

CACHUMA OPERATION AND MAINTENANCE BOARD



3301 Laurel Canyon Road
Santa Barbara, CA 93105

FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

September 4, 2019



CONSTRUCTION COST PROPOSAL AND SUPPORTING DOCUMENTS FOR THE FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK PROJECT

DUE AT THE COMB OFFICE
3301 LAUREL CANYON ROAD ON

September 18, 2019 at 9:00 AM

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SECTION A - PROPOSAL INFORMATION & DOCUMENTS

SECTION A1 – INVITATION TO SUBMIT CONSTRUCTION COST PROPOSAL (BID)
**FOR THE
FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK
FOR THE CACHUMA OPERATION & MAINTENANCE BOARD
SANTA BARBARA COUNTY, CALIFORNIA**

The Cachuma Operation & Maintenance Board (“COMB” or “Board”), invites your company to submit a Construction Cost Proposal (Bid) for the **FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK** (“Project” or “Work”) to be submitted to the office of the Secretary of the Board, 3301 Laurel Canyon Road, Santa Barbara, California 93105-2017 up to the hour of **9:00 AM, on September 18, 2019.**

This Project entails removal of an existing temporary bridge sitting on top of a damaged concrete low-flow crossing and replacing it with a prefabricated 54-foot bottomless arched culvert. The Board intends to solicit proposals from contractors considered acceptable by the California Department of Fish & Wildlife (CDFW) to perform the type of project improvement to be built, and to make a provisional award of the Project to the lowest responsible, responsive proposer on or before September 20, 2019.

As such, contractors are invited to submit Bids for the Project, since it is the intention of the Board to make a provisional award to one contractor based on the lowest responsible and responsive proposal. As set forth in Article 19 of the Contract Agreement, the Project 8 is funded in significant part by a grant provided by the State of California Department of Fish and Wildlife (Fisheries Restoration Grant Program (FRGP)). The Grant Agreement for the Project is presented in Section F. Subject to the provisions below; the maximum cost cap for this project shall be **Seven Hundred and Twenty Thousand Dollars (\$720,000).**

Copies of the Contract Documents accompany this request, and questions regarding the plans and specifications, or the work to be accomplished may be directed to the Project Manager (Timothy H. Robinson, COMB) at the Cachuma Operation & Maintenance Board, 3301 Laurel Canyon Road, Santa Barbara, California 93105-2017 (T 805-687-4011 F 805-569-5825).

Any contract entered into pursuant to this invitation will incorporate the provisions of the State Labor Code. Compliance with the prevailing rates of wages and apprenticeship employment standards established by the State Director of Industrial Relations will be required. The California Prevailing Rates of per diem wages are on file in the office of the Secretary of the Board.

The Board hereby affirmatively ensures that it does not and will not discriminate on the basis of race, color, national origin, ancestry, gender, religion, sexual orientation, political affiliation or beliefs, physical or medical condition, age, marital status or pregnancy.

Proposals must be prepared on the approved Proposal forms in conformance with the Instructions to Proposers and submitted in an envelope, sealed and plainly marked on the outside, "CONSTRUCTION COST PROPOSAL FOR THE FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK", and delivered or mailed to Secretary of the Board, 3301 Laurel Canyon Road, Santa Barbara, California 93105-2017. The proposal must be accompanied by certified or cashier's check or bid bond, made payable to the Board for an amount no less than ten percent (10%) of the amount of proposal.

A contract will not be entered into with a Contractor who does not hold a valid State of California Contractor's License at the time of proposal submission in accordance with the provisions of the Business and Professions Code. Such proposals will be deemed non-responsive and rejected.

The Board reserves the right to reject any or all proposals, the right to make no award for the Project, the right to waive any irregularity, and the right to take all proposals under advisement for a period of ninety (90) calendar days following the proposal due date. The Board does not intend to make an award of the contract to any proposal in excess of **Seven Hundred and Twenty Thousand Dollars (\$720,000).** The Contractor shall guarantee their prices for this 90-day period, and for the duration of the contract.

BY ORDER OF the Cachuma Operation & Maintenance Board, Santa Barbara County, California.

SECTION A2 - INSTRUCTIONS TO PROPOSERS

A2.01 Inspection of Site of Work

Proposers are required to inspect the site of the work during the Pre-bid Site Visit in order to satisfy themselves, by personal examination or by such other means as they may prefer, of the location of the proposed work and as to the actual conditions of and at the site of work. If, during the course of his/her examination, a proposer finds facts or conditions which appear to him/her to conflict with the letter or spirit of the Contract Documents, or with any other data furnished to him/her, he/she may apply in writing to the Board for additional information and explanation before submitting his/her proposal. Responses will be in the form of written Addendum to Contract Documents and distributed to all Proposers.

Pre-bid Site Visit (mandatory): COMB staff will be at the site on **Tuesday September 10, 2019 at 10:00 AM** to answer any questions about the construction needed. All bidders must attend the pre-bid site visit or their bids shall be deemed non-responsive.

Project Location: From Santa Barbara, take Hwy 154 north to Hwy 246. Go west on Hwy 246 until Refugio Road. Go left on Refugio Road and continue straight across the Santa Ynez River and up the hill until you encounter the temporary wooden bridge which is Quiota Creek Crossing 8, approximately 4.0 miles.

The submission of a proposal by the proposer shall constitute the acknowledgment that, if awarded the contract, he/she has relied and is relying on his/her own examination of (a) the site of the work, (b) the access to the site, and (c) all other data, matters, and things requisite to the fulfillment of the work and on his/her own knowledge of existing services and utilities on and in the vicinity of the site of the work to be constructed under the contract, and not on any representation or warranty of Board. No claim for additional compensation will be allowed which is based upon a lack of knowledge of the above items.

A2.02 Examination of Contract Documents

Prior to proposal submission, each proposer shall thoroughly examine and be familiar with legal and procedural documents, general conditions, specification drawings and addenda (if any). The proposer shall report any errors or omissions noted to the Board. The submission of a proposal shall constitute an acknowledgment upon which the Board may rely that the proposer has thoroughly examined and is familiar with the Contract Documents. The failure or neglect of a proposer to receive or examine any of the Contract Documents shall in no way relieve him/her from any obligations with respect to his/her proposal or to the contract. No claim for additional compensation will be allowed which is based upon a lack of knowledge of any Contract Document.

A2.03 Interpretation of Contract Documents

No oral interpretations will be made to any proposer as to the meaning of the Contract Documents. Requests for an interpretation shall be made in writing and delivered to Board at least five (5) days before the time announced for opening the proposals. Interpretations by Board will be in the form of an addendum to the Contract Documents and, upon issuance, will be sent as promptly as is practical to all parties to whom the Contract Documents have been issued. All such addenda shall become part of the contract.

A2.04 Soil Information

The proposer shall make his/her own deductions and conclusions as to the nature of the materials to be excavated, the difficulties of making and maintaining the required excavations, the difficulties which may arise from subsurface conditions, and of doing any other work affected by the subsurface conditions and shall accept full responsibility therefore. Information provided and available to Proposers is for informational use only. The Board does not warrant the accuracy or sufficiency of the information.

A2.05 Proposal

Proposals shall be made on the Proposal Document forms enclosed as Section A3 of these specifications without removal from the bound Contract Documents. Any non-bound or loose forms in any Bids will be viewed as non-responsive and subject the Bid to rejection. All proposals shall give the prices proposed, both in

writing and in figures, shall give all other information requested herein, and shall be signed by the proposer or his/her authorized representatives, with his/her address. If the proposal is made by an individual, his/her name, signature and post office address must be shown; if made by firm or partnership, the name and post office address of the firm or partnership and the signature of at least one of the general partners must be shown; if made by a corporation, the proposal shall show the name of the State under the laws of which the corporation is chartered, the name and post office address of the corporation, and the title of the person who signs on behalf of the corporation. If the proposal is made by the corporation, a certified copy of the bylaws or resolution of the board of directors of the corporation shall be furnished showing the authority of the officer signing the proposal to execute contracts on behalf of the corporation.

Each proposal shall be enclosed in a sealed envelope, labeled as specified in the Invitation To Submit Construction Cost Proposal (Bid). Proposers are warned against making erasures or alterations of any kind, and proposals which contain omissions, erasures or irregularities of any kind may be rejected. No oral, electronic, telegraphic, facsimile, or telephonic proposals or modifications will be considered. Bids not received at the COMB office by **September 18, 2019 at 9:00 AM** shall not be opened or considered.

Proposals must be submitted in an envelope, sealed and plainly marked on the outside, "CONSTRUCTION COST PROPOSAL FOR THE FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK", and delivered or mailed to Secretary of the Board, 3301 Laurel Canyon Road, Santa Barbara, California 93105-2017.

As part of his/her proposal submission, the Contractor must state clearly his/her license number and expiration date.

A2.06 Addenda

Each proposal shall include specific acknowledgment in the space provided of receipt of all addenda issued during the proposal period. Failure to so acknowledge may result in the proposal being rejected.

A2.07 Proposal (Bid) Prices

Proposal (or Bid) prices shall include everything necessary for the completion of construction and fulfillment of the contract including but not limited to furnishing all materials, equipment, tools, plans and other facilities and all management, superintendence, labor and services, except as may be provided otherwise in the Contract Documents. In the event of a difference between a price quoted in words and a price quoted in figures for the same quotation, the words shall be the amount proposed.

In preparing proposal prices, proposer represents that he/she has carefully examined the Contract Documents and the site where the work is to be performed and that he/she has familiarized himself/herself with all local conditions and federal, state and local laws, ordinances, rules, and regulations that may affect, in any manner, the performance of the work. The proposer further represents that he/she has studied all surveys and investigation reports about subsurface and latent physical conditions pertaining to the job site, that he/she has performed such additional surveys and investigations as he/she deems necessary to complete the work at his/her proposal price, and that he/she has correlated the results of all such data with the requirements of the Contract Documents. The submittal of a proposal shall be conclusive evidence that the proposer has investigated and is satisfied as to the conditions to be encountered, including locality, uncertainty of weather and all other contingencies, and as to the character, quality, quantities, and scope of the work.

The Contractor will not be reimbursed for work performed for his/her convenience, or as required to adapt to field conditions, or work outside of that required by the Contract Documents.

A2.08 Permits, Taxes and License

Paragraph 7-5 of the SSPWC-2009 Edition shall apply to this Contract. Contractor shall pay all business taxes, license fees or royalties required for prosecution of the Work.

A2.09 Recognition of Bonding Companies [Bid, Payment And Performance Bonds]

All bonds provided by the Contractor in this contract must be provided by a California admitted surety insurer licensed to do business in the State of California (as set forth in California Code of Civil Procedure Section 995.010 et. seq.) and with a current A.M. Best's rating no less than A:VII or equivalent or as otherwise approved by Board.

A2.10 Qualification, License and Experience of Proposers

Each proposer shall be skilled and regularly engaged in the general class or type of work called for under the contract. Proposer shall submit the information requested in the **EXPERIENCE STATEMENT** and **SUPPLEMENTAL PROPOSER (BIDDER) INFORMATION** forms provided in Section A3 (Proposal Documents) of these specifications. Proposers shall also submit the information requested in the **PROPOSER (BIDDER) INFORMATION FORM**.

Each proposer shall possess a valid Contractor's License issued by the California Contractors License Board at the time of bid submission. The class of license shall be applicable to the work specified in the contract.

Proposers are advised that for their proposals to be deemed responsive, they must meet the following minimum requirements of not less than five (5) years experience in installation of each of the following improvements:

- bridges or bottomless arched culverts and road construction;
- instream grade control structures, e.g., riffles, rock weirs, or engineered streambed material (ESM);
- compliance with environmental regulatory construction permit requirements (streambed alterations, water quality, stormwater pollution prevention, and erosion control);
- excavator operations within a stream channel; and
- vegetated rock slope protection.

