air quality standards and have no impacts. No mitigation is required.

Avoidance, Minimization and/or Mitigation Measures:

None required, the following project features will be implemented:

PF-AQ-1 The construction contractor must comply with Caltrans Standard Specification in Section 14-9, Air Quality, which specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and ordinances.

2.9 Hazards and Hazardous Materials

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.9.1 Discussion of Environmental Evaluation Questions

a) **Less Than Significant Impact:** Although the project will require transportation and/or disposal of hazardous materials, the Contractor will be required to comply with Caltrans Standards and Special Provisions for Hazardous Waste Management. An Aerially Deposited Lead Investigation (ADL) will be conducted at areas of excavation during which soil samples of unpaved areas next to the traffic lanes or shoulders will be collected, tested and analyzed for lead contamination. If lead contamination is found, appropriate Caltrans Standard Specifications will be implemented and followed with by Contractor accordingly. Additionally, investigations for pavement marking material removal, treated wood disposal and possible asbestos will be conducted and addressed prior to construction. The removal of yellow traffic striping and pavement marking material will be removed during construction in accordance with Caltrans Construction Manual. The impacts will be less than significant, and no mitigation required.

b) **Less Than Significant Impact:** The project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The Contractor will comply with the requirements for unanticipated asbestos and hazardous substances discovery. Impacts will be less than significant, and no mitigation is required.

c) **No Impact:** Although the project is within a quarter mile of the Western State University College of Law, Cal State Fullerton Irvine Center, Webster University, and Brentwood University, any hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste will be temporary in nature and last only for duration of construction of the project. The contractor will comply with the Caltrans Construction Manual and Caltrans standards for Hazardous Waste and Contamination which includes discovery of unanticipated asbestos and hazardous substances, dust control, stockpiling, contractor generated hazardous waste, storage of hazardous waste, the transport and disposal of hazardous waste. There are no impacts and no mitigation required.

d) **No Impact:** The project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the

project would not create any significant hazard to the public or environment. There are no impacts and no mitigation required.

e) **No Impact:** The project is not located within an airport land use plan or, where such a plan has not within two miles of a public airport or public use airport. The project would not result in a safety hazard or excessive noise for people residing or working in the project area. No impacts are anticipated, and no mitigation is required.

f) **No Impact:** The project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Safety Plans. Access for Emergency Response must always be maintained throughout construction of the project, and a Traffic Management Plan (TMP) will be prepared and implemented to keep traffic moving efficiently through the project area. No impacts are anticipated to occur, and no mitigation is required.

g) **No Impact:** The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. The project will comply with Caltrans standards for Fire Protection. No impacts are anticipated, and no mitigation is required.

Avoidance, Minimization, and/or Mitigation Measures

None required, the following project features will be implemented:

PF-TRA-1: A Transportation Management Plan (TMP) shall be included in the design plans for implementation by the contractor prior to and during construction of any improvements. The TMP shall consist of prior notices, adequate sign posting, detours, phased construction, and temporary driveways where necessary. The TMP shall specify implementation timing of each plan element (e.g., prior notices, sign posting, detours) as determined appropriate by Caltrans. Adequate local emergency access shall always be provided to adjacent uses. Proper detours and warning signs shall be established to ensure public safety. The TMP shall be devised so that construction shall not interfere with any emergency response or evacuation plans. Construction activities shall proceed in a timely manner to reduce impacts.

PF-HAZ-1 Solid Waste Disposal and Recycling Section 14.10 of CT 2018 SSPs. to reduce GHG emissions and potential climate change impacts

PF-HAZ-2: Should construction activities result in the disturbance of traffic striping and pavement marking materials, the generated wastes would be disposed of at an appropriate permitted disposal facility as determined by a lead specialist

PF-HAZ-3: During construction, the construction contractor will monitor soil excavation for visible soil staining, odor, and the possible presence of unknown hazardous material sources. If hazardous material contamination or sources are suspected or identified during project construction activities, the construction contractor will be required to cease work in the area and to have an environmental professional evaluate the soils and materials to determine the appropriate course of action required, consistent with the Unknown Hazards Procedures in Chapter 7 of the Caltrans' Construction Manual

2.10 Hydrology and Water Quality

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.10.1 Discussion of Environmental Evaluation Questions

The proposed project is located within the Santa Ana Regional Water Quality Control Board in Orange County, discharges to San Diego Creek (Reach 2). A Water Quality Technical Memo was completed on December 20th, 2019

Discussion of Environmental Evaluation Questions

a) Less Than Significant Impact

Construction

The project proposes to improve operations of the facility by constructing a new auxiliary lane on SB route 133 from the SB I-5 connector to the NB I-405 connector with an anticipated Disturbed Soil Area (DSA) of 6.0 acres.

Potential temporary impacts to water quality anticipated during construction include possible sediment transport caused by disturbed soil areas created by construction activities such as clearing, grubbing and excavation and grading to construct the auxiliary lanes, retaining walls and bridge construction. The project can also have temporary water quality impacts from concrete demolition waste, trash from workers and construction waste, petroleum products from construction equipment and/or vehicles, sanitary wastes from portable toilets and any other chemicals used for construction such as coolants used for equipment and/or concrete curing compounds. The construction for the bridge widening will require construction equipment to access San Diego Creek and extend the bridge foundations to accommodate the widening of the bridge. The bridge construction may require stream diversions to allow construction when flows are present in the creek. In addition, if the construction of pier foundations for the bridge construction encounter groundwater, discharges will be subject to the RWQCB Waste Discharge Requirements for groundwater discharges to surface waters.

With the anticipated DSA for the project to be over 1.0 acres, the project will be required to comply with the NPDES Construction General Permit (CGP) issued by the State Water Resources Control Board (SWRCB). To comply with the CGP, the project will be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) and determine a Risk Level based on potential erosion and transport to receiving waters. The SWPPP will identify temporary Best Management Practices (BMPs) to address the potential temporary impacts to water quality. The BMPs identified in the project SWPPP will include measures such as temporary soil stabilization measures, linear sediment barriers (i.e. silt fence, gravel bag berms, fiber rolls), and construction site waste management (i.e. concrete washout, construction materials storage, litter/ waste management/ stream diversions). In addition, with the project working in San Diego Creek, a 401 Water Quality Certification (401 Certification) from the Santa Ana Regional Water Quality Control Board will be required prior to construction. Any discharges of groundwater to surface waters during construction will be subject to the *General Waste Discharge Permit for Discharges to Surface Waters of Groundwater Resulting from Groundwater Dewatering Operations and/or Groundwater Cleanup Activities at Sites Within the San Diego Creek/ Newport Bay Watershed Polluted by Petroleum Hydrocarbons, Solvents, Metals, and/ or Salts. (Order No. R8-2007-0042, NPDES No. CAG918002)* and any subsequent updates to the permit at the time of construction.

Operation

The proposed project will construct an auxiliary lane on SB route 133 from the SB I-5 connector to the NB I-405 connector. This proposed auxiliary lane will become the second lane on the NB I-405 connector. The construction will include grading, construction of retaining walls,

modifying the drainage system, and widening the roadway to construct the auxiliary lane. The increase of new impervious surface is approximately 2.54 acres that is comprised of a new impervious surface of 1.0 acres and 1.54 acres of replaced impervious surface. With the construction of an auxiliary lane, there is the possibility that the pollutants typically generated during the operation of a transportation facility will increase with the operating traffic traveling on a new lane. These pollutants may include sediment/ turbidity, nutrients, trash and debris, bacteria and viruses, oxygen demanding substances, organic compounds, oil and grease, pesticides and metals. Per the Caltrans NPDES permit, post-construction storm water treatment control requirements are required for projects that create 1.0 acre or more of new impervious surface. With the new impervious surface estimated to be 2.54 acres, this project is required to implement Caltrans approved post construction treatment controls. In addition to treating the roadway runoff, the project will stabilize with permanent vegetation all DSA's created by the minor grading and/ or excavation.

With the implementation of the Caltrans NPDES Permit, the General NPDES Permit for Construction Activities, a Storm Water Pollution Prevention Plan (SWPPP) and temporary and permanent BMPs, the project will not substantially degrade water quality (PF-WQ1, PF-WQ-2, PF-WQ-3, PF-WQ-4, PF-WQ-5, PF-WQ-6).

- b) **Less than Significant Impact:** The project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Minor groundwater extraction that may be needed during construction from construction of bridge foundations. Any discharges of groundwater to surface waters will be subject to the local RWQCB dewatering permit. (PF-WQ-6).

c) Less than Significant Impact

The project will not substantially alter the drainage pattern of the site or area but there may be a temporary alteration of a stream or river or stream diversion to allow for the construction of bridge pier foundations and placement of scour protection (Rock Slope Protection).

(i) Less than Significant Impact.

Potential temporary impacts to water quality anticipated during construction for the Build Alternative include possible sediment transport caused by disturbed soil areas created by construction activities such as excavation and trenching, soil compaction, cut and fill activities, grading, demolition, and bridge construction. Any erosion and siltation that can occur during construction will be from Disturbed Soil Areas (DSA) created by the project's excavation/grading. The potential erosion/siltation will be addressed by the installation and implementation of temporary Best Management Practices (BMPs) identified in the project's Storm Water Pollution Prevention Plan (SWPPP) (PF-WQ-3). Post construction erosion/ siltation is addressed by the installation of permanent soil stabilization BMPs (PF-WQ-4).

(ii) Less than Significant Impact.

The project proposes to increase the impervious surface 2.54 acres. The project will not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.

(iii) Less than Significant Impact.

The proposed project will not exceed the capacity of the existing or planned storm water drainage systems. As indicated previously, the project may contribute additional sources of pollutants during construction. Potential temporary impacts to water quality that can be anticipated during construction include sediments from grading and excavation operations, trash from workers and construction waste, petroleum products from construction equipment and/or vehicles, concrete waste, sanitary wastes from portable toilets and any other chemicals used for construction such as coolants used for equipment and/or concrete curing compounds.

The project may contribute additional sources of pollutants upon completion of construction. Pollutants typically generated during the operation of a transportation facility include sediment/ turbidity, nutrients, trash and debris, bacteria and viruses, oxygen demanding substances, organic compounds, oil and grease, pesticides and metals. The project will incorporate Design Pollution Prevention (source control) BMPs and post construction treatment BMPs as required by the Caltrans NPDES permit to ensure that adequate measures are included to minimize any potential long-term impacts.

With the implementation of a SWPPP and selected temporary BMPs during construction (PF-WQ-3) as well as evaluating and implementing post construction BMP strategies (PF-WQ-4 and WQ-PF-5), the project will not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff.

(iv) No Impact: The project will not impede or redirect flood flows.

(d) No Impact. The project is not in a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation

e) No Impact

The project will not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The project will comply with the Statewide Construction General Permit for temporary impacts to water quality (PF-WQ-2) and the Caltrans Statewide NPDES Storm Water Permit (PF-WQ-1)

Avoidance, Minimization, and/or Mitigation Measures

None required, the following project features will be implemented:

PF-WQ-1 The project will comply with the provisions of the National *Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for the State of California, Department of Transportation, Order No. 2012-0011-DWQ, NPDES No. CAS00003* and the and any subsequent permits in effect at the time of construction an construction.

PF-WQ-2 The project will comply with the provisions of the NPDES *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit)* Order No.2009-0009-DWQ, NPDES No. CAS000002 and the and any subsequent permits in effect at the time of construction.

PF-WQ-3 The project will comply with the Construction General Permit by preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) to address all construction-related activities, equipment, and materials that have the potential impact water quality for the appropriate Risk Level. The SWPPP will identify the sources of pollutants that may affect the quality of storm water and include BMPs to control the pollutants, such as sediment control, catch basin inlet protection, construction materials management and non-storm water BMPs. All work must conform to the Construction Site BMP requirements specified in the latest edition of the *Storm Water Quality Handbooks: Construction Site Best Management Practices Manual* to control and minimize the impacts of construction and construction related activities, material and pollutants on the watershed. These include, but are not limited to temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and other non-storm water BMPs.

PF-WQ-4 Design Pollution Prevention Best Management Practices (BMPs) will be implemented such as preservation of existing vegetation, slope/surface protection systems (permanent soil stabilization), concentrated flow conveyance systems such as ditches, berms, dikes and swales, overside drains, flared end sections, and outlet protection/ velocity dissipation devices.

PF-WQ-5 Caltrans approved treatment Best Management Practices (BMPs) will be implemented consistent with the requirements of *National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for the State of California, Department of Transportation, Order No. 2012-0011-DWQ, NPDES No. CAS00003* and any subsequent permits in effect at the time of construction.

PF-WQ-6 Any discharges of groundwater to surface waters during construction will be subject to the General Waste Discharge Permit for Discharges to Surface Waters of Groundwater Resulting from Groundwater Dewatering Operations and/or Groundwater Cleanup Activities at Sites Within the San Diego Creek/ Newport Bay Watershed Polluted by Petroleum Hydrocarbons, Solvents, Metals, and/ or Salts (Order No. R8-2007-0042, NPDES NO. CAG918002) and any subsequent updates to the permit at the time of construction.

2.11 Land Use and Planning

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.11.1 Discussion of Environmental Evaluation Questions

- a) **No Impact:** The project limits are within existing freeway with interchanges/ramps, retaining walls, noise barriers (i.e. berms), and other structural features. Existing land uses around the project study area include a mix of commercial and services, industrial, urban and built out, vacant spaces and mixed commercial and industrial uses. Construction of the Build Alternative will require Temporary Construction Easements (TCEs). However, the use of the TCEs are temporary in nature; detours will be provided for any temporary impacts to access of the San Diego Creek Trail on existing public right of way and the temporary use of such land for construction activities would not adversely affect community character, divide existing land uses or existing communities, or create barriers between existing communities. Therefore, there will be no physical divide of an established community and no impacts. o mitigation is required.

- b) **No Impact:** The project does not conflict with any land use plan, policy, or regulation adopted for the purposes of avoiding or mitigating an environmental effect, nor will the project cause any significant environmental impact pertaining to any land use plan, policy or regulation. No mitigation is required.

Avoidance, Minimization, and/or Mitigation Measures

None required, the following project features will be implemented:

PF-REC-1: The property used for temporary construction easement will be restored to a condition at least as good as it was prior to easement being granted

PF-TRA-1: A Transportation Management Plan (TMP) shall be included in the design plans for implementation by the contractor prior to and during construction of any improvements. The TMP shall consist of prior notices, adequate sign posting, detours, phased construction, and temporary driveways where necessary. The TMP shall specify implementation timing of each plan element (e.g., prior notices, sign posting, detours) as determined appropriate by Caltrans. Adequate local emergency access shall always be provided to adjacent uses. Proper detours and warning signs shall be established to ensure public safety. The TMP shall be devised so that construction shall not interfere with any emergency response or evacuation plans. Construction activities shall proceed in a timely manner to reduce impacts.

2.12 Mineral Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The potential for the Build Alternative to result in adverse impacts related to mineral resources was assessed based on information from the Orange County General Plan (2005)

2.12.1 Discussion of Environmental Evaluation Questions

a) and b) No Impact: The Resources Element of the Orange County General Plan¹ identified significant construction aggregate resources are available in undisclosed portions of San Juan Creek, Trabuco Canyon, and the Santa Ana River. A review of the Surface Mining and Reclamation Act of 1975 maps² indicates that there are no aggregate production areas in the project study area. In addition, Figure VI-3 in the Resources Element of the Orange County General Plan does not display any mineral resource areas near the project limits. Therefore, there will be no impact to mineral resources from the Build Alternative. No mitigation required.

Avoidance, Minimization, and/or Mitigation Measures

None Required:

2.13 Noise

Would the project result in:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels near the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.13.1 Discussion of Environmental Evaluation Questions

This discussion is based on the Noise Study Report (September 2019) and the Noise Abatement Decision Report (September 2019)

¹ County of Orange General Plan. 2013. Chapter VI. Resources Element. Website: <https://www.ocgov.com/civicax/filebank/blobdload.aspx?blobid=40235> (accessed January 25, 2019)

² California Geological Survey. 2012. Aggregate Sustainability in California. Website: http://www.conservation.ca.gov/cgs/information/publications/ms/Documents/MS_52_2012.pdf (accessed July 12, 2019).

- a) **Less Than Significant Impact:** Based on the NSR, the project will generate temporary and permanent increase in ambient noise levels in excess of standards established in Caltrans Traffic Analysis Protocol (Protocol) but are considered less than significant. Certain receptors (42 of 59 in total evaluated) with human-frequent use areas within the project limits currently experiences traffic noise impacts during the freeway's noisiest traffic hour and with the future-build project will continue to be exposed to traffic noise levels approaching or exceeding Caltrans' noise abatement criteria (NAC). These receptors composed of outside sitting areas of offices and apartment balconies are predicted to experience an increase in noise levels ranging from 0.2 dBA to 1.0 dBA after the project is built. In the Protocol, a substantial noise increase is considered to occur when the project's worst-hour design-year noise level exceeds the existing worst-hour level by 12 dBA or more. Since the increase in noise levels at the impacted receptors are below 12 dBA, the proposed project will not result to a substantial increase in traffic noise in the area. In addition, short-term construction-related noise impacts would occur during the construction of the build alternative. However, construction noise will be controlled by Caltrans' standard specifications section 14-8.02 and therefore temporary noise impacts are also considered less than significant.
- b) **Less Than Significant Impact:** Construction activities such as pile driving, and the use of vibratory rollers are anticipated to generate the most groundborne vibrations. The closest sensitive receptors (Westview apartments) that may be affected by pile driving activities are approximately 370 feet away. Based on Caltrans Transportation and Construction Vibration Guidance manual, the predicted vibration amplitude (peak particle velocity – PPV) of 0.03 in/sec will be experienced by the building and its occupants. This predicted vibration amplitude is way below 0.5 in/sec which is the suggested appropriate damage potential threshold for new residential structures when the source is continuous (from Table 19 of the guidance manual). This indicates low potential for structural damage to the building. With respect to human perception and annoyance from pile driving activities, the same predicted vibration amplitude of 0.03 in/sec would be categorized in Table 20 of the manual as barely to distinctly perceptible annoyance levels and would indicate that the activity will result to low level of annoyance to building occupants. Vibration amplitude produced by vibratory rollers near sensitive receivers at 103 feet away also resulted with similar PPV and would have low potential for structural damage to buildings and low level of annoyance to building occupants. Groundborne vibration from vehicles driving on the project facilities would not result in any measurable changes in vibration levels compared to existing conditions. Therefore, ground-borne vibration and groundborne noise generated by the project and its construction would be less than significant. No mitigation measures are required.
- c) **No Impact:** The project is located within the vicinity of a private airstrip. The airstrip, Marine Corps Air Station El Toro, has been decommissioned since 1999. No other airport or airport land use plan is located within 2 miles from the proposed project. Therefore, implementation of the project would not expose people residing or working in the project area to excessive noise levels. No impact and no mitigation measures are required.

Avoidance, Minimization and/or Mitigation

None required, the following project features will be implemented:

PF-N-1 During construction of the Project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Noise associated with construction is controlled by 2018 Caltrans Standard Specification Section 14-8.02, “Noise Control,” which states the following: Control and monitor noise resulting from work activities. Do not exceed 86 dBA Lmax at 50 feet from the job site from 9 p.m. to 6 a.m. No mitigation required.

2.14 Population and Housing

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.14.1 Discussion of Environmental Evaluation Questions

a) and b) No Impact. The proposed project is not a capacity increasing project; rather it proposes to improve the operation of the highway facility. The project proposes to construct a new auxiliary lane to address the severe congesting during peak hours. The project will not induce substantial unplanned population growth directly by proposing new homes or businesses nor indirectly through extension of roads or infrastructure. The new auxiliary lane on SB SR-133 from SB I-5 connector to the NB I-405 connector will connect to existing highway facilities and will not increase the capacity of highway facilities. The proposed project will require TCEs from two (2) different Grantors including the City of Irvine (21,520 square feet for Accessor Parcel No. 466-102-02), and Toyota Motor Sales USA (8445 square feet Accessor Parcel No 466-101-13) However, the TCEs will be temporary in nature and will not displace or relocate numbers of people or houses necessitating the construction of replacement housing elsewhere. Therefore, there will be no impacts to populations and housing. No mitigation required.

Avoidance, Minimization, and/or Mitigation Measures

None required, the following project features will be implemented:

PF-REC 1: The property used for temporary construction easement will be restored to a condition at least as good as it was prior to easement being granted.

2.15 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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.15.1 Discussion of Environmental Evaluation Questions

Fire Protection—Less than significant impact.

The proposed project will not permanently impact acceptable service ratios, response times or other performance objectives for fire protection. Due to the nature of construction activities certain lanes of the highway facility may be temporarily closed for construction. Thus, fire protection services may be temporarily impacted. However, a Transportation Management Plan (TMP) will be prepared to minimize construction activity-related delays by the effective application of traditional traffic handling practices. As part of the TMP, Caltrans District 12 Orange County office would coordinate with emergency response providers to ensure the project does not interfere with emergency response times. Therefore, no mitigation is required.

Police Protection—Less than significant impact.

The proposed project will not permanently impact acceptable service ratios, response times or other performance objectives for police protection. Due to the nature of construction activities certain lanes of the highway facility may be temporarily closed for construction. Thus, fire protection services may be temporarily impacted. However, a Transportation Management Plan (TMP) will be prepared to minimize construction activity-related delays by the effective application of traditional traffic handling practices. As part of the TMP, Caltrans District 12 Orange County office would coordinate with emergency response

providers to ensure the project does not interfere with emergency response times. Therefore, no mitigation is required.

Schools—No Impact

There are no schools in the project area. Therefore, no schools will be impacted. No mitigation is required.

Parks—No impact

There are no parks in the project area. Therefore, no parks will be impacted. No mitigation is required.

Other Public Facilities—No impact

There are no other public facilities in the project. Therefore, no parks will be impacted. No mitigation is required.

Avoidance, Minimization, and/or Mitigation Measures

None required; however, the following project feature will be implemented:

PF-TRA-1: A Transportation Management Plan (TMP) shall be included in the design plans for implementation by the contractor prior to and during construction of any improvements. The TMP shall consist of prior notices, adequate sign posting, detours, phased construction, and temporary driveways where necessary. The TMP shall specify implementation timing of each plan element (e.g., prior notices, sign posting, detours) as determined appropriate by Caltrans. Adequate local emergency access shall be provided at all times to adjacent uses. Proper detours and warning signs shall be established to ensure public safety. The TMP shall be devised so that construction shall not interfere with any emergency response or evacuation plans. Construction activities shall proceed in a timely manner to reduce impacts.

2.16 Recreation

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.16.1 Discussion of Environmental Evaluation Questions

- a) **Less than significant impact.** The Build alternative will require two (2) Temporary Construction Easements (TCEs) that includes the City of Irvine (21,520 square feet for Accessor Parcel No. 466-102-02) and Toyota Motor Sales USA (8445 square feet Accessor Parcel No 466-101-13) to access the San Diego Trail. This temporarily limits the public's use to the San Diego Creek trail from this location during construction at the project. This temporary trail location access impact will not increase use on nearby bicycle facilities by means of bicycle detours. However, the temporary use of other bicycle facilities for detours will not cause substantial physical deterioration of the facility to occur or be accelerated. Once the project is completed, the San Diego Creek Trail will re-open with no changes to the recreational facility. Implementation of the following measures below will minimize impacts (if any) to the San Diego Creek Bike Trail facility. Therefore, no mitigation is required.
- b) **No Impact.** The Build alternative does not include the construction or expansion of recreational facilities.

Avoidance, Minimization, and/or Mitigation Measures

None required; however, the following project feature will be implemented

- PF-TRA-1** A Transportation Management Plan (TMP) shall be included in the design plans for implementation by the contractor prior to and during construction of any improvements. The TMP shall consist of prior notices, adequate sign posting, detours, phased construction, and temporary driveways where necessary. The TMP shall specify implementation timing of each plan element (e.g., prior notices, sign posting, detours) as determined appropriate by Caltrans. Adequate local emergency access shall be provided at all times to adjacent uses. Proper detours and warning signs shall be established to ensure public safety. The TMP shall be devised so that construction shall not interfere with any emergency response or evacuation plans. Construction activities shall proceed in a timely manner to reduce impacts.
- PF-BIO-1** To avoid impacts to any nesting birds, ground disturbance that occurs during the nesting bird season (February 1 – September 30) will require nesting bird surveys by a Caltrans Biologist within 72 hours prior to the start of work. The Caltrans Biologist will be contacted at least one week ahead of time to schedule a survey
- PF-BIO-2** To avoid the spread of invasive plant species, all vegetation being removed should be disposed of properly. If vegetation is planted on site, the Caltrans Biologist and Landscape Architect will coordinate and approve the proposed vegetation to be planted.
- PF-WQ-2** The project will comply with the provisions of the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) Order No. 2009-0009-DWQ, NPDES General Permit No. CAS000002 and any subsequent permits in effect at the time of construction.

PF-N-1 During construction of the Project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Noise associated with construction is controlled by 2018 Caltrans Standard Specification Section 14-8.02, “Noise Control,” which states the following: Control and monitor noise resulting from work activities. Do not exceed 86 dBA Lmax at 50 feet from the job site from 9 p.m. to 6 a.m.

PF-REC-1: The property used for temporary construction easement will be restored to a condition at least as good as it was prior to easement being granted

REC-1: Caltrans will coordinate with the City of Irvine during the Design phase to ensure collaborative communication among stakeholders. The purpose of these meetings will be to inform the City and its residents about the project’s progress and any temporary and/or permanent impacts to the project location. During the Design phase when information on detours and the Traffic Management Plan (TMP) become available, Caltrans will coordinate with the City of Irvine to finalize a detour and ensure that all detours outlined in the TMP be approved and implemented accordingly. Caltrans will continue to keep the City informed on project development and coordinate with the City as needed.

2.17 Transportation/Traffic

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? NOTE: While public agencies may immediately apply Section 15064.3 of the updated Guidelines, statewide application is not required until July 1, 2020. In addition, uniform statewide guidance for Caltrans projects is still under development. The PDT may determine the appropriate metric to use to analyze traffic impacts pursuant to section 15064.3(b). Projects for which an NOP will be issued any time after December 28 th , 2018 should consider including an analysis of VMT/induced demand if the project has the potential to increase VMT (see page 20 of OPR’s updated SB 743 Technical Advisory), particularly if the project will be approved after July 2020.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2.17.1 Discussion of Environmental Evaluation Question

a) Less than Significant Impact. The project complies with Objective B-1 of the City of Irvine’s General Plan Circulation element: Plan, provide and maintain an integrated vehicular circulation system to accommodate projected local and regional needs. The project is included in the 2019 Federal Transportation Improvement Plan and the District 12 District System Management Plan.

A section of the San Diego Creek Bikeway/Trail will be temporarily closed during construction, however, a detour around the construction area will be provided allowing the public to continue to use the facility.

b) No Impact. The intent of the project is to improve the operations the facility. The improvements are not considered capacity increasing. The project will have no impact on Vehicle Miles Travelled (VMT).

c) No Impact. The addition of an auxiliary lane will not introduce any new or substantial hazards due to geometric design features or incompatible uses. All components of the project will meet Caltrans design standards. Therefore, no impact and no mitigation is required.

d) Less than Significant Impact. The project will not result in inadequate emergency access. Transportation Management Plan (TMP) will be prepared and implemented so that traffic (e.g. emergency vehicles) will be able to pass through the project area during construction, at all times.

Avoidance, Minimization, and/or Mitigation Measures

None required, the following project features will be implemented:

PF-TRA-1: A Transportation Management Plan (TMP) shall be included in the design plans for implementation by the contractor prior to and during construction of any improvements. The TMP shall consist of prior notices, adequate sign posting, detours, phased construction, and temporary driveways where necessary. The TMP shall specify implementation timing of each plan element (e.g., prior notices, sign posting, detours) as determined appropriate by Caltrans. Adequate local emergency access shall be provided at all times to adjacent uses. Proper detours and warning signs shall be established to ensure public safety. The TMP shall be devised so that construction shall not interfere with any emergency response or evacuation plans. Construction activities shall proceed in a timely manner to reduce impacts.

2.18 Tribal Cultural Resources

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

2.18.1 CEQA Significance Determinations for Tribal Cultural Resources

The potential for the Build Alternative to result in significant impacts related to tribal cultural resources was assessed as part of Native American consultation conducted during preparation of the Historic Property Survey Report (HPSR; January 2020).

a) No impact. A record search of the Area of Potential Effects (APE) and a 1-mile radius around the APE was conducted on July 24, 2019, at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS), located at California State University, Fullerton. On July 26, 2019, an archaeological field survey was conducted. No cultural resources have been previously recorded in the APE. No cultural resources were identified during the field survey. As such, there are no cultural resources or tribal cultural resources within the APE that are listed or eligible for listing in the California Register or in a local register that will be impacted by the project. No mitigation is required.

b) No Impact Native American consultation per Assembly Bill 52 was conducted for this project. The Native American Heritage Commission (NAHC) was contacted on July 1, 2019, with a follow-up on July 18, 2019, to conduct a Sacred Lands File (SLF) search and provide a Native American Tribal Consultation List for the Project site. The NAHC responded on July 19, 2019, stating that an SLF search was completed for the APE with negative results. The NAHC also recommended that 17 Native American individuals representing the Cahuilla, Gabrielino, Juaneño, Cupeño, and Luiseño groups be contacted for information regarding cultural resources that could be affected by the proposed project.