Proposers' attention is directed to relevant portions of California Department of Fish & Wildlife Grant Agreement P1450011 (Section 6.03.3). The grant agreement is provided in Section F of these specifications.

Proposers shall provide information concerning their compliance with these minimum requirements in the **EXPERIENCE STATEMENT** and **SUPPLEMENTAL PROPOSER (BIDDER) INFORMATION** forms referenced above. **Proposals received from contractors who lack this minimum experience, or which fail to set forth information sufficient to demonstrate that the contractor meets these minimum requirements, shall be deemed nonresponsive and shall not be considered.** COMB retains the ultimate discretion to determine whether a proposal is responsive.

COMB additionally retains the ultimate discretion to ascertain whether a bidder is responsible, as defined in Public Contract Code Section 1103, i.e. a bidder who has demonstrated the attribute of trustworthiness, as well as quality, fitness, capacity, and experience to satisfactorily perform the contract.

It is COMB's intention to award a contract to a proposer who furnishes satisfactory evidence that it possesses the requisite experience and ability, and sufficient capital, facilities and plant to enable the contractor to prosecute the work successfully and properly, and to complete the work within the time limits set forth in the contract.

In the event a bidder is viewed as non-responsible, and a written protest is filed by that bidder, a hearing on that matter will be held consistent with COMB's Procurement Policy.

The Contractor's attention is directed to the provisions of the Contract Agreement concerning the naming of a Construction Manager and Job Site Supervisor for the work.

A2.11 List of Subcontractors

Each proposal shall have listed on the form provided herewith the name and address of each subcontractor to whom the proposer proposes to sublet portions of the work in excess of one-half of one percent of the total amount of his/her proposal. For the purpose of this paragraph, a subcontractor is defined as one who contracts with the Contractor to furnish materials and labor, or labor only for the performance of work at the site of the work or who will specially fabricate a portion of the work off the site pursuant to detailed drawings in the Contract Documents. The Board reserves the right to determine whether a listed subcontractor is a "responsible" contractor.

A2.12 Bid Guaranty

The proposal shall be accompanied by a bid guaranty (bid) bond duly completed on the form provided herewith by a guaranty company authorized to conduct business in the State of California in the sum of at least ten percent (10%) of the total amount of the bid proposal, or alternatively by a certified or cashier's check payable to the Board in the sum of at least ten percent (10%) of the total amount of the bid proposal. The amount payable to the Board under the bid guaranty bond, or the certified or cashier's check and the amount thereof, as the case may be, shall be forfeited to the Board in case of failure or neglect of the proposer to furnish, execute and deliver to the Board the required performance and payment bonds, evidences of insurance (requirements are set forth in Section A3) and to enter into, execute and deliver to the Board the agreement on the form provided herewith, within ten (10) days after being notified in writing by the Board that the award has been made and the agreement is ready for execution.

A2.13 Modification of Proposal

A modification of a proposal already received will be considered only if the modification is received prior to the time announced for the opening of proposals. All modifications shall be made in writing, executed and submitted in the same form and manner as the original proposal.

A2.14 Postponement of Cost Proposal Due Date

The Board reserves the right to postpone the date and time for receiving proposals at any time prior to the date and time announced in the Notice Inviting Proposals. The Board also reserves the right to issue material changes, additions, or deletions to the Notice Inviting Proposals, which may result in extension of time for closing of submission of proposals.

A2.15 Disqualification of Proposer

If there is reason to believe that collusion exists among the Proposers, none of the proposals of the participants in such collusion will be considered. Proposers shall execute and submit non-collusion affidavits with their proposals.

A2.16 Rejection of Proposals

The Board reserves the right to reject any proposals which are incomplete, non-responsive, obscure or irregular; any proposals which omit a bid on any one or more items on which the bids are required; and proposals which omit unit prices if unit prices are required; any proposal in which unit prices are unbalanced in the opinion of the Board; any proposals accompanied by insufficient or irregular bid security; and any proposals from bidders who have previously failed to perform properly or to complete on time contracts of any nature and/or are otherwise viewed as non-responsible. Issuance of this invitation for a bid does not commit the Board to proceed with the solicitation process or to award any contract for the Project or any other project. The Board makes no guarantee that an award of contract will be made as a result of this invitation for bid. The Board further reserves the right to accept or reject any proposal, to re-solicit proposals, to waive any informalities or minor technical inconsistencies and/or to delete any requirements from this invitation, when deemed by the Board, in its sole discretion, to be most advantageous to the Board and in its best interests.

Any protests regarding the Bids shall be in writing and filed within one (1) day (24 hours) of COMB's issuance of the notice of decision to recommend the awarding of the Project to a particular bidder. Any such protest shall be submitted to the General Manager of COMB.

A2.17 Award of Contract

Subject to the Board's right in the Invitation To Submit Construction Cost Proposal (Bid) to take bids under advisement for 90 days, the Board intends that, within five (5) calendar days after proposals are due, the Board will act either to accept a proposal or to reject all proposals. The acceptance of a proposal will be evidenced by a notice of award of contract in writing, delivered by mail to the proposer whose proposal is accepted. No other act of the Board shall constitute acceptance of a proposal. The award of contract shall obligate the proposer whose proposal is accepted to furnish performance and payment bonds and evidences of insurance and execute the contract set forth herein. The Board reserves the right to award a contract for both the Project and Project 5, the right to award only one of those two projects, and the right to make no award for any project.

Immediately following the award of contract, the Proposer will be required to meet with Board representatives in a "Pre-contract Conference" to review the Contract Documents to ensure that the documents will be properly executed and returned by the Proposer in a form acceptable to the Owner.

A2.18 Time of Performance and Liquidated Damages

All work shall be completed within the number of working days after effective date of Notice To Proceed as defined in Section 6-7.1.2("Contract Period") of Section B (General Provisions Modifications) plus any allowed extensions. Except as otherwise agreed to by the parties, if the Contractor has not completed all work as determined by the Board within the contract period, liquidated damages shall be assessed in accordance with Section 6-9.1 of Section Band Contract Agreement Article 2.

A2.19 Resolution of Construction Claims

Proposers are informed that all construction claims of \$375,000 or less resulting from Public Works contracts with local agencies will be resolved within the requirements of the Public Contracts Code, Section 20104 et seq., which sets forth procedures for mediation and arbitration.

A2.20 Return of Proposal (Bid) Guaranties

Within five (5) calendar days after the proposals are opened, the Board will return the bid guaranties (other than Bid Bonds) accompanying the proposals which are not to be considered in making the award. Bid guaranties for the two lowest Proposers will be held until the contract has been fully executed after which they will be returned to the respective Proposers whose proposals they accompanied.

A2.21 Execution of Contract

The contract agreement shall be executed in duplicate by the successful proposer and returned, together with the contract bonds and evidences of insurance, within ten (10) calendar days after the Notice of Award in Section A2.17, above. After execution by the Board, one original contract shall be returned to the Contractor.

A2.22 (Reserved)

A2.23 Nondiscrimination in Employment

By its submission of a proposal, Proposer agrees that it shall not discriminate in its recruiting, hiring, promotion, demotion or termination practices, or discriminate against any prospective or active employee engaged in the work because of race, color, national origin, ancestry, gender, religion, sexual orientation, political affiliation or beliefs, physical or medical condition, age, marital status or pregnancy. Proposers must comply with applicable Federal and California laws including, but not limited to, the California Fair Employment and Housing Act, beginning with Government Code, Section 12900, and Labor Code, Section 1735 and the American with Disabilities Act, 42 U.S.C. and 12101 et seq. In addition, Proposers shall require like compliance by any subcontractors employed on the work.

A2.24 Ineligible Contractors

The Board will not permit a contractor or subcontractor who is "ineligible" for public work pursuant to Labor Code Sections 1777.1 or 1777.7, to propose on, be awarded, or perform work as a subcontractor on, the Project. Contractor's submission of a proposal shall be deemed a representation by the Contractor that it is not ineligible under these provisions, and that any listed subcontractors are not ineligible. The Contractor for this Project shall not perform work with a subcontractor who is ineligible to perform work on a public works project pursuant to Labor Code Sections 1777.1 or 1777.7.

A2.25 (Reserved)

A2.26 Gender

If the use of the male gender appears in the proposal documents, it is done for convenience and brevity only and does not represent a bias against the female gender.

A2.27 Early Termination of Contract

As referenced in Article 11 of the "Contract Agreement" which forms part of these specifications, the Board hereby notifies Proposers that the 54-foot prefabricated arch concrete bridge to be installed as part of the Work is a pre-purchased item to be delivered to the site of the Work on or before October 12, 2018, so as to provide sufficient time to the successful Proposer to whom this contract is awarded to timely complete the Work consistent with the time requirements of the Department of Fish & Wildlife, any other regulatory agencies with jurisdiction thereto, and with Section 6 of "Section B-General Provisions Modifications" and specifically Paragraph 6-7.1.2 thereto ("time restrictions"). Proposers are advised that, notwithstanding the Board's award of the Contract to a successful Proposer ("Contractor"), the Board in its sole discretion (and without affecting any of its other rights herein) may subsequently terminate this Contract without penalty, due to time restrictions if the prefabricated bridge is not delivered to the site of the Work on or before October 12, 2018, or alternatively for any reason upon the Board's determination that such termination is in the Board's best interest.

If the Board elects to terminate the Contract in this circumstance, then notwithstanding any other provisions in these Contract Documents, such termination and the total compensation payable to the Contractor shall be governed by the following:

(1) The Engineer with oversight from the Project Manager will issue Contractor a written notice specifying that the Contract is terminated. Except as otherwise directed in writing by the Engineer, the Contractor shall:

- A. Stop all work under the Contract except that specifically directed to be completed prior to acceptance. [Such work may include, but is not limited to, reestablishment of a road crossing at the site of the Work.]
- B. Notify all of Contractor's subcontractors and suppliers that the Contract is being terminated and that their contracts and orders are not to be further performed unless otherwise authorized in writing by the Board.
- C. Perform work the Engineer deems necessary to secure the Project for termination.
- D. Remove equipment and plant from the site of the Work, as directed.
- E. Take action that is necessary to protect materials from damage.
- F. Provide the Engineer with an inventory list of all materials previously produced, purchased or ordered from suppliers for use in the Work and not yet used in the Work, including its storage location, and such other information as Engineer may request.
- G. Dispose of materials not yet used in the Work, as directed by Engineer. Contractor shall provide the Board with good title to all materials purchased by the Board hereunder (including materials for which partial payment has been made), and with bills of sale or other indicia of title for the materials.
- H. Subject to the Engineer's prior written approval, settle all outstanding liabilities and claims arising out of subcontracts or orders for materials terminated hereunder. To the extent directed by the Engineer, the Contractor shall assign to the Board all the right, title and interest of the Contractor under such subcontracts or orders referenced herein.
- I. Furnish the Engineer with any documentation required to be furnished by the Contractor in accordance with the Contract Documents.
- J. Take any other actions required by Engineer.

(2) Termination of the Contract shall not relieve any surety of its obligations for just claims arising out of the work performed.

(3) The total compensation to be paid to Contractor shall be determined by the Engineer on the basis of the following:

A. The reasonable cost to Contractor, without profit, for all work performed under the Contract, including mobilization, demobilization and work done to secure the Project for termination. In determining the reasonable cost, deductions will be made for the cost of materials to be retained by the Contractor, amounts realized by sale of the materials, and for other appropriate credits against the cost of the Work. When in the Engineer's opinion the cost of a contract item of work is excessively high due to costs to remedy or replace defective or rejected work, the reasonable cost to be allowed will be the estimated reasonable cost of performing that work in compliance with the requirements of the plans and specifications and the excessive actual cost shall be disallowed.

B. A reasonable allowance for profit on the cost of the work as determined pursuant to subparagraph (A) herein, provided that the Contractor establishes to the satisfaction of the Engineer that it is reasonably probable that the Contractor would have made a profit had the Contract been completed and provided further that the profit allowed shall in no event exceed four percent (4%) of the cost.

C. The reasonable cost to the contractor of handling material returned to vendor(s), delivered to the site of the Work or disposed of as directed by the Engineer.

D. A reasonable allowance for the Contractor's administrative costs in determining the amount payable due to the termination of the Contract.

(4) All records of the Contractor and its subcontractors and suppliers necessary to determine compensation in accordance with these provisions shall be retained and open to inspection or audit by representatives of the Board at all times after issuance of the notice that the Contract will be terminated and for a period of three (3) years thereafter.

(5) After its acceptance of the Work, the Board may make payments on the basis of interim estimates pending issuance of the final estimate when, in the opinion of the Engineer, the amount thus paid, together with all amounts previously paid or allowed, will not result in total compensation in excess of that to which the Contractor will be entitled. All payments, including payment of the final estimate, shall be subject to deductions for prior payments and amounts, if any, to be kept or retained under the provisions of the contract.

These provisions shall be included in any subcontracts.

A2.28 Incorporation of Grant Agreements

Bidders are hereby advised that as set forth in Section A1 (invitation To Submit Construction Cost Proposal), this Project is funded in significant part by a grant provided by State of California Department of Fish and Wildlife (Fisheries Restoration Grant Program) (Grant Agreement Number P1450011), or "grant agreement". This agreement is incorporated by reference into these contract documents for the Project and is provided in Section F. See also Article 19 of the Contract Agreement.

Bidders' attention is directed to federal law requirements contained in the California Department of Fish and Wildlife Grant Number P1450011, Exhibit 2, Federal Grant Provisions, and specifically to the Utilization of Small, Minority and Women's Businesses provisions continued in Item 1 therein. Bidders shall comply with the steps set forth in paragraphs "a" through "e" therein. Receipt of a bid by COMB shall be deemed by COMB to be a representation by the bidder that it has complied with such steps.

SECTION A3 – PROPOSAL DOCUMENTS
PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE
IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

- Contractor's Proposal.
- Bid Schedule.
- Bid Bond.
- List of Equipment and Materials Manufacturers.
- List of Subcontractors and Suppliers.
- Contractor's Statement Regarding Insurance Coverage.
- Insurance Requirements for Contractors.
- Non-Collusion Declaration
- Proposer Information
- Experience Statement

Failure to complete, sign (*where required*), and return the above proposal documents with your proposal may render it incomplete and non-responsive.

CONTRACTOR'S PROPOSAL

PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

The undersigned, as proposer, declares that he/she has examined all of the Contract Documents and specifications contained in the above referenced Project and Proposal, and that he/she will contract with the Board on the form of contract provided therewith to do everything necessary for the fulfillment of this contract at the price and on the terms and conditions therein contained.

The following are included and are to be considered as forming a part of this proposal: (1) Bid Schedule, (2) Bid Bond (or alternative guaranty); (3) Proposer’s Statement Regarding Insurance Coverage; (4) List of Subcontractors and Suppliers; (5) Proposed Equipment and Material Manufacturers; (6) Proposer Information; (7) Proposer Supplemental Information; (8) Experience Statement; and (9) Non-Collusion Affidavit.

We acknowledge that addenda numbers ____ to ____ have been delivered to us and have been examined as part of the Contract Documents.

Attached is a bid bond duly completed by a guaranty company authorized to conduct business in the State of California in the amount of at least ten percent (10%) of the total amount of our proposal, or alternatively there is attached a certified or cashier's check payable to the Board, in the amount of at least ten percent (10%) of the total amount of our proposal.

If our proposal is accepted, we agree to sign the contract form and to furnish the faithful performance and payment bonds (each to be one-hundred percent (100%) of the proposal amount), and the required evidences of insurance within ten (10) calendar days after receiving written notice of the award of contract.

We further agree if our proposal is accepted and a contract for the performance of the work is entered into with the Board, to so plan the work and to prosecute it with such diligence that all of the work shall be completed within the time stipulated in Section B (General Provisions Modifications), Paragraph 6-7.1.2.

Dated: _____

Company Name of Proposer (Bidder)

Proposer's Mailing Address:

Authorized Signature
(If Company is a Corporation, provide corporate information per paragraph A2.05)

Title

State of Incorporation

BID SCHEDULE

PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

The cost of furnishing all labor, services, material, equipment and installation necessary for the completion of the work itemized under this schedule, even though not explicitly shown or specified, shall be included in the lump sum price for the various cost items shown herein. The Contractor's proposal will be reviewed upon the total lump sum value entered into the far right column as well as the total lump sum price entered in the final row of the bid form. The relative unit cost will be used for information purposes only and will establish a potential unit of cost that may be used to adjust the contract price as required. The Board reserves the right to increase or decrease the quantity of any item or omit items as may be necessary, and the same shall in no way affect or make void the contract, except that appropriate additions or deductions from the contract total price will be made at the stipulated unit price in accordance with these Contract Documents.

Quantities (if any) listed in this Proposal Schedule are intended only as a guide for the Contractor as to the anticipated order of magnitude of work. Contractor shall be responsible for calculating and providing totals for the schedule as well as verifying all estimated quantities throughout construction. If the Contractor's take-off values differ from those indicated on the bid tabulation form, Contractor shall strike through the indicated value and enter a new number where necessary. Values entered by the Contractor will be evaluated to assess the overall understanding of the proposed scope of work. Contractor will be reimbursed for the quantity of items as indicated in the final Contract Documents, including addenda, and shown on the plans.

The Contractor will not be reimbursed for work performed for his convenience, or as required to adapt to field conditions, or for unauthorized work performed outside of that required by the Contract Documents.

BID SCHEDULE (Fish Passage Improvement on Crossing 8, Quiota Creek)

Item No.	Description	Reference	Estimated Quantity	Unit	Unit Price	Item Cost
1	General Conditions and Mobilization	Section C	1	LS		
2	Demolition, Clearing, Grubbing, and Disposal	" "	1	LS		
3	Install, Operate, and Maintain Dewatering Systems	" "	1	LS		
4	Erosion Control	" "	1	LS		
5	Site Ex, Stockpiling, and Materials Prep	" "	1050	CUY		
6	Export Unsuitable Materials	" "	1	LS		
7	Footing Preparation	" "	1375	SQFT		
8	Construct Cast-In-Place Footings	" "	80	CUY		
9	Install 54-Foot Span Prefabricated Bridge Arch System	" "	1	LS		
10	Road-Embankment Fill, Compaction, and Grading	" "	1390	CUY		
11	Road Base Import, Preparation, and Grading	" "	475	TON		
12	Site Drainage	" "	1	LS		
13	Install Asphaltic Concrete Pavement	" "	195	TON		
14	Install Guardrail and Bridge Rail System	" "	470	LF		
15	Apply Bridge Coating System (Anti-Graffiti)	" "	1	LS		
16	Install Salvaged Rootwad Habitat Feature	" "	1	LS		
17	Construct Rock Weirs	" "	150	LF		
18	Engineered Streambed Material (ESM)	" "	950	SQFT		
19	Rock Slope Protection	" "	2100	SQFT		
20	Perform Finished In-stream Grading and Contouring	" "	5400	SQFT		
21	Revegetation	" "	1	LS		
22	Cattle Exclusion Fencing	" "	1	LS		
23	Replace Existing Fence	" "	383	LF		
24	Site Clean-Up and Demobilization	" "	1	LS		
25	County Required Delineators, Signs, and Fall Protection	" "	1	LS		
26	Protection of Existing Facilities	" "	1	LS		

BID TOTAL (Items 1 through 26) \$ _____

Write out BID TOTAL _____

Contractor Signature _____

BID BOND (10%)

PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

KNOW ALL PERSONS BY THESE PRESENTS that Bidder _____, as PRINCIPAL, and _____, as SURETY, are held and firmly bound unto the Cachuma Operation and Maintenance Board as BOARD, in the penal sum of _____ dollars (\$ _____), which is ten percent (10%) of the total amount bid by PRINCIPAL to BOARD for the above stated project, for the payment of which sum, PRINCIPAL and SURETY agree to be bound, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, whereas PRINCIPAL is about to submit a bid proposal to BOARD for the above stated project, if said bid proposal is rejected, or if said bid proposal is accepted and a contract is awarded and entered into by PRINCIPAL in the manner and time specified, and provides the required payment and performance bonds and insurance coverage to BOARD, then this obligation shall be null and void, otherwise it shall remain in full force and effect in favor of BOARD.

For value received, the SURETY hereby agrees that its obligations and its bond shall not be impaired or affected by any extension of time within which the BOARD may accept such bid proposal; and SURETY hereby waives notice of any such extension.

IN WITNESS WHEREOF the parties hereto have set their names, titles, hands, and seals this _____ day of _____, 20__.

PRINCIPAL

SURETY

By: _____

By: _____

Title: _____

Title: _____

Subscribed and sworn to this _____ day of _____, 20__.

NOTARY PUBLIC _____

(SEAL)

LIST OF EQUIPMENT AND MATERIAL MANUFACTURERS

PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

Contractor shall indicate in the space provided below the name of the manufacturer of the listed equipment, and supplier of the listed material, proposed to be furnished under the contract. Awarding of a contract based on this proposal will not imply approval by the Owner of the manufacturers or suppliers listed. No substitution will be permitted after award of contract except upon written approval of the Owner.

<u>Equipment/Materials</u>	<u>Manufacturer</u>	<u>Supplier</u>
<u>Foundation Concrete</u>		
<u>Geotextile Fabric</u>		
<u>Foundation Rock</u>		
<u>Rock Slope Protection</u>		
<u>Engineered Streambed Material</u>		
<u>Weir Rock</u>		
<u>Crane</u>		
<u>Structural Fill</u>		
<u>Road Base</u>		
<u>Road Asphalt</u>		
<u>Galvanized Steel Guardrail</u>		
<u>Weathering Steel Bridge Rail</u>		
<u>Delineators, Signs and Reflectors</u>		
<u>Anti-Graffiti Treatment</u>		
<u>Native Seed and Hydromulch</u>		
<u>Cattle Exclusion Fencing</u>		

LIST OF SUBCONTRACTORS AND SUPPLIERS

PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

The following is a list of subcontractors and suppliers who will perform work or provide materials of value in excess of one-half percent of the total contract price. No subcontractor shall perform work in excess of the amount specified herein, without the written approval of the Board.

Name Under Which Subcontractor is Licensed	License No./Expiration Date	Address of Office, Mill or Shop	Specific Description of Work Subcontracted or Materials Supplied	Cost of Work

CONTRACTOR'S STATEMENT REGARDING INSURANCE COVERAGE
PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE
IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

Contractor hereby certifies that he/she has reviewed the insurance coverage requirements for this Contract. Contractor further certifies that he/she can meet all of these specifications requirements for insurance including insurance coverage of his/her subcontractors.

Workers' Compensation Insurance: The Contractor shall obtain and maintain workers' compensation insurance required by law covering all of the Contractor's employees on the Work at all times. It shall be the Contractor's responsibility to see that all employees of its subcontractors are equally protected by such insurance either provided by the Contractor or by the subcontractor. The required insurance shall cover any assignee of the Contractor or any subcontractor performing or causing to be performed any work or labor in fulfillment of the provisions of the Contract. The Contractor certifies the following:

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code before commencing the performance of the work of this contract.

Contractor

By

Title

Date

INSURANCE REQUIREMENTS FOR CONTRACTOR
PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE
IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

Contractor shall procure and maintain for the duration of the contract, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his/her agents, representatives, employees or subcontractors. The cost of such insurance is included in the Contract amount.

Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).
2. Insurance Services Office form number CA 0001 (Ed. 1/87) covering Automobile Liability, Code I (any auto).
3. Workers' Compensation insurance as required by the State of California and Employer's Liability insurance. [Note: See also Paragraph 7-4 of Section B, General Provisions Modifications.]