The following Native American tribes, groups, and individuals were contacted via letter sent on August 1, 2019:

- Agua Caliente Band of Cahuilla Indians, Jeff Grubbe, Chairperson

- Gabrieleno Band of Mission Indians – Kizh Nation, Andrew Salas, Chairperson
- Gabrieleno/Tongva San Gabriel Band of Mission Indians, Anthony Morales, Chairperson
- Gabrielino/Tongva Nation, Sandonne Goad, Chairperson
- Gabrielino Tongva Indians of California Tribal Council, Robert Dorame, Chairperson
- Gabrielino-Tongva Tribe, Charles Alvarez
- Juaneño Band of Mission Indians, Sonia Johnston, Chairperson
- Juaneño Band of Mission Indians Acjachemen Nation, Matias Belardes, Chairperson
- Juaneño Band of Mission Indians Acjachemen Nation – Romero, Teresa Romero, Chairperson
- La Jolla Band of Luiseño Indians, Fred Nelson, Chairperson
- Pala Band of Mission Indians, Robert Smith, Chairperson
- Pauma Band of Luiseño Indians, Temet Aguilar, Chairperson
- Pechanga Band of Luiseño Indians, Mark Macarro, Chairperson
- Rincon Band of Luiseño Indians, Jim McPherson, Tribal Historic Preservation Officer
- Rincon Band of Luiseño Indians, Bo Mazzetti, Chairperson
- San Luis Rey Band of Mission Indians, San Luis Rey Tribal Council
- Soboba Band of Luiseño Indians, Scott Cozart, Chairperson

Three responses were received as a result of the initial project notification letters. These responses were from the Gabrieleno Band of Mission Indians – Kizh Nation, the Rincon Band of Luiseño Indians, and the Agua Caliente Band of Cahuilla Indians. The Gabrieleno Band of Mission Indians – Kizh Nation requested consultation on August 12, 2019, but did not respond to follow-up communications from the California Department of Transportation (Caltrans) attempting to set up consultation appointments and/or meetings.

On August 14, 2019, a letter response was received from the Rincon Band of Luiseño Indians. The letter stated that the project is not within Luiseño Aboriginal Territory and the tribe recommends locating a tribe within the project area.

On August 26, 2019, an email response was received from the Agua Caliente Band of Cahuilla Indians. The email stated that the project is not located within the Tribe's Traditional Use Area and they defer to other tribes in the area. Two responses were received as a result of follow-up communications. On September 4, 2019, the Pala Band of Mission Indians responded via email and stated that the project is outside the boundaries of Pala's Traditional Use Area and they defer to closer Tribes. The tribe also stated that the project is near known archaeological sites and recommended that Native American monitoring be considered as a requirement for the project.

On September 5, 2019, the Juaneño Band of Mission Indians Acjachemen Nation, replied via email and stated that the only area of the project the tribe was concerned with is the creek area, and requested to be kept updated on the project. On September 9, 2019, Caltrans replied via email with a message that included an image depicting the project area and a project vicinity map, and described work within the creek area. Caltrans then asked if the tribe needed any additional information. No further communication has been received from the tribe.

No additional responses were received as a result of the initial letter or follow-up communications.

The Sacred Lands File failed to identify any sacred lands or tribal resources in or near the APE, and no sacred lands or tribal cultural resources were identified as a result of the Native American consultation process. As such, there will be no impact to tribal cultural resources as a result of the project.

Avoidance, Minimization and/or Mitigation measures:

None required

2.19 Utilities and Service Systems

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) (originally (e)) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) (originally (g)) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.19.1 Discussion of Environmental Evaluation Questions

- a) **No Impact:** The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. There is no impact and no mitigation required.
- b) **No Impact:** The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. No mitigation is required.

- c) **No Impact:** The project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments. No mitigation is required.
- d) **No Impact:** The project would not 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. No mitigation is required.
- e) **No Impact:** The project construction crew would be responsible for controlling and disposing of solid waste in accordance with federal, state and local statutes and regulations. No mitigation is required.

Avoidance, Minimization, and/or Mitigation Measures

None required.

2.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.20.1 Discussion of Environmental Evaluation Questions

Senate Bill 1241 required the Office of Planning and Research, the Natural Resources Agency, and the California Department of Forestry and Fire Protection to develop amendments to the “CEQA Checklist” for the inclusion of questions related to fire hazard impacts for projects located on lands classified as very high fire hazard severity zones. The project occurs in a highly flammable area due to large quantities of combustible vegetation, poor access to fire hazard areas, and lack of water supply for fire protection in fire hazard areas. The City of Irvine has a contract with the Orange County Fire Authority for fire-fighting services within the City.

- a) **No Impact.** Although the City of Irvine is at risk for wildfires, the project limits are not part/rated as a high fire severity rating and open space with fire potential area (Figure J-2 of the City of Irvine General Plan). The project is adjacent to a Conditional Exclusion Developed Area per the General Plan. This area of the city is more urbanized; high hazard areas are predominantly in the hilly portions of the City with volatile chaparral as the fuel source. Access through the project area will be maintained at all times during construction. Emergency response Plans or Emergency evacuation plans will not be impeded. Access through the project area will be maintained at all times during construction. Emergency response Plans or Emergency evacuation plans will not be impeded. Therefore, no impacts are anticipated, and no mitigation is required.
- b) **No Impact.** Although the City of Irvine is at risk for wildfires, the project limits are not part/rated as a high fire severity rating and open space with fire potential area (Figure J-2 of the City of Irvine General Plan). The project is adjacent to a Conditional Exclusion Developed Area per the General Plan. This area of the city is more urbanized; high hazard areas are predominantly in the hilly portions of the City with volatile chaparral as the fuel source. Depending on what season the project goes into construction, there is an increased risk in the prevailing Santa Ana winds which create hot and dry conditions in the winter and have the potential to help exacerbate the risk for wildfire. Therefore, there is a potential that in the event of a wildfire, project occupants could be exposed to pollutant concentrations of wildfire and/or be exposed to the spread of wildfire. However, this area is relatively flat compared with the rest of the city; the project location lacks suitable habitat for most vegetation as the area is sparse in any vegetation that could increase chances of fire spreading.
- c) **Less Than Significant Impact:** Although the project will require the installation of additional roadway and bridge pavement; this will increase the width of the road as a firebreak, reduce vegetation adjacent to the roadside, and provide additional areas for emergency response vehicle staging. Any damaged irrigation will be replaced in kind where necessary and where there is vegetation removal and replacement, replacement planting will be native grasses and drought tolerant plants. Therefore, impacts will be less than significant, and no mitigation is required.
- d) **No Impact:** The project will not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. No impacts are anticipated, no mitigation is required.

Avoidance, Minimization, and/or Mitigation Measures

None required; however, the following project features **PF-BIO-2** and **PF-WQ-1 through PF-WQ-6** will be implemented.

2.21 Mandatory Findings of Significance

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

2.21.1 Discussion of Environmental Evaluation Questions

The California Environmental Quality Act (CEQA) requires the analysis of a project's mandatory findings of significance. The analysis of the mandatory findings of significance of the project is based on the findings of the project's impacts on all the required issue areas.

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, and disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

California Environmental Quality Act (CEQA) Guidelines, Section 15130, describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under CEQA, can be found in Section 15355 of the CEQA Guidelines.

2.19.1 Discussion of Environmental Evaluation Questions

a) **Less Than Significant with Mitigation:** Although the project is located within the natural community (San Diego Creek) considered sensitive by CDFW, USACOE and RWQCB, the creek does not support riparian or sensitive habitat identified in local or regional plans, policies or regulations by CDFW and USFWS due to past alterations of the creek to support bridge structures. Due to lack of suitable habitat within the BSA, the project is not anticipated to impact special status plant species. Due to the extensive modifications of the bridge in the past, and the lack of historic evidence of anadromous fish passages within the creek, the project is not anticipated to affect fish passage within the biological study area. No bats were observed during the bat habitat assessment, however one year prior to construction, bat assessment surveys will be conducted to determine the presence of bats within the bridge and additional appropriate measures will be included during Design. Impacts to wildlife and wildlife movement are temporary in nature and with implementation of PF-BIO-1 and 2, plus BIO-1 through BIO-8 avoidance and or minimization measures, the impacts to wildlife will be less than significant. The project does have the potential to impact geologic units that have high paleontological sensitivity (e.g. the Young Alluvial Fan Deposits below a depth of 10 ft and the Vaqueros Formation). This would result in scientifically significant, non-renewable paleontological resources. However, with the implementation of **Mitigation Measure PAL-1** all potential degradation impacts to geology and soils (paleontological resources) will be reduced to the level of less than significant impact.

b) **Less Than Significant Impact** Although the project may have impacts that are individually limited, these impacts will not be cumulatively considerable, and impacts will be less than significant. There are currently no capacity increasing or operational improvement projects currently in construction in this portion SR-133. There are a few scattered bridge maintenance projects near or around the project location and vicinity. However, these project work activities are for maintenance purposes minimal in scale, impact and duration of construction would be temporary and short in nature; thus having a less than significant impact relative to projects of the past, present in future in the project area.

c) **No Impact.** This project will not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly. Refer to the discussion in the other sections for additional information that supports this finding.

Avoidance, Minimization, and/or Mitigation Measures

With the implementation of the Mitigation Measure PAL-1, plus Avoidance, Minimization measures as stated in the previous sections, impacts would be reduced to Less Than Significant.

Chapter 3 – Climate Change

3.1 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity, including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), and various hydrofluorocarbons (HFCs). CO₂ is the most abundant GHG; while it is a naturally occurring component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO₂.

Two terms are typically used when discussing how we address the impacts of climate change: “greenhouse gas mitigation” and “adaptation.” Greenhouse gas mitigation covers the activities and policies aimed at reducing GHG emissions to limit or “mitigate” the impacts of climate change. Adaptation, on the other hand, is concerned with planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels). This analysis will include a discussion of both.

3.2 REGULATORY SETTING

This section outlines federal and state efforts to comprehensively reduce GHG emissions from transportation sources.

3.2.1 Federal

To date, no national standards have been established for nationwide mobile-source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The Federal Highway Administration (FHWA) recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (FHWA 2019). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values— “the triple bottom line of sustainability” (FHWA n.d.). Program and project elements

that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 USC Section 6201) and Corporate Average Fuel Economy (CAFE) Standards. This act establishes fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the CAFE program based on each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Energy Policy Act of 2005, 109th Congress H.R.6 (2005–2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian Energy Policy and Programs within the Department of Energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

The U.S. EPA in conjunction with the National Highway Traffic Safety Administration (NHTSA) is responsible for setting GHG emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States. Fuel efficiency standards directly influence GHG emissions.

3.2.2 State

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs) including, but not limited to, the following:

EO S-3-05 (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill (AB) 32 in 2006 and Senate Bill (SB) 32 in 2016.

AB 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals outlined in EO S-3-05, while further mandating that the California Air Resources Board (CARB) create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code [H&SC] Section 38551(b)). The law requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. CARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program

establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG reduction goals.

SB 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires CARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.

SB 391, Chapter 585, 2009, California Transportation Plan: This bill requires the State's long-range transportation plan to identify strategies to address California's climate change goals under AB 32.

EO B-16-12 (March 2012) orders State entities under the direction of the Governor, including CARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

EO B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO_{2e}).¹ Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, Safeguarding California, every 3 years, and to ensure that its provisions are fully implemented.

SB 32, Chapter 249, 2016, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

SB 1386, Chapter 545, 2016, declared "it to be the policy of the state that the protection and management of natural and working lands ... is an important strategy in meeting the state's greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands."

AB 134, Chapter 254, 2017, allocates Greenhouse Gas Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.

Senate Bill 743, Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative

¹ GHGs differ in how much heat each trap in the atmosphere (global warming potential, or GWP). CO₂ is the most important GHG, so amounts of other gases are expressed relative to CO₂, using a metric called "carbon dioxide equivalent" (CO_{2e}). The global warming potential of CO₂ is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO₂.

methods focused on vehicle miles travelled, to promote the state’s goals of reducing greenhouse gas emissions and traffic related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.

Senate Bill 150, Chapter 150 2017, Regional Transportation Plans: This bill requires CARB to prepare a report that assesses progress made by each metropolitan planning organization in meeting their established regional greenhouse gas emission reduction targets.

Executive Order B-55-18, (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing GHG emissions.

EO N-19-19 (September 2019) advances California’s climate goals in part by directing the California State Transportation Agency to leverage annual transportation spending to reverse the trend of increased fuel consumption and reduce GHG emissions from the transportation sector. It orders a focus on transportation investments near housing, managing congestion, and encouraging alternatives to driving. This EO also directs ARB to encourage automakers to produce more clean vehicles, formulate ways to help Californians purchase them, and propose strategies to increase demand for zero-emission vehicles.

3.3 ENVIRONMENTAL SETTING

The proposed project is in an urban area of Orange County with a well-developed road and street network. The California Department of Transportation (Caltrans) is proposing to improve the South Bound (SB) State Route (Rte) 133 in between Post Mile (PM) 8.3 and PM M9.3 in the city of Irvine. During the AM peak hours, this segment of the route experiences a long queue of vehicles. This long queue is a result of heavy congestion on the NB I-405 mainline that is not permitting the traffic to flow through the connector at its design rate. Trucks represents 4.5% of total vehicle volume. Land uses near this segment of the route are primarily urban, commercial and residential. The Southern California Association of Governments’ (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) guides transportation development in the project area.

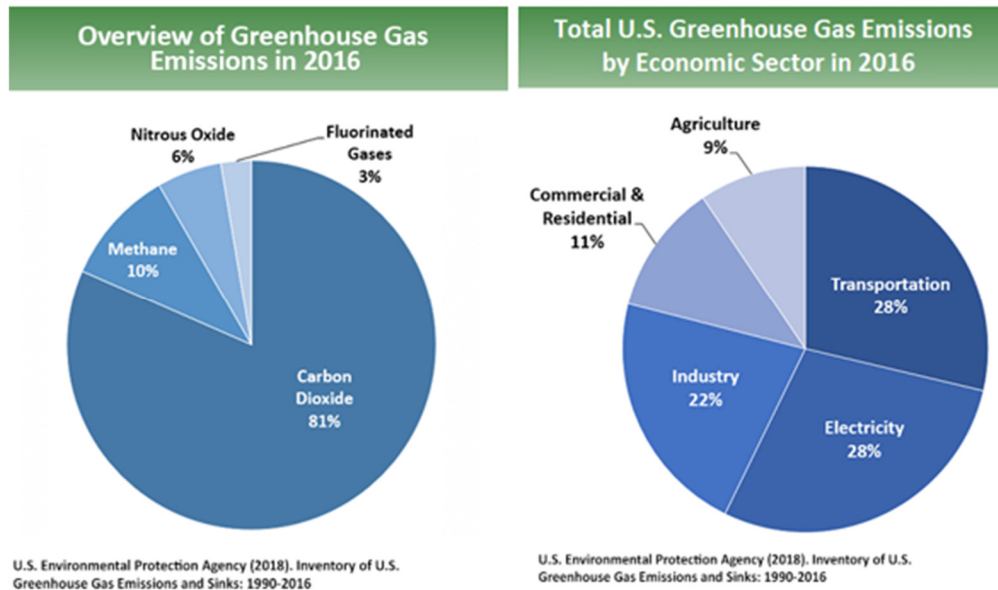
A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and the CARB does so for the state, as required by H&SC Section 39607.4.

3.3.1 National GHG Inventory

The U.S. EPA prepares a national GHG inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of GHGs in the United States, reporting emissions of CO₂, CH₄, N₂O, HFCs, perfluorocarbons, SF₆, and nitrogen trifluoride. It also accounts for emissions of CO₂ that are removed from the atmosphere by “sinks” such as forests, vegetation, and soils that uptake and store CO₂ (carbon sequestration). The 1990–2016 inventory found that of 6,511 MMTCO₂e GHG emissions in 2016, 81% consist of CO₂, 10% are CH₄, and 6% are N₂O; the balance consists of fluorinated

gases (EPA 2018a). In 2016, GHG emissions from the transportation sector accounted for nearly 28.5% of U.S. GHG emissions (See Figure 3.1).

Figure 3-1 U.S. 2016 Greenhouse Gas Emissions



3.3.2 State GHG Inventory

ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. The 2019 edition of the GHG emissions inventory found total California emissions of 424.1 MMTCO₂e for 2017, with the transportation sector responsible for 41% of total GHGs (See Figure 3.2). It also found that overall statewide GHG emissions declined from 2000 to 2017 despite growth in population and state economic output (ARB 2019a).

Figure 3-2 California 2017 Greenhouse Gas Emissions

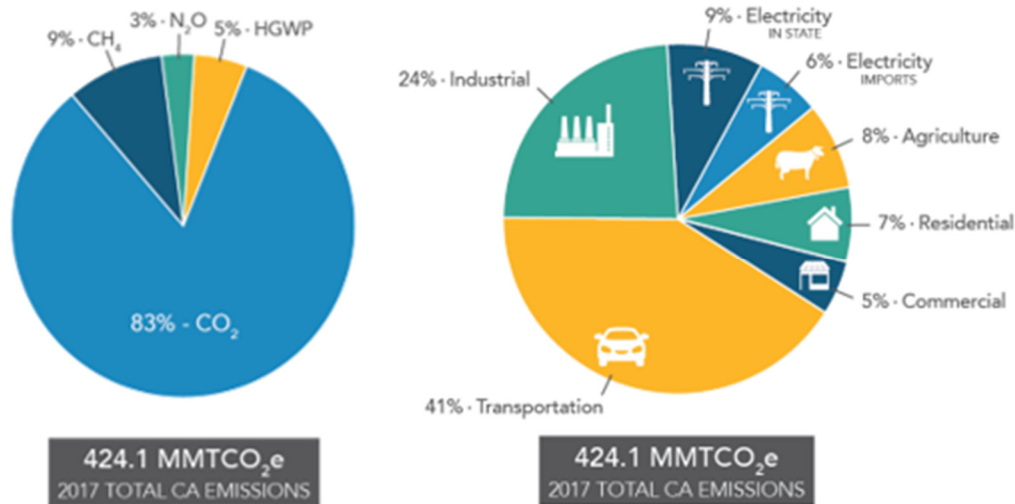
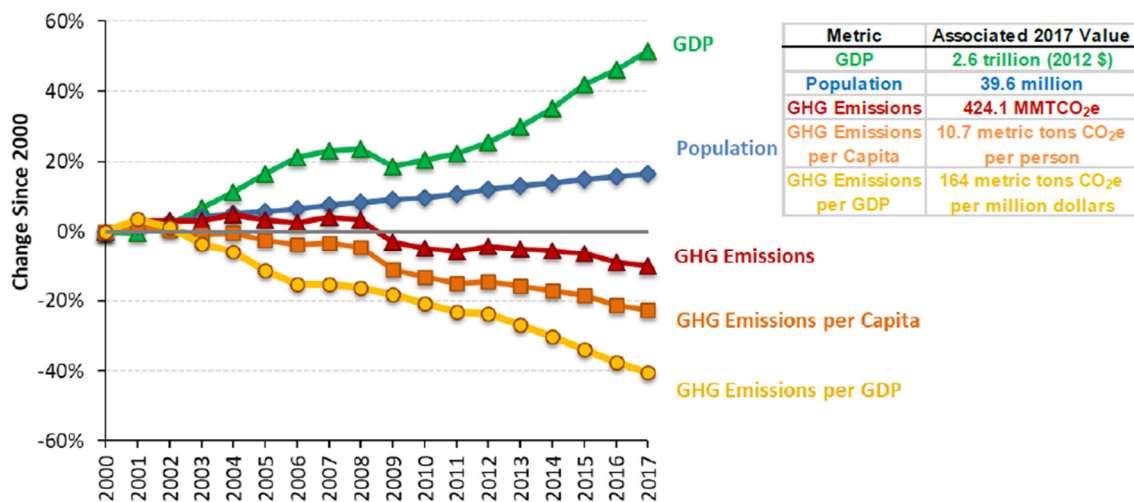


Figure 3-3 Change in California GDP, Population, and GHG Emissions since 2000



(Source: ARB, 2019a)

AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. ARB adopted the first scoping plan in 2008. The second updated plan, California’s 2017 Climate Change Scoping Plan, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

3.3.3 Regional Plans

CARB sets regional targets for California’s 18 MPOs to use in their RTP/SCSs to plan future projects that will cumulatively achieve GHG reduction goals. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The Metropolitan Planning Organization (MPO) for this project is Southern California Association of Governments (SCAG). GHG reduction targets the SCAG region are 8% by 2020 and 19% by 2035 (ARB 2019c). Table 3.1 shows the regional and local greenhouse gas reduction plans.

The Orange County Transportation Authority and Orange County Council of Governments published the *Orange County Sustainable Communities Strategy* in 2011, developed to be integrated with the SCAG SCS. The Orange County SCS offers sustainability strategies to reduce GHG emissions from land use and transportation. In addition, the City of Irvine is in the process of developing a climate action plan.

Table 3-1 Regional and Local Greenhouse Gas Reduction Plans

Title	GHG Reduction Policies or Strategies
Southern California Association of Governments (SCAG) <i>2016-2040 Regional Transportation Plan/Sustainable Communities Strategy</i> , Adopted April 2016	<ul style="list-style-type: none"> • Preserve the region’s multi-modal system • Transportation system management (TSM) • Encourage use of clean technology trucks • Strategic capacity and technology enhancements to existing highways
Orange County Sustainable Communities Strategy (2011)	<ul style="list-style-type: none"> • Eliminate bottlenecks and reduce delay on freeways, toll roads, and arterials. • Managing the transportation system (TSM) through measures that maximize the efficiency of the transportation network.

3.4 PROJECT ANALYSIS

GHG emissions from transportation projects can be divided into those produced during operation of the SHS and those produced during construction. The primary GHGs produced by the transportation sector are CO₂, CH₄, N₂O, and HFCs. CO₂ emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH₄ and N₂O are emitted during fuel combustion. In addition, a small amount of HFC emissions are included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code, § 21083(b)(2)). As the California Supreme Court explained, “because of the global scale of climate change, any one project’s contribution is unlikely to be significant by itself.” (*Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project’s incremental effect is “cumulatively considerable” (CEQA Guidelines Sections 15064(h)(1) and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately

a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

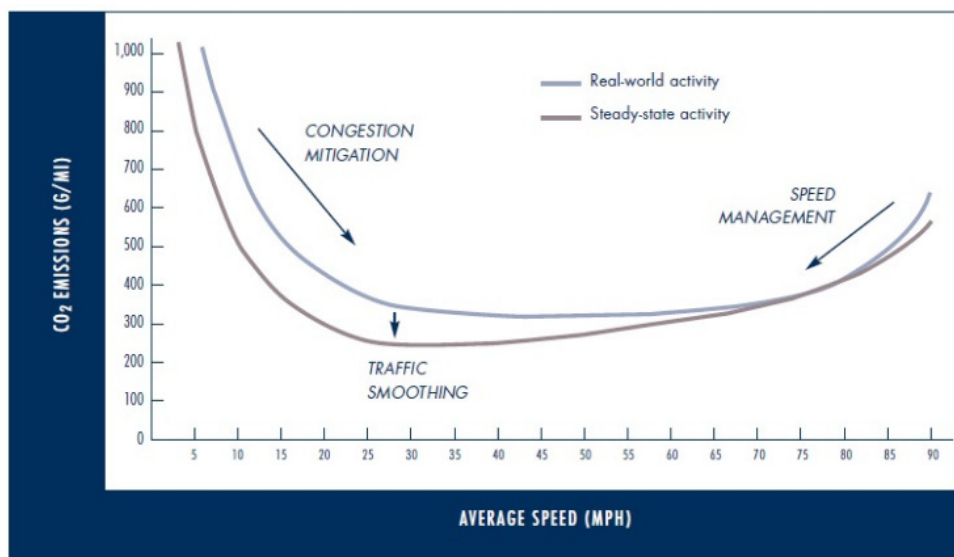
3.4.1 Operational Emissions

CO₂ accounts for 95 percent of transportation GHG emissions in the U.S. The largest sources of transportation-related GHG emissions are passenger cars and light-duty trucks, including sport utility vehicles, pickup trucks, and minivans. These sources account for over half of the emissions from the sector. The remainder of GHG emissions comes from other modes of transportation, including freight trucks, commercial aircraft, ships, boats, and trains, as well as pipelines and lubricants. Because CO₂ emissions represent the greatest percentage of GHG emissions it has been selected as a proxy within the following analysis for potential climate change impacts generally expected to occur.

The highest levels of CO₂ from mobile sources such as automobiles occur at stop-and-go speeds (0–25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0–25 miles per hour (see Figure 3.4). To the extent that a project relieves congestion by enhancing operations and improving travel times in high-congestion travel corridors, GHG emissions, particularly CO₂, may be reduced.

Four primary strategies can reduce GHG emissions from transportation sources: (1) improving the transportation system and operational efficiencies, (2) reducing travel activity, (3) transitioning to lower GHG-emitting fuels, and (4) improving vehicle technologies/efficiency. To be most effective, all four strategies should be pursued concurrently.

Figure 3-4 Possible Use of Traffic Operation Strategies in Reducing On-road CO₂ Emissions



Source: Barth and Boriboonsomsin 2010

The project is located in the city of Irvine, Orange County, for which SCAG is the metropolitan planning organization. The proposed project is listed in the SCAG 2016 RTP/SCS (project ID: REG0701), SCAG’s 2016 RTP/SCS complies with the emission reduction targets established by the California Air Resources Board (ARB) and meets the requirements of SB 375 as codified in Government Code §65080(b) et seq. by achieving per capita GHG emission reductions relative to 2005 of 8 percent by 2020 and 18 percent by 2035, which meets or exceeds targets set by ARB at the time the RTP/SCS was prepared. The project will assist the region with its overall goals to reduce vehicle-related GHGs by relieving congestion and improving traffic flow, thereby reducing emissions. This is consistent with the RTP/SCS’s identified strategies to manage congestion by maximizing the current system and ensuring it operates with maximum efficiency and effectiveness (Caltrans 2019a: 56).

Quantitative Analysis

This alternative proposes to improve operations of this facility by constructing a new auxiliary lane on SB Rte 133 from the SB I-5 connector to the NB I-405 connector. This proposed auxiliary lane will become the second lane on the NB I-405 connector. This alternative also proposes to extend the number three lane on SB Rte 133 approximately 300 feet south of San Diego Creek to match the existing roadway pavement. CT-EMFAC 2017 model was used to estimate operational GHG emissions. The EMFAC2017/CCT-EMFAC2017 model has been approved by U.S. EPA and meets the FHWA’s transportation planning requirements.

CO₂ emissions were calculated for the Base Year (2018), Opening Year (2024), and Design Year (2044). The results of the modeling were used to calculate the CO_{2e} emissions listed in Table 3.2. This table shows that the Build Alternative would result in a net decrease in CO_{2e} emissions in the opening year 2024 and in the design year 2044, compared to the base year 2018. The Build Alternative in both opening and design years would result in lower CO_{2e} emissions in the region when compared to the No Build Alternative, even as VMT increases over time due to anticipated growth (Table 3.2). Improved operations and smoother traffic flow, along with use of cleaner fuels and cleaner vehicle technology in the future, contribute to reducing the GHG emissions in the future years compared to the Existing Year 2018.

Table 3-2 Modeled Annual CO_{2e} Emissions and Vehicle Miles Traveled, by Alternative

Alternative	CO _{2e} Emissions (metric tons/year)	Annual Vehicle Miles Traveled ^a
Existing/Baseline 2018	2,905	7,647,880
Open to Traffic 2024		
No Build	2,703	8,487,620
Build Alternative 1	2,644	8,487,620
20-Year Horizon/Design-Year 2044		
No Build	2,998	12,179,700
Build Alternative 1	2,891	12,179,700

Source: CT-EMFAC (2017), OCTAM 4.0 (2012 base year network and 2040 MPAH network)

CO₂ = carbon dioxide

CO_{2e} = carbon dioxide, nitrous oxide, and methane.

^a Annual vehicle miles traveled (VMT) values derived from Daily VMT values multiplied by 347, per ARB methodology (ARB 2008: I-19).

While CT-EMFAC has a rigorous scientific foundation and has been vetted through multiple stakeholder reviews, its GHG emission rates are based on tailpipe emission test data.¹ The CO₂ emissions numbers in Table 3.2 are only useful for a comparison between project alternatives. The numbers are not necessarily an accurate reflection of what the true CO₂ emissions would be, because CO₂ emissions are dependent on other factors that are not part of the model (e.g., the fuel mix [EMFAC model emission rates are only for direct engine-out CO₂ emissions, not full fuel cycle; fuel cycle emission rates can vary dramatically depending on the amount of additives such as ethanol and the source of the fuel components], rate of acceleration, and the aerodynamics and efficiency of the vehicles).

3.4.2 Construction Emissions

Construction GHG emissions would result from material processing, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

An estimate of the construction emissions was conducted using the Caltrans Construction Emission Tool (CAL-CET2018). The results were used to quantify GHG emissions generated by construction of the Build Alternative and are presented in Table 3.3.

¹ This analysis does not currently account for the effects of the US National Highway Traffic Safety Administration and Environmental Protection Agency SAFE (Safer Affordable Fuel-Efficient) Vehicles Rule. Part One revoking California’s authority to set its own greenhouse gas emissions standards was published on September 27, 2019 and effective November 26, 2019. The SAFE Vehicles Rule Part 2 would amend existing Corporate Average Fuel Economy (CAFE) and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026. The proposal would retain the model year 2020 standards for both programs through model year 2026. Although ARB has not yet provided adjustment factors for greenhouse gas emissions to be utilized in light of the SAFE Rule, modeling these estimates with EMFAC2017 or CT-EMFAC2017 remains the most precise means of estimating future greenhouse gas emissions.

Table 3-3 Construction Greenhouse Gas Emissions for the Build Alternative

Project Phases	CO ₂ (tons/phase)	CH ₄ (tons/phase)	N ₂ O (tons/phase)	CO ₂ e (MT/phase)
Build Alternative				
Grubbing/Land Clearing	14	0	0.001	13
Roadway /Excavation	85	0.003	0.002	78
Structural Excavation	17	0.001	0.000	16
Base/Subbase/Imported Borrow	204	0.007	0.004	188
Structural Concrete	142	0.004	0.004	131
Paving	28	0.001	0.001	26
Drainage/Environment/Landscaping	38	0.001	0.001	35
Traffic Signalization/ Signage/Striping/Painting	21	0.001	0.001	19
Other operations	1	0.0	0.00	1
Maximum (pounds per day)	6167	0.21	0.36	6280
Total (MT/construction project)	550	0.018	0.0293	507

Source: Calculated by using CAL-CET2018.

CH₄ = methane

CO₂ = carbon dioxide

CO₂e = carbon dioxide equivalent

MT/phase = Metric tons/phase

CO₂e of the CO₂, CH₄ and N₂O was obtained by multiplying them by their respective global warming potential (GWP) of 1, 25 and 298, respectively.

MT/phase = metric tons per phase

N₂O = nitrous oxide

tons/phase = tons per phase

1 t = 2,000 lbs, 1 MT = 2,204.6 lbs

GHG emissions related to the roadway widening would be mainly from CO₂, nitrous oxide (N₂O), and methane (CH₄) (reported together as CO₂e) contained in exhaust from off-road diesel construction equipment/vehicles (e.g., idling and operation of backhoes, cranes, and drilling rigs), from on-road trucks used by vendors (to deliver materials to the site) and on-site workers, and from use of portable equipment (e.g., generators). Construction is expected to start in early 2022 and would continue for 12 to 16 months. Total GHG emissions from construction would be about 5078 MT CO₂e for the construction period for the Build Alternative. The construction emission result calculated by using Cal-CET2018 model is included in Appendix G.

Implementation of the following standardized measures will reduce climate change impacts resulting from construction activities.

PF-AQ-1 The construction contractor must comply with Caltrans Standard Specification in Section 14-9, Air Quality, which specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

3.4.3 CEQA Conclusion

While the proposed project would result in GHG emissions during construction, is anticipated that the Build Alternative would show decreases in long-term regional GHG emissions compared to the Existing Condition due to improvements in motor vehicle fuel efficiency and engine technologies. The proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. With

implementation of construction GHG-reduction measures, the impact would be less than significant.

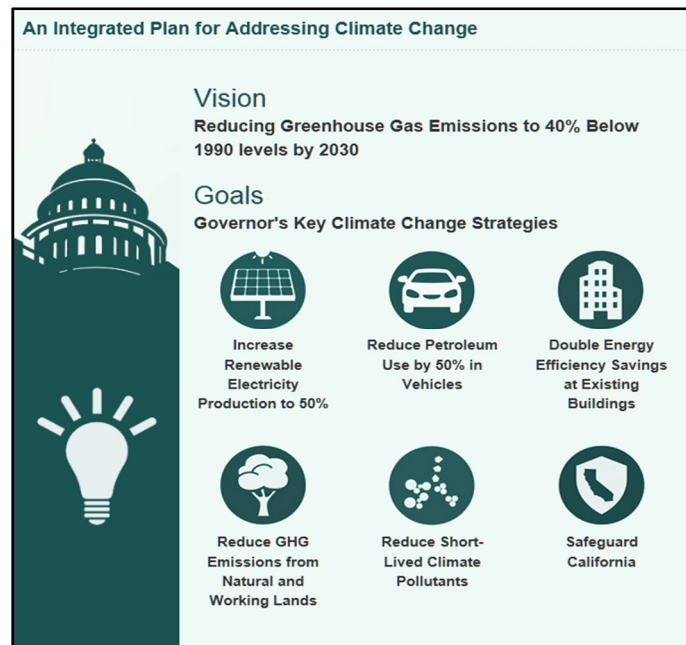
3.5 GREENHOUSE GAS REDUCTION STRATEGIES

3.5.1 Statewide Efforts

Major sectors of the California economy, including transportation, will need to reduce emissions to meet the 2030 and 2050 GHG emissions targets. Former Governor Edmund G. Brown promoted GHG reduction goals that involved (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farms and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, Safeguarding California.

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). A key state goal for reducing greenhouse gas emissions is to reduce today's petroleum use in cars and trucks by up to 50 percent by 2030 (State of California 2019).

In addition, SB 1386 (Wolk, 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

Figure 3-5 California Climate Strategy

3.5.1 Caltrans Activities

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

3.5.1 CALIFORNIA TRANSPORTATION PLAN (CTP 2040)

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. In 2016, Caltrans completed the California Transportation Plan 2040, which establishes a new model for developing ground transportation systems, consistent with CO₂ reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California will be working to improve transit and reduce long-run repair and maintenance costs of roadways and developing a comprehensive assessment of climate-related transportation demand management and new technologies rather than continuing to expand capacity on existing roadways.

SB 391 (Liu 2009) requires the CTP to meet California's climate change goals under AB 32. Accordingly, the CTP 2040 identifies the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the state's transportation needs. While MPOs have primary responsibility for identifying land use patterns to help reduce GHG emissions, CTP 2040 identifies additional strategies in Pricing, Transportation Alternatives, Mode Shift, and Operational Efficiency.

3.5.2 CALTRANS STRATEGIC MANAGEMENT PLAN

The Strategic Management Plan, released in 2015, creates a performance-based framework to preserve the environment and reduce GHG emissions, among other goals. Specific performance targets in the plan that will help to reduce GHG emissions include:

Increasing percentage of non-auto mode share

Reducing VMT

Reducing Caltrans' internal operational (buildings, facilities, and fuel) GHG emissions

3.5.3 FUNDING AND TECHNICAL ASSISTANCE PROGRAMS

In addition to developing plans and performance targets to reduce GHG emissions, Caltrans also administers several sustainable transportation planning grants. These grants encourage local and regional multimodal transportation, housing, and land use planning that furthers the region's RTP/SCS; contribute to the State's GHG reduction targets and advance transportation-related GHG emission reduction project types/strategies; and support other climate adaptation goals (e.g., Safeguarding California).

3.5.4 CALTRANS POLICY DIRECTIVES AND OTHER INITIATIVES

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. Caltrans Activities to Address Climate Change (April 2013) provides a comprehensive overview of Caltrans' statewide activities to reduce GHG emissions resulting from agency operations.

3.5.4 Project-Level GHG Reduction Strategies

The Build Alternative is designed to improve traffic flow and reduce the congestion. The proposed improvements will improve existing and future regional mobility and traffic flow on the SB Rte 133 and the connectors. Reduction in delays and congestion will help to reduce GHG emissions from idling traffic (Caltrans 2019a).

PF-AQ-1: The construction contractor must comply with Caltrans Standard Specification in Section 14-9, Air Quality, which specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances. Many such required measures help to reduce GHG emissions.

3.6 ADAPTATION

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that

landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

3.6.1 Federal Efforts

Under NEPA assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance.

The U.S. Global Change Research Program (USGCRP) delivers a report to Congress and the president every 4 years, in accordance with the Global Change Research Act of 1990 (15 U.S.C. ch. 56A § 2921 et seq). The Fourth National Climate Assessment, published in 2018, presents the foundational science and the “human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways.” Chapter 12, “Transportation,” presents a key discussion of vulnerability assessments. It notes that “asset owners and operators have increasingly conducted more focused studies of particular assets that consider multiple climate hazards and scenarios in the context of asset-specific information, such as design lifetime” (USGCRP 2018).

The U.S. DOT Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation to “integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services and operations remain effective in current and future climate conditions” (U.S. DOT 2011).

FHWA order 5520 (Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events, December 15, 2014) established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2019).

3.6.2 State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. California’s Fourth Climate Change Assessment (2018) is the state’s effort to “translate the state of climate science into useful information for action” in a variety of sectors at both statewide and local scales. It adopts the following key terms used widely in climate change analysis and policy documents:

Adaptation to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

Adaptive capacity is the “combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and

undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities.”

Exposure is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.

Resilience is the “capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience”. Adaptation actions contribute to increasing resilience, which is a desired outcome or state of being.

Sensitivity is the level to which a species, natural system, or community, government, etc., would be affected by changing climate conditions.

Vulnerability is the “susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt.” Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factor(s). These factors include, but are not limited to: ethnicity, class, sexual orientation and identification, national origin, and income inequality.² Vulnerability is often defined as the combination of sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

Several key state policies have guided climate change adaptation efforts to date. Recent state publications produced in response to these policies draw on these definitions.

EO S-13-08, issued by then-governor Arnold Schwarzenegger in November 2008, focused on sea-level rise and resulted in the *California Climate Adaptation Strategy* (2009), updated in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan). The Safeguarding California Plan offers policy principles and recommendations and continues to be revised and augmented with sector-specific adaptation strategies, ongoing actions, and next steps for agencies.

EO S-13-08 also led to the publication of a series of sea-level rise assessment reports and associated guidance and policies. These reports formed the foundation of an interim *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance) in 2010, with instructions for how state agencies could incorporate “sea-level rise (SLR) projections into planning and decision making for projects in California” in a consistent way across agencies. The guidance was revised and augmented in 2013. *Rising Seas in California – An Update on Sea-Level Rise Science* was published in 2017 and its updated projections of sea-level rise and new understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018.

EO B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change other than sea-level rise also threaten California’s infrastructure. At the direction of EO B-30-15, the Office of Planning and Research published *Planning and Investing for a Resilient California*:

A *Guidebook for State Agencies* in 2017, to encourage a uniform and systematic approach. Representatives of Caltrans participated in the multi-agency, multidisciplinary technical advisory group that developed this guidance on how to integrate climate change into planning and investment.

AB 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group, which in 2018 released its report, *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts.

3.6.3 Caltrans Adaptation Efforts

3.6.3.1 CALTRANS VULNERABILITY ASSESSMENTS

Caltrans is conducting climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects including precipitation, temperature, wildfire, storm surge, and sea-level rise. The approach to the vulnerability assessments was tailored to the practices of a transportation agency, and involves the following concepts and actions:

Exposure – Identify Caltrans assets exposed to damage or reduced service life from expected future conditions.

Consequence – Determine what might occur to system assets in terms of loss of use or costs of repair.

Prioritization – Develop a method for making capital programming decisions to address identified risks, including considerations of system use and/or timing of expected exposure.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments will guide analysis of at-risk assets and development of adaptation plans to reduce the likelihood of damage to the State Highway System, allowing Caltrans to both reduce the costs of storm damage and to provide and maintain transportation that meets the needs of all Californians.

3.6.3.2 Project Adaptation Analysis

SEA-LEVEL RISE

The proposed project is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not expected.

FLOODPLAINS

Transportation assets in California are affected by precipitation in a variety of ways—from inundation/flooding, to landslides, washouts, or structural damage from heavy

rain events. Climate change can cause large fluctuations in precipitation, with dry years becoming dryer and wet years wetter. Study was conducted to determine how a 100-year storm precipitation event may change over time for the purposes of analyzing vulnerabilities of the Caltrans State Highway System. The study forecast a change of less than 5 percent in 100-year storm precipitation depth in the project area in through 2085 based on the RCP 8.5 emissions scenario (Caltrans 2018).

WILDFIRE

Dryer atmosphere and wind have caused wildfires in the state. In areas affected by wildfires, falling rocks, mud, and trees damaged by fire can wash down steep banks during periods of high intensity rain. This debris can cause road blocks and require detours. Increasing temperatures, changing precipitation patterns, and resulting changes to land cover, are expected to affect wildfire frequency and intensity. Human infrastructure, including the presence of electrical utility infrastructure, or other sources of fire potential (mechanical, open fire, accidental or intentional) may also influence the occurrence of wildfires. Wildfire is a direct concern for driver safety, system operations, and Caltrans infrastructure, among other issues. In the Orange County, 74.2 miles of State Highway would be exposed to wildfire in the year 2025, 73.7 miles in the year 2055, and 75.2 miles in the year 2085 at the RCP 8.5 emission scenario. However, analysis and mapping in the draft District 12 climate vulnerability assessment shows no exposed roadway or level of concern for wildfire for the project area in the years through 2085 under the RCP 8.5 emission scenario (Caltrans 2018).

3.7 Chapter 3 References

Barth, Matthew and Kanok Boriboonsomsin. 2010. Real-World Carbon Dioxide Impacts of Traffic Congestion. Berkeley, CA: University of California Transportation Center. UCTC-FR-2010-11. Available: <https://www.researchgate.net/publication/46438207>.

California Air Resources Board (ARB). 2008. *Climate Change Scoping Plan Appendices. Volume II: Analysis and Documentation*. Appendix I, p. I-19. December. Available: <https://ww3.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm>. Accessed: October 31, 2019.

California Air Resources Board (ARB). 2019a. California Greenhouse Gas Emissions Inventory–2019 Edition. <https://ww3.arb.ca.gov/cc/inventory/data/data.htm>. Accessed: August 21, 2019.

California Air Resources Board (ARB). 2019b. California Greenhouse Gas Emissions for 2000 to 2017. Trends of Emissions and Other Indicators. https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf. Accessed: August 21, 2019.

California Air Resources Board (ARB). 2019c. SB 375 Regional Plan Climate Targets. <https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets>. Accessed: August 21, 2019.

- California Department of Transportation (Caltrans). 2018. *Caltrans Climate Change Vulnerability Assessments. District 12 Technical Report*. December. Prepared by WSP.
- California Department of Transportation (Caltrans). 2019a. *Air Quality Report: South bound State Route 133 Traffic Operation Improvement Project. Orange County, California*. District 12-ORA-133, PM 8.3/M9.3. EA 0N890. EFIS 12140000130. November.
- California Department of Transportation (Caltrans). 2019b. Memorandum: Preliminary Hydraulic Evaluation. File: 12-ORA-133-PM 8.59, San Diego Creek Bridges. Prepared by Office of Bridge Design South, Structure Hydraulics and Hydrology.
- Federal Highway Administration (FHWA). 2019. Sustainability. <https://www.fhwa.dot.gov/environment/sustainability/resilience/>. Last updated February 7, 2019. Accessed: August 21, 2019.
- Federal Highway Administration (FHWA). No date. Sustainable Highways Initiative. <https://www.sustainablehighways.dot.gov/overview.aspx>. Accessed: August 21, 2019.
- Orange County Transportation Authority and Orange County Council of Governments. 2011. *Orange County Sustainable Communities Strategy*. June. Prepared by Burke Consulting, LSA Associates, and Orange County Business Council.
- State of California. 2018. California's Fourth Climate Change Assessment. <http://www.climateassessment.ca.gov/>. Accessed: August 21, 2019.
- State of California. 2019. California Climate Strategy. <https://www.climatechange.ca.gov/>. Accessed: August 21, 2019.
- U.S. Department of Transportation (U.S. DOT). 2011. Policy Statement on Climate Change Adaptation. June. https://www.fhwa.dot.gov/environment/sustainability/resilience/policy_and_guidance/usdot.cfm. Accessed: August 21, 2019.
- U.S. Department of Transportation (U.S. DOT). 2018. *National Highway Traffic Safety Administration Corporate Average Fuel Economy*. <https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy>. Accessed: August 21, 2019.
- U.S. Environmental Protection Agency (U.S. EPA). 2009. Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Section 202(a) of the Clean Air Act. <https://www.epa.gov/ghgemissions/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a-clean>. Accessed: August 21, 2019.
- U.S. Environmental Protection Agency (U.S. EPA). 2018. Inventory of U.S. Greenhouse Gas Emissions and Sinks. <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>. Accessed: August 21, 2019.
- U.S. Global Change Research Program (USGCRP). 2018. Fourth National Climate Assessment. <https://nca2018.globalchange.gov/>. Accessed: August 21, 2019.

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Chapter 4 – Comments and Coordination

The outreach process included proactive and continuous coordination. This process also includes identifying and developing appropriate mitigation measures for the project. Agency consultation for this project has been accomplished through a variety of formal and informal methods, including Project Development Team (PDT) meetings and interagency coordination meetings. This chapter summarizes the results of Caltrans efforts to fully identify, address, and resolve project related issues through early and continuing coordination.

Ongoing coordination continues with the City of Irvine Department of Community Development.

The Native American Heritage Commission (NAHC) was contacted on July 1, 2019, with a follow-up on July 18, 2019 to conduct a Sacred Lands File (SLF) search for the project and to request a California Environmental Quality Act (CEQA) Tribal Consultation List under AB 52. The NAHC responded on July 19, 2019, stating that the SLF was conducted with negative results for the presence of Native American cultural resources in the project APE. However, the NAHC recommended that 17 Native American individuals representing the Cahuilla, Gabrieleno, Juaneño, Cupeño, and Luiseño groups be contacted for information regarding cultural resources that could be affected by the project. A total of 17 Native American individuals or groups were contacted between August 1, 2019 and September 4th, 2019 for cultural resource information regarding this project. Responses were received from the Gabrieleno Band of Mission Indians-Kizh Nation, the Rincon Band of Luiseno Indians, the Agua Caliente Band of Cahuilla Indians, Pala Band of Mission Indians, and the Juaneño, Band of Mission Indians Acjachemen Nation. Refer to Section 2.18.1 (CEQA Significance Determinations for Tribal Cultural Resources) for additional information regarding Native American consultation.

The Orange County Historical Society was contacted on September 11th, 2019, for information regarding historical resources in the project area. No response was received.

The Draft IS was made available to the public and circulated to regional and local agencies to provide opportunity for a hearing and their comments during the period of January 6th, 2020 through February 7th, 2020 (see attached Public Notice on page 4-3). The document was available at the OC Library Heritage Park Regional Branch at 14361 Yale, Irvine, CA 92604 and at the Caltrans District 12 office. Caltrans received comments from the South Coast Air Quality Management District, the California Fish and Wildlife, the Santa Ana Regional Water Quality Control Board, and the City of Irvine. Caltrans provided responses to these agencies prior to taking action on the project.

Caltrans coordinated with the County of Orange Flood Control District to obtain historic records of activities conducted within San Diego Creek in January 2019.


Caltrans obtained historic records of Steelhead within San Diego Creek from Jess Adams of the National Marine Fisheries Service via email on May 21, 2019 (see Appendix I).

Caltrans conducted sites visits with Simona Altman and South Coast Regionals anadromous fisheries biologists, California Department of Fish and Wildlife representatives were conducted between September 4th, 2019 and October 23rd, 2019.

GENERAL INQUIRY FROM JOHN BOSLET REPRESENTING IRVINE COMPANY:

On January 7th, 2020, Mr. John Boslet representing the Irvine Company asked for an electronic copy of the MND and Initial Study. Caltrans provided it in an email the same day. On January 9th, 2020 Caltrans responded via email a response to a general question about Temporary Construction Easement location on AP 585-051-04 and the work being proposed for that TCE. The response indicated that Temporary Construction Easement (TCE) is needed for Caltrans contractor to access to San Diego Creek. Work to be completed in San Diego Creek bed consists: Rock Slope Protection (RSP) will be replaced 6 feet below the Top of Pile Cap between the Piers/Abutment footings and flush with the footings and adjacent ground. The RSP used should be ½ ton (24 inches in diameter) installed in a pre-excavated 6-foot hole and extend 5 feet from each side of the pier wall and extend 40 feet upstream from the face of the right bridge and 10 feet from the downstream face of the New Widening of the Off-Ramp Bridge (55-0290F). Also, slurry will be placed underneath the existing piers/abutments pile caps to fill the voids due to erosion prior to the excavation for RSP placement. The approximate area of the existing piers where slurry will be place is 0.15 acres (6,540 SQFT). This access location is for the work being done on upstream (see above items of work) of the San Diego Creek. Due to riprap are in the creek bed and the narrow space between bridge bench, we won't have able to use other access. There is other access location (TCE) on SB 133 for the work being done on down stream of San Diego Creek.

Since the completion of the public circulation review period, the project scope has been reduced and the new scope of work does not include the requirement of a TCE at AP 585-051-04.




Public Notice


State Route 133 Operational Improvements Project
 Notice of Intent to Adopt a Mitigated Negative Declaration
 Notice of Availability of an Initial Study and Section 4(f) De Minimis Finding
 Study results available

POSTED

JAN 06 2020

ORANGE COUNTY CLERK-RECORDER DEPARTMENT

BY:  DEPUTY



WHAT'S BEING PLANNED?

The California Department of Transportation (Caltrans) proposes to construct new auxiliary lane on Southbound SR-133 between Route 133/405 Connector and Irvine Center Drive in the City of Irvine. The purpose of the project is to improve traffic flow, provide additional vehicular storage, and shorten the queue length of vehicles. Currently in the environmental document and preliminary engineering process, there is One Build alternative that is being considered as well as a No-Build Alternative.

WHY THIS AD?

Caltrans has studied the effects this project may have on the environment. The studies show it will not significantly affect the quality of the environment. The report that explains why is called an Initial Study. This notice is to tell you of the preparation of the Proposed Mitigated Negative Declaration (MND) and Initial Study plus a Section 4(f) De Minimis Finding and of its availability for your review. There will be an option for the opportunity for a public hearing (open house format) to talk about certain design features of the project with Caltrans' staff before the final design is selected.

WHAT'S AVAILABLE?

The Proposed MND and IS and Section 4(f) De Minimis are available for review and copying for a fee at the Caltrans District 12 Office, 1750 East 4th Street, Suite 100, Santa Ana, CA 92705, on weekdays from 8:00 a.m. to 5:00 p.m. The Proposed MND and IS and Section 4(f) De Minimis Finding are also available for review at the following locations during normal business hours:

- OC Library-Heritage Park Regional Branch, 14361 Yale, Irvine, CA 92604

In addition, project information is available online at: <https://www.dot.ca.gov/caltrans-near-me/district-12/district-12-programs/district-12-environmental/sr-133-operational-improvements>

WHERE YOU COME IN?

Do you have any comments about processing the project with a Proposed MND and IS? Do you disagree with the findings of our study as set forth in the Proposed MND or Section 4(f) De Minimis Finding? Do you disagree with the findings of our study as set forth in the IS? Would you care to make any other comments on the project? Would you like a public hearing?

Public Comment Period: January 7th, 2020 to February 6th, 2020

Please submit your comments in writing no later than 5:00 pm, February 6th, 2020 to Bahar Heydari Associate Environmental Planner, Caltrans District 12, Division of Environmental Analysis, 1750 East 4th Street, Suite 100, Santa Ana, CA 92705 or via e-mail to D12.SR133OperationsProject@dot.ca.gov. The date we will begin accepting comments **January 7th, 2020**. If there are no major comments, Caltrans will proceed with the project's design.

Individuals who require special accommodation (American Sign Language interpreter, accessible seating, documentation in alternate formats, etc.) are requested to contact the District 12 Public Affairs Office at (657) 328-6000 at least 21 days prior to the scheduled hearing date. TDD users may contact the California Relay Service TDD line at 1-800-735-2929 or Voice Line at 1-800-735-2922.

CONTACT?

Should a public hearing be requested: Individuals who require special accommodation (American Sign Language interpreter, accessible seating, documentation in alternate formats, etc.) are requested to contact the District 12 public Affairs Office at (657) 328-6000 at least 21 days prior to the scheduled hearing date. TDD users may contact the California Relay Service TDD line at 1 (800) 735-2929 or Voice Line at 1 (800) 735-2922. For more information about this study or any other transportation matter, call Justin Lesniewski at District 12's Public Information Office at (657) 328-6594 or e-mail at Justin.Lesniewski@dot.ca.gov

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Chapter 5 – List of Preparers

This document has been prepared by the California Department of Transportation as the lead agency under CEQA and NEPA. The following individuals were involved in the preparation of this Initial Study:

Caltrans

Bahar Heydari, Associate Environmental Planner. Bachelor of Science in Geography with Emphasis on Environmental Analysis. California State Polytechnic University Pomona. 12 years of experience. Contribution: Document Preparer

Alben Phung, Associate Environmental Planner. Masters of Urban & Regional Planning, California State Polytechnic University Pomona. 2 years of experience. Contribution: Section 4f De Minimis Analysis and document reviewer

Bala K Balakrishnaiyer, Transportation Engineer-Civil, Ph.D in Geotechnical Engineering, University of Tokyo, Japan, 18 years of experience in Geotechnical Engineering, Contribution: Geology and Soils Section CEQA checklist and Structure Preliminary Geotechnical Report (4)

Rabindra Bade Environmental Engineer. Ph.D. in Environmental Engineering, Kumoh National Institute of Technology, South Korea. 17 years of experience in research, design, consulting, academics in the field of Environmental Engineering and Civil Engineering. Contribution: Environmental Engineer for the preparation of Air Quality Report, Revised Air Quality Report Climate Change Section.

Baker, Charles, Senior Environmental Planner. B.A. in Anthropology, California State University, Fullerton, CA. M.A. in History, California State University, Fullerton, CA. 19 years of experience in environmental planning. Contribution: Senior review of the IS with Proposed MND

Cheryl Sinopoli Associate Environmental Planner (Archaeologist). B.A. in Anthropology, California State University, Bakersfield, CA. 18 years of experience in environmental planning. Contribution: Review of the Cultural and Paleontological technical studies and environmental document.

Kedest Ketsela Associate Environmental Planner (Biologist). B.S. in Natural Science, California State University, Los Angeles, CA. 18 years of experience. Contribution: , Natural Environment Study (MI) and Jurisdictional Delineation

Gabriela Duran, Associate Environmental Planner. Bachelors University of Riverside California. 12 years of experience. Contribution: Peer Reviewer and Technical Editor.

Grace Pina-Garrett, Senior Transportation Engineer – NPDES Unit. B.S. Civil Engineering, California State University, Long Beach. 21 years' experience. Contribution: Senior review of water technical study and related section in the environmental document.

Hector Salas, Associate Environmental Planner. B.A. Environmental Analysis and Design, University of California, Irvine. 17 years' experience. Contribution: Preparation and review of water technical study (Water Quality Analysis Report) and water quality section.

Neal Alie Hydrology/Hydraulics Engineer,. Contribution: Preparation of the Preliminary Hydraulic Evaluation

Reza Aurasteh, Senior Environmental Engineer. P.E., Ph.D. Engineering, Utah State University. 28 years' experience. Contribution: Senior review of Air Quality Technical Studies and Noise Technical Studies.

Ricardo Caraig, Transportation Engineer, B.S. in Civil Engineering, California State University, Fullerton. 28 years of experience. Contribution: Preparation of the Noise section and Noise Study Analysis and Noise Abatement Decision Report

Smita Deshpande, Senior Environmental Planner, M.S. Regional Planning, Indiana University of Pennsylvania, Indiana. 20 years of experience. Contribution: Senior review of the environmental document

Landon Mares Landscape Associate, B.S. in Landscape Architecture, California Polytechnic University, Pomona. 20 years of experience. Contribution: Preparation of the Aesthetics section and the Scenic Resource Evaluation and Visual Impact Assessment Questionnaire

Chris Flynn, Deputy District Director of Environmental Analysis, M.S. Environmental Science, San Jose State University. 30 years' experience. Contribution: Supervisory review of the environmental document.

Chiou, Wayne, Transportation/Environmental Engineer. P.E. M.S. in Civil and Environmental Engineering, Utah State University, Logan, UT. 28 years of experience in consulting engineering and environmental engineering. Contribution: ISA.CHECKLIST

Consultants

Sarah Reiboldt PH.D Associate/Senior Paleontologist, LSA Associates, Inc. Contribution: Paleontological Identification Report/Paleontological Evaluation Report (PIR/PER) and Supplemental PIR/PER Memorandum

Kerrie Collison, Senior Cultural Resources Manager. LSA Associates. Contribution: Historic Property Survey Report and Archaeological Survey Report (ASR)

Chapter 6 – Distribution List

The Initial Study and the Notice of Availability was distributed to local, and regional agencies and utility providers affected by the proposed project.