Minimum Limits of Insurance

Contractor shall maintain limits not less than:

1. General Liability: \$2,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability: \$2,000,000 per accident for bodily injury and property damage.
3. Workers Compensation: \$1,000,000
4. Employers Liability: \$2,000,000 per accident for bodily injury or disease.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the Board. At the option of the Board, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the U.S. Bureau of Reclamation ("Reclamation"), the Board, its members and its officers, consultants (including the Board's Engineer and its Design Engineer, HDR Fisheries Design Center), officials, directors, agents and employees (collectively all of these parties are referred to as "additional insureds"), or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The additional insureds shall be covered as insureds (via ISO endorsement CG 2010,

CG 2033 or insurer's equivalent for general liability coverage) as respects: liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor; premises owned, occupied or used by the Contractor; or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the additional insureds.

2. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects the additional insureds. Any insurance or self-insurance maintained by the additional insureds shall be excess of the Contractor's insurance and shall not contribute with it.
3. Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the additional insureds.
4. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days' written notice by certified mail, return receipt requested, has been given to the Board.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII or equivalent or as otherwise approved by Board.

Verification of Coverage

Contractor shall furnish the Board with original endorsements effecting coverage required by this clause. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. The endorsements are to be in a form satisfactory to the Board. All endorsements are to be received and approved by the Board before work commences. As an alternative, the Contractor's insurer may provide complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications.

Subcontractors

Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein.

**NON-COLLUSION DECLARATION
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID**
**PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE
IMPROVEMENT ON CROSSING 8, QUIOTA CREEK**

The undersigned declares:

I am the _____ of _____,
the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____, 20____, at _____, California.

Signature

PROPOSER (BIDDER) INFORMATION

PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

PROPOSER (BIDDER) certifies that the following information is true and correct:

Name of Proposer: _____

Business Address: _____

Telephone: _____ FAX: _____ E-mail: _____

Contractor's License No.: _____ Date Issued: _____ Expiration Date: _____

The following are the names, titles, addresses, and phone numbers of all individuals, firm members, partners, joint venturers, and/or corporate officers having a principal interest in this proposal: (Name/Title/Address/Telephone #)

Any voluntary or involuntary bankruptcy judgments against any principal having an interest in this proposal are as follows: (Type of Judgment / Date)

All current and prior DBA's, alias, and/or fictitious business names for any principal having an interest in this proposal are as follows: (Principal / DBA's / Applicable Dates)

Prior Disqualification

Has your firm ever been disqualified, suspended, terminated, withdrawn, rendered ineligible and/or precluded, either voluntarily or involuntarily, from soliciting, bidding on or applying for and/or performing any services or work for any City, County, Public or Private Contracting entity, and/or being placed on probation (i.e., a process or period of testing or observing the character or abilities of your firm's work for a certain period of time) while performing any services of work for any City, County, Public or Private Contracting entity? Yes / No _____. If yes, provide the following information. (If more than once, use separate sheets):

Date: _____ Entity: _____

Location: _____

Reason: _____

Provide Status and any Supplemental Statement:

Has your firm been reinstated or re-qualified by this entity, including through the lifting of any suspension, ineligibility or disqualification, the firm's re-qualification, the expiration and/or satisfaction of any agreement or sanction, and/or the expiration of any probationary period? Yes / No _____

Violations of Federal, State or Local Law (Municipal or County)

A. Has your firm or its officers been found in violation of, or assessed any penalties by any local (Municipal or County), State or Federal AGENCY (including but not limited to the Department of Industrial Relations for the State of California) for noncompliance, violations of Federal or State labor laws and/or business or licensing regulations, within the past five (5) years relating to your construction projects?

Yes / No: _____ Federal / State / Local: _____

If "yes", identify and describe, (including status):

Have the penalties been paid? Yes / No: _____

B. Does your firm or its officers have any ongoing investigations by any local (Municipal or County), State or Federal AGENCY (including but not limited to the Department of Industrial Relations for the State of California) regarding violations of the State Labor Code, California Business and Professions Code or State Licensing laws?

Yes / No: _____ Codes / Laws: _____ Section / Article: _____

If "yes", identify and describe (including status):

I declare under penalty of perjury under the laws of the State of California that all of the representations made in this **PROPOSER (BIDDER) INFORMATION** are true and correct. Executed this _____ day of _____, 20____, at _____, California.

AUTHORIZED SIGNATURE: _____

TITLE: _____

SUPPLEMENTAL PROPOSER (BIDDER) INFORMATION
PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE
IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

The following supplemental questions are specific to this project and shall be used by the District in the evaluation of a contractor. PROPOSER (BIDDER) certifies that the following information is true and correct (COMB may verify all information):

Questions:

- Describe experience with bridge or bottomless arched culvert installation and road construction.

Project Location & Description of Work and Date of Project	Project Value
1.	
2.	
3	

- Describe in detail examples of your construction experience with in-stream grade control structures such as riffles, rock weirs, and engineered streambed material (ESM).

Project Location & Description of Work and Date of Project	Project Value
1.	
2.	
3	

- Describe in detail examples of your construction experience with excavators within a stream channel.

Project Location & Description of Work and Date of Project	Project Value
1.	
2.	
3	

4. Describe in detail examples of your construction experience with vegetated rock slope protection.

Project Location & Description of Work and Date of Project	Project Value
1.	
2.	
3	

5. Have you done any projects where endangered species were a concern at the work site? Yes No
 If Yes, describe protective and/or mitigation measures you supported or participated in. _____

If Yes, describe protective and/or mitigation measures you supported or participated in. _____

6. Have you done any projects where cultural resources were a concern at the work site? Yes No

7. Have you done any projects with regulatory agency oversight (USACE, CDFW, USFWS, CWQCB, EPA, Etc.)? Yes No
 If Yes, describe level of oversight and successes in working with these agencies. _____

8. Schedule is critical on this project. Describe manpower and equipment resources available beyond that which is anticipated will do the job (contingency capabilities). _____

9. Describe recent experience where you have completed a schedule-critical project with a very limited construction window (note that early season rainstorms may require an acceleration of the schedule)?

EXPERIENCE STATEMENT

PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

Pursuant to **A2.10 QUALIFICATION, LICENSE AND EXPERIENCE OF PROPOSERS**, the following is a record of the Proposer's experience in construction of a type similar in magnitude and character to that contemplated under this contract. Included in this section should be a complete list of references for similar projects in terms of scope of work, value of work, and time constraints. The Contractor must demonstrate that he/she has experience with this type of project and can manage this project effectively. If necessary, additional numbered pages can be attached to this page. The Contractor must be properly licensed to perform the work in this project as determined by the State Contractor's License Board. COMB may contact listed references.

Project Title: _____ Client: _____

Date: _____ Project Value: _____ Contact: _____ Tel #: _____

Description: _____

Subject to Federal Labor Standards: _____ Yes _____ No

Project Title: _____ Client: _____

Date: _____ Project Value: _____ Contact: _____ Tel #: _____

Description: _____

Subject to Federal Labor Standards: _____ Yes _____ No

Project Title: _____ Client: _____

Date: _____ Project Value: _____ Contact: _____ Tel #: _____

Description: _____

Subject to Federal Labor Standards: _____ Yes _____ No

I declare under penalty of perjury under the laws of the State of California that all of the representations made in **THIS EXPERIENCE STATEMENT** are true and correct. Executed this _____ day of _____, 20____, at _____, California.

AUTHORIZED SIGNATURE: _____

TITLE: _____

SECTION A4 – CONTRACT DOCUMENTS

PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

- Contract Agreement
- Payment (Labor and Materials) Bond.
- Performance Bond.
- The prevailing rate of per diem wages determined by the Director of the California Department of Industrial Relations.
- Notice to Proceed.

**CONTRACT AGREEMENT FOR THE
FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK
FOR THE CACHUMA OPERATION AND MAINTENANCE BOARD
SANTA BARBARA COUNTY, CALIFORNIA**

Contract Price \$ _____

THIS AGREEMENT made this _____ day of September _____, 2019, by and between the Cachuma Operation and Maintenance Board, a joint powers authority and public entity, organized and existing in the County of Santa Barbara, under and by virtue of the laws of the State of California, hereinafter designated as Board, and _____, hereinafter designated as Contractor. The Board and the Contractor, in consideration of the mutual promises, covenants and conditions hereinafter set forth, agree as follows:

ARTICLE 1 - THE WORK

In consideration of payments and agreements to be made by the Board, the Contractor shall perform and complete in a prompt and workmanlike manner the work in the Board's Contract Documents entitled:

FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

The Work is generally described as follows:
The project consists of removal of existing concrete low-flow type stream crossing; installation of 54-foot prefabricated concrete bridge with wingwalls; installation of 18-foot wide asphalt road with corresponding traffic barrier systems; installation of rock profile control structures; installation of rock slope protection; instream grading and contouring; improvement of existing fencing private property; and protection of environmental resources and private property.

The Contractor shall perform all work in accordance with, and meet all requirements of, the Contract Documents, and shall furnish at his/her own expense all labor, materials, equipment, tools, transportation, and services necessary therefore, except for such materials, equipment and services (if any) as may be set forth in the Contract Documents to be furnished by the Board.

The Contractor shall provide the Board with the name and qualifications of Contractor's Construction Manager ("Construction Manager") and Job Site Supervisor ("Field Supervisor") prior to the commencement of Work. The Construction Manager and Field Supervisor shall be acceptable to the Board in its sole discretion. If in its sole discretion the initially-named Construction Manager and Field Supervisor are not acceptable to the Board, the Board may require the Contractor to provide a different Construction Manager and Job Site Supervisor who are acceptable to the Board. The

Contractor shall not change the Board-approved Construction Manager and Field Supervisor during the course of the Work, unless such change is specifically approved in writing by the Board in its sole discretion.

Contractor represents and warrants that it currently possesses all license(s) or other approvals currently required by California law to engage in the Work described herein. Contractor holds a current, active Class __ license from the State of California, License No. _____.

ARTICLE 2 - COMMENCEMENT AND COMPLETION; LIQUIDATED DAMAGES

The Work to be performed under this Contract shall commence on the date specified in the Notice to Proceed by the Board and the Work shall be fully completed by the schedule defined in Section 6-7.1.2 in Section B—General Provisions Modifications. The Board will issue a Notice to Proceed within 3 days following its acceptance of Contractor's bonds and insurance certificates, subject to the Board obtaining all applicable and required permits and approvals.

The Board and the Contractor recognize that time is of the essence of this Agreement and that the Board will suffer financial loss if the Work is not completed within the time specified herein, plus any extensions thereof allowed in accordance with Section B - General Provisions Modifications, including Paragraph 6-6.2. The parties also recognize the delays, expense and difficulties involved in proving in a legal proceeding the actual loss suffered by the Board if the Work is not completed on time. **Accordingly, instead of requiring any such proof, the Board and the Contractor agree that as liquidated damages or delay (but not as penalty) the Contractor shall pay the Board the sum of \$750.00 for each consecutive calendar day that expires after the time specified herein. The parties agree that assessment of liquidated damages is valid in accordance with California Government**

Code Section 53069.85. However, the parties agree that any delay caused by or resulting from the Board not obtaining any applicable and required permit or approval will not constitute any delay or loss subject to payment as liquidated damages or as any other loss or damages under this Agreement.

ARTICLE 3 - CONTRACT PRICE

The Board shall pay the Contractor for the completion of the Work in accordance with the Contract Documents in current funds the lump sum Contract Price(s) as set forth above.