FEDERAL AGENCIES

United States Army Corp of Engineers

Los Angeles District
Los Angeles Regulatory Office
915 Wilshire Blvd, Suite 1101
Los Angeles CA, 90017
Attn: Tim Jackson

U.S. Fish and Wildlife Service

6010 Hidden Valley Road, Ste. 101
Carlsbad, CA. 92008
Attn: Sally Brown

STATE AGENCIES

State Clearinghouse

Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814
Attn: Scott Morgan

California Department of Fish and Wildlife

3883 Ruffin Road
San Diego, CA. 92123
Attn: Simona Altman

California Regional Water Quality Control Board

3737 Main Street, Ste. 500
Riverside, CA. 92501-3348

CA. Office of Historic Preservation

1725 23rd Street, Ste. 100
Sacramento, CA 95816

LOCAL/REGIONAL AGENCIES

City of Irvine

Department of Transportation
1 Civic Center Plaza
P.O. Box 19575
Irvine, CA 92623-9575
Attn: Jaimee Bourgeois

South Coast Air Quality Management District

21865 Copley Drive
Diamond Bar, CA 91765
Attn: Linjin Sun

Southern California Association of Governments

Attn: Hasan Ikhata, Executive Director
818 West 7th Street, 12th Floor
Los Angeles, CA 90017

Orange County

Attn: Planning Department
P.O. Box 4048
Santa Ana, CA 92702-4048

Orange County Flood Control District
601 North Ross Street
Santa Ana, CA 92701

LIBRARIES

OC Library-Heritage Park Regional Branch
14361 Yale
Irvine, CA. 92604

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Office of Third District Supervisor
Orange County Board of Supervisors
10 Civic Center Plaza
Santa Ana, CA 92701

Assembly (74th District)

Cottie Petrie-Norris

State Capitol, Room 4144
Sacramento, CA 95814

State Senate (Senate District 37)

State Capitol, Room 2048
Sacramento, CA 95814

NATIVE AMERICAN REPRESENTATIVES

Native American Heritage Commission

1550 Harbor Blvd Suite 100, West Sacramento, CA 95691

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Juaneno Band of Mission

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Appendix A - Section 4(f) and Concurrence

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Public Works and Transportation

cityofirvine.org

1 Civic Center Plaza, Irvine, California 92623-9575

949-724-7365

March 9, 2020

Smita Deshpande
Senior Environmental Planner
Division of Environmental Analysis
Department of Transportation, District 12
1750 East 4th Street, Suite 100
Santa Ana, CA 92705

**Re: State Route 133 Operational Improvements
City of Irvine Concurrence with Section 4(f) De Minimis Findings**

Dear Ms. Deshpande:

The City of Irvine appreciates the opportunity to participate in the Section 4(f) concurrence process. The City understands that the California Department of Transportation (Caltrans) District 12 is proposing State Route 133 (SR-133) Operational Improvements (Project), in the City of Irvine.

Caltrans has determined that a de minimis finding is appropriate and would be maintained with regards to the potential impacts to the San Diego Creek Class I Trail/bikeway. The San Diego Creek Trail is as an important bikeway providing important connections within the City of Irvine and serving regional needs. These activities, features, and attributes qualify this resource to be eligible for protection under Section 4(f).

While the City prefers no trail closures, the operational and safety benefits of the Project are recognized. Because the completion of the Project requires a temporary trail closure, the City of Irvine respectfully requests that every effort be made to minimize the length of time of the closure, as the bikeways within Irvine are an important component of the City's transportation network and the County's Regional Trail System.

My signature below represents the City's concurrence of the de minimis finding by Caltrans, that the Project will not adversely affect the activities, features, and attributes that qualify the San Diego Creek Trail for protection under Section 4(f). The use of the Section 4(f) resource during construction of the Project, together with the 4(f) impact avoidance, minimization, and/or mitigation measures incorporated into the safety project, does not adversely affect the activities, features, and attributes of the trail. We also understand that the public was afforded the opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resources.

Ms. Smita Deshpande
March 9, 2020
Page 2

The signature below is conditioned upon the Section 4(f) impacts and avoidance, minimization, and/or mitigation measures as previously referenced. We request communication on the project status as it continues to develop and appreciate the opportunity to participate in the process.



Mark A. Steuer
Director of Public Works and Transportation

3/9/20
Date

SECTION 4(f) DE MINIMIS DETERMINATION AND RESOURCES EVALUATED RELATIVE TO THE REQUIREMENTS OF SECTION 4(f)

STATE ROUTE 133 Operational Improvement Project - EA 0N890

This Section 4(f) analysis includes de minimis determinations for an off-street Class I bikeway/trail in the City of Irvine. Following the de minimis determination, this Section 4(f) analysis also includes information regarding resources evaluated relative to the requirements of Section 4(f), but that do not trigger protection under Section 4(f).

1.0 General Background

The proposed project will receive federal funding; therefore, it is subject to Section 4(f) analysis. The area within 0.5 mile is the maximum disturbance limits (project footprint) for the Build Alternative and was used to define the study area for existing publicly owned recreation and park properties, including local, regional, state and federal properties; existing play and sports fields of public schools with public access, publicly owned wildlife and water fowl refuges and conservation areas, and existing off-street public bicycle, pedestrian, and equestrian trails. The study area was defined to identify an area large enough to assess the potential for the project to result in proximity impacts to properties protected under Section 4(f).

Excluding the off-street Class I bikeway/trail, within the 0.5 mile study area there are a total of 2 trails in the vicinity.

PROJECT DESCRIPTION AND ALTERNATIVES

The California Department of Transportation (Caltrans) District 12 proposes an operational improvement project on State Route 133 (SR-133). On SR-133, the proposed project is between the southbound (SB) SR-133 / SB Interstate 5 (I-5) connector and the SB SR-133 / northbound (NB) Interstate 405 (I-405) connector. The proposed project is located within the City of Irvine; in south Orange County.

Caltrans is the Lead Agency under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). An Initial Study with Proposed MND is being prepared pursuant to CEQA and a Categorical Exclusion is being prepared pursuant to the National Environmental Policy Act (NEPA). This project has two alternatives, a Build alternative and a No Build Alternative.

Purpose:

The purpose of this project is to enhance traffic operations and flow and shorten queue length of vehicles on SR-133 between SB I-5 and NB I-405 connectors by providing a new auxiliary lane and extending the number 3 lane on SB Rte-133.

Need:

This segment of SB Rte-133 is operating under severe congestion during morning peak hours. The number three lane of SB Rte-133 experiences long traffic queues

which back up all the way to the SB I-5 connector and the SB Rte-133 mainline (north of the SB I-5 connector), and restrict traffic flow.

Build Alternative: This alternative proposes to improve operations and safety of this facility by constructing a new auxiliary lane on SB Rte-133 from the SB I-5 connector to the NB I-405 connector. This proposed auxiliary lane will become the second lane on the NB I-405 connector. This alternative also proposes to extend the number three lane on SB Rte-133 approximately 300 feet south of San Diego Creek to match the existing roadway pavement. Project work activities improvements include the following:

- 1 Construct additional asphalt concrete pavement to provide a twelve-foot auxiliary lane from the SB I-5 connector to NB I-405 connector and twelve-foot lane from the gore area to 300 feet south of San Diego Creek.
- 2 Construct additional asphalt concrete pavement to provide a second twelve-foot lane on the SB Rte-133/NB I-405 connector.
- 3 Realign the Barranca Parkway (Pkw) loop on-ramp and reconstruct the ramp entrance. Convert the existing HOV lane to GP lane, reinstall the existing ramp meter system, reconstruct loop detectors, and modify the MGS along the on-ramp left shoulder if needed.
- 4 Reconstruct maintenance vehicle pullouts.
- 5 Construct tie back walls at Barranca Pkw OC and Alton Pkw OC.
- 6 Construct approximately 472 feet long retaining wall (retaining wall No. 55) from the end of San Diego Creek off-ramp bridge (55-0290F) towards North.
- 7 Construct approximately 210 feet long retaining wall (retaining wall No. 61) from the beginning of San Diego Creek off-ramp bridge (55-0290F) towards South.
- 8 Construct approximately 512 feet long retaining wall (retaining wall No. 46) along the off-ramp from SB SR-133 to I-405. (The limits will be finalized once district provided the necessary information to Structures.).
- 9 Replace approximately 520 ft of the existing Reinforced Concrete Channel (RCC) with a Reinforced Concrete Box (RCB) between Barranca Pkw and Alton Pkw.
- 10 Relocate and modify two existing overhead signs to accommodate pavement widening.
- 11 Remove and replace light poles along shoulder of SB Rte-133 and Barranca Pkw on-ramp.
- 12 Remove and replace signing as needed.
- 13 Construct approximately 500 feet long of MGS between retaining wall No. 62 and the tie back wall at Alton Pkw OC.
- 14 Remove existing MBGR and end treatments at the gore area of SB Rte-133 and SB Rte-133/NB I-405 connector.
- 15 Construct approximately 1200 square feet of additional bridge pavement, construct bridge rail with 20:1 taper and install alternative

- safety device to shield the end of bridge railings beyond the gore area of SB Rte-133 and SB Rte-133/NB I-405 connectors.
- 16 Relocate 3 drainage inlets along right shoulder of SB Rte-133 and 2 drainage inlets along right shoulder of SB Rte-133/NB I-405 connector.
 - 17 Refresh all striping and markers.
 - 18 San Diego Creek Left Bridge (55-0290L) will be widened to cover the gore area. Bridge Super-Structure will be constructed to accommodate the new lane configuration.
 - 19 San Diego Creek off-ramp bridge (55-0290F) will be widened by 14.5 feet. New Sub-Structure and Super-Structure will be constructed to accommodate the new lane configuration.
 - 20 Approach and departure slabs, paving notch and joint seals will be added at the left bridge (55-0290L) and the off-ramp bridge (55-0290F).
 - 21 Existing Barriers, Type 25 at the Left Bridge (55-0290L) and the Off-Ramp Bridge (55-0290F) will be replaced with Concrete Barrier Type 836.
 - 22 Rock Slope Protection (RSP) will be replaced along Piers and Abutments of San Diego Creek Off-Ramp Bridge (55-0290F) Widening for a length of approximately 15 feet and extend 10 feet beyond the bridge widening on downstream side. The RSP will be placed 6 feet below the Top of Pile Cap between the Piers/Abutment footings and flush with the footings and adjacent ground. The RSP used should be ½ ton (24 inches in diameter) installed in a pre-excavated 6-foot hole.
 - 23 TCEs are needed for constructing RCB, and bridge widening.
 - 24 Clearing and grubbing
 - 25 Highway planting
 - 26 Replace damaged landscape irrigation in kind where needed between Irvine Boulevard Over-Crossing to Barranca Parkway on-ramp.

The project scope will include the following nonstandard design feature, a 500-foot long 2:1 side slope on SB Rte-133 between Alton and Barranca Pkwy, 2:1 slope in front of retaining wall No. 46, 55, and 62. Per the HDM 304.1, new and modified embankment slopes should be 4:1 or flatter.

The duration of the project will be approximately 2 years. Bicycle and pedestrian detours will be provided. In addition, the Caltrans Standard Specifications in the Transportation Management Plan (TMP) will require the project to provide information to the public for pedestrian and bicycle detours.

B. No-Build Alternative

The No Build alternative retains the existing roadway condition. This Alternative will not address congestion during morning peak hours within the project limits. This is not the preferred alternative.

2.0 De Minimis Determinations

This section of the document discusses *de minimis* impact determinations under Section 4(f). Section 6009(a) of SAFETEA-LU amended Section 4(f) legislation at 23 United States Code (USC) 138 and 49 USC 303 to simplify the processing and approval of projects that have only *de minimis* impacts on lands protected by Section 4(f). This amendment provides that once the U.S. Department of Transportation (USDOT) determines that a transportation use of Section 4(f) property, after consideration of any impact avoidance, minimization, and mitigation or enhancement measures, results in a *de minimis* impact on that property, an analysis of avoidance alternatives is not required and the Section 4(f) evaluation process is complete. FHWA's final rule on Section 4(f) *de minimis* findings is codified in 23 Code of Federal Regulations (CFR) 774.3 and CFR 774.17.

Responsibility for compliance with Section 4(f) has been assigned to the Department pursuant to 23 USC 326 and 327, including *de minimis* impact determinations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

There is 1 recreational facility, San Diego Creek Class I Bikeway/trail owned and operated by the City of Irvine that have been determined to trigger the requirements for protection under Section 4(f).

San Diego Creek Class I Bikeway/Trail

Description of Activities, Features, and Attributes

The San Diego Creek Class I Bikeway/Trail, within the City of Irvine, begins at the intersection of Dana and Antivo, continues northwest to reach the San Diego Creek Channel. The bikeway/trail follows the channel southward to the end of the facility limits passing under SR-73. This bikeway/trail is predominantly asphalt with shoulder striping along most segments. The San Diego Creek Class 1 Bikeway/Trail as described from the City of Irvine Bicycle Transportation Plan (2011):

“This Class I bikeway also forms a segment of a regional trail that connects the City of Orange with the Upper Newport Bay, and follows the east side of the San Diego Creek channel as it extends from its intersection with Peters Canyon Wash, near Barranca Parkway, to Newport Beach in the south. Near Barranca Parkway, the San Diego Creek Trail also travels east through central Irvine. The bikeway follows both sides of the channel between Sand Canyon Avenue and SR-133 toll road and terminates before intersecting with the I-405 Freeway in the Irvine Spectrum.”

The San Diego Creek Class I Bikeway/Trail is part of a larger system consisting of on-/off-street bikeway/trails as well as Class II on-street striped bike routes (see Figure 1). The citywide bike system consists of 61.8 miles of off-street bikeway trails and 301 lane miles of on-street bikeways. From the San Diego Creek Class I Bikeway/Trail, the public can directly connect to the following Public Paved Off-Street Trails (Figure 1) bikeway trails:

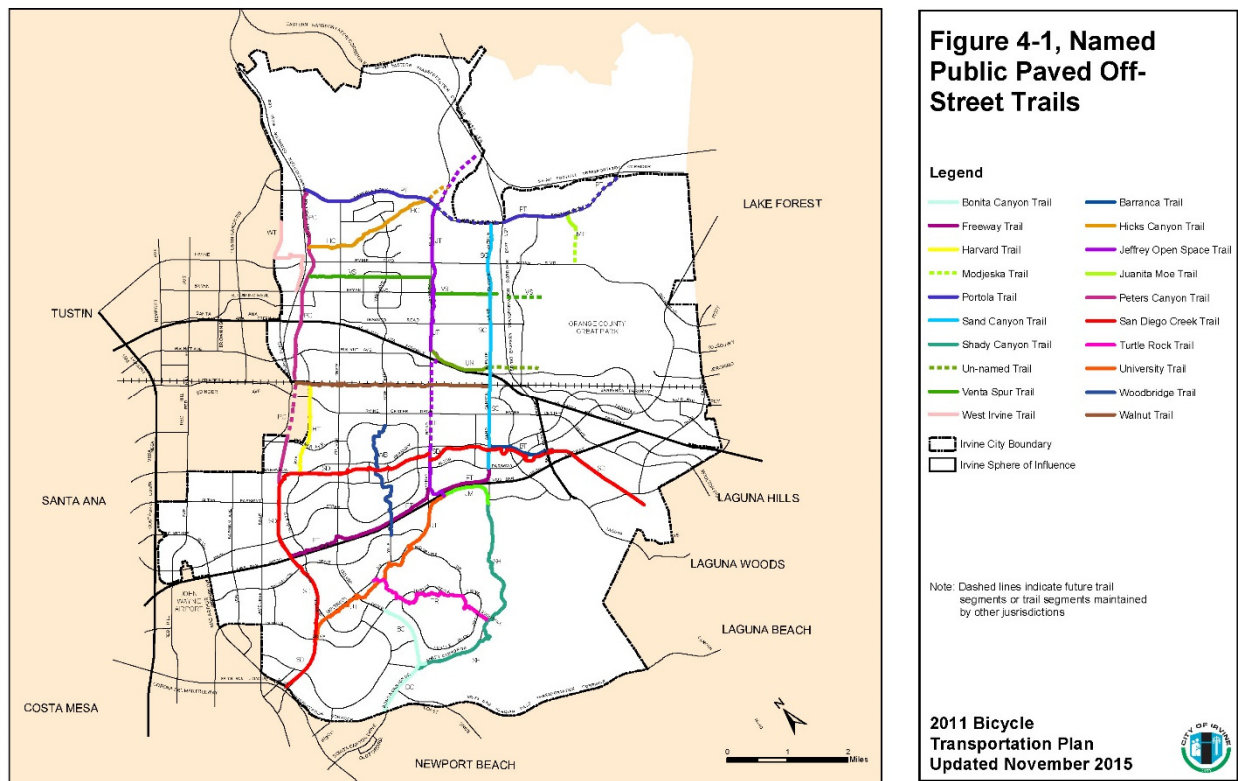
- Barranca Trail
- Sand Canyon Trail
- Jeffrey Open Space Trail

- Woodbridge Trail
- Peters Canyon Trail
- Freeway Trail
- University Trail

The San Diego Creek Class I Bikeway/Trail connects residents from the central portion of the City to the western and eastern portions, commercial centers, and local and regional open space and park areas. In addition, the San Diego Creek Class I Bikeway/Trail serves as a regional bikeway connection to Newport Beach (to the south) and to the cities of Tustin and Orange (to the north).

Amenities of the bike facility are limited. Lighting is limited to portions of the facility that are adjacent to city streets. Landscaping is restricted on this facility because it is a County Flood Control facility. Benches and drinking water facilities are found only south of Barranca Street

Figure 1 – Named Public Paved Off-Street Trails. Source: City of Irvine, Bicycle Transportation Plan 2011 (accessed June 12, 2019)



Proposed “Use”

Because the proposed improvements of the Build Alternative at the SB SR-133 / NB I-405 connector bridge cross over the San Diego Creek Class I Bikeway/Trail facility, the Build Alternative will temporarily impact use to the San Diego Creek Class I Bikeway/Trail at this location. This project requires 29,965 square feet of Temporary Construction Easement (TCE). Construction activities are proposed to take place in

the San Diego Creek bed and channel, in addition to the construction of a concrete box channel between Barranca Pkwy and Alton Pkwy. Due to the construction in the manner proposed the project requires Temporary Construction Easements from two (2) assessor’s parcels. The exact requirements are as noted in the Assessor's Parcel Number table below. Due to these proposed improvements on the SB SR-133/NB I-405 connector, the trail will be temporarily closed at that location for construction activities within the San Diego Creek bed and channel (see Figure 2). No permanent right of way acquisition or easements will be required. However, Temporary Construction Easements will be necessary. Table 1 (below) shows the right of way requirements and Figure 2 shows the location of the impacted Assessors’ Parcel Numbers.

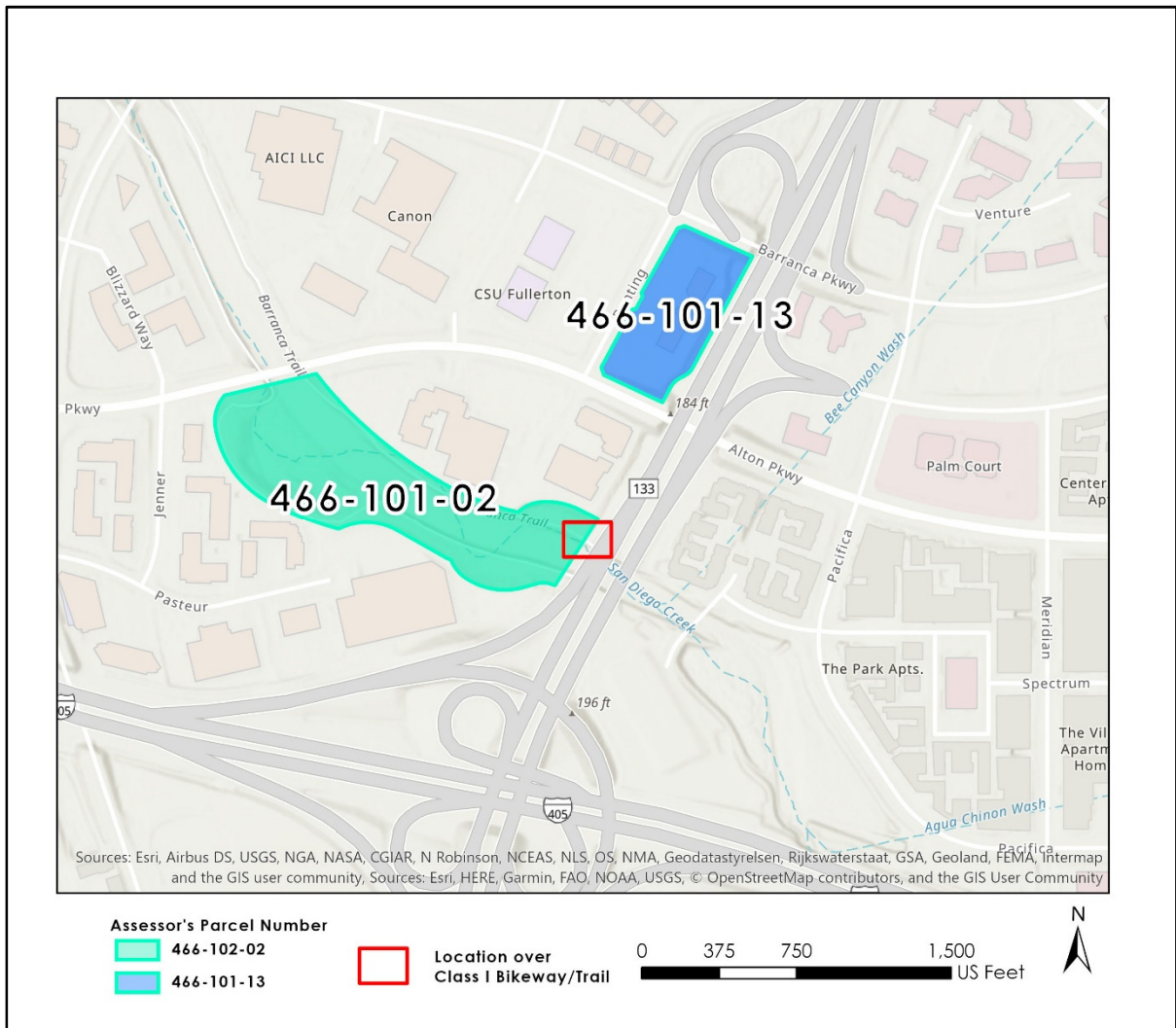
Table 1 – Right-of-Way Requirements

Location	Ownership	Assessor's Parcel Number	TCE
SB SR-133 / NB I-405 Connector	City of Irvine	466-102-02	21,520 sqft
Does not impact the Class I Bikeway	Toyota Motor Sales USA	466-101-13	8,445 sqft
		TOTAL	29,965 sqft

There will be no changes made to the bike facility, but it will be temporarily impacted due to the construction activity.

There are numerous access points to the bikeway/trail, but only the location of construction activity will require temporary closure. However, detours will be required and provided. The remainder of the bikeway/trail and associated bike facility network system within the City of Irvine will remain open and undisturbed.

Figure 2 – Project easement requirements and San Diego Creek Trail



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Table 2 – Section 4(f), San Diego Creek Class I Bikeway/Trail

Property Name	Description	Official Agency with Jurisdiction	Distance from Project Footprint	Type of Use
San Diego Creek Class I Bikeway/Trail	<p>Location: City of Irvine</p> <p>Size: ~9.5 mile length of paved Class 1 off-street bikeway/trail</p> <p>Distance from Project Footprint: within 0.5 mi of the project footprint</p> <p>Features: City of Irvine owned bikeway/trail. Connects to the City's bikeway network. Various locations have amenities such as: bicycle racks and stationary storage racks, lockers, drinking water fountains, lighting, landscaping.</p>	City of Irvine	Within the project footprint	<i>De minimis</i>

In addition, Figure 3 (below) identifies that there are no other recreational parks within 0.5 mile of the project location.

Figure 3 – Irvine Parks Map

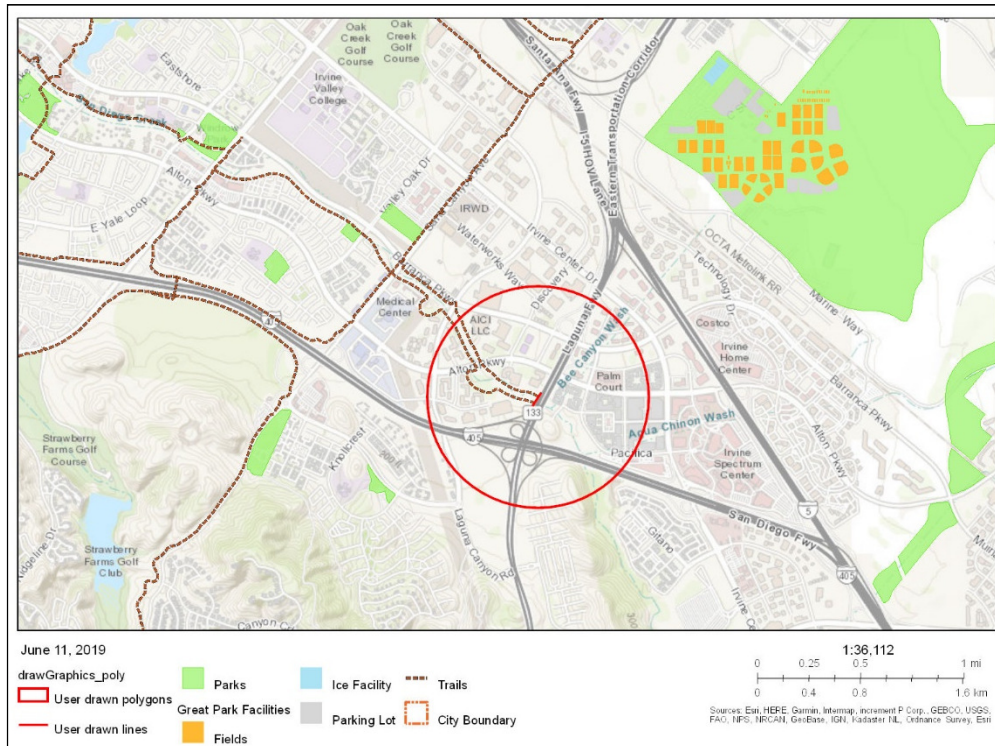
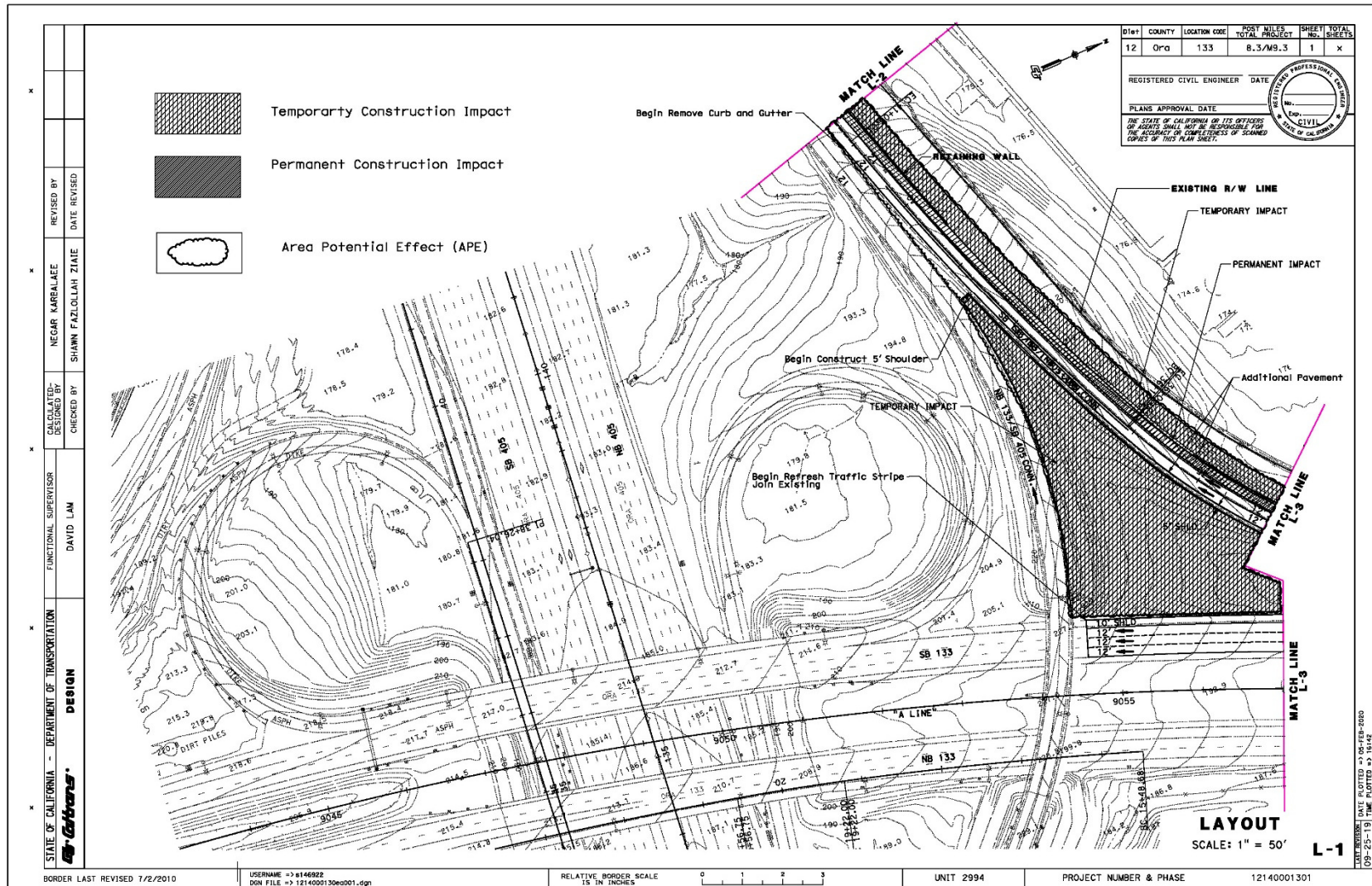


Figure 4 discloses the project's temporary and permanent construction impact. Indicated on Sheet 3 of 5, the bikeway/trail is shown as being temporarily impacted