ARTICLE 4 - THE CONTRACT DOCUMENTS

The Contract Documents consist of all documents contained in Sections A through F, inclusive, of the bid specifications for this work, including but not limited to:

- Documents – Section A
 - Contract Agreement
 - Cost Schedule
 - List of Equipment and Materials Manufacturers
 - List of Subcontractors and Suppliers
 - Contractor’s Statement Regarding Insurance Coverage
 - Insurance Requirements for Contractors
 - Payment (Labor and Materials) Bond (form of bond attached hereto or otherwise acceptable to Board)
 - Performance Bond (form of bond attached hereto or otherwise acceptable to Board)
 - The prevailing rate of per diem wages determined by the Director of the California Department of Industrial Relations
 - Notice to Proceed
 - Notice of Completion (form not attached hereto)
 - Standard Specifications for Public Works Construction (SSPWC, “the Greenbook”) – 2009 Edition
 - Change Order (form not attached hereto)
 - Work Change Directives which may be delivered or issued after the Effective Date of the Agreement (form not attached hereto)
- General Provisions Modifications – Section B
- Special Provisions – Section C
- Design Drawings – Section D
- Project Permits and Plans – Section E

The Contract Documents and their provisions (whether or not copies are attached hereto) are incorporated by reference into this Contract Agreement as if set forth in full.

ARTICLE 5 - PAYMENT PROCEDURES

The Contractor shall submit applications for Payment for each calendar month in accordance with Section 9-3, Measurement and Payment as modified herein of the Standard Specifications (SSPWC). The payment application shall be submitted in spread sheet format acceptable to the Board. Applications for Payment will be processed by the Board as provided in the Standard Specifications. In accordance with Public Contract Code Section 22300, the Board will allow the substitution of securities for funds withheld to insure performance of all provisions of the Agreement.

ARTICLE 6 - NOTICES

Whenever any provision of the Contract Documents requires the giving of written notice, it shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the Notice.

ARTICLE 7 - NO ASSIGNMENT

No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically, but without limitation, monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and, unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents. Any assignment of money shall be subject to all proper withholdings in favor of Board and to all deductions provided for in the Contract Documents. All money withheld, whether assigned or not, shall be subject to being used by the Board for completion of the work, should the Contractor be in default.

The Board and the Contractor each binds itself, and its partners, officers, directors, employees, successors, assigns, and legal representatives to the other party hereto, and their partners, officers, directors, employees, successors, assigns, and legal representatives in respect of all covenants, agreements, and obligations contained in the Contract Documents.

ARTICLE 8 - PREVAILING WAGES/LABOR CODE COMPLIANCE

The general prevailing rates of per diem wages and general prevailing rate for holiday and overtime work in the locality in which the work is to be performed have been determined by the Board. The general prevailing rates of per diem wages are hereby incorporated herein and made a part hereof. The Contractor agrees that

he, or any subcontractor under him, will pay not less than the foregoing specified prevailing rates of wages to all workmen employed in the execution of the Contract.

Any contractor, who is awarded a public works project and intends to use a craft or classification not shown on the general prevailing wage determinations, may be required to pay the wage rate of that craft or classification most closely related to it as shown in the general determinations effective at the time of the call for proposals or bids.

The Contractor further acknowledges the provisions of the California Labor Code applicable to this project. Contractor covenants that it will comply with such provisions. These provisions include, but are not limited to, the levying of penalties for failure to pay prevailing wages (Labor Code Section 1775) or for workmen who are required or permitted to work more than eight hours in one calendar day and forty hours in one calendar week in violation of the Labor Code (Labor Code Section 1813); and the keeping and furnishing of accurate and certified payroll records (Labor Code Section 1776).

ARTICLE 9 - INDEMNITY OBLIGATIONS

A. Promptly upon execution of the Contract, Contractor specifically obligates itself and agrees to protect, hold free and harmless, investigate, defend and indemnify the U.S. Bureau of Reclamation ("Reclamation"), State of California, the Board, its members, and their respective officers, consultants (including the Board's Engineer and its Design Engineer, HDR Fisheries Design Center), directors, officials, employees and agents, from and against any and all liability, penalties, costs, losses, damages, expenses, causes of action, claims or judgments, including without limitation attorneys' fees and expert witness fees and costs of litigation, which arise out of or are in any way connected with Contractor's or its subcontractors' or suppliers' performance of work under this Contract or failure to comply with any of the obligations contained in the Contract. To the fullest extent legally permissible, this indemnity, defense and hold harmless obligation of Contractor shall apply to any and all acts or omissions, whether active or passive, on the part of the Contractor or its agents, employees, representatives, or any subcontractor or any of subcontractor's agents, employees, and representatives, resulting in claim or liability (including but not limited to death or bodily injury to, or damage to property of, Contractor or any subcontractor, person, firm, corporation, or supplier employed by the Contractor or subcontractor upon or in connection with the Work, either directly or by indirect contact), irrespective of whether or not any acts or omissions of any of the parties to be indemnified hereunder may

also have been a contributing factor to the liability, except such loss or damage which was caused by the active negligence, sole negligence, or willful misconduct of the indemnitees. This provision shall be construed in accordance with California Civil Code Section 2782 et seq. and notwithstanding any provision to the contrary in the Standard Specifications.

B. In any and all claims against the Board, Reclamation, and their consultants, and State of California, and each of their members, trustees, directors, officers, employees and agents by any employee of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under this Section shall not be limited in any way by any limitation of the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under Worker's Compensation statutes, disability benefit statutes or other employee benefit statutes, or other insurance policies furnished by Contractor as required herein.

C. Contractors indemnity obligations within this Article 9 shall survive the expiration or completion of this agreement.

ARTICLE 10 - PAYMENTS AND PERFORMANCE BONDS

Contractor as part of its Contract Price, and prior to commencement of work, shall supply to the Board payment and performance bonds (each in the amount of 100% of the Contract Price). The payment bond shall meet all requirements of Civil Code Section 9550 and 9554 and shall be in a form satisfactory to the Board. The performance bond shall be in the form provided in these Contract Documents or as otherwise acceptable to the Board. The bonds provided by the Contractor must be issued by a California admitted surety insurer licensed to do business in the State of California (as set forth in California Code of Civil Procedure Section 995.010 et. seq.) and with a current A. M. Best's rating no less than A:VII or equivalent or as otherwise approved by Board.

ARTICLE 11 - EARLY TERMINATION OF CONTRACT

As referenced in Item 8 of the "Section C-Special Provisions-Technical" which are part of these specifications, the 54-foot prefabricated arch concrete bridge to be installed as part of the Work is a pre-purchased item to be delivered to the site of the Work on or before October 12, 2018 so as to provide sufficient time to timely complete the Work consistent with the time requirements of the Department of Fish & Wildlife, any other regulatory agencies with jurisdiction thereto, and with Section 6 of "Section B-General

Provisions Modifications” and specifically Paragraph 6-7.1.2 thereto (“Contract Period”). The Board, in its sole discretion, (and without affecting any of its other right herein) may subsequently terminate this Contract, without penalty, due to time restrictions if the prefabricated bridge is not delivered to the site of the Work on or before October 12, 2018, or alternatively for any reason upon the Board’s determination that such termination is in the Board’s best interest.

If the Board elects to terminate the Contract in this circumstance, then notwithstanding any other provisions in these Contract Documents, such termination and the total compensation payable to the Contractor shall be governed by the following:

(1) The Engineer will issue Contractor a written notice specifying that the Contract is terminated. Except as otherwise directed in writing by the Engineer, the Contractor shall:

A. Stop all work under the Contract except that specifically directed to be completed prior to acceptance. [Such work may include, but is not limited to, reestablishment of a road crossing at the site of the Work.]

B. Notify all of Contractor’s subcontractors and suppliers that the Contract is being terminated and that their contracts and orders are not to be further performed unless otherwise authorized in writing by the Board.

C. Perform work the Engineer deems necessary to secure the Project for termination.

D. Remove equipment and plant from the site of the Work, as directed.

E. Take action that is necessary to protect materials from damage.

F. Provide the Engineer with an inventory list of all materials previously produced, purchased or ordered from suppliers for use in the Work and not yet used in the Work, including its storage location, and such other information as Engineer may request.

G. Dispose of materials not yet used in the Work, as directed by Engineer. Contractor shall provide the Board with good title to all materials purchased by the Board hereunder (including materials for which partial payment has been made), and with bills of sale or other indicia of title for the materials.

H. Subject to the Engineer’s prior written approval, settle all outstanding liabilities and claims arising out of subcontracts or orders for materials terminated

hereunder. To the extent directed by the Engineer, the Contractor shall assign to the Board all the right, title and interest of the Contractor under such subcontracts or orders referenced herein.

I. Furnish the Engineer with any documentation required to be furnished by the Contractor in accordance with the Contract Documents.

J. Take any other actions required by Engineer.

(2) Termination of the Contract shall not relieve any surety of its obligations for just claims arising out of the work performed.

(3) The total compensation to be paid to Contractor shall be determined by the Engineer on the basis of the following:

A. The reasonable cost to Contractor, without profit, for all work performed under the Contract, including mobilization, demobilization and work done to secure the Project for termination. In determining the reasonable cost, deductions will be made for the cost of materials to be retained by the Contractor, amounts realized by sale of the materials, and for other appropriate credits against the cost of the Work. When in the Engineer’s opinion the cost of a contract item of work is excessively high due to costs to remedy or replace defective or rejected work, the reasonable cost to be allowed will be the estimated reasonable cost of performing that work in compliance with the requirements of the plans and specifications and the excessive actual cost shall be disallowed.

B. A reasonable allowance for profit on the cost of the work as determined pursuant to subparagraph (A) herein, provided that the Contractor establishes to the satisfaction of the Engineer that it is reasonably probable that the Contractor would have made a profit had the Contract been completed and provided further that the profit allowed shall in no event exceed four percent (4%) of the cost.

C. The reasonable cost to the contractor of handling material returned to vendor(s), delivered to the site of the Work or disposed of as directed by the Engineer.

D. A reasonable allowance for the Contractor’s administrative costs in determining the amount payable due to the termination of the Contract.

(4) All records of the Contractor and its subcontractors and suppliers necessary to determine compensation in accordance with these provisions shall be retained and open to inspection or audit by representatives of the Board at all times after issuance of the notice that the Contract will be terminated and for a period of three (3)

years thereafter.

(5) After its acceptance of the Work, the Board may make payments on the basis of interim estimates pending issuance of the final estimate when, in the opinion of the Engineer, the amount thus paid, together with all amounts previously paid or allowed, will not result in total compensation in excess of that to which the Contractor will be entitled. All payments, including payment of the final estimate, shall be subject to deductions for prior payments and amounts, if any, to be kept or retained under the provisions of the contract.

These provisions shall be included in any subcontracts.

ARTICLE 12 – LAWS, REGULATIONS AND PERMITS

Contractor, at its expense, shall give all notices and (unless otherwise provided herein) obtain all permits for the work required by law, and shall comply with all applicable federal, state and local laws, ordinances, rules, regulations, orders and permit conditions pertaining to the conduct of the work, including but not limited to those regarding protection of the environment. Contractor shall be liable for all violations of the law in connection with work furnished by Contractor. If Contractor observes that any drawings or specifications are at variance with any law or ordinance, rule or regulation, he/she shall promptly notify the Board's authorized representative in writing and any necessary changes shall be made by written instruction or change order. If Contractor performs any work knowing it to be contrary to such laws, ordinances, rules or regulations and without giving notice to the Board's authorized representative, Contractor shall bear all costs arising therefrom.

ARTICLE 13 – SAFETY

Contractor shall execute and maintain its work so as to avoid injury or damage to any person or property. Contractor shall comply with the requirements of the specifications relating to safety measures applicable in particular operations or kinds of work. Contractor shall designate, in writing, a responsible representative at the worksite whose duty shall be the prevention of accidents, and the maintenance and supervision of safety precautions and programs. This person shall be Contractor's Construction Manager unless otherwise designated in writing by Contractor.