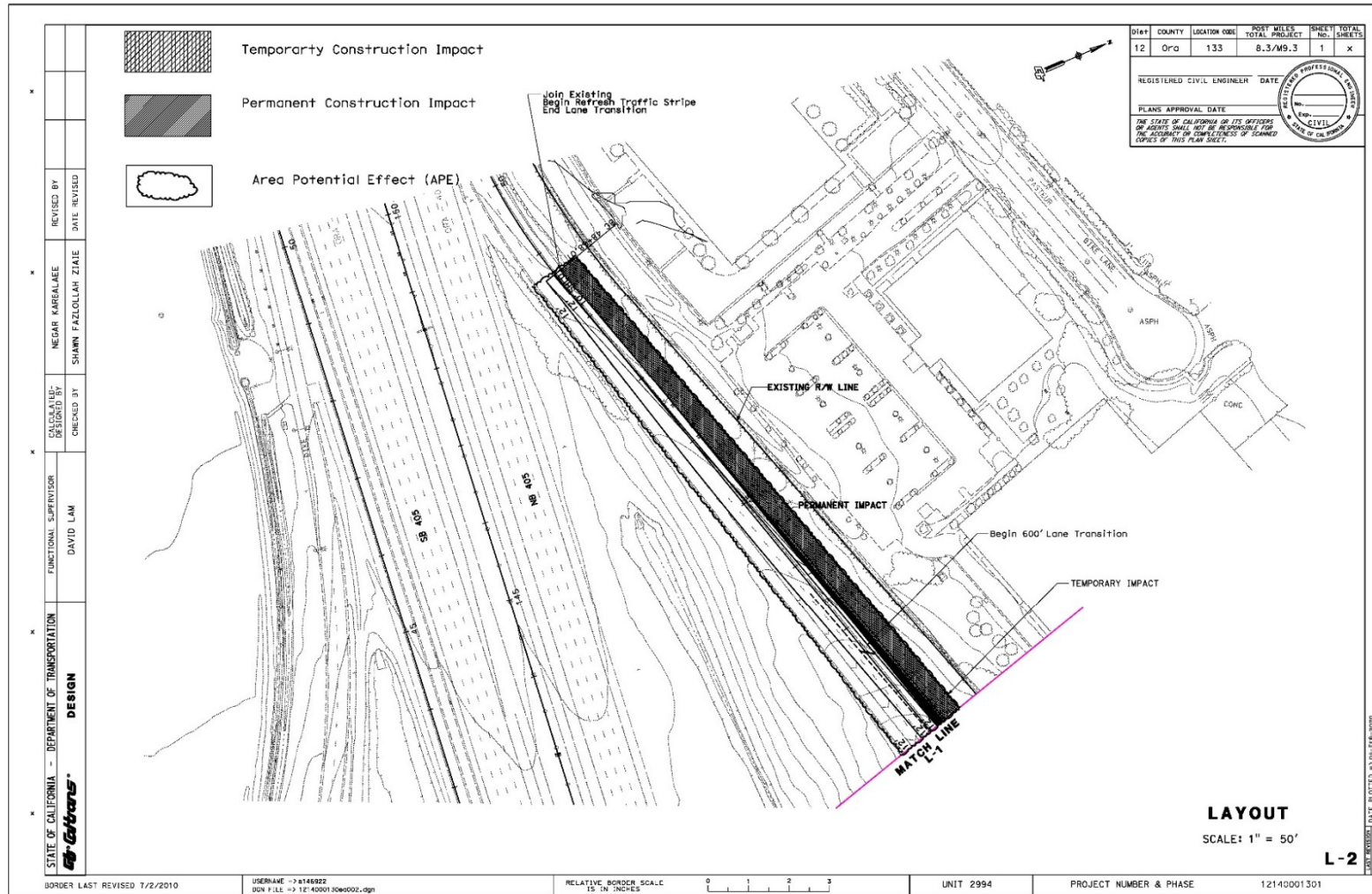
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Figure 4 – Preliminary Project Plan Sheets (Sheet 1 of 5)



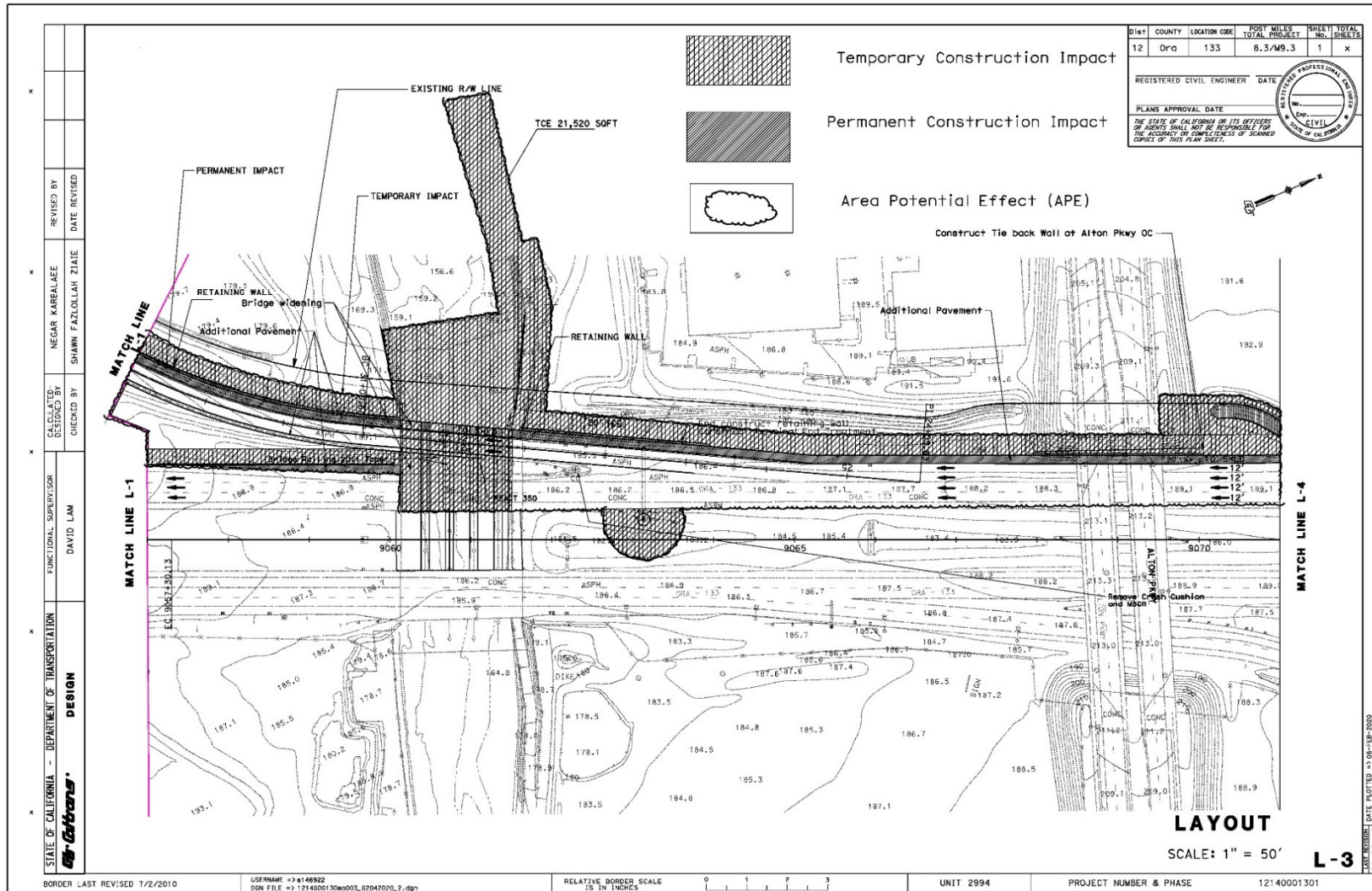
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Figure 4 – Preliminary Project Plan Sheets (Sheet 2 of 5)



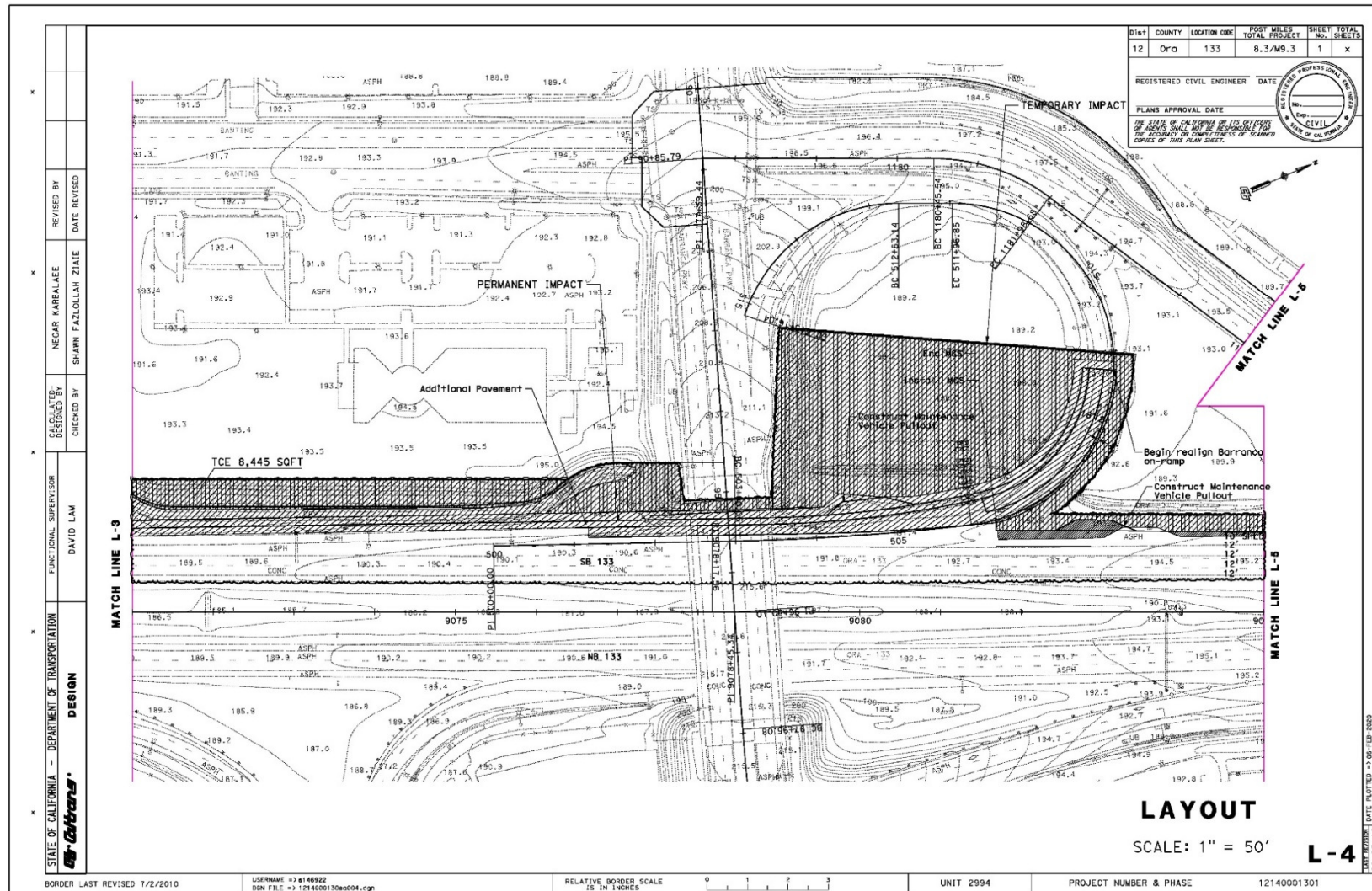
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Figure 4 – Preliminary Project Plan Sheets (Sheet 3 of 5)



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Figure 4 – Preliminary Project Plan Sheets (Sheet 4 of 5)



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There is no exception to the “use” to the San Diego Creek Class I Bikeway/Trail because the project cannot meet all five conditions under Temporary Occupancy in order to constitute an exception to the use. The project may involve temporary interference with the ability of the public to use the bikeway/trail by temporary closure of the bikeway/trail at the project location. Therefore, there is a use for the purposes of section 4f.

Why the Use is De Minimis

De Minimis impacts on publicly owned parks, recreation areas, and wildlife and waterfowl refuges are defined as those that do not adversely affect the activities, features and attributes of the Section 4(f) resource. Caltrans must make a finding for each resource and the responsible official with jurisdiction over each resource must agree in writing with that finding.

The temporary use described above will not diminish the function of the San Diego Creek Class I Bikeway/Trail and its associated amenities. There will be no impacts that adversely affect the recreational activities, features and attributes that qualify the property for protection under the requirements of Section 4(f). Access to the bikeway/trail from the project location will temporarily be impacted. The remainder of the bikeway/trail and its connection to the larger network of bikeway/trails will remain open and undisturbed. Shown in Figure 1, the Barranca Trail is directly adjacent to the San Diego Creek Class I Bikeway/Trail at the proposed project location, providing for an alternate route to connect back to the San Diego Creek Class I Bikeway/Trail outside of the project limits.

The project proposes no permanent use nor permanent land conversion. There will be no changes made to the bike facility, but it will be temporarily impacted due to construction activity.

As per the project’s standard provision, the construction contractor is required to provide detours to the San Diego Class I Bikeway/Trail for the temporarily closed portion due to construction activities. There are numerous access points to the bikeway/trail, but only the location of construction activity will require temporary closure. The remainder of the bikeway trail and associated bike facility network system within the City of Irvine will remain open and undisturbed. Therefore, the public will still have access to the bikeway/trail by utilizing the provided detours within existing public right of way. There is no designated critical habitat in the project area, and no special status or listed species are expected to occur during project activity. No wetlands or water conveyances will be impacted by the proposed project. The avoidance, minimization and/or mitigation measures that would be implemented during construction will help reduce impacts, if any, to the San Diego Creek Class I Bikeway/Trail.

The temporary impacts to the San Diego Creek Class I Bikeway/Trail would not adversely affect the activities, features, and attributes of the facility. As mentioned, an adjacent trail, Barranca Trail (Class II On-street Bike facility), will be open and available for the public to use that is approximately 0.3 miles north of the San Diego Creek Class I Bikeway/Trail.

Incorporation of the following Avoidance, Minimization and/or Mitigation Measures below will ensure that construction activities will not impact the use of the recreational facilities by the public.

Because of the reasons above, Caltrans has made a **de minimis determination**.

Avoidance, Minimization, and/or Mitigation Measures/Environmental Commitments Record (ECR): To minimize impacts to the Section 4(f) Use, the following project features and minimization measures are included in the proposed project and in the Environmental Commitments Record:

- PF-TRA-1** A Transportation Management Plan (TMP) shall be included in the design plans for implementation by the contractor prior to and during construction of any improvements. The TMP shall consist of prior notices, adequate sign posting, detours, phased construction, and temporary driveways where necessary. The TMP shall specify implementation timing of each plan element (e.g., prior notices, sign posting, detours) as determined appropriate by Caltrans. Adequate local emergency access shall be provided at all times to adjacent uses. Proper detours and warning signs shall be established to ensure public safety. The TMP shall be devised so that construction shall not interfere with any emergency response or evacuation plans. Construction activities shall proceed in a timely manner to reduce impacts.
- PF-BIO-1** To avoid impacts to any nesting birds, ground disturbance that occurs during the nesting bird season (February 1 – September 30) will require nesting bird surveys by a Caltrans Biologist within 72 hours prior to the start of work. The Caltrans Biologist will be contacted at least one week ahead of time to schedule a survey
- PF-BIO-2** To avoid the spread of invasive plant species, all vegetation being removed should be disposed of properly. If vegetation is planted on site, the Caltrans Biologist and Landscape Architect will coordinate and approve the proposed vegetation to be planted.
- PF-WQ-2** The project will comply with the provisions of the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) Order No. 2009-0009-DWQ, NPDES General Permit No. CAS000002 and any subsequent permits in effect at the time of construction.
- PF-N-1** During construction of the Project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Noise associated with construction is controlled by 2018 Caltrans Standard Specification Section 14-8.02, “Noise Control,” which states the following: Control and monitor noise resulting from work activities. Do not exceed 86 dBA Lmax at 50 feet from the job site from 9 p.m. to 6 a.m.

PF-REC-1: The property used for temporary construction easement will be restored to a condition at least as good as it was prior to easement being granted

REC-1: Caltrans will coordinate with the City of Irvine during the Design phase to ensure collaborative communication among stakeholders. The purpose of these meetings will be to inform the City and its residents about the project's progress and any temporary and/or permanent impacts to the project location. During the Design phase when information on detours and the Traffic Management Plan (TMP) become available, Caltrans will coordinate with the City of Irvine to finalize a detour and ensure that all detours outlined in the TMP be approved and implemented accordingly. Caltrans will continue to keep the City informed on project development and coordinate with the City as needed.

Consultation and Coordination with the Official Jurisdiction

Caltrans has initiated consultation with the City of Irvine with regards to the characterization of effects of the project in the context of this Section 4(f) analysis, consistent with 49 USC 303(d)(3)(B). Caltrans sent a Preliminary Section 4(f) Resource Analysis coordination letter to City of Irvine (the official with jurisdiction) on January 22, 2019. This Section 4(f) De Minimis Analysis was made available along with the Draft Environmental Document for review and commenting from January 7th, 2020 to February 6th, 2020. On March 9th, 2020, the City of Irvine provided Section 4f Concurrence of the de minimis finding by Caltrans.

3.0: Resources Evaluated Relative to the Requirements of Section 4(f): No-Use Determination

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code (USC) 303, declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

This section of the document discusses parks, recreational facilities, wildlife refuges, and historic properties found within or next to the project area that do not trigger Section 4(f) protection because: 1) they are not publicly owned, 2) they are not open to the public, 3) they are not eligible historic properties, or 4) the project does not permanently use the property and does not hinder the preservation of the property.

Table 3 - Summary of Properties Subject to Section 4(f) Consideration (No-Use)

Type of Property	Geographic Location to project	Number of Properties
Public Schools	Within 0.5 mile	0
Public Parks and Recreation	Within 0.5 mile	0
Trails	Within 0.5 mile	2
Wildlife and Waterfowl Refuges	Within 0.5 mile	0
NRHP-eligible historic sites	Within the APE	0
NRHP-eligible archaeological	Within the APE	0

Table 4 – Properties Subject to Section 4(f) within 0.5 miles of the Study Area (No-Use)

No.	Property	Address	City	Facilities
1	Barranca Trail	Approximately 90 Pacifica, Irvine, CA 92618	Irvine	Class II On-Street Bikeway Facility
2	Laguna Altura Trail	79 Borghese, Irvine, CA 92618	Irvine	Private community trail (0.5 miles in length) that connects to the San Diego Creek Trail

There would be no use of land from these properties under Section 4(f) (permanent incorporation of land from the property into the transportation facility) and there are no TCEs or other temporary occupancies within the boundaries of all the above-mentioned properties in Table 4 under the Build Alternative. There are no permanent or temporary occupancy of land from these resources under the Build Alternative. Thus, the requirements for protection under Section 4(f) are not triggered for the properties in Table 4.

In terms of proximity or constructive use impacts:

- no staging areas or vehicular access near these resources are proposed,
- no substantial short-term or long-term visual impacts will occur,
- no adverse effects to water quality from construction activities anticipated,
- project constructions activities would not produce substantial operational air quality impacts,
- no long-term substantial noise impacts are anticipated,
- and operation of the Build Alternative would not result in any direct or indirect vegetation impacts.

The properties listed above are Section 4(f) properties, but no “use” will occur. Therefore, the provisions of Section 4(f) do not apply.

Appendix B – Title VI Policy Statement

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DEPARTMENT OF TRANSPORTATION

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Making Conservation
a California Way of Life.

November 2019

**NON-DISCRIMINATION
POLICY STATEMENT**

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page:
<https://dot.ca.gov/programs/business-and-economic-opportunity/title-vi>.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, at 1823 14th Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

A handwritten signature in blue ink, appearing to read 'Toks Omishakin'.

Toks Omishakin
Director

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

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Appendix C – RTP-FTIP

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2019 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM
 ORANGE COUNTY
 GROUP PROJECT LISTING
 (in \$000's)

#19-02 ORA ORA001105_SHOPP_MP

Grouped Projects for Safety Improvements - SHOPP Mobility Program. Scope: Projects are consistent with 40 CFR Part 93.126 Exempt Tables 2 and Table 3 categories - Railroad/highway crossing, Safer non-Federal-aid system roads, Shoulder Imp, traffic control devices ops assistance, Intersection signalization projects, Pavement marking demo, Lighting MOBILITY PROJECTS

RTIP #	DESCRIPTION	PHASE	18/19	19/20	20/21	21/22	Total
ORA001105	In Orange County, in Anaheim, at the Commercial Vehicle Enforcement Facility (CVEF), Peralta Weigh Station (Eastbound). Rehab and upgrade CVEF. EA ON4900	E	\$2,015				\$2,015
		R	\$10				\$10
		C	\$8,179				\$8,179
ORA001105	In Orange County, in Santa Ana and Tustin, from Dyer Road on ramp to Edinger Avenue off-ramp. Construct northbound Aux. Lane. EA OG9500	E		\$3,700			\$3,700
		R		\$27,200			\$27,200
		C		\$15,900			\$15,900
ORA001105	In Orange County, Anaheim, Santa Ana, Fullerton and Buena Park. Install & modify Intelligent Transportation system (ITS) elements. EA OP42U1 (Combined from ON9000, OP4100 & OP4200 to be come OP42U1)	E		\$3,723			\$3,723
		R		\$9			\$9
		C		\$25,118			\$25,118
ORA001105	In Orange County, on I-5 from PM 33.0/ to 43.2, on SR-57 from PM 10.7/16.6. SR-91 from PM R2.6 to R4.1 and 0.0/7.2. Implements ICM to reduce congestion by leveraging unused capacity along project corridors. EA OP6700	E		\$6,723			\$6,723
		R		\$320			\$320
		C		\$17,323			\$17,323
ORA001105	In Orange County, at various routes and locations (Route 5, 405, 605). Construction of inductive system, vehicle detection system and ramp metering systems. EA OQ6900	E		\$2,060			\$2,060
		R		\$24			\$24
		C		\$8,330			\$8,330
ORA001105	In Orange County, on SR-1 between Crystal Heights Drive and First Street in the cities of Newport Beach, Huntington Beach and Seal Beach. Remove and replace all existing signal lights at 20 intersections along SR-1. EA OP6800	E		\$6,190			\$6,190
		R		\$1,435			\$1,435
		C		\$16,462			\$16,462
ORA001105	In Irvine, from SB 5/SB 133 connector to SB 133/NB 405 connector. Construct new Aux. lane EA ON8900	E				\$4,727	\$4,727
		R				\$905	\$905
		C				\$19,470	\$19,470
ORA001105	In Irvine, from Rte. 133 to Sand Canyon Avenue; Also from Sand Canyon Avenue to University Drive/Jefferey Road. Const. SB Aux. lane EA OH0451	E					
		R					
		C	\$8,200				\$8,200
ORA001105	In Orange County, on Routes 55, 57, 73, 133 and 405. Replace "METER ON" signal heads with new flashing beacon. EA OQ5800 (Minor SHOPP project)	E	\$915				\$915
		R					
		C	\$1,250				\$1,250
Total			\$20,569	\$134,517	\$0	\$25,102	\$180,188

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Final 2019 Federal Transportation Improvement Program

Orange County Project Listing
State Highway
(in \$000's)

ProjectID	County	Air Basin	Model	RTP ID	Program	Route	Begin	End	Signage Begin	Signage End	System	Conformity Category	Amendment
ORA001103	Orange	SCAB		REG0701	SHP03	999					S	EXEMPT - 93.126	0
Description: Grouped Projects for Pavement resurfacing and/or rehabilitation - SHOPP Roadway Preservation Program. Scope: Projects are consistent with 40 CFR Part 93.126 Exempt Tables 2 categories - Pavement resurfacing and/or rehabilitation, Emergency relief (23 U.S.C. 125), Widening narrow pavements or reconstructing bridges (no additional travel lanes)													
		ENG	R/W	CON	Total	Prior	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	Total
Fund				71,342	71,342		11,385	59,957					71,342
SHOPP - ADVANCE CONSTRUCTION													
ORA001103 Total				71,342	71,342		11,385	59,957					71,342
ORA001104	Orange	SCAB		REG0701	SHP02	999					S	EXEMPT - 93.126	0
Description: Grouped Projects for Shoulder Improvements - SHOPP Roadside Preservation Program. Scope: Projects are consistent with 40 CFR Part 93.126 Exempt Tables 2 categories - Fencing, Safety roadside rest areas													
Fund		ENG	R/W	CON	Total	Prior	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	Total
SHOPP - ADVANCE CONSTRUCTION				1,260	1,260		1,260						1,260
ORA001104 Total				1,260	1,260		1,260						1,260
ORA001105	Orange	SCAB		REG0701	SHP01	999					S	EXEMPT - 93.126	0
Description: Grouped Projects for Safety Improvements - SHOPP Mobility Program. Scope: Projects are consistent with 40 CFR Part 93.126 Exempt Tables 2 and Table 3 categories - Railroad/highway crossing, Safer non-Federal-aid system roads, Shoulder imp, traffic control devices ops assistance, Intersection signalization projects, Pavement marking demo, Lighting													
Fund		ENG	R/W	CON	Total	Prior	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	Total
SHOPP - ADVANCE CONSTRUCTION				129,561	129,561		10,204	119,357					129,561
ORA001105 Total				129,561	129,561		10,204	119,357					129,561
ORA001108	Orange	SCAB		REG0701	SHP04	999					S	EXEMPT - 93.126	0
Description: Grouped Projects for Safety Improvements - SHOPP Mandates Program. Scope: Projects are consistent with 40 CFR Part 93.126 Exempt Tables 2 and Table 3 categories - Railroad/highway crossing, Safer non-Federal-aid system roads, Shoulder imp, traffic control devices and ops assistance other than signalization projects, Lighting imp													
Fund		ENG	R/W	CON	Total	Prior	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	Total
SHOPP - ADVANCE CONSTRUCTION				27,796	27,796		7,165	20,631					27,796
ORA001108 Total				27,796	27,796		7,165	20,631					27,796

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TABLE 1 FTIP Projects - Continued