In carrying out its work, Contractor shall at all times exercise all necessary precautions for the safety of employees appropriate to the nature of the work and the conditions under which the work is to be performed, and shall comply with all applicable federal, state and local statutory and regulatory requirements including California Department of Industrial Relations (Cal/OSHA) regulations; and the U.S. Department of Transportation Omnibus Transportation Employee

Testing Act. Safety precautions, as applicable, shall include but shall not be limited to: adequate life protection and lifesaving equipment; first aid; adequate illumination; instructions in accident prevention for all employees, such as the use of machinery guards, safe walkways, scaffolds, fall protection, ladders, bridges, gang planks, confined space procedures, trenching and shoring, and other safety devices; equipment and wearing apparel as are necessary or lawfully required to prevent accidents, injuries, or illnesses; and adequate facilities for the proper inspection and maintenance of all safety measures. Contractor shall submit its Injury Illness Prevention Plan (IIPP) to the Board for approval prior to commencement of the Work.

If applicable, in accordance with Section 6705 of the California Labor Code, Contractor shall submit to COMB specific plans to show details of provisions for worker protection from caving ground during excavations of trenches of five feet or more in depth. The excavation/trench safety plan shall be submitted to and accepted by COMB prior to starting excavation. The trench safety plan shall have details showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground. If such a plan varies from the shoring system standards established by the Construction Safety Orders of the California Department of Industrial Relations (Cal/OSHA), the plan shall be prepared by a California registered civil or structural engineer. As part of the plan, a note shall be included stating that the registered civil or structural engineer certifies that the plan complies with the Cal/OSHA Construction Safety Orders, or that the registered civil or structural engineer certifies that the plan is not less effective than the shoring, bracing, sloping or other provisions of the Safety Orders. In no event shall Contractor use a shoring, sloping, or protective system less effective than that required by said Construction Safety Orders. Submission of the plan in no way relieves Contractor of the requirement to maintain safety in all areas. If excavations or trench work requiring a Cal/OSHA permit are to be undertaken, Contractor shall submit his/her permit with the excavation/trench work safety plan to COMB before work begins.

If applicable, Contractor shall also comply with the provisions of California Public Contract Code Section 7104, which pertains to the digging of trenches or other excavations extending deeper than four feet below the surface and the discovery of hazardous waste or subsurface or unknown latent physical conditions differing materially from those ordinarily encountered. The provisions of Section 7104 are incorporated by reference herein as if set forth in full.

Pursuant to California Labor Code Section 6708, each Contractor and subcontractor shall maintain or make

available adequate emergency first aid treatment for its employees, agents and representatives, sufficient to comply with the Federal Occupational Safety & Health Act (P.L. 91-596; OSHA). The names and telephone numbers of at least two medical doctors practicing in the vicinity and the telephone number of the local ambulance service shall be prominently displayed adjacent to telephones.

Safety Measures and Public Convenience - Contractor shall provide for the protection of all persons and property as herein specified. Attention is called to "Construction Safety Orders: and General Safety Orders" of the California State Industrial Accident Commission to which Contractor is required by law to conform.

ARTICLE 14 – NO WAIVER

No failure by COMB in asserting any of its rights or remedies as to any default of Contractor shall operate as a waiver of the default, or any subsequent or other default by Contractor, or of any of the Board's rights or remedies. No such delay shall deprive COMB of its right to institute and maintain any actions or proceedings which may be necessary to protect, assert, or enforce any rights or remedies arising out of this Agreement or the performance thereof.

ARTICLE 15 - SEVERABILITY

If any provision of these Contract Documents shall be held void or unenforceable, such determination shall not affect the remaining provisions thereof, which shall continue in valid force and effect.

ARTICLE 16 - INCORPORATION OF APPLICABLE STATUTORY PROVISIONS

The parties agree that all provisions of law which apply to this Contract Agreement (even if not specifically included or referenced herein), and of the grant agreement set forth in Section 6.03.04, form a part of

this Contract Agreement, are incorporated by reference herein as if set forth in full, and that Contractor shall comply with all such provisions.

ARTICLE 17 - CHANGES TO LAW

If any changes or modifications to applicable laws governing the Work are not specifically reflected in these Contract Documents, they are hereby deemed adopted and incorporated by reference herein, and shall supersede any provisions herein to the contrary.

ARTICLE 18 - VENUE

Any proceedings arising out of dispute(s) between the Board and the Contractor as to any provision(s) of this Contract Agreement shall occur within the County of Santa Barbara, State of California.

ARTICLE 19 - INCORPORATION OF GRANT PROVISIONS AND REQUIREMENTS

Contractor acknowledges that COMB will pay for a significant portion of the Work through a grant received by COMB from the California Department of Fish and Wildlife (Grant Agreement Number P1450011), or "grant agreement". Contractor agrees to comply with the provisions of this grant agreement applicable to Contractor's work. Specifically, without limiting the foregoing covenant, Contractor acknowledges and agrees to comply with the following: Grant Agreement Number P1450011—Section 6.03.04 (Tasks), including Task 4 thereto; Exhibit 1.a. Items 4 (audit) and 8 (Non-Discrimination Clause); Exhibit 2, Item 1 (Utilization of Small, Minority and Women's Businesses); Item 4 (Compliance with Federal Regulations); Item 6 (Standards for Financial Management System); Item 9 (Environmental Quality); and Item 11 (Single Audit Act); Item 12 (Federal Assurances). These provisions are incorporated herein by reference.

IN WITNESS WHEREOF, the BOARD and the CONTRACTOR have caused this Agreement to be executed the day and year first written above.

CACHUMA OPERATION & MAINTENANCE BOARD

By: _____

Title: _____

ATTEST:

Secretary to the Board of Directors

Approved as to Form:

FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

CONTRACTOR

By: _____

Title: _____

License No.: _____

ATTEST:

Agent for Service of Process:

COMB

Musick, Peeler and Garrett LLP

Attorneys for Board

Principal:

Bond No.: _____

Bond Type: _____

Bond Amount: _____

PAYMENT (LABOR AND MATERIALS) BOND

PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

This Payment (Labor and Materials) Bond is tendered to the Cachuma Operation & Maintenance Board (“Board”) in conjunction with the **FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK** project set forth above.

We, the Principal _____ and _____ a Surety Corporation, organized and existing under and by virtues of the laws of the State of _____ and duly authorized to transact business within the State of California as a surety, are held and firmly bound unto the Board, for the use and benefit of itself and any and all persons, companies, or corporations who perform work or labor or furnish materials, provisions, or other supplies used in, upon, for or about the performance of the above-described work, or who rent or lease persons or machinery for said work to be done, in the sum of _____ (\$ _____) in lawful money of the United States of America, to be paid to such persons, companies or corporations, for which payment, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The Board has awarded Principal a contract for the above-described project and the Principal is required by the terms of the contract to furnish a bond for materialmen and laborers involved in the Project; and thus, if said Principal, or any subcontractor or contractors, fail to pay any persons named in Civil Code Section 9100 or for any materials, provisions, provender, or other supplies, or persons or machinery used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind or for amounts due under the Unemployment Insurance Code with respect to such work or labor, or any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor and its subcontractors pursuant to Unemployment Insurance Code Section 13020, the Surety will pay the same up to an amount not exceeding the sum specified in this bond and in case suit is brought upon this bond, additional, reasonable attorneys' fees to be fixed by the court. This bond shall inure to the benefit of any and all persons entitled to file claims under California Civil Code Section 9100, so as to give a right of action to such persons or his/her assigns in any suit brought upon this bond.

The Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Project or work to be performed hereunder, or the specifications and drawings that accompany same, shall in any way affect its obligations on this bond; and it does hereby waive notice of any such change, extension of time, alterations or addition to the terms of the Contract, to the work or Project, or to the drawings and specifications.

Should the conditions of this bond be fully performed, then this obligation shall be null and void; otherwise it shall be and remain in full force and effect.

IN WITNESS WHEREOF, this Payment (Labor and Materials) Bond is duly executed by the Principal and Surety above-named on _____, 20____.

PRINCIPAL:

*SURETY:

NAME OF PRINCIPAL

NAME OF SURETY

SIGNATURE

SIGNATURE

TYPED NAME AND TITLE

TYPED NAME AND TITLE

ADDRESS

ADDRESS

CITY, STATE, ZIP

CITY, STATE, ZIP

TELEPHONE

TELEPHONE

*Power of Attorney Must Be Attached.

Subscribed and sworn to this _____ day of _____, 20__.

NOTARY PUBLIC _____ [SEAL]

PERFORMANCE BOND

PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

This Performance Bond is tendered to the Cachuma Operation & Maintenance Board (“Board”) in conjunction with the FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK Project as set forth above.

We, the Principal _____ and _____ a Surety Corporation, organizing existing under and by virtue of the laws of the State of _____ and duly authorized to transact business within the State of California as a surety, are held and firmly bound unto the Board the sum of _____ (\$ _____) lawful money of the United States of America, for the payment of which sum we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the above-bound Principal, his/her or its heirs, executors, administrators successors or assigns shall abide by, keep and perform the covenants, conditions, requirements, obligations, and provisions of the aforescribed Project and/or Contract, any alterations thereof, or any regulations or laws pertaining thereto on his/her or their part to be kept and performed at the time in the manner therein specified and if they also indemnify and hold the Board, and its members, officers, agents, employees harmless from all liability, costs, losses, expenses, and attorneys' fees thereon, then this obligation shall become null and void; but otherwise, it shall be and remain in full force and effect.

The Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Project or work to be performed hereunder, or the specifications and drawings that accompany same, shall in any way affect its obligations on this bond; and it does hereby waive notice of any such change, extension of time, alterations or addition to the terms of the Contract, to the work or Project, or to the drawings and specifications.

Whenever the Principal shall be, and declared by the Board to be in default under the above agreement, the Surety shall promptly remedy the default, or shall promptly pay the amount of the bond herein.

For the satisfactory completion of this Project and the Contract hereunder, the above obligations shall hold good for a period of one (1) year after the completion of the Project and its acceptance by the Board, during which time if Principal shall fail to make full, complete and satisfactory repair and replacements and totally protect the Board from loss or damage made evident during the period of one (1) year from the date of acceptance of the work and resulting from or caused by defective materials or faulty workmanship, the above obligations shall remain in full force and effect. The obligation of the Surety hereunder shall continue so long as any obligation of the Principal remains.

IN WITNESS WHEREOF, this Performance Bond is duly executed by the Principal and Surety above-named on _____, 20__.

PRINCIPAL:

*SURETY:

NAME OF PRINCIPAL

NAME OF SURETY

SIGNATURE

SIGNATURE

TYPED NAME AND TITLE

TYPED NAME AND TITLE

ADDRESS

ADDRESS

CITY, STATE, ZIP

CITY, STATE, ZIP

TELEPHONE

TELEPHONE

*Power of Attorney Must Be Attached.

Subscribed and sworn to this _____ day of _____, 20__.

NOTARY PUBLIC _____ [SEAL]

NOTICE TO PROCEED

**PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE
IMPROVEMENT ON CROSSING 8, QUIOTA CREEK**

Date: _____

To (Contractor): _____.

Re: Notice to Proceed - Fish Passage Improvement on Crossing 8, Quiota Creek Project

Dear **Contractor**,

This letter shall constitute your “Notice to Proceed” with the work on the subject project. This notice is effective the date of this letter subject to all provisions in the contract documents, and is subject to COMB obtaining any and all applicable and required permits and approvals.

The administration of the contract will be handled by our office and the observation of the work will be performed by our Resident Engineer. Tim Robinson will provide Project Management services for COMB. All communication and correspondence shall be directed to our Resident Engineer and Project Manager, whom I hereby designate as my authorized representatives.

We look forward to working with you on this project.