County	System	FTIP ID	Route #	Description
ORANGE	STATE HIGHWAY	ORA150110	91	SR-91 (SR-57 TO SR-55) - PROJECT PROPOSES TO ADD 1 GP LANE EASTBOUND FROM SR-57 TO SR-55, AND 1 GP LANE WESTBOUND FROM G STREET TO STATE COLLEGE BLVD. ADDITIONAL FEATURES OF THE PROJECT INCLUDE IMPROVEMENTS TO NEARBY LOCAL INTERCHANGES AND FREEWAY CONNECTORS. AUXILIARY LANES WILL BE ADDED IN CERTAIN SEGMENTS (PA&ED PHASE).
ORANGE	STATE HIGHWAY	ORA000821	91	SR-91 WB (SR-55 THROUGH TUSTIN INTERCHANGE) EXTEND LANE AND RECONSTRUCT AUX. LANE. PPN0 4587A EA 0C560)
ORANGE	STATE HIGHWAY	ORA020807	91	IN ORANGE COUNTY, AT THE COAL CANYON ROAD INTERCHANGE. THE PROJECT IS TO INSTALL VEGETATION ENHANCEMENTS. EA12-0K330
ORANGE	STATE HIGHWAY	ORA051	241	FOOTHILL TRANSPORTATION CORRIDOR-NORTH (FTC-N - SR 241). 12.7 MI TOLL ROAD BETWEEN OSO PKWY AND ETC, CONSISTENT WITH SCAG 4/05/01. EXISTING 2 M/F IN EA DIR. 2 ADDITIONAL M/F, PLS CLIMBING & AUX LANES BY 2020.
ORANGE	STATE HIGHWAY	ORA052	241	FOOTHILL TRANSPORTATION CORRIDOR-SOUTH (FTC-S - SR 241). 10.3 MI TOLL ROAD BETWEEN SAN DIEGO COUNTY LINE AND OSO PKWY, CONSISTENT WITH SCAG/TCA MOU 4/05/01. 2 M/F EA DIR FROM OSO PKWY TO COW CAMP RD BY 2017. 2 M/F EA DIR FROM COW CAMP RD TO SAN DIEGO 2021. 1 ADDITIONAL M/F EA DIR PLS CLIMBING & AUX LANES BY 2030.
ORANGE	STATE HIGHWAY	ORA11207	241	241/91 EXPRESS LANES (HOT) CONNECTOR: NB SR-241 TO EB SR-91, WB SR-91 TO SB SR-241, PER SCAG/TCA MOU 4/05/01.
ORANGE	STATE HIGHWAY	ORA11207	241	241/91 EXPRESS LANES (HOT) CONNECTOR: NB SR-241 TO EB SR-91, WB SR-91 TO SB SR-241, PER SCAG/TCA MOU 4/05/01. PARENT PROJECT
ORANGE	STATE HIGHWAY	ORA050	241	EASTERN TRANSPORTATION CORRIDOR (ETC- SR 241/261/133) 26.4 MI TOLL ROAD CONNECTS SR 91 TO I-5 VIA SR 261 AND SR 133, CONSISTENT WITH TCA MOU 4/05/01. EXISTING 2 M/F EA DIR. 2 ADDITIONAL M/F IN EA DIR, PLUS CLIMBING AND AUX LANES BY 2020.
ORANGE	STATE HIGHWAY	ORA131304	405	I-405(I-5 TO SR-55)-ADD 1 MF LANE EACH DIRECTION FROM I-5 TO SR-55 AND IMPROVE MERGING.(UTILIZE TOLL CREDIT MATCH FOR RSTP) E
ORANGE	STATE HIGHWAY	ORA130064	405	I-405 – ADD ONE SOUTHBOUND AUXILIARY LANE FROM UNIVERSITY DRIVE TO SAND CANYON (SEGMENT 2) AND SAND CANYON AVENUE TO SAND CANYON (SEGMENT 1)
ORANGE	STATE HIGHWAY	ORA113030	405	WIDEN RAMP FOR DECELERATION LANE - NB I-405 FROM 1 MILE NORTH OF JEFFERY RD TO CULVER DR. 0.6 MILES SPLIT FROM ORA001105
ORANGE	STATE HIGHWAY	ORA000194	405	HOV CONNECTORS FROM I-405 TO I-605, BETWEEN KATELLA AVE. (I-605 PM R001.104) AND SEAL BEACH BLVD. (I-405 PM 022.643), WITH A LANE IN EACH DIRECTION ON I-405 BETWEEN THE TWO DIRECT CONNECTORS. TOLL CREDITS FOR CMAQ.
ORANGE	STATE HIGHWAY	ORA030605	405	I-405 FROM SR-73 TO I-605. ADD 1 MF LANE IN EACH DIRECTION, AND ADDITIONAL CAPITAL IMPROVEMENTS. COMBINED WITH ORA045, ORA046 AND ORA120310. PHASE 2 LISTED UNDER ORA030605A
ORANGE	STATE HIGHWAY	ORA030605A	405	I-405 FROM SR-73 TO I-605. CONVERT EXISTING HOV TO HOT. ADD 1 ADDITIONAL HOT LANE EACH DIRECTION AND ADD A HOT DIRECT CONNECTOR (BY 2035). PHASE 1 PROJECT LISTED UNDER ORA030605
ORANGE	STATE HIGHWAY	ORA001108	999	GROUPED PROJECTS FOR SAFETY IMPROVEMENTS - SHOPP MANDATES PROGRAM. SCOPE: PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126 EXEMPT TABLES 2 AND TABLE 3 CATEGORIES - RAILROAD/HIGHWAY CROSSING, SAFER NON-FEDERAL-AID SYSTEM ROADS, SHOULDER IMPROVEMENTS, CONTROL DEVICES AND OPS ASSISTANCE OTHER THAN SIGNALIZATION PROJECTS, LIGHTING IMPROVEMENTS
ORANGE	STATE HIGHWAY	ORA040607	999	ORANGE COUNTY - COUNTYWIDE ACTIVITIES: PLANNING, PROGRAMMING AND MONITORING (PPM)
ORANGE	STATE HIGHWAY	ORA001104	999	GROUPED PROJECTS FOR SHOULDER IMPROVEMENTS - SHOPP ROADSIDE PRESERVATION PROGRAM. SCOPE: PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126 EXEMPT TABLES 2 CATEGORIES - FENCING, SAFETY ROADSIDE REST AREAS
ORANGE	STATE HIGHWAY	ORA084402	999	GROUPED PROJECTS FOR PURCHASE OF OFFICE, SHOP, AND OPERATING EQUIPMENT FOR EXISTING FACILITIES. SCOPE - PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126 EXEMPT TABLES 2 AND TABLE 3 CATEGORIES - PURCHASE OF OFFICE, SHOP, AND OPERATING EQUIPMENT FOR EXISTING FACILITIES
ORANGE	STATE HIGHWAY	ORA001103	999	GROUPED PROJECTS FOR PAVEMENT RESURFACING AND/OR REHABILITATION - SHOPP ROADWAY PRESERVATION PROGRAM. SCOPE: PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126 EXEMPT TABLES 2 CATEGORIES - PAVEMENT RESURFACING AND/OR REHABILITATION, EMERGENCY TRAVEL LANES, WIDENING NARROW PAVEMENTS OR RECONSTRUCTING BRIDGES (NO ADDITIONAL TRAVEL LANES)
ORANGE	STATE HIGHWAY	ORA001105	999	GROUPED PROJECTS FOR SAFETY IMPROVEMENTS - SHOPP MOBILITY PROGRAM. SCOPE: PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126 EXEMPT TABLES 2 AND TABLE 3 CATEGORIES - RAILROAD/HIGHWAY CROSSING, SAFER NON-FEDERAL-AID SYSTEM ROADS, SHOULDER IMPROVEMENTS, TRAFFIC CONTROL DEVICES OPS ASSISTANCE, INTERSECTION SIGNALIZATION PROJECTS, PAVEMENT MARKING DEMO, LIGHTING
ORANGE	STATE HIGHWAY	ORA001109	999	GROUPED PROJECTS FOR BRIDGE REHABILITATION AND RECONSTRUCTION - SHOPP PROGRAM. SCOPE: PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126 EXEMPT TABLES 2 CATEGORIES - WIDENING NARROW PAVEMENTS OR RECONSTRUCTING BRIDGES (NO ADDITIONAL TRAVEL LANES)

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**2018 SHOPP Project List
Orange
(\$1,000)**



Dist- Co-Rte Post Mile PPNO EFIS	Location/Description	EA Prog Year	COS Allocation				Milestones
			Capital	Support	FY		
12-Orange-39 15.2/15.9 3230A 1212000031	In Buena Park, from Auto Center Drive to Craig Avenue. Rehabilitate drainage systems, install new inlets, Reinforced Concrete Pipes (RCP) and replace flood damaged sections of curb and gutters.	0F970 2019-20	R/W: \$414 Const: \$2,226	PA&ED: PS&E: \$870 R/W Sup: \$153 Con Sup: \$906	Prior Prior 19-20	PA&ED: 6/26/2017 R/W Cert: 11/1/2019 RTL: 11/15/2019 Begin Con: 7/15/2020	
Subtotal:			\$2,640	\$1,929			
Total Project Cost:				\$4,569			
<i>Carryover</i>			Program Code 201.151 Drainage System Restoration				
<i>Carryover</i>			Performance Measure 24 Culvert(s) (ea)				
12-Orange-133 3.1/R4.3 4792 1216000133	In Orange County, from 0.3 mile south of El Toro Road to 0.2 mile north of Route 73/133 Interchange. Construct detention basin, reconstruct channel, extend reinforced concrete box and regrade to prevent adverse flow.	0Q360 2019-20	R/W: \$1,467 Const: \$2,095	PA&ED: \$1,125 PS&E: \$1,712 R/W Sup: \$766 Con Sup: \$1,188	Prior 18-19 18-19 19-20	PA&ED: 10/2/2018 R/W Cert: 4/17/2020 RTL: 6/15/2020 Begin Con: 1/5/2021	
Subtotal:			\$3,562	\$4,791			
Total Project Cost:				\$8,353			
<i>Carryover</i>			Program Code 201.151 Drainage System Restoration				
<i>Carryover</i>			Performance Measure 2 Culvert(s) (ea)				
MOBILITY							
12-Orange-55 R8.0/R9.2 3483 1215000045	In the cities of Santa Ana and Tustin, from Dyer Road onramp to Edinger Avenue offramp. Construct northbound auxiliary lane.	0G950 2019-20	R/W: \$24,500 Const: \$13,100	PA&ED: \$200 PS&E: \$3,500 R/W Sup: \$2,700 Con Sup: \$2,800	Prior Prior Prior 19-20	PA&ED: 9/11/2017 R/W Cert: 6/1/2020 RTL: 6/15/2020 Begin Con: 12/23/2020	
Subtotal:			\$37,600	\$9,200			
Total Project Cost:				\$46,800			
<i>Carryover</i>			Program Code 201.310 Operational Improvements				
<i>Carryover</i>			Performance Measure 1153 Daily vehicle hour(s) of delay (DVHD)				
12-Orange-133 8.5/M9.3 4846 1214000130	In Irvine, from southbound 5/SB 133 Connector to southbound 133/NB 405 Connector. Construct a new auxiliary lane to improve traffic flow.	0N890 2021-22	R/W: \$253 Const: \$14,926	PA&ED: \$1,503 PS&E: \$3,224 R/W Sup: \$652 Con Sup: \$4,544	18-19 19-20 19-20 21-22	PA&ED: 11/1/2019 R/W Cert: 9/1/2021 RTL: 10/1/2021 Begin Con: 3/1/2022	
Subtotal:			\$15,179	\$9,923			
Total Project Cost:				\$25,102			
<i>New</i>			Program Code 201.310 Operational Improvements				
<i>New</i>			Performance Measure 271 Daily vehicle hour(s) of delay (DVHD)				

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Appendix D - List of Technical Studies

Air Quality Report (November 2019) – Prepared by Caltrans District 12

Revised Air Quality Report (December 2019) – Prepared by Caltrans District 12

Historic Property Survey Report (January 2020) and Archaeological Survey Report (ASR)–
Prepared by LSA Associates, Inc.

Preliminary Hydraulic Evaluation (April 2019) – Prepared by Caltrans District 12

Structure Preliminary Geotechnical Report (4 reports in all) (April 2019)
Prepared by Caltrans District 12

Noise Study Report (September 2019) – Prepared by Caltrans District 12

Noise Abatement Decision Report (September 2019) – Prepared by Caltrans District 12

Natural Environment Study Minimal Impacts (NES MI) and Jurisdictional Delineation (JD)
(December 2019) – Prepared by Caltrans District 12

Paleontological Identification Report and Paleontological Evaluation Report (September
2019) Prepared by LSA Associates, Inc.

Supplemental Natural Environment Study Minimal Impacts (NES MI) (March 13, 2020) –
Prepared by Caltrans District 12

Supplemental Paleontological Identification Report and Paleontological Evaluation Report
Memo and Paleontological Identification Report and Paleontological Evaluation Report
(January 2020) Prepared by LSA Associates, Inc.

Initial Site Assessment Checklist (May 2016) – Prepared by Caltrans District 12

Visual Impact Assessment Questionnaire (July 2019) – Prepared by Caltrans District 12

Water Quality Technical Memorandum (December 2019) – Prepared by Caltrans District 12

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Appendix E – Avoidance, Minimization, and/or Mitigation Summary

In order to be sure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated on the proposed Environmental Commitments Record [ECR] which follows) would be implemented. During project design, avoidance, minimization, and /or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in this ECR are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. As the following ECR is a draft, some fields have not been completed, and will be filled out as each of the measures is implemented.

Note: Some measures may apply to more than one resource area. Duplicative or redundant measures have not been included in this ECR.

Note: Mitigation measures are used to lessen a significant impact under CEQA

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Measure	Resource Area	Task and Brief Description	Responsible Branch, Staff	Timing / Phase	NSSP Required
Project Feature	Air Quality	PF-AQ-1: The construction contractor must comply with Caltrans Standard Specification in Section 14-9, Air Quality, which specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and ordinances.	Resident Engineer Project Engineer	Design Construction	No
Project Feature	Hazardous Materials	PF-HAZ-1: Solid Waste Disposal and Recycling Section 14.10 of CT 2018 SSPs. to reduce GHG emissions and potential climate change impacts	Resident Engineer Contractor	Design Construction	No
Project Feature	Hazardous Materials	PF-HAZ-2: Should construction activities result in the disturbance of traffic striping and pavement marking materials, the generated wastes would be disposed of at an appropriate permitted disposal facility as determined by a lead specialist	Resident Engineer Contractor	Design Construction	No
Project Feature	Hazardous Materials	PF-HAZ-3: During construction, the construction contractor will monitor soil excavation for visible soil staining, odor, and the possible presence of unknown hazardous material sources. If hazardous material contamination or sources are suspected or identified during project construction activities, the construction contractor will be required to cease work in the area and to have an environmental professional evaluate the soils and materials to determine the appropriate course of action required, consistent with the Unknown Hazards Procedures in Chapter 7 of the Caltrans' Construction Manual	Resident Engineer Contractor	Design Construction	No
Project Feature	Noise	PF-N-1: During construction of the Project, noise from construction activities may intermittently dominate the noise environment in the immediate area of	Resident Engineer	Design Construction	No

Measure	Resource Area	Task and Brief Description	Responsible Branch, Staff	Timing / Phase	NSSP Required
		construction. Noise associated with construction is controlled by 2018 Caltrans Standard Specification Section 14-8.02, "Noise Control," which states the following: Control and monitor noise resulting from work activities. Do not exceed 86 dBA Lmax at 50 feet from the job site from 9 p.m. to 6 a.m.	Project Engineer		
Project Feature	Recreation	PF-REC-1: The property used for temporary construction easement will be restored to a condition at least as good as it was prior to easement being granted	Resident Engineer Project Engineer	Design Construction	No
Project Feature	Water Quality	PF-WQ-1: The project will comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for the State of California Department of Transportation, Order No. 2012-0011-DWQ, NPDES No. CAS000003 and any subsequent permits in effect at the time of construction.	Resident Engineer Project Engineer	Construction	No
Project Feature	Water Quality	PF-WQ-2 Caltrans Standard Specification 13-3.01D (2)-Regulatory Requirements: The project will comply with the provisions of the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) Order No. 2009-0009-DWQ, NPDES General Permit No. CAS000002 and any subsequent permits in effect at the time of construction.	Resident Engineer Project Engineer	Design Construction	No
Project Feature	Water Quality	PF-WQ-3 Caltrans Standard Specification 13-3 Storm Water Pollution Prevention Plan: The project will comply with the Construction General Permit by	Resident Engineer	Design Construction	No

Measure	Resource Area	Task and Brief Description	Responsible Branch, Staff	Timing / Phase	NSSP Required
		preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) to address all construction-related activities, equipment, and materials that have the potential to impact water quality for the appropriate Risk Level. The SWPPP will identify the sources of pollutants that may affect the quality of Storm water and include BMPs to control the pollutants, such as: sediment control, catch basin inlet protection, construction materials management, and non-storm water BMPs. All work must conform to the Construction Site BMP requirements specified in the latest edition of the Storm Water Quality Handbooks: Construction Site Best Management Practices Manual to control and minimize the impacts of construction and construction related activities, material and pollutants on the watershed. These include, but are not limited to temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and other non-storm water BMPs	Project Engineer		
Project Feature	Water Quality	PF-WQ-4: Design Pollution Prevention BMPs will be implemented such as preservation of existing vegetation, slow/surface protection systems (permanent soil stabilization), concentrated flow conveyance systems such as ditches, berms, dikes and swales, overside drains, flared end sections, and outlet protect/velocity dissipation devices.	Project Engineer Resident Engineer	Design Construction	No
Project Feature	Water Quality	PF-WQ-5: Caltrans approved treatment BMPs will be implemented consistent with the requirements of NPDES permit and Waste Discharge Requirements for the State of California, Department of Transportation, Order No. 2012-001-DWQ, NPDES	Project Engineer Resident Engineer	Design Construction	No

Measure	Resource Area	Task and Brief Description	Responsible Branch, Staff	Timing / Phase	NSSP Required
		No. CA200003 and any subsequent permits in effect at the time of construction.			
Project Feature	Water Quality	PF-WQ-6: Any discharges of groundwater to surface waters during construction will be subject to the General Waste Discharge Permit for Discharges to Surface Waters of Groundwater Resulting from Groundwater Dewatering Operations and/or Groundwater Cleanup Activities at Sites Within the San Diego Creek/ Newport Bay Watershed Polluted by Petroleum Hydrocarbons, Solvents, Metals, and/ or Salts (Order No. R8-2007-0042, NPDES NO. CAG918002) and any subsequent updates to the permit at the time of construction.	Project Engineer Resident Engineer	Design Construction	No
Compensatory	Biology	B-1 The project will result in 0.006 acres of permanent impacts to Corps non-wetland waters of the U.S and CDFW unvegetated streambed. In compliance with RWQCB’s request, Caltrans will compensate for permanent impacts of waters to the U.S/unvegetated streambed off-site at a minimum of 1:1 Ratio by purchasing riparian credits from the San Luis Rey or Soquel Canyon Mitigation Bank	Project Engineer Biologist Resident Engineer	Design Construction	
Project Feature	Biology	PF-BIO-1: To avoid impacts to any nesting birds, ground disturbance that occurs during the nesting bird season (February 1 – September 30) will require nesting bird surveys by a Caltrans Biologist within 72 hours prior to the start of work. The Caltrans Biologist will be contacted at least one week ahead of time to schedule a survey	Project Engineer Resident Engineer	Design Construction	No

Measure	Resource Area	Task and Brief Description	Responsible Branch, Staff	Timing / Phase	NSSP Required
Project Feature	Biology	<ul style="list-style-type: none"> PF-BIO-2: To avoid the spread of invasive plant species, all vegetation being removed should be disposed of properly. If vegetation is planted on site, the Caltrans Biologist and Landscape Architect will coordinate and approve the proposed vegetation to be planted. During construction, the contractor shall inspect and clean construction equipment at the beginning of each day and prior to transporting equipment into the creek. During construction, soil and vegetation disturbance will be minimized to the greater extent feasible. Contractor shall use weed-free straw and fiber rolls to use for erosion control. During construction, the contractor shall ensure that all material stockpiled within the creek sufficiently watered and covered to prevent growth of invasive plants. During construction gravel and rock will be obtained from weed-free sources. 	<p>Project Engineer</p> <p>Resident Engineer</p>	<p>Design</p> <p>Construction</p>	No
Avoidance	Biology	<p>BIO-1 Prior to any construction, highly visible barriers (ESA fence) will be installed around the project disturbance limits to designate Environmentally Sensitive Areas within San Diego creek. The ESA fence shall be installed</p>			

Measure	Resource Area	Task and Brief Description	Responsible Branch, Staff	Timing / Phase	NSSP Required
		under the direction of a qualified Biologist. Silt fence barriers will be installed at the ESA boundary to prevent accidental deposition of fill material in areas.			
Avoidance	Biology	BIO-2 Prior to the beginning of construction adjacent to the ESAs, a qualified biologist will survey areas adjacent to the ESA boundaries to flush any wildlife species present prior to construction and ensure all avoidance measures are properly implemented			
Avoidance	Biology	BIO-3 A Storm Water Pollution Prevention Plan (SWPPP) will be developed and implemented to comply with the National Pollutant Discharge Elimination System (NPDES) Statewide Construction General Permit (CGP). The SWPPP will identify and implement temporary Best Management Practices (BMPs) during construction to address the temporary impacts to water quality.	Project Engineer Biologist Resident Engineer	Construction	No
Avoidance	Biology	BIO-4 Equipment including but not limited to excavators, motor vehicles and trucks shall not be allowed to operate in the ESAs. No equipment and material storage will be allowed within or adjacent to ESAs. All equipment maintenance, staging dispensing of fuel oil or any other such activities shall occur in developed or designated non-sensitive areas. This area shall be reviewed and approved by the District Biologist. Upon completion of construction, the ESA fence shall be removed.	Project Engineer Biologist Resident Engineer	Construction Construction	No No

Measure	Resource Area	Task and Brief Description	Responsible Branch, Staff	Timing / Phase	NSSP Required					
Avoidance	Biology	BIO-5 Appropriate permits from the US Army Corps of Engineers, the California Department of Fish and Wildlife, and the Regional Water Quality Control Board will be obtained prior to construction.	Project Engineer	Construction	No					
			Biologist	Construction	No					
			Resident Engineer							
Avoidance	Biology	BIO-6 In the event that suitable trees for Cooper's hawk nests are required to be removed during nesting season, a qualified biologist will conduct pre-construction nesting bird surveys. If nesting Cooper's hawk are found, the biologist will create a buffer zone and an ESA fence will be placed around the buffer zone. No construction work shall occur within the buffer zone until the nest is no longer active and all young birds fledged.	Engineer	Construction	NO					Construction
			Biologist		No					
			Resident Engineer							
Avoidance	Biology	BIO-7 Although suitable roosting habitats are present within the BSA and no evidence of bats was observed this year, it is possible that the hinges within the San Diego Creek bridge or palm trees may be used at other times of the year or during the construction period. Therefore, one year prior to the beginning of construction, a bat assessment survey and day/nighttime emergence surveys will be conducted during maternity	Engineer	Construction	NO					Construction
			Biologist		No					
			Resident Engineer							

Measure	Resource Area	Task and Brief Description	Responsible Branch, Staff	Timing / Phase	NSSP Required
		season. The survey includes a combination of suitable habitat assessment, exit counting, and acoustic surveys. If maternity roosting bats are found, additional avoidance and minimization measures will be included at the time of the survey.			
Avoidance	Biology	BIO-8 A bat survey will be conducted two weeks prior to beginning of construction work within San Diego creek bridges. If the bridges are determined to be occupied outside maternity roosting period, bat exclusion devise (one-way doors) will be installed. A qualified bat biologist will monitor the installation and exclusion of bats during construction period. If maternity roost is present, no work under the bridge will occur during maternity season (April-August) and exclusion devise will be installed after September 1 or after all young leave the structure.	Engineer Biologist Resident Engineer	Construction	No
Project Feature	Cultural Resource	PF-CUL-1 Caltrans Standard Specification Section 14-2.03A: Discovery of Cultural Materials. If cultural materials are discovered during construction activities, the construction Contractor will divert all earthmoving activity within and around the immediate discovery area until a qualified archaeologist can assess the nature and significance of the find. At that time, coordination will be maintained with the California	Archaeologist Resident Engineer Contractor	Construction	No

Measure	Resource Area	Task and Brief Description	Responsible Branch, Staff	Timing / Phase	NSSP Required
		Department of Transportation District 12 Environmental Branch Chief or the District 12 Native American Coordinator to determine an appropriate course of action			
Project Feature	Cultural Resource	PF-CUL-2 Caltrans Standard Specification Section 14-2.03A: Discovery of Human Remains. If human remains are discovered during construction activities, California State Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the Orange County Coroner shall be contacted. If the remains are thought to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC), who pursuant to California Public Resources Code (PRC) Section 5097.98, will then notify the Most Likely Descendant (MLD). At that time, the persons who discovered the remains will contact the Caltrans District 12 Environmental Branch Chief or the District 12 Native American Coordinator so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of California PRC 5097.98 are to be followed as applicable.	Archaeologist Resident Engineer Contractor	Construction	No
Mitigation**	Paleontology	PAL-1 Caltrans Standard Special Provision Section 14-7.04 Paleontological Mitigation Plan: A Paleontological Mitigation Plan (PMP) shall be prepared during the Plans, Specifications, and Estimates (PS&E) phase. The PMP shall be developed concurrently with the final design plans and shall follow the Caltrans guidelines in the <i>SER, Environmental Handbook, Volume 1,</i>	Project Engineer Archaeologist Resident Engineer	Design Construction Post-Construction	No

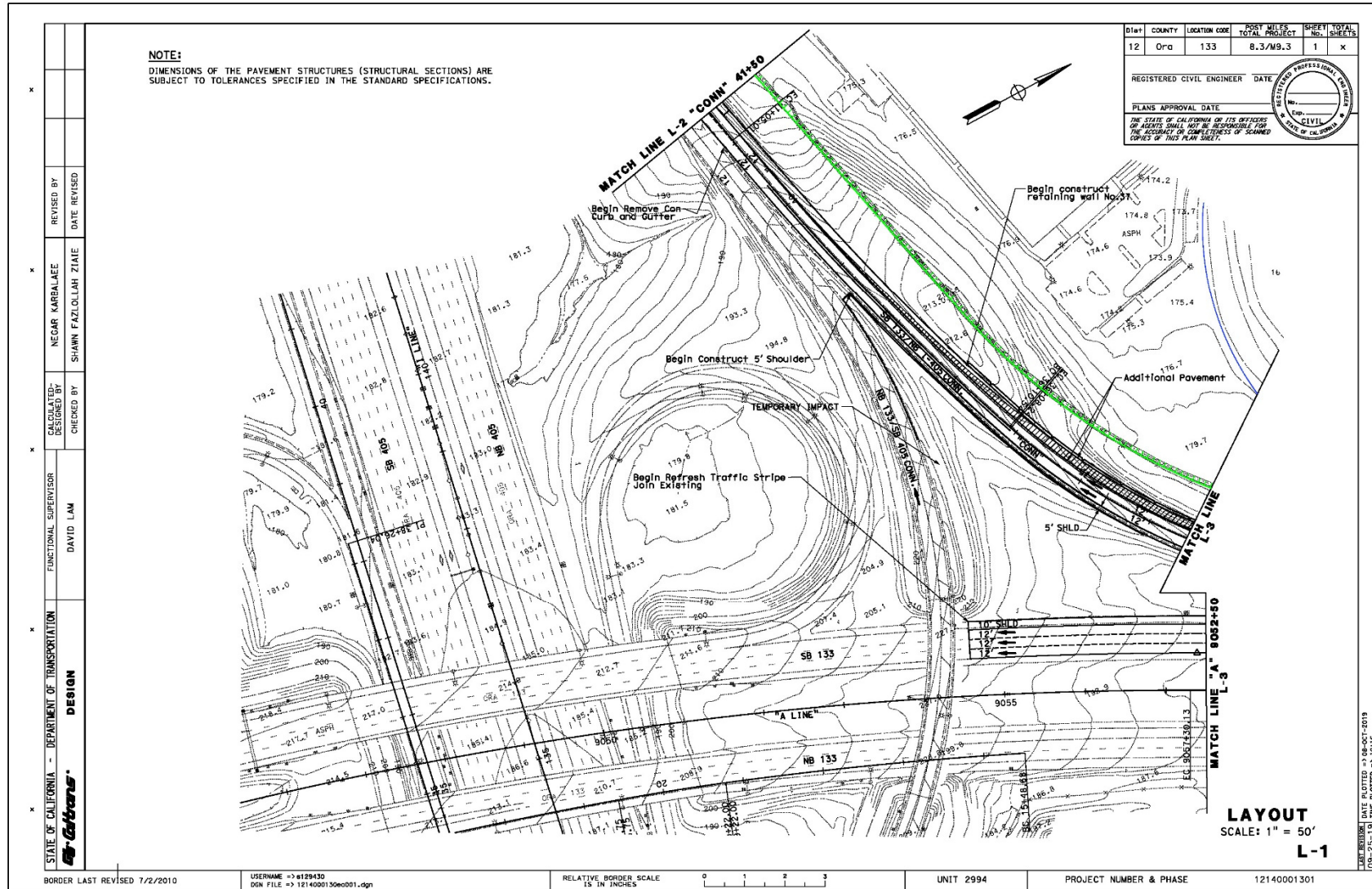
Measure	Resource Area	Task and Brief Description	Responsible Branch, Staff	Timing / Phase	NSSP Required
		<i>Chapter 8 – Paleontology</i> (Caltrans, 2017), as well as guidelines from the Society of Vertebrate Paleontology (SVP). Following these guidelines, the PMP shall include sections describing project activities, the geologic units within the project area and their paleontological sensitivities, the work plan for mitigating project impacts to paleontological resources, estimates of monitoring schedules and costs, decision thresholds for monitoring levels and fossil collections, a recommended repository for recovered fossils, any necessary permits, and the appropriate documentation at the end of the monitoring program. Once the PMP has been prepared, the paleontological resource protocols and procedures within it shall be incorporated into the project plans, specifications, and estimates.	Contractor		
Project Feature	Paleontology	PF-PAL-1: If unanticipated paleontological resources are discovered all work within 60 feet of the discovery must cease and the construction resident engineer must be notified. Work cannot continue near the discovery until authorized.	Resident Engineer Archaeologist Contractor	Construction Post-Construction	No
Project Feature	Traffic	PF-TRA-1: A Transportation Management Plan (TMP) shall be included in the design plans for implementation by the contractor prior to and during construction of any improvements. The TMP shall consist of prior notices, adequate sign posting, detours, phased construction, and temporary driveways where necessary. The TMP shall specify	Traffic Engineer Resident Engineer	Design Construction	No

Measure	Resource Area	Task and Brief Description	Responsible Branch, Staff	Timing / Phase	NSSP Required
		implementation timing of each plan element (e.g., prior notices, sign posting, detours) as determined appropriate by Caltrans. Adequate local emergency access shall be provided at all times to adjacent uses. Proper detours and warning signs shall be established to ensure public safety. The TMP shall be devised so that construction shall not interfere with any emergency response or evacuation plans. Construction activities shall proceed in a timely manner to reduce impacts.	Project Engineer Contractor		
Avoidance	Recreation	REC-1: Caltrans will coordinate with the City of Irvine during the Design phase to ensure collaborative communication among stakeholders. The purpose of these meetings will be to inform the City and its residents about the project’s progress and any temporary and/or permanent impacts to the project location. During the Design phase when information on detours and the Traffic Management Plan (TMP) become available, Caltrans will coordinate with the City of Irvine to finalize a detour and ensure that all detours outlined in the TMP be approved and implemented accordingly. Caltrans will continue to keep the City informed on project development and coordinate with the City as needed.	Traffic Engineer Resident Engineer Project Engineer Contractor	Design Construction	No

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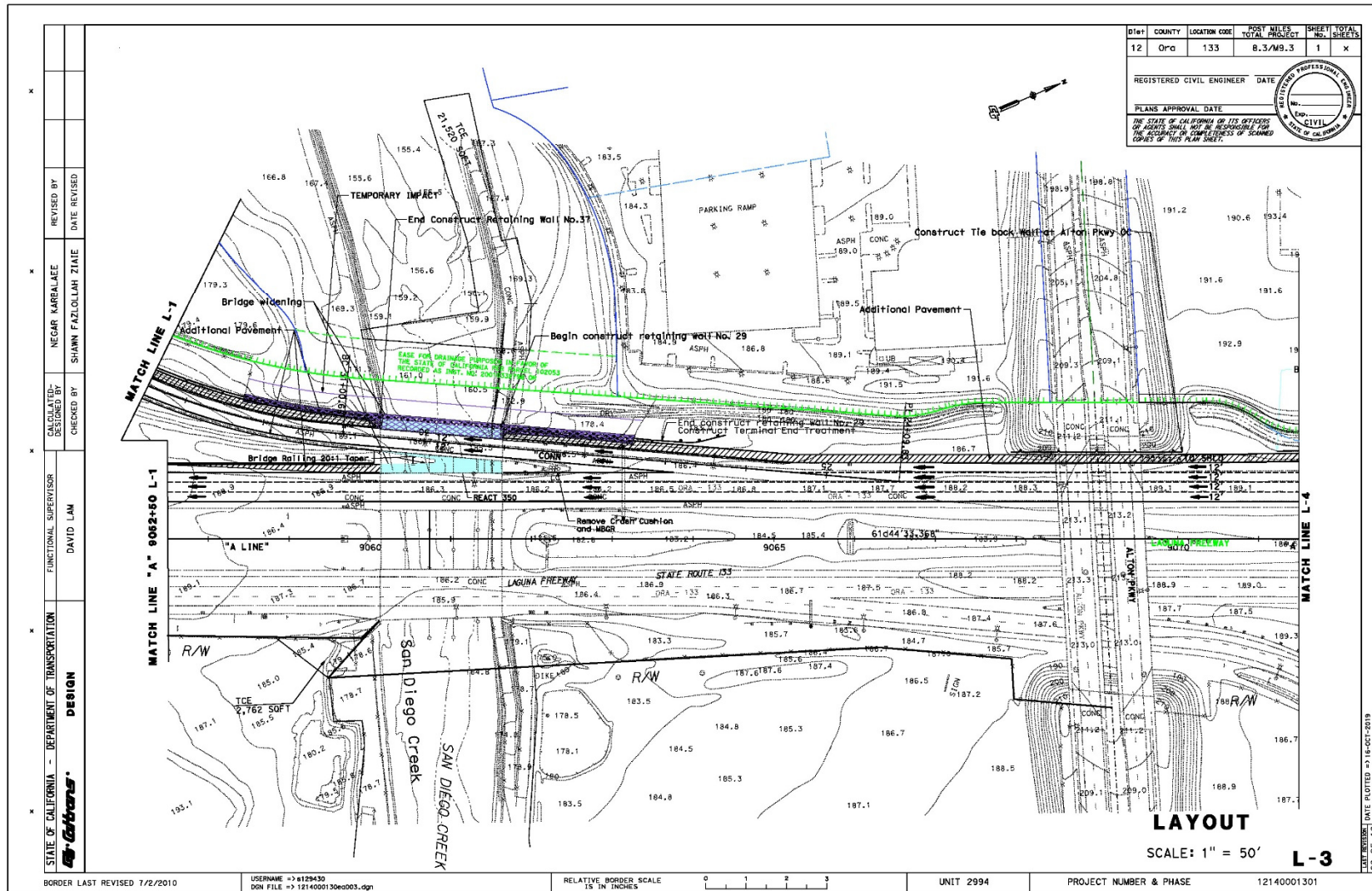
Appendix F – Layout Plans

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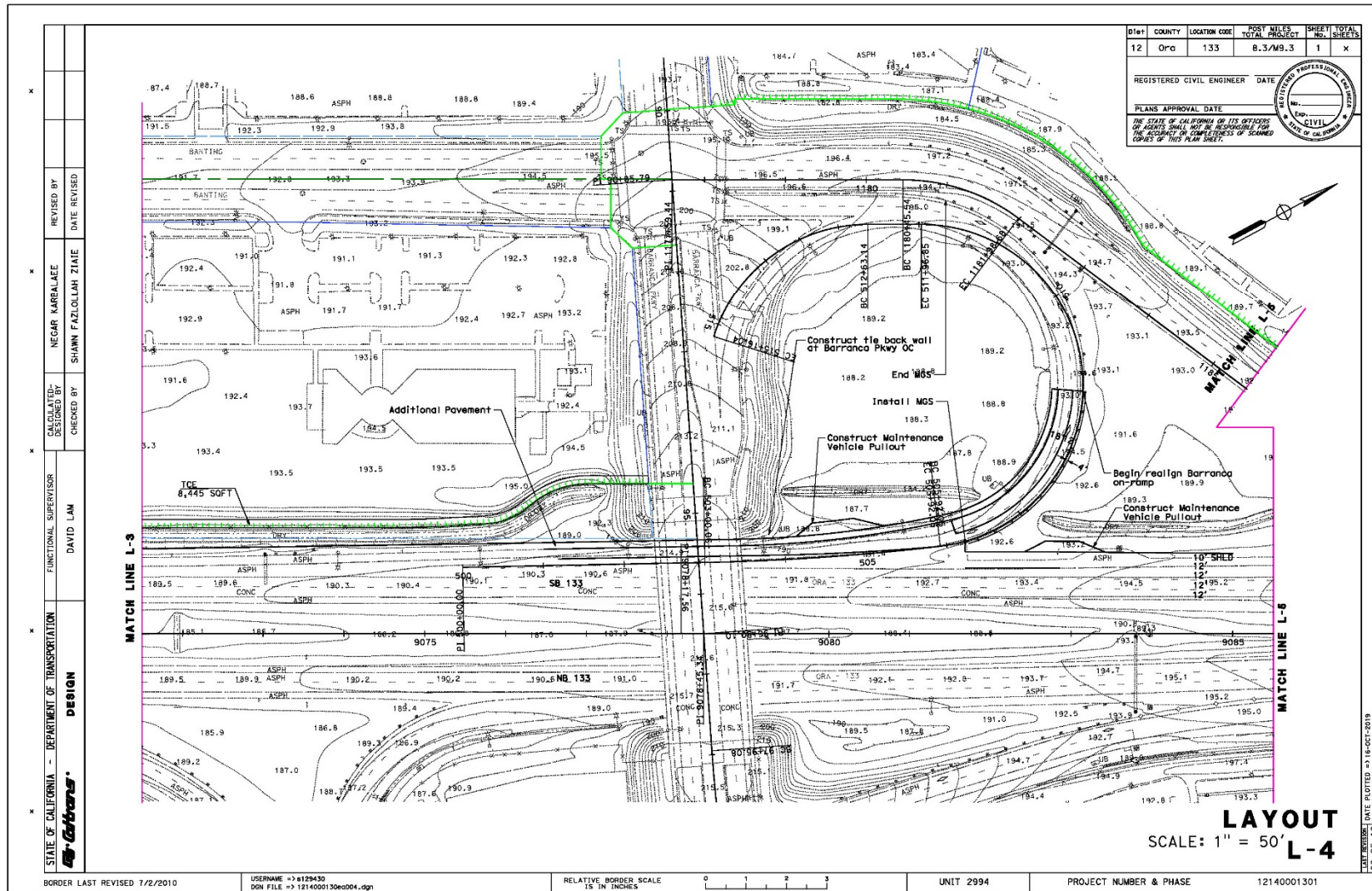


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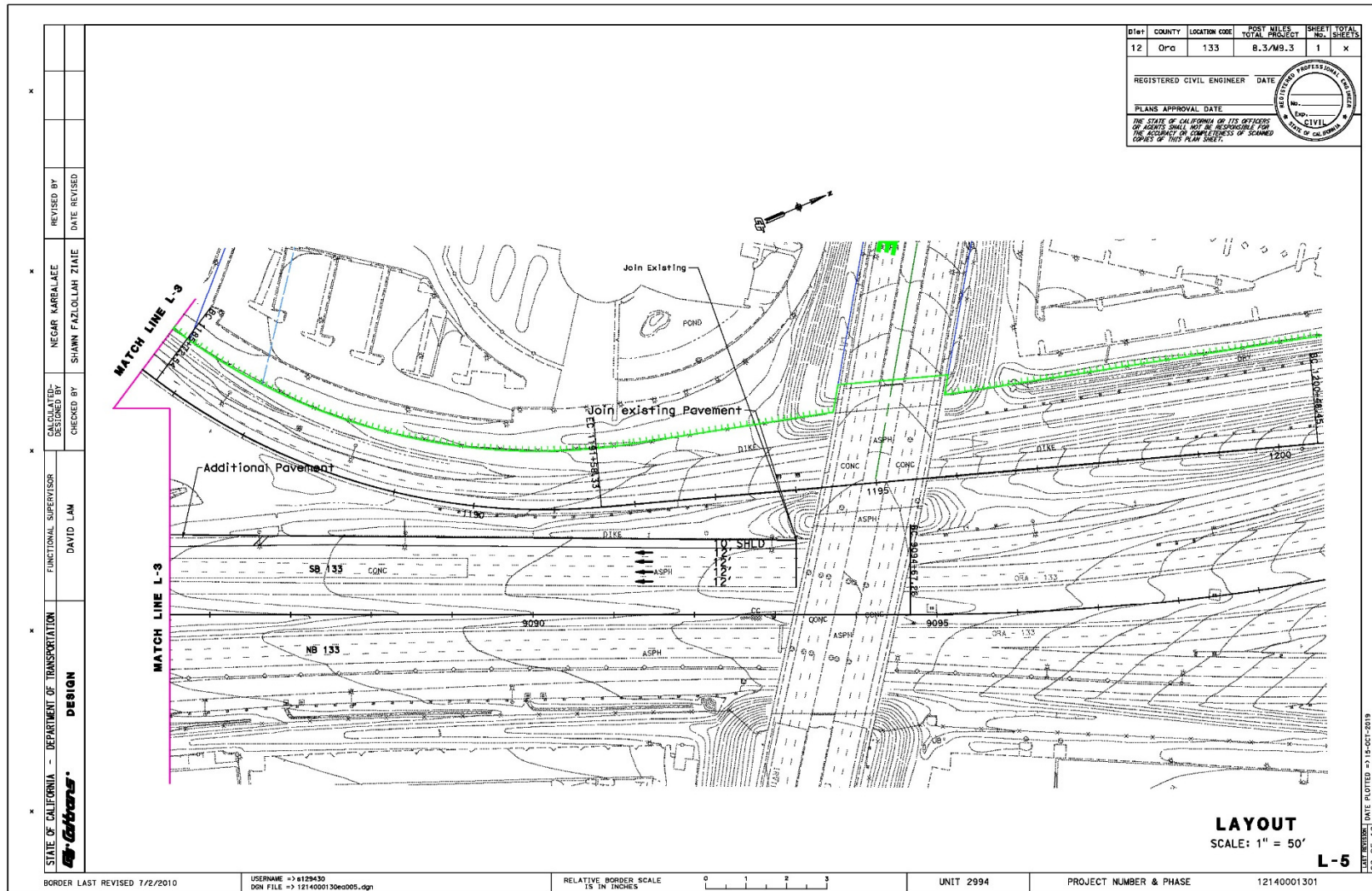
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Appendix G – Construction Emissions

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PROJECT: SB Rte 133 Traffic Operation Improvement Project

DATE: 10/21/2019

Summary of Project Emissions and Fuel Consumption

	TOG	ROG	CO	NO _x	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	Diesel Fuel	Gasoline Fuel
Daily Average (lbs/day; gal fuel/day)	2.15	2.00	9.44	12.99	2.01	1.02	2565	0.08	0.13	0.15	0.07	108	56
Maximum Daily Average (lbs/day; gal fuel/day)	5.14	4.76	31.16	32.95	8.21	2.69	6167	0.21	0.36	0.34	0.22	261	148
Annual Average (tons/year; gal fuel/year)	0.28	0.26	1.23	1.69	0.26	0.13	334	0.01	0.02	0.02	0.01	28083	14625

Summary by Source**Project Total Emissions and Fuel Consumption (tons; gal fuel)**

Source	TOG	ROG	CO	NO _x	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	Diesel Fuel	Gasoline Fuel
On-Road	0.02	0.01	0.14	0.44	0.00	0.00	219	0.00	0.026	0.001	0.014	17250	24041
Off-Road	0.44	0.41	1.88	2.34	0.20	0.19	330	0.01	0.003	0.032	-	28913	-
Area-Wide Fugitive Dust	-	-	-	-	0.23	0.02	-	-	-	-	-	-	-
Painting and Asphalt Application	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-
Project Total	0.46	0.43	2.02	2.78	0.43	0.22	549	0.02	0.03	0.03	0.01	46163	24041

Summary by Operation**Total Emissions and Fuel Consumption by Operation (tons; gal fuel)**

Project Phases	TOG	ROG	CO	NO _x	PM10	PM2.5	CO2	CH4	N2O	BC	HFC	Diesel Fuel	Gasoline Fuel
Land Clearing/Grubbing	0.01	0.01	0.05	0.06	0.06	0.01	14	0.000	0.001	0.001	0.000	1190	664
Roadway Excavation & Removal	0.07	0.06	0.39	0.44	0.09	0.04	85	0.003	0.004	0.007	0.002	7152	3938
Structural Excavation & Removal	0.01	0.01	0.04	0.07	0.06	0.01	17	0.001	0.001	0.001	0.000	1405	1362
Base/Subbase/Imported Borrow	0.17	0.16	1.03	1.09	0.14	0.09	204	0.007	0.009	0.006	0.004	17228	8369
Structure Concrete	0.13	0.13	0.35	0.69	0.04	0.04	142	0.004	0.008	0.011	0.004	11950	5286
Paving	0.02	0.02	0.05	0.15	0.01	0.01	28	0.001	0.002	0.002	0.001	2298	1374
Drainage/Environment/Landscaping	0.03	0.03	0.08	0.21	0.02	0.02	38	0.001	0.002	0.004	0.001	3168	1570
Traffic Signalization/Signage/Striping/Painting	0.01	0.01	0.03	0.07	0.00	0.00	21	0.001	0.002	0.001	0.001	1715	1477
Other Operation	0.00	0.00	0.00	0.00	0.00	0.00	1	0.000	0.000	0.000	0.000	57	0
Total	0.46	0.43	2.02	2.78	0.43	0.22	548.94	0.018	0.029	0.032	0.014	46163	24041

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Appendix H – Response to Comments

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South Coast Air Quality Management District



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL AND USPS:
D12.SR133OperationsProject@dot.ca.gov
Bahar Heydari, Associate Environmental Planner
California Department of Transportation, District 12
Environmental Analysis Division
1750 East 4th Street, Suite 100
Santa Ana, CA 92705

February 4, 2020

Mitigated Negative Declaration (MND) for the State Route 133 Operational Improvements Project

The South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final MND.

South Coast AQMD Staff's Summary of Project Description

The Lead Agency proposes to build a one-mile auxiliary lane on State Route 133 (SR-133) between the SR-133 and Interstate 405 (I-405) connector [Post Mile (PM) 8.3] and Irvine Center Drive (PM 9.3) (Proposed Project). Construction of the Proposed Project is expected to take no more than three years¹. Based on a review of Figure 1-1: *Project Location Map*, in the MND² and aerial photographs, South Coast AQMD staff found that sensitive receptors such as residential uses are located adjacent to the Proposed Project.

A-1

Summary of South Coast AQMD Staff's Comments on the Air Quality Analysis

In the Air Quality Analysis Section, the Lead Agency quantified the Proposed Project's construction emissions. However, the Lead Agency did not conduct a localized construction air quality impact analysis or a mobile source Health Risk Assessment (HRA) analysis. Additionally, the Lead Agency did not compare the Proposed Project's emissions from the build alternative to South Coast AQMD's air quality CEQA significance thresholds to determine the level of significance for the Proposed Project's air quality impacts. Detailed comments are included in the attachment. The attachment also includes a list of recommended mitigation measures that the Lead Agency should include in the Final MND to further reduce the Proposed Project's construction air quality impacts on nearby residents.

A-2

Conclusion

Pursuant to CEQA Guidelines Section 15074, prior to approving the Proposed Project, the Lead Agency shall consider the MND for adoption together with any comments received during the public review process. Please provide South Coast AQMD with written responses to all comments contained herein prior to the adoption of the Final MND. When responding to issues raised in the comments, responses should provide sufficient details giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful, informative, or useful to decision makers and the public who are interested in the Proposed Project. Further, when the Lead Agency makes the finding that the additional recommended mitigation measures are not feasible, the Lead Agency should describe the specific reasons supported by substantial evidence for rejecting them in the Final MND (CEQA Guidelines Sections 15070 and 15074.1).

A-3

¹ MND, Page 1-38.

² *Ibid.*, Page 1-3.

Bahar Heydari

February 4, 2020

South Coast AQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact Margaret Isied, Assistant Air Quality Specialist, at misied@aqmd.gov or (909) 396-2543, should you have any questions.

JA-3
CONT

Sincerely,

Lijin Sun

Lijin Sun, J.D.

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources

Attachment
LS:MI
ORC200107-02
Control Number

Bahar Heydari

February 4, 2020

ATTACHMENT

1. Air Quality CEQA Thresholds of Significance

While CEQA permits a Lead Agency to apply appropriate thresholds to determine the level of significance, the Lead Agency may not apply thresholds in a manner that precludes consideration of substantial evidence demonstrating that there may be a significant effect on the environment. Evaluation of air quality impacts, unlike some other impact areas, easily lends itself to quantification. Not only does quantification make it easier for the public and decision-makers to understand the breadth and depth of the potential air quality impacts, but it also facilitates the identification of mitigation measures required to reduce any significant adverse air quality impacts. South Coast AQMD’s CEQA thresholds of significance for air quality provide a clear quantitative benchmark to determine the significance of a project’s air quality impacts. Therefore, for most projects within the South Coast Air Basin, South Coast AQMD’s air quality CEQA thresholds of significance for construction and operation³ are used to determine the level of significance for a project’s air quality impacts.

A-4

The Lead Agency quantified the maximum construction and operational emissions for the Proposed Project’s build alternative in pounds per day⁴ but did not compare those emissions to South Coast AQMD’s regional air quality CEQA significance thresholds to determine the level of significance for the Proposed Project’s construction and operational air quality impacts⁵. Using South Coast AQMD’s CEQA significance thresholds would clearly identify whether the build alternative would result in significant air quality impacts under CEQA, disclose the magnitude of the impacts, facilitate the identification of feasible mitigation measures and Project alternatives, and evaluate the level of impacts before and after mitigation measures. Therefore, South Coast AQMD staff recommends that the Lead Agency compare the emissions to South Coast AQMD’s regional air quality CEQA significance thresholds in the Final MND to determine the level of significance for the Proposed Project’s air quality impacts.

A-4 cont

2. Localized Construction Air Quality Impact Analysis

Based on a review of Figure 1-1: *Project Location Map*, in the MND⁶ and aerial photographs, South Coast AQMD staff found that existing residential uses are located approximately 260 feet south of the Proposed Project. However, the Lead Agency did not analyze the Proposed Project’s localized air quality impacts in the MND. Therefore, South Coast AQMD staff recommends that the Lead Agency quantify the Proposed Project’s localized emissions from construction activities and disclose them in the Final MND to ensure that any nearby sensitive receptors are not adversely affected by emissions from construction activities that are occurring in close proximity. South Coast AQMD’s guidance for performing a localized air quality impact analysis is available on South Coast AQMD website⁷.

A-5

3. Mobile Source Health Risk Assessment Analysis

As stated above, sensitive receptors are located in close proximity to the Proposed Project. In general, a transportation project that adds a lane increases freeway capacity and generates or attracts new or additional vehicular trips, which leads to increases in criteria pollutants and air toxics emissions. It can also lead to more dispersed land use development, which in turn leads to additional vehicle miles traveled and increases in criteria pollutants and air toxics emissions. The California Air Resources

A-6

³South Coast AQMD. March 2015. *South Coast AQMD Air Quality Significance Thresholds*. Accessed at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>.

⁴MND. Revised Air Quality Report. Table 4.1; Page 45. Table 4.2; Page 47.

⁵*Ibid.*

⁶MND. Page 1-3.

⁷South Coast AQMD. *Localized Significance Thresholds*. Accessed at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>.

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Board (CARB) has identified diesel particulate matter (DPM) as a toxic air contaminant based on its carcinogenic effects⁸. Therefore, South Coast AQMD staff recommends that the Lead Agency conduct a mobile source health risk assessment analysis⁹ in the Final MND to disclose the potential health risks to residents from vehicles including DPM-emitting diesel-fueled vehicles that will use the Proposed Project.

A-6
cont

4. Recommended Air Quality Mitigation Measures

CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize or eliminate any significant adverse impacts. South Coast AQMD staff recommends the following mitigation measures be incorporated in the Final MND to further reduce the Proposed Project's emissions, particularly from NOx and particulate matter, during the construction phase, and minimize construction air quality impacts on nearby sensitive receptors.

A-7

- a) Require the use of zero emissions (ZE) or near-zero emissions (NZE) heavy-duty, on-road vehicles during construction, such as trucks with natural gas engines that meet the CARB adopted optional NOx emission standard of 0.02 grams per brake horsepower-hour (g/bhp-hr). At a minimum, require that operators of heavy-duty trucks visiting the Proposed Project during construction commit to using 2010 model year¹⁰ or newer engines that meet CARB's 2010 engine emission standards of 0.01 g/bhp-hr for particulate matter (PM) and 0.20 g/bhp-hr of NOx emissions or newer, cleaner trucks. Include analyses to evaluate and identify sufficient power available for ZE trucks and supportive infrastructure in the Energy and Utilities and Service Systems Sections of the Final MND, where appropriate.

A-24

To monitor and ensure ZE, NZE, or 2010 model year trucks are used at the Proposed Project during construction, the Lead Agency should require that operators maintain records of all trucks associated with the Proposed Project's construction activities, and make these records available to the Lead Agency upon request. The records will serve as evidence to prove that each truck called to the Proposed Project during construction meets the minimum 2010 model year engine emission standards. Alternatively, the Lead Agency should require periodic reporting and provision of written records by truck operators, and conduct regular inspections of the records to the maximum extent feasible and practicable.

A-7-2

- b) Require the use of off-road, diesel-powered construction equipment that meets or exceeds the CARB and U.S. Environmental Protection Agency (USEPA) Tier 4 Final off-road emissions standards for equipment rated at 50 horsepower or greater during construction of the Proposed Project. Such equipment will be outfitted with Best Available Control Technology (BACT) devices including a CARB certified Level 3 Diesel Particulate Filter (DPFs). Level 3 DPFs are capable of achieving at least 85 percent reduction in particulate matter emissions¹¹. A list of CARB verified DPFs are available on the CARB website¹².

A-7-3

⁸ CARB. August 27, 1998. Resolution 98-35. Accessed at: <http://www.arb.ca.gov/regact/diesltac/diesltac.htm>.
⁹ South Coast AQMD. "Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis." Accessed at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>.
¹⁰ CARB adopted the statewide On-Road Truck and Bus Regulation in 2010. The Regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. More information on the CARB's Truck and Bus Regulations is available here: <https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>.
¹¹ CARB. November 16-17, 2004. Diesel Off-Road Equipment Measure – Workshop. Page 17. Accessed at: https://www.arb.ca.gov/msprog/ordiesel/presentations/nov16-04_workshop.pdf.
¹² Ibid. Page 18.

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To ensure that Tier 4 Final construction equipment or better would be used during the Proposed Project's construction, South Coast AQMD staff recommends that the Lead Agency include this requirement in applicable bid documents, purchase orders, and contracts. Successful contractor(s) must demonstrate the ability to supply the compliant construction equipment for use prior to any ground disturbing and construction activities. A copy of each unit's certified tier specification or model year specification and CARB or South Coast AQMD operating permit (if applicable) shall be available upon request at the time of mobilization of each applicable unit of equipment. Additionally, the Lead Agency should require periodic reporting and provision of written construction documents by construction contractor(s) to ensure compliance, and conduct regular inspections to the maximum extent feasible to ensure compliance.

A-7-4

In the event that construction equipment cannot meet the Tier 4 Final engine certification, the Project representative or contractor must demonstrate through future study with written findings supported by substantial evidence that is approved by the Lead Agency before using other technologies/strategies. Alternative applicable strategies may include, but would not be limited to, construction equipment with Tier 4 Interim emission standards, reduction in the number and/or horsepower rating of construction equipment, and/or limiting construction phases occurring simultaneously.

A-7-5

- c) Maintain vehicle and equipment maintenance records for the construction portion of the Proposed Project. All construction vehicles must be maintained in compliance with the manufacturer's recommended maintenance schedule. All maintenance records shall remain on-site for a period of at least two years from completion of construction.
- d) Encourage construction contractors to apply for South Coast AQMD "SOON" funds. The "SOON" program provides funds to applicable fleets for the purchase of commercially-available low-emission heavy-duty engines to achieve near-term reduction of NOx emissions from in-use off-road diesel vehicles. More information on this program can be found at South Coast AQMD's website: <http://www.aqmd.gov/home/programs/business/business-detail?title=off-road-diesel-engines>.
- e) Minimize idling of all construction off-road diesel vehicles to five minutes or less. This is consistent with the CARB's idling policy¹³.

A-7-6

A-7-7

A-7-8

¹³CARB. June 2009. *Written Idling Policy Guidelines*. Accessed at: <https://www.arb.ca.gov/msprog/ordiesel/guidance/writtenidlingguide.pdf>.

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General response to comments from SCAQMD (Air Quality)

SCAQMD Comments

Summary of South Coast AQMD Staff's Comments on the Air Quality Analysis

In the Air Quality Analysis Section, the Lead Agency quantified the Proposed Project's construction emissions. However, the Lead Agency did not conduct a localized construction air quality impact analysis or a mobile source Health Risk Assessment (HRA) analysis. Additionally, the Lead Agency did not compare the Proposed Project's emissions from the build alternative to South Coast AQMD's air quality CEQA significance thresholds to determine the level of significance for the Proposed Project's air quality impacts. Detailed comments are included in the attachment. The attachment also includes a list of recommended mitigation measures that the Lead Agency should include in the Final MND to further reduce the Proposed Project's construction air quality impacts on nearby residents.

Response:

The comment requests that the quantification of air quality impacts from the proposed construction activities be compared with the SCAQMD thresholds of significance. According to California Public Resources Code (PRC) Section 21082, CEQA provides lead agencies with general authority to adopt criteria for determining whether a given impact is significant. As a result, the analysis for the proposed project followed the guidance within the chapter 11 of Caltrans Standard Environmental Reference (SER) for temporary construction activities.

Health risk assessment for the operational emission was not conducted. The Transportation Conformity Working Group (TCWG), which includes representatives from the USEPA, the FHWA, the Federal Transit Administration (FTA), CARB, Caltrans, Southern California Association of Governments (SCAG), South Coast Air Quality Management District (SCAQMD), the Orange County Transportation Authority (OCTA), and other stakeholders, has determined that the project is not a project of air quality concern (POAQC). The Interagency Consultation at the TCWG meeting concurred that the Build Alternative meet the requirements of the 40 CFR 93.116. A detailed Health Risk Assessment (HRA) was not completed and is not necessary.

According to an FHWA analysis, even if vehicle activity (vehicle miles traveled) increases by 45 percent from 2010 to 2050 as forecast, a combined reduction of 91 percent in the total annual emission rate for the priority Mobile Source Air Toxics (MSAT) emissions is projected for the same time period. A 2007 USEPA rule requires controls that will dramatically decrease MSAT emissions through cleaner fuels and cleaner engines. This will contribute to the decrease expected in MSAT emissions, despite a possible increase in vehicle activity. Carbon monoxide analysis was conducted for the build alternative, no adverse effect was determined.

Significance of air quality impact of the build alternative was also conducted following the Interim Guidance: Determining CEQA Significance for Greenhouse Gas Emissions for Projects on the State Highway system, which indicates there is less than significant impact of the Build Alternative.

Impact of construction activities will not be significant. According to 40 CFR 93.123(C) (5) construction activities that last for less than 5 years are considered temporary. In this project the construction to last approximately 16 months, no construction activities are anticipated to last more than 5 years at any individual site. CO, PM10 and PM2.5 hot-spot analyses are not required to consider construction-related activities which cause temporary increases in emissions. However, these temporary impacts would be addressed through implementation of Project Features PF-AQ-1, section 14 of the Caltrans standard specifications specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations. This measure is inclusive of the applicable laws and regulations set forth by United States Environmental Protection Agency (USEPA), California Air Resources Board (CARB) and SCAQMD.

Comment	Response
A-1	Please Refer to the General Response to comment.
A-2	Please Refer to the General Response to comment.
A-3	SCAQMD’s request for written responses to comments prior to adoption of the Final Mitigated Negative Declaration (MND) is acknowledged. The written responses included herein the MND will be sent to each commenting agency prior to finalization of the MND. Each comment received during the public review period has been reviewed and responded to in good faith according to CEQA and the CEQA guidance on responding to public comments.
A-4	Please Refer to the General Response to comment.
A-5	Please Refer to the General Response to comment.
A-6	Please Refer to the General Response to comment.
A-7	
A-7-1	Please refer to PF-AQ-1.
A-7-2	Please refer to PF-AQ-1.
A-7-3	Please refer to PF-AQ-1.
A-7-4	Please refer to PF-AQ-1.
A-7-5	Please refer to PF-AQ-1.
A-7-6	Please refer to PF-AQ-1.
A-7-7	Please refer to PF-AQ-1.
A-7-8	Please refer to PF-AQ-1 of the MND. These temporary impacts would be addressed through implementation of Project Features PF-AQ-1, section 14 of the Caltrans standard specifications specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations. This measure is inclusive of the applicable laws and regulations set forth by United States Environmental Protection Agency (USEPA), California Air Resources Board (CARB) and SCAQMD.