Sincerely,

Janet Gingras
General Manager

CC: Timothy H. Robinson, Project Manager, COMB

SECTION B - GENERAL PROVISIONS MODIFICATIONS

PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

B1.01 STANDARD SPECIFICATIONS

The work provided herein shall be performed in accordance with the Standard Specifications for Public Works Construction (SSPWC, or "Greenbook"), 2009 Edition except as modified below. Requirements of the Standard Specifications are intended to be construed in a complementary manner with all other provisions of the Contract Documents. However, in case of conflict between the Standard Specifications versus the Contract Agreement, General Provisions Modifications, Special Provisions or other provisions of these Contract Documents, then in such case the Contract Agreement, General Provisions Modifications, Special Provisions, or other provisions of the Contract Documents shall control over the Standard Specifications. The precedence of Contract Documents shall be as set forth in Paragraph 2-5.2 of the Standard Specifications, as amended in these General Provisions Modifications.

B1.02 MODIFICATIONS TO STANDARD SPECIFICATIONS [General Provisions Modifications]

SECTION 1 - TERMS, DEFINITIONS, ABBREVIATIONS AND SYMBOLS

Wherever State Agencies, Departments, or Officers are referred to in the Standard Specifications, the comparable Board, Departments, or Officers are meant thereby for the purpose of these Contract Documents.

General Manager:The General Manager of the Cachuma Operation & Maintenance Board or his/her authorized representative(s). Note: Unless otherwise specified, documents or other information to be provided by the Contractor to the Board pursuant to the Contract Documents may be supplied to the General Manager or his authorized representatives.

Agent: Shall include the Engineer and other persons and companies retained by the Board to perform design and construction services in relation to the Work other than the Contractor.

Board or Agency: Cachuma Operation &

Maintenance Board.

Design Engineer: Persons and/or company retained by the Board to perform engineering design services.

Engineer: The Project Engineer for the Agency, which may be the COMB Resident Engineer, or a Consulting Engineer as designated by the Agency

COMB: Cachuma Operation & Maintenance Board.

Days: Calendar days.

Schedule of Values:
The submittal document referred to in Section 9, Paragraph 9-2 as modified herein of the Standard Specifications.

Standard Specifications, SSPWC, or "Greenbook": The "Standard Specifications for Public Works Construction," 2009 edition, as set forth in Section B1.01.

Reclamation: United States Bureau of Reclamation.

SECTION 2 - SCOPE AND CONTROL OF THE WORK

Paragraph 2-1 Award and Execution of the Contract
Delete

Paragraph 2-3.2 Self Performance
Delete

Paragraph 2-3.3 Status of Subcontractors

Add: When the Engineer determines that subcontracted work is not being prosecuted in a satisfactory manner, the Contractor will be notified to take corrective action. The Engineer will report the facts to the Board. If the Board so orders, and on receipt by the Contractor of written instructions from the Engineer, the subcontractor shall be removed immediately from the Work. That subcontractor will not again be employed on the Work.

Paragraph 2-5 Plans and Specifications

Subsection 2-5.1 of the SSPWC is replaced by the following subsection.

Paragraph 2-5.1 General

The Contractor will maintain the following at the Work site:

1. One as-built copy of the Plans and Specifications, in good order and marked to record current changes and selections made during construction.
2. The current accepted Contract Schedule.
3. Shop Drawings, Product Data, and Samples.
4. All other required submittals.

The Plans, Specifications, and other Contract Documents will govern the Work. The Contract Documents are intended to be complementary and cooperative and to describe and provide for a complete project. Anything in the Specifications and not on the Plans, or on the Plans and not in the Specifications, will be as though shown or mentioned in both.

Payment for any items on the plans for which there is no specific cost item will be included in the various items of work or in any item to which it is appurtenant.

If the Contractor performs any work which it knows or should know involves an error, inconsistency, or omission without notifying and obtaining written consent from the Engineer, the Contractor will be responsible for the resulting losses, including, without limitation, the costs of correcting defective work. All changes to the plans must be approved in writing by the Engineer.

Paragraph 2-5.2 Precedence of Contract Documents

Add: If there is a conflict between the following listed Contract Documents, the Special Provisions (Section C) shall prevail over these General Provisions Modifications (Section B), and these General Provisions Modifications (Section B) shall prevail over the Standard Specifications.

Add: If any figured dimensions shown on the

plans and in the specifications of the Contract do not agree with scaled dimensions, the contractor shall request clarification from the Engineer. Should it appear that the work to be done, or any of the matters relative thereto, are not sufficiently detailed or explained in the Contract Documents, the Contractor will request clarification from the Engineer for such further explanations as may be necessary, and will conform thereto as part of the Contract so far as may be consistent with the terms thereof. Any items shown on drawings and not mentioned in the specifications will be of like effect as if shown or mentioned in both.

Paragraph 2-5.3.3 Shop Drawings

Add: In addition to the required shop drawings, the Contractor shall submit the following shop drawings and/or submittals in adequate detail, including a list of all deviations from the Contract Documents, to determine the specifications are being met for all including the following:

- Approved SWPPP,
- Approved Traffic Management Plan,
- Approved Erosion Control Plan,
- Unsuitable material disposal plan,
- Clearing and Grubbing materials disposal plan,
- Class 2 Base Course specifications and source,
- Rock slope protection, streambed sediment, streambed cobble, streambed boulder, and weir rock specifications and source,
- Concrete mix design, aggregate details, and testing data,
- Rebar drawings and product sheets,
- Asphalt Concrete mix design and aggregate details,
- Grout mix design and manufacturer details,
- Temporary bridge shoring plan,
- Geotextile fabric manufacturer details,
- Anti-Graffiti Coating System,
- Guardrail and components,
- Bridge rail and components,
- Welder's certification documentation,

The above drawings, lists, prints, specifications, samples, and other data shall become a part of the Contract Documents, and a copy of the accepted shop drawing shall be kept with the job-site Contract Documents, and the fabrications furnished shall be in conformance with the Contract Documents. The Engineer's review of

the above drawings, lists, prints, specifications, samples, or other data shall in no way release the Contractor from his/her responsibility for the proper fulfillment of the requirements of this Contract or for fulfilling the purpose of the installation or from his/her liability to replace same, should it prove defective or not conform to other system elements whether supplied by the Contractor, the Agency or existing or fail to meet the specified requirements. The Contractor shall thoroughly review each shop drawing for compliance and compatibility, certify and sign each shop drawing to indicate that a thorough review was made by the Contractor prior to submission for Engineer's review. The Engineer's review is for general conformance to the Contract Documents and no check will be made to confirm dimensions, compatibility with other elements of the Work, or deviations from the Contract Documents which have not been specifically identified by the Contractor. Contractor is responsible for the installation of complete, functional improvements in accordance with the Contract Documents.

Paragraph 2-5.4 Accuracy of Plans and Specifications; Site Conditions; Soil Conditions

Add: Although it is believed that much of the information pertaining to conditions that may affect the cost of the Work will be shown on the Plans or indicated in the Specifications, the Board does not warrant the completeness or accuracy of such information.

The Contractor will carefully study and compare each of the Contract Documents with the others and with information furnished by the Board and will promptly report in writing to the Engineer any errors, inconsistencies, or omissions in the Contract Documents or inconsistencies with applicable law observed by the Contractor.

The Contractor will take field measurements, verify field conditions, and carefully compare with the Contract Documents such field measurements, conditions, and other information known to the Contractor before commencing the Work. Errors, inconsistencies, or omissions discovered at any time will be promptly reported in writing to the Engineer.

Contractor acknowledges that it: (a) has inspected the site of the Work and the actual conditions existing at the site; and (b) made its own deductions and conclusions as to the nature of the materials to be excavated, the difficulties of making and maintaining the required

excavations, the difficulties which may arise from subsurface conditions, and of doing any other work affected by the subsurface conditions and shall accept full responsibility therefor. The Board does not warrant the accuracy or sufficiency of any soil information provided to Contractor.

Contractor's execution of the Contract Agreement shall constitute an acknowledgement that it has relied and is relying upon its own examination of: (a) the site of the Work; (b) the access to the site; and (c) all other data, matters and things requisite to the fulfillment of the Work and on its own knowledge of existing services and utilities on and in the vicinity of the site of the Work to be contracted under the Contract Agreement, and not on any representation or warranty of the Board. No claim for additional compensation will be allowed which is based upon a lack of knowledge of the above items.

Paragraph 2-6.1 Suggestions to Contractor

Add: Any plan or method of work suggested by the Board, Engineer, or agent of the Contractor but not specified or required, if adopted or followed by the Contractor in whole or in part, shall be used at the risk and responsibility of the Contractor; and the Board and the Engineer shall assume no responsibility therefore and in no way be held liable for any defects in the work which may result from or be caused by use of such plan or method of work.

SECTION 3 - CHANGES IN WORK

Paragraph 3-3 Extra Work

Subsection 3-3.2.2 (c), Tool and Equipment Rental is modified where the second and third paragraphs are replaced with:

"Regardless of ownership, the rates to be used in determining the equipment usage costs shall not exceed those listed for the same or similar equipment in the California State Department of Transportation publication of Labor Surcharge and Equipment Rates effective for the period of usage."

Subsection 3-3.2.3, Mark Up, is deleted in its entirety and replaced by the following subsection:

Paragraph 3-3.2.3 Mark Up

(a) Work by Contractor. The following percentages will be added to the Contractor's costs and will

constitute the markup for all overhead and profits.

- 1) Labor 20
- 2) Materials 15
- 3) Equipment Rental 15
- 4) Other Items and Expenditures 15

To the sum of the costs and markups provided for in this subsection, 1 percent will be added as compensation for bonding.

- (b) Work by Subcontractors. When all or any part of the extra work is performed by a Subcontractor, the markup established in 3-3.2.3(a) will be applied to the Subcontractor's actual cost of such work. A markup of 5 percent on the subcontracted portion of the extra work may be added by the Contractor.

Paragraph 3-3.3 Daily Reports by Contractor

Change the third sentence of subsection 3-3.3, Daily Reports by the Contractor, to read:

"Failure to submit the daily report by the close of the next working day shall waive the Contractor's right to payment for extra work for that day."

Add the following paragraph to subsection 3-3.3, Daily Reports by Contractor:

If disagreement continues regarding extra work, the Contractor may seek compensation in accordance with the Claims procedure set forth herein. Daily Reports required by this subsection shall be made part of the Claim as supporting data for the Claim.

Subsection 3-5 is deleted in its entirety and replaced by the following subsection.

Paragraph 3-5 Disputed Work

If the Contractor and the Board do not reach agreement on disputed work, the Board may direct the Contractor to proceed with the work. Any payment for the disputed work will be determined pursuant to the claims procedures established herein. Although not to be construed as proceeding under extra work provisions, the Contractor will keep and furnish records of disputed work as required by the Contract Documents.

All construction claims of \$375,000 or less will be resolved pursuant to the requirements of Public Contract Code Section 20104 et. seq. Any

disputed claim in excess of such amount shall be resolved through arbitration conducted in accordance with Code of Civil Procedure Section 1280 et. seq.

Paragraph 3-6 Legal Address and Service of Notice

Add:

- A. Legal Address of the Board - The address of the Board shall be 3301 Laurel Canyon Road, Santa Barbara, CA 93105-2017 or such address as may be subsequently designated by the Board in written notice to the Contractor.
- B. Legal Address of the Contractor - The address of the Contractor shall be such address as may be subsequently designated by the Contractor in written notice to the Board.
- C. Service of Notice
 - i. The delivering of any notice, instruction claim, protest or other written communication personally to the Contractor or his/her representative on the project or to the Board or its representative at his/her office or legal place of business shall constitute service thereof upon the Contractor or the Board respectively.
 - ii. The depositing in a post-paid wrapper directed to the official address of the Contractor or the Board in any post office box regularly maintained by the U.S. Postal Service, of any notice, instruction, claim, protest or other written communication shall be deemed sufficient service thereof upon the Contractor or the Board, respectively and the date of such services shall be considered to be the day following the date of such mailing.

SECTION 4 - CONTROL OF MATERIALS

Paragraph 4-1.1.1 Retention of Defective Work

Add: If, in the opinion of the Engineer, the defective work is not of sufficient magnitude or importance to make the work dangerous or undesirable, or if, in the opinion of the Engineer, the removal of such work is impractical or will create conditions which are dangerous or undesirable, the Board shall have the right and authority to retain such work instead of requiring it to be removed and reconstructed, but will make such deductions therefore in the payments due or to become due to the Contractor as the Board may deem just and reasonable.

Paragraph 4-1.1.2 Manufacturer or Equipment Recommendations or Instructions

Add: Where the manufacturer of any material or equipment provides written recommendations or instructions for its use or method of installation (including labels, tags, manuals, or trade literature), such recommendations or instructions shall be complied with except for where the Contract Documents specifically require deviations. These documents shall be compiled and submitted to the Board along with all warranties, operations and maintenance manuals upon completion of the work.

Paragraph 4-1.6.1 Submittals for "Or Equal" Items

Add: Along with information supplied by the Contractor regarding equivalency of the bid item, the Contractor shall clearly identify all deviations from the specified item. Deviations discovered by the Engineer after acceptance of an "or equal" item which were not identified by the Contractor with his/her submittal shall be cause for rejection of the "or equal" item. Contractor shall be due no additional compensation in time or money for acceptance or rejection of a proposed "or equal" item and subsequent replacement with the item specified.

In circumstances where the Board determines there is not an acceptable equivalent for specific materials or vendor equipment, it shall obtain a quote from the supplier for materials delivered to the site and list such equipment in the bid-schedule with the unit price and extended total price completed. The Contractor shall verify this quote with the supplier prior to submitting their proposal. The material or equipment shall then be procured from the specified vendor at that price. Applicable installation, start-up and other work associated with this material or equipment shall be included in the appropriate bid item designated for this work, or if not designated specifically, shall be distributed among other items of work.

SECTION 5 - UTILITIES

Paragraph 5-1.1 Mandatory Notification Prior to Excavation

Add: The Contractor's attention is directed to Section 4216 et. seq. of the Government Code of the State of California. These provisions include a requirement that at least two (2) working days prior to commencing any excavation "Underground Service Alert of Southern California" (USA) shall be notified by phone, toll free 1-800-422-4133, for the assignment of an

Inquiry Identification Number.

No excavation shall commence unless the Contractor has obtained the USA Inquiry Identification Number.

The Contractor will also be responsible for notifications in accordance with the requirements of any encroachment permits to utility companies, public agencies, Police, Fire schools and the public.

Paragraph 5-1.2 Accuracy of Utilities Information

Add: The locations of known existing major utilities, whether above ground or underground, are *not* indicated on the plans. Any information and data reflected in the Contract Documents with respect to underground and above ground utilities at or contiguous to the site is based upon information and data furnished to the Board and the Engineer by the owners of such utilities, and the Board does not assume responsibility for the accuracy or completeness thereof. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.

It shall be the Contractor's responsibility to determine the location and depth of all underground facilities including service connections which may affect or be affected by his/her operations and he/she shall include the cost to pothole all utilities within the limits of work in his/her bid proposal. If an existing utility line which has been marked by Underground Service Alert or is shown on the plans is damaged by the Contractor, the Contractor shall repair the line and bear the cost thereof.

In the event that the Contractor damages any existing utility lines that are not shown, shown incorrectly or the locations of which are not made known to the Contractor prior to excavation, a telephone call and written report shall be made immediately to the Utility owner, the Engineer and to the Board. If directed by the Board, repairs shall be made by the Contractor under the provisions for changes and extra work contained in SECTION 3 - CHANGES IN WORK of the SSPWC Standard Specification.

Paragraph 5-2.1 Maintenance of Service

Add: The Contractor shall maintain service of water, sewer, power, gas, telephone and cable TV to all existing users. The Contractor shall install all piping, conduit, wire, pumps and other appurtenances as required for temporary service connections required to maintain service to

existing users and shall include this cost in the proposal.

Paragraph C5-5 Delays

Delete the last two paragraphs of Paragraph C5-5 Delays of the SSPWC standard specifications.

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF THE WORK

Paragraph 6-1.1.1 Notice to Proceed

Add: Within three (3) days following acceptance of Contractor's bonds and insurance certificates, written notice to proceed will be given by the Board to the Contractor, subject to the Board obtaining any and all applicable and required permits and approvals. Notwithstanding any other provision of the contract, the Board shall not be obligated to accept or to pay for any work furnished by the Contractor prior to delivery of notice to proceed whether or not the Board has knowledge of the furnishing of such work.

Paragraph 6-1.1.2 Schedule Content

Add: The Contract Schedule and any updated Contract Schedule shall meet the following requirements:

1. Schedules shall be suitable for monitoring progress of the Work.
2. Schedules shall clearly show when discussions by the Board or the Engineer that affect schedule need to be made.
3. Schedules shall be sufficiently detailed to demonstrate adequate planning for the Work.
4. Schedule shall represent a practical plan to complete the Work within the Contract Time.
5. Schedule shall show the critical path for completion of the Work.
6. Schedule shall show and contractor shall provide a five (5) working day written notice to COMB prior to needing COMB or Reclamation personnel for any activity which shall include sampling, and testing.
7. Schedule shall be provided on a single legible 11x17 sheet if feasible.

The Engineer's review of the form and general content of the Contract Schedule and any updated Contract Schedules is for the purpose of determining if the listed requirements are satisfied.

Paragraph 6-1.1.3 Project Schedule

Add: The Contractor shall submit a detailed schedule to the Engineer one week before the Preconstruction Conference. The Contractor shall make revisions as required by the Engineer. Upon acceptance by the Engineer the schedule

will become the accepted Construction Schedule. An accepted schedule is required before work may proceed. The schedule shall show the Work spread over the entire contract time available for construction. Schedules showing the project completed in less than the contract time will not be accepted.

The Contractor shall update the Construction Schedule when directed by the Engineer, or when:

- a. A change order significantly affects the contract completion date or the sequence of construction approach or activities.
- b. The actual sequence of the work, or the planned sequence of the work is changed and does not conform to the Contractor's current accepted project Construction Schedule.
- c. The Contractor falls more than ten (10) percentage points behind the schedule based on a comparison of the scheduled value of work to be completed and the sum of the earned progress payments.

The Contractor shall revise and update the Construction Schedule within the progress payment period in which the change in the schedule takes place and shall submit to the Engineer four (4) printed copies of the revised Construction Schedule with his/her monthly progress payment request for that period. Preparation and updating of Construction Schedule shall be performed at Contractor's sole expense.

Failure by the Contractor to submit updated or revised Construction Schedules when required may prevent acceptance of progress payment requests by the Engineer until such updated or revised Construction Schedules have been submitted for review and have been accepted by the Engineer.

Paragraph 6-2 Prosecution of Work

Replace the last sentence of the first paragraph, to read as follows: "Should Contractor fail to take the necessary steps to fully accomplish these purposes, after order of the Engineer to do so, the Board may suspend the work in whole or in part, until the Contractor takes such steps at no cost to the Board."

Paragraph 6-6.1.1 Schedule Delay

Add: If the Contractor has fallen behind the accepted Construction Schedule by more than fifteen (15) percentage points based on earned

progress payments, the Contractor shall take steps, including, but not limited to, increasing the number of personnel, shifts, and/or overtime operations, days of work, and/or amount of construction equipment until such time as the Work is back on schedule. The contractor shall also submit for review no later than the next request for partial payment, such supplementary schedule or schedules as may be deemed necessary to demonstrate the manner in which the rate of progress will be regained. All costs required to bring the Project back on schedule shall be borne by the Contractor without additional cost to the Board.

If the Contractor falls behind the accepted construction schedule, as modified by such time extensions as may have been granted by the Board for unavoidable delays, by more than thirty-five (35) percentage points based on earned progress payments, the Contractor shall be deemed in material breach of Contract and the Work turned over to the performance bond Surety for completion within the scheduled time. See Section 6-5 of the SSPWC.

Paragraph 6-6.1.2 Notice of Delays

Add: Whenever the Contractor foresees any delay in the prosecution of the work, and in any event immediately upon the occurrence of any delay which the Contractor regards as unavoidable, the Contractor shall notify the Engineer in writing of the probability of the occurrence of such delay and its cause in order that the Engineer may take immediate steps to prevent, if possible, the occurrence or continuance of the delay, or, if this cannot be done, may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the prosecution and completion of the work are to be delayed thereby. It will be concluded that any and all delays which have occurred in the prosecution and completion of the work have been avoidable delays, except such delays as shall have been called to the attention of the Engineer at the time of their occurrence and found by him/her to have been unavoidable.

The Contractor shall make no claims for any delay not called to the attention of the Engineer at the time of its occurrence as an unavoidable delay.

Paragraph 6-6.1.3 Avoidable Delays

Avoidable delays in the prosecution or completion of the work shall include all delays which in the opinion of the Engineer would have been avoided by the exercise of care, prudence, foresight and diligence on the part of the Contractor or his/her subcontractors. The following shall be considered avoidable delays

within the meaning of the contract: 1) Delays in the prosecution of parts of the work which may in themselves be unavoidable but do not necessarily prevent or delay the prosecution of other parts of the work or the completion of the whole work within the time here specified; 2) Reasonable loss of time resulting from the necessity of submitting samples of materials and drawings to the Engineer for approval and from performing tests of materials, measurements and reviews; 3) Reasonable interference of other contractors employed by the Board and/or other contractors working in the area which do not necessarily prevent the completion of the whole work within the time agreed upon; 4) Delays resulting from inaccurate or incomplete shop drawing submittals; and 5) Interference of other contractors performing concurrent work.

Paragraphs 6-6.2, 6-6.3 and 6-6.4

Replace with the Following:

Paragraph 6-6.2 Extensions of Time

If granted, extensions of time will be based upon the effect of delays to the critical path of the Work as determined by the current accepted Contract Schedule. Delays to minor portions of the Work that do not affect the critical path will not be eligible for extensions of time.

Paragraph 6-6.3 Payment for Delays to Contractor

Any payment for compensable delay will be based upon actual costs as set forth in Subsection 5-5 excluding, without limitation, what damages, if any, the Contractor may have reasonably avoided. The Contractor understands that this is the sole basis for recovering delay damages and explicitly waives any right to calculate daily damages for office overhead, profit, or other purported loss, using different formulas including, without limitation, the Eichleay Formula.

Paragraph 6-6.4 Written Notice and Report

If the Contractor desires payment for a delay or an extension of time, it shall give the Engineer written notice of such request not later than five (5) working days after the event or occurrence giving rise to a delay claim. Failure to submit a written request within such amount of time will result in the Contractor waiving its delay claim.

In no event will the Board grant the Contractor an extension of time if the delay is within the Contract Time as identified by the Contract Documents.

Paragraph 6-7.1.1 Punch List Completion

Add: The Contractor shall complete all punch list items within 14 days of the final job walk. If the Contractor fails to complete the punch list work within this period, the Board may hire another Contractor to complete the work and deduct the costs of such work from future payments.

Paragraph 6-7.1.2 Contract Period

Add: The Contractor shall prosecute the work so that all portions of the project shall be completed by the following dates: November 1, 2018 for all instream work, November 14, 2018 for substantial completion, and November 30, 2018 for final completion.

Paragraph 6-7.4 Working Hours

Add: Work on other than "working days" as defined in Paragraph 6-7.2 or work between the hours of 5 P.M. and 7 A.M. of the following day is not permitted unless specifically required by the Contract Documents or unless the Contractor receives prior written approval from the Engineer. When in the vicinity of residential properties no significant noise producing activity, as determined by the Engineer, is allowed outside of these designated working hours.

Paragraph 6-8 Completion and Acceptance

Add: After the first paragraph:

All punch list items shall be completed during the contract period. Failure to do so will not be considered an occasion of unavoidable delay. The effective date of acceptance of the work for purposes of determining commencement of the Guarantee Period shall be date of issuance of the Notice of Completion which will occur within 10 working days of completion of all punch list items.

Paragraph 6-8.1 Final