California Department of Fish and Wildlife



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 487-4201
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



February 4, 2020

Bahar Heydari, Associate Environmental Planner
California Department of Transportation
Division of Environmental Analysis
1750 East 4th Street, Suite 100
Santa Ana, CA 92795

Subject: Comments on the Initial Study with Proposed Mitigated Negative Declaration for the State Route 133 Operational Improvements Project (SCH# 2020010158)

Dear Ms. Heydari:

The Department of Fish and Wildlife (Department) has reviewed the Initial Study and proposed Mitigated Negative Declaration (IS/MND) for the State Route 133 (SR-133) Operational Improvements Project (Project) dated January 2020. The comments provided herein are based on the information provided in the IS/MND; the Natural Environment Study (Minimal Impacts) [NESMI] dated December 31, 2019; two Department site visits dated September 24, 2019, and October 23, 2019; and our knowledge of sensitive and declining habitats.

The Department is a Trustee Agency and a Responsible Agency pursuant to the California Environmental Quality Act (§§ 15386 and 15281, respectively) and is responsible for ensuring appropriate conservation of the state's biological resources, including rare, threatened, and endangered plant and animal species, pursuant to the California Endangered Species Act (CESA; Fish and Game Code § 2050 *et seq.*) and Fish and Game Code Section 1600 *et seq.*

The Project would develop operational improvements on southbound (SB) SR-133 from the southbound Interstate (I)-5/southbound SR-133 connector to southbound SR-133/northbound I-405 connector. The Project includes adding an auxiliary lane on SB SR-133 from SB I-5 connector to 300 feet south of San Diego Creek and adding a second travel lane on the SB SR-133/NB I-405 connector. The Project would also widen the San Diego Creek Left Bridge and San Diego Creek off-ramp bridge and replace rock slope protection (RSP) six feet below the top of the pile cap between the piers/abutments footings of both bridges. The RSP would extend 40 feet upstream and 10 feet downstream of the bridges. These are two of a series of three bridges for SR-133 that cross San Diego Creek immediately north of the I-405 connector.

San Diego Creek is a tributary to the Upper Newport Bay Ecological Reserve, which outlets to the Pacific Ocean. The Biological Study Area (BSA) is primarily heavily urbanized. However, the Project may result in temporary and permanent impacts to San Diego Creek, Cooper's hawk (*Accipiter cooperii*), migratory and non-game birds, special status bat species, and federally endangered southern California steelhead (*Oncorhynchus mykiss*) habitat.

The Department provides the following specific comments and recommendations to assist Caltrans in avoiding and/or minimizing potential impacts to sensitive wildlife and vegetation communities identified in the IS/MND:

1. The NESMI section "Agency Coordination and Professional Contacts" includes a September 4, 2019 site visit with a Department representative. However, the document

JB-1

Conserving California's Wildlife Since 1870

Bahar Heydari, Associate Environmental Planner
California Department of Transportation
February 4, 2020
Page 2 of 4

does not record a second site visit which occurred on October 23, 2019, with Department staff including the South Coast Region's anadromous fisheries biologist, as further discussed below in item 3. The primary objective of this second visit was to look at crossings on San Diego Creek for a different upcoming project on the I-405. However, while there, staff also inspected the SR-133 bridge crossings.

B-1
cont.

The Department recommends the Final IS/MND include the second site visit and a discussion of the Department's observations and recommendations that were made therein.

2. According to the NESMI, Caltrans obtained historic records of steelhead within San Diego Creek from National Marine Fisheries Service via email. However, this information is not included in the IS/MND and the records are not discussed or presented as part of the Environmental Document.

B-2

The Department recommends the Final IS/MND includes a discussion of the records request and the information provided.

3. As noted in the IS/MND, "Caltrans is required by Senate Bill (SB) 857 to assess and remediate barriers to fish passage at stream crossings along the State Highway System that currently or historically supported anadromous fish" (page 2-7). The document concludes that, "... due to extensive modification and lack of historic evidence of anadromous fish passages within the creek, this project isn't expected to affect fish passage within the BSA[.]" On the Department's October 23, 2019, site visit, staff inspected San Diego Creek, including bridge structures at this location and immediately upstream. The Department's expert staff determined that, although flood control management in the applicable stream segment resulted in a heavily manipulated stream with a uniform streambed profile, the infrastructure does not constitute a complete barrier to steelhead.

The Department determined and communicated to Caltrans that this creek should be considered a historic steelhead stream. This is the Department's expert opinion, based on: a) on the proximity to Upper Newport Bay; b) the presence of freshwater clam shells of different age classes, indicating persistence of water in the system; c) the historic characteristics of the San Diego Creek system; and, d) suitable habitat available upstream. Additionally, historically, the Newport estuary was connected to the Santa Ana River, which is a National Marine Fisheries Service Core 1 stream, and therefore it is highly likely that steelhead utilized San Diego Creek.

B-3

Ideas to improve fish passage were discussed in the field on the October 23, 2019, site visit. The existing bridge is supported by pier walls that appear to run the length of all three bridges. The Department suggested that, when extending the bridge, rather than extending the pier walls, which contribute to sheer velocity and scour, Caltrans should consider an alternate column-shaped support. Additionally, the Department discussed creating a low-flow channel with a thalweg in one of the pier bays. To minimize the potential for additional fish barriers at the San Diego Creek bridges, the Department recommends that Caltrans work closely and early with the Department to develop fish passage-compliant designs for the widening of the bridge and revetment of the piers and footings.

Bahar Heydari, Associate Environmental Planner
California Department of Transportation
February 4, 2020
Page 3 of 4

- 4. The IS/MND states that suitable bat roosting habitat exists within the BSA, although no evidence of bat presence was observed during baseline surveys (page 2-9). The Department concurs with minimization measures to protect bats from impact if present prior to construction. The Department recommends that the measures be revised to include the following:
 - a. specify the assessment and surveys will include a 500-foot buffer area around the project footprint;
 - b. the assessment and surveys should be conducted by biologists with expertise in handling, surveying, and identifying southern California bat species, especially those associated with highway infrastructure;
 - c. report findings to the Department prior to implementing any related measures; and,
 - d. if bats are found, develop a bat mitigation and monitoring plan for Department approval prior to commencing construction.


B-4
 B-4-1
 B-4-2
 B-4-3
 B-4-4

- 5. The final paragraph of the Jurisdictional Delineation Report indicates that Drainages 1, 2, and 3, although they have bed and bank features, are not subject to Fish and Game Code section 1600 et al. because they do not support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. Caltrans cites the 1994 Field Guide to Lake and Streambed Alteration Agreement. This determination is incorrect because that guidance is obsolete and cannot be applied to determine if a stream is subject to Fish and Game Code section 1600 et al.

B-5

The Department recommends Caltrans reconsider the applicability of Fish and Game Code section 1600 et al. by considering the most current publication of the Code and applying the language in section 1602(a): "[a]n entity shall not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake..." Please note that this language does not include assessment of species or habitats.

Thank you for the opportunity to comment on the IS/MND. The Department requests an opportunity to review and comment on any response that Caltrans has to our comments. If you have any questions regarding this letter, please contact Simona Altman at (858) 467-4283 or email simona.altman@wildlife.ca.gov.

Sincerely,

 Gail Sevens
 Environmental Program Manager
 South Coast Region

Bahar Heydari, Associate Environmental Planner
California Department of Transportation
February 4, 2020
Page 4 of 4

cc: California Department of Fish and Wildlife
Simona Altman
Rick Macala
Mary Larson

California Department of Transportation
Kedest Ketsela, kedest.ketsela@dot.ca.gov

California Department of Fish and Wildlife, e-mail correspondence to be included per CDFW request

From: [Jessica Adams - NOAA Federal](#)
To: [Ketsela, Kedest@DOT](mailto:Ketsela_Kedest@DOT)
Subject: Re: Historic Record of Steelhead within San Diego Creek
Date: Thursday, May 16, 2019 9:35:54 AM
Attachments: [SSRP Orange.pdf](#)

Kedest,

NMFS does not possess any data that the public does not have access to. In my quick literature search, I did find the attached which states the status of steelhead as "unknown" for San Diego Creek. Without actual data, presence/absence cannot be confirmed or denied.

Thanks,
Jess

Jess Adams
Fish Biologist
NOAA Fisheries West Coast Region
U.S. Department of Commerce
501 W. Ocean Blvd., Suite 4200
Long Beach, CA 90802
Office: (562) 980-4013
jessica.adams@noaa.gov

On Thu, May 16, 2019 at 9:00 AM Ketsela, Kedest@DOT <kedest.ketsela@dot.ca.gov> wrote:

Good Morning Jessica,

Thank you for the quick response. If I am correct, you are referring to data your agency doesn't possess which may indicate the presence of former spawning and rearing habitat for the species within the creek. Is that correct?

Under section 7 consultation, in addition to evaluating the project sites, we are expected to use the best available data in our document that were used in the implementation of Endangered Species Act. It is our understanding that the absence of your historic data is based on evaluation of the creek prior to and after the species was listed as well as historic data **received** from individual, local, and regulatory agencies. We also evaluated California Department of Fish and Wildlife CNDDDB and this data indicates absence of the species within, upstream, and downstream of the project along the San Diego creek. Based on available data from your agency and California Fish and wildlife as of today, we determined absence of the species within the

creek.

Thanks

Kedest Ketsela
Caltrans D-12
(657) 328-6134

From: Jessica Adams - NOAA Federal <jessica.adams@noaa.gov>
Sent: Wednesday, May 15, 2019 2:13 PM
To: Ketsela, Kedest@DOT <kedest.ketsela@dot.ca.gov>
Subject: Re: Historic Record of Steelhead within San Diego Creek

Kedest,

It means that the absence of data does not indicate proof of absence.

Thanks,

Jess

Jess Adams

Fish Biologist

NOAA Fisheries West Coast Region

U.S. Department of Commerce

501 W. Ocean Blvd., Suite 4200

Long Beach, CA 90802

Office: (562) 980-4013

jessica.adams@noaa.gov

On Wed, May 15, 2019 at 1:42 PM Ketsela, Kedest@DOT <kedest.ketsela@dot.ca.gov> wrote:

Hi Jessica,

Thank you for the response. However, I am not clear what you mean by “however, the possibility that it was former spawning and rearing habitat for the species” Could you please elaborate that in relations with the NMFS regulations for the species. I don’t want to miss interpret it.

Thanks

Kedest Ketsela

Caltrans D-12

(657) 328-6134

From: Jessica Adams - NOAA Federal <jessica.adams@noaa.gov>

Sent: Monday, May 13, 2019 8:17 AM

To: Ketsela, Kedest@DOT <kedest.ketsela@dot.ca.gov>

Subject: Re: Historic Record of Steelhead within San Diego Creek

Kedest,

NMFS is not familiar with an recent observations of southern California steelhead (*Oncorhynchus mykiss*) in San Diego Creek, though the creek is within the range of the Distinct Population Segment (DPS) of the species. As for historical use of the creek,

NMFS is not aware of any records verifying presence of steelhead in the creek, though that does not exclude the possibility that it was former spawning and rearing habitat for the species.

Thanks,

Jess

Jess Adams

Fish Biologist

NOAA Fisheries West Coast Region

U.S. Department of Commerce

501 W. Ocean Blvd., Suite 4200

Long Beach, CA 90802

Office: (562) 980-4013

jessica.adams@noaa.gov

On Thu, May 9, 2019 at 1:05 PM Ketsela, Kedest@DOT <kedest.ketsela@dot.ca.gov> wrote:

Hi Jessica,

I have a project on SR-133 over San Diego creek. The project will require modification to the San Diego creek. Could you please let me know if there has been any historic records of Steelhead presence within San Diego creek along the proposed project limit. Please see the attached project location map.

If you have any questions, please let me know.

Thanks

RESPONSES TO CA DEPT FISH AND WILDLIFE COMMENTS

Response to B-1:

The October 23rd, 2019 meeting with CDFW staff is included in the NES and in Chapter 4 of the FED.

Response to B-2

The email being referred to from National Marine Fisheries Service is attached in the NESMI and in Appendix I

Response to B-3

On Page 2-7 of the Draft IS/MND, the Department determines that the project would result in no *effect to fish passage* since the project will not change the current conditions of the stream even though there are no evidence of current and historic usage of anadromous fish at the San Diego creek within the project limit. In compliance with the SB 857, Caltrans is required to remediate barriers to fish passage at stream crossing along the State Highway System that are currently or historically supported anadromous fish. Based on the historic record obtained from NMFS and lack of evidence of anadromous fish including Steelhead within State Route 133 bridge (State Highway system) over Sand Diego creek, no anadromous fish was found. Enclosed is a correspondence email from NMFS. The width of the Off-Ramp Bridge Widening is approximately 14.5 feet. For this short width it is not feasible to have columns instead of pier walls. Considering the Seismic Design Criteria for balancing the stiffnesses and periods of the existing and the new structure, column option is not feasible. Pier walls are most suited for this bridge widening from construction standpoint as well. There is no structure work in the middle of San Diego Creek. As stated in above comment, the structure as well as the proposed widening within the project footprint does not constitute a completed barrier to anadromous fish.

Response to B-4 (B-4-1 through B-4-4)

B-4-1:

Due to limited construction activities and implementation of avoidance and minimization measures, the project isn't expected to impact suitable bat habitats other than the habitat found within the project direct and indirect impact area. If the project construction footprint expands, Caltrans will conduct additional field assessment to evaluate potential suitable habitat.

B-4-2:

Per avoidance and minimization measures included in the environmental document, the bat assessment and acoustic survey will be conducted by experience biologist.

B-4-3

Caltrans will submit pre-construction survey report to the Department of Fish and Wildlife.

B-4-4

If Bats found one year prior to construction, in addition to measures included in the environmental document, additional avoidance, minimization, and mitigation measures will be included prior to construction. If the project will result in unavoidable direct and indirect impacts to roosting bats, mitigation and monitoring plan will be prepared and submitted to the Department for approval prior to commencing construction.

B-5

Based on the CDFW clarification disclosed under this comment, the jurisdictional preliminary determination of Drainage 1, 2 and 3 has changes in the ED as follow: *Drainage 1, 2, and 3 have bed and bank features and are subject to CDFW under Fish and Game code 1600.*

Santa Ana Regional Water Quality Control Board



Santa Ana Regional Water Quality Control Board

February 6, 2020

Bahar Heydari
Associate Environmental Planner
Caltrans District 12
1750 East 4th Street, Suite 100
Santa Ana, CA 92705

Email D12.SR133OperationsProject@dot.ca.gov

MITIGATED NEGATIVE DECLARATION, STATE ROUTE 133 OPERATIONAL IMPROVEMENTS PROJECT, SR-133 BETWEEN INTERSTATE 405 AND INTERSTATE 5, IRVINE - CALIFORNIA DEPARTMENT OF TRANSPORTATION

Dear Mr. Heydari:

Staff of the Regional Water Quality Control Board, Santa Ana Region (Regional Board) has reviewed the Mitigated Negative Declaration (MND) for the State Route 133 Operational Improvements Project (Project) for the freeway segment in Irvine, located between Interstate 405 and Interstate 5, that crosses San Diego Creek. A new southbound auxiliary lane will be constructed, necessitating the widening of the San Diego Creek bridge with the extension of its pier foundations.

Regional Board staff recommends that the MND incorporate the following comments in order for the Project to best protect water quality standards (water quality objectives, beneficial uses and antidegradation policy), as defined in the Water Quality Control Plan for the Santa Ana River Basin (i.e., Basin Plan):

1. The extension of the pier foundations and likely diversions of San Diego Creek will require a Clean Water Act (CWA) Section 401 Water Quality Standards Certification (Certification) from our office, as noted on page 2-22. However, mitigation for excavations and other disturbances to 1.67 acres of non-wetland, non-vegetated waters of the U.S. (0.096 acres of permanent impacts) is not required by the MND (pages 2-7, 2-8), but we believe it must be proposed in the Certification application. Page 2-8 states that Project location in a Special Area Management Plan (SAMP) area allows the CWA Section 404 Permit to be subject to a streamlined permitting process created by the U.S. Army Corps of Engineers (USACE). We are concerned that the proposed Letter of Permission (LOP) under the SAMP process, which

W-1

WILLIAM RUH, CHAIR | HOPE SMYTHE, EXECUTIVE OFFICER

3737 Main St., Suite 500, Riverside, CA 92501 | www.waterboards.ca.gov/santaana

Bahar Heydari

- 2 -

February 6, 2020

would fast-track the 404 Permit, may negate implementation of any mitigation that the Santa Ana Water Board requires.

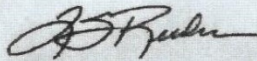
W-1
Cont.

2. Although most excavations will be at shallow depth in the San Diego Creek streambed, new piers for the widening of the freeway bridge will extend to 50 feet below the ground surface and will likely encounter groundwater. The Water Quality discussion of the MND (p.1-9) had a typographical error citing Order No. R8-2007-0042 (for a development) to comply with dewatering discharges. Please have the MND reflect sampling, reporting, and other compliance requirements with Order No. R8-2019-0061, NPDES No. CAG918002, *General Waste Discharge Requirements for Discharges to Surface Waters Resulting from De Minimus Discharges, Groundwater Dewatering Operations, and/or Groundwater Cleanup/ Remediation Operations at Sites within the Newport Bay Watershed*. The Order includes Compliance Provisions for Total Maximum Daily Loads for Selenium in Freshwater for the Newport Bay Watershed in Orange County, California.

W-2

If you have any questions, please contact Glenn Robertson at (951) 782-3259 and Glenn.Robertson@waterboards.ca.gov, or me at (951) 782-4995 and Terri.Reeder@waterboards.ca.gov

Sincerely,



Terri S. Reeder, PG, CEG, CHG
Supervisor, Coastal Waters Planning and CEQA Section

Cc:

State Clearinghouse, Sacramento - State.clearinghouse@opr.ca.gov

Valerie Taylor and Mary Larson, California Department of Fish and Wildlife, Los Alamitos office - Valerie.Taylor@wildlife.ca.gov and Mary.Larson@wildlife.ca.gov

Drive H: Grobertson/Data/CEQA/CEQA Responses/Orange County/MND, Route 133 Improvements Project, CalTrans, Irvine.docx

Response to comments received from RWQCB, Santa Ana letter dated February 4, 2020

Response to W-1

Response: It is the understanding of the Department that the above comments refer to 1.67 temporary impacts and 0.09 acres of permanent impacts to Non-wetland Waters of the US disclosed under section 2.4.1 (b) of the CEQA Checklist .

As stated under section 2.4.1 (C) and (F) of the CEQA Checklist, the project will not result in an impact to federally protected wetland and is located within SAMP. The Department concluded that no mitigation is required since the project won't impact wetland and is eligible for abbreviated Letter of Permission permitting procedures under SAMP.

Based on design refinements, the project will result in a total of 0.9 (previously 1.67 acres) acres of Corps non-wetland waters of the US. These temporary impacts will occur due to temporary equipment access and replacement of Rock Slope Protection (RSP) within San Diego Creek. As stated in the 2019 NESMI under chapter 5, Since the project will replace the same material (RSP), the impact associated with the replacement of RSP is considered as temporary. Upon completion of the construction, the temporary impact area will be restored to original conditions, therefore, no mitigation is required.

The project will result in 0.006 (previously 0.096 acres) acres of permanent impacts to Corps non-wetland waters of the US. In compliance with the Regional board request, Caltrans will replace permanent impacts to water of the US off-site at a minimum 1:1 ratio by purchasing riparian mitigation credits from the San Luis Rey or Soquel Canyon Mitigation Bank.

Response to W-2:

The comment refers to a “typographical error”, however the reference to the dewatering permit in the MND was in effect at the time of the WQ tech study prepared for the project. The new dewatering permit referenced in the comment “Order No. R8-2019-0061” was approved in December 2019.

The Environmental document had the following language and Project Feature (PF-WQ-6):

Any discharges of groundwater to surface waters during construction will be subject to the General Waste Discharge Permit for Discharges to Surface Waters of Groundwater Resulting from Groundwater Dewatering Operations and/or Groundwater Cleanup Activities at Sites Within the San Diego Creek/ Newport Bay Watershed Polluted by Petroleum Hydrocarbons, Solvents, Metals, and/ or Salts. (Order No. R8-2007-0042, NPDES No. CAG918002) and any subsequent updates to the permit at the time of construction.

The Environmental Document and the project feature both had the following statement (highlighted) that the project will implement any subsequent updates to the permit at the time of construction. As such, Caltrans will implement permit requirements to any subsequent updates to the permit at the time of construction.

City of Irvine



Community Development

cityofirvine.org

1 Civic Center Plaza, Irvine, CA 92606-5208

949-724-6000

February 5, 2020

Behar Heydari
Associate Environmental Planner
Caltrans District 12, Division of Environmental Analysis
1750 East 4th Street, Suite 100
Santa Ana, CA 92705

Subject: Mitigated Negative Declaration (MND) for the California Department of Transportation (Caltrans) State Route (SR) 133 Operational Improvements Project

Dear Behar Heydari:

Staff is in receipt of an Initial Study and an MND for the Caltrans 133 Operational Improvements Project. The proposed project consists of constructing a new auxiliary lane on southbound SR-133 between SR-133/I-405 connector and Irvine Center Drive. City staff has reviewed the MND and has provided the enclosed comments. If you have any questions, you may contact me at 949-724-6364 or at jequina@cityofirvine.org.

Sincerely,


Justin Equina
Associate Planner

ec: Kerwin Lau, Manager of Planning Services
Marika Poynter, Principal Planner
Lisa Thai, Supervising Transportation Analyst
Melissa Dugan, Supervising Transportation Analyst

Behar Heydari
February 5, 2020
Page 2 of 2

Enclosure 1
City of Irvine Comments for
Caltrans 133 Operational Improvements Project

General Comments:

1. Please ensure the proposed improvements do not preclude a future San Diego Creek trail extension under SR-133. Currently, the trail terminates at SR-133 on the south side of the channel.] I-1
2. Please continue to update the City on the project status (i.e., detours, design and construction schedule). The updates will allow the City to inform the community and elected officials about the project. Additionally, it will help City staff update the Irvine Transportation Analysis Model (the City's traffic forecasting model) to reflect the proposed project and phasing.] I-2

Appendix A

3. On Page A-11, Figure 3 - Irvine Parks Map, revise the location of the Sand Canyon trail. The map shows the trail to the west of the SR-133; however, it also continues under and to the east of the SR-133 (on the north side of the channel). Revise the trail location accordingly.] I-3
4. On page A-23, under the de minimis determination, indicate the length of time the San Diego Creek Class I Trail will be closed.] I-4

The City respectfully requests to minimize the length of time of each trail closure, as the Irvine bikeways are an important component of the City's transportation network and the County's Regional Trail System. While the City does not recommend trail closures, we recognize the project's operational and safety benefits by reducing traffic levels on City streets.] I-5
5. The City requests coordination with Caltrans and review of the detour routes based on Mitigation Measure PF-TRA-1 on page A-24.] I-6

The mitigation measure indicates that a Transportation Management Plan will be included, and specifies the detours and related noticing. However, the detour for the Creek Trail is not indicated.] I-7
6. In Table 1 - Right of Way Requirements, it is unclear if the Fee column refers to fees associated with permanent acquisition or temporary construction easement. If it is for the temporary construction easement, replace "none" with "TBD."] I-8

SR-133 Operational Improvements Project Responses to Comments Received from the City of Irvine on the Initial Study/Section 4(f) De Minimis Analysis

I-1

The project limits are within existing State Right of way. Construction of the Build Alternative would only require Temporary Construction Easements (TCEs), which are temporary in nature and there would be no permanent changes to San Diego Creek Trail and surrounding areas when project is completed. The project also complies with Objective B-1 of the City of Irvine’s General Plan Circulation Element. In an email exchange with Jaimee Bourgeois on February 11th, 2020, there is currently no funding for an extension of San Diego Bike Trail and no tentative schedule available. The operational improvement project plans to be in construction from 2022 through 2024, however this does not mean the San Diego Bike Trail would be impacted for the entire approximate length of 2 years; the trail would be impacted for much less time. The project is not anticipated therefore to interfere with a current alignment for an extension of a future San Diego Creek Trail extension. The Preferred Alternative would not impact this future facility.

I-2

Caltrans will coordinate with the City of Irvine during the Design phase to ensure collaborative communication among stakeholders. The purpose of these meetings will be to inform the City and its residents about the project’s progress and any temporary/ and/or permanent impacts to the project location. This will become an added measure (Rec-1) to the Section 4(f) De Minimis Finding and Final Environmental Document.

I-3

Irvine Parks Map was retrieved from the City of Irvine’s Interactive Park Map website on June 11, 2019. The San Diego Creek Trail is shown in the Section 4(f) as is when retrieved from the City of Irvine’s website. However, Figure 3 of the Section 4(f) serves to identify parks in the vicinity. Please refer to Figure 1 of the Section 4(f) which identifies the San Diego Creek Trail as continuing eastward from SR-133. The Sand Canyon Trail, as indicated in Figure 1 of the Section 4(f) does not cross but is parallel to SR-133.

I-4

The duration of the project in construction will be approximately 2 years. The exact closure for the San Diego Creek trail will be determined during Design. Once the project goes into the Design Phase, information on detours and the Traffic Management Plan (TMP) will become available and Caltrans will coordinate with the City of Irvine to finalize a detour. Only access to the bike trail at the project location will be temporarily impacted; the entire trail will not be impacted.

I-5

The only trail that will be temporarily impacted is the San Diego Creek Trail. See response to Comment (I-4)

I-6

During the Design phase of the project, Caltrans will coordinate with the City of Irvine to ensure that all detours outlined in the TMP be approved and implemented accordingly. Caltrans will continue to keep the City informed of project development and coordinate directly with the City as needed. This will be included as Recreation-1 (Rec-1) in the Section 4(f) and the Environmental Commitment Record.

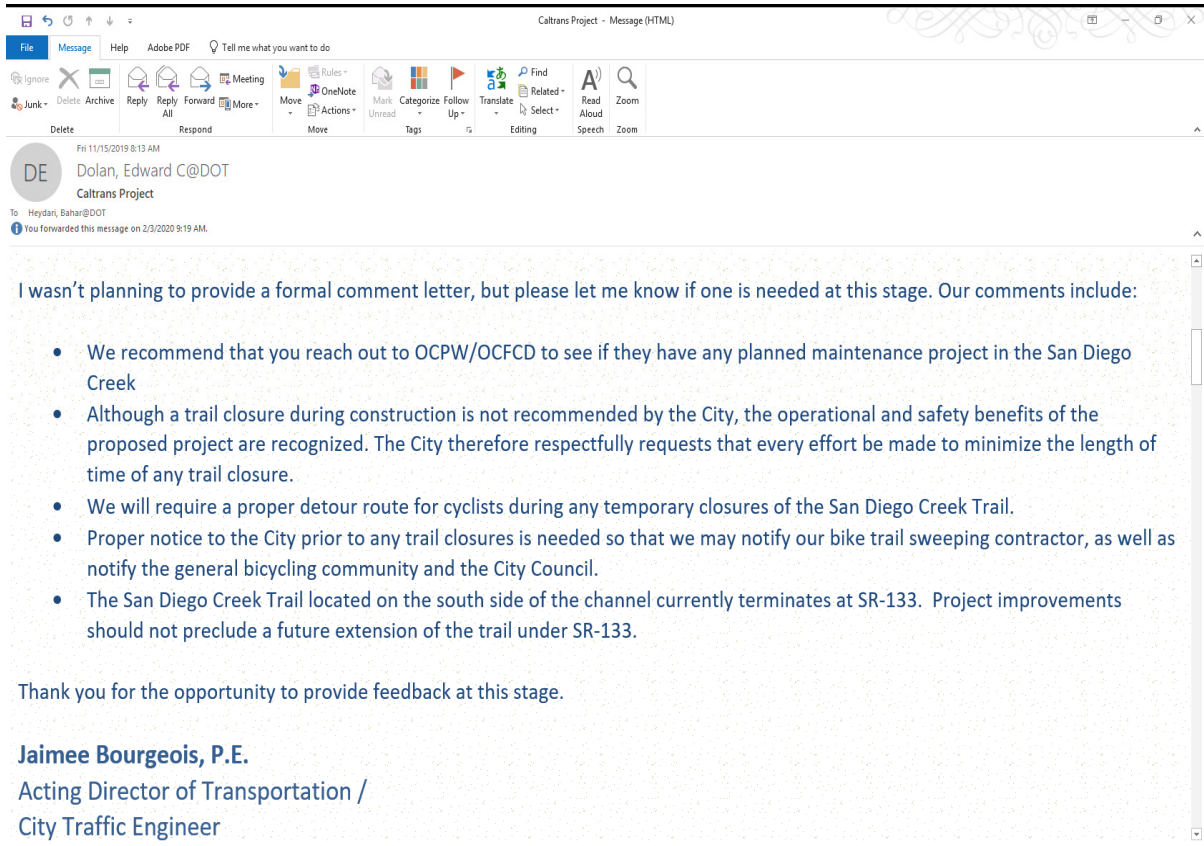
I-7

See response to I-4 and I-6. Also, please see attached map with exhibit of a potential detour.

I-8

The Fee Column has been removed entirely as per Caltrans Right of Way's direction as this is a Caltrans Project.

Additionally, City of Irvine provided comments to Caltrans on 11/15/2019 outside of the circulation period between January 6, 2020 to February 7, 2020.



- Caltrans will coordinate with OCPW and OCFCD during the Design Phase and Construction of the project, as well as for any planned maintenance related to the San Diego Creek. Future consultation, analysis, evaluation, coordination, and approvals will be performed during the final design phase of the project.
- Please see responses to comments I-4 and I-6 respectfully.
- Please see responses to comments I-4 and I-6 respectfully.
- Please see responses to comments I-4 and I-6 respectfully.
- Please see response to comment I-1.

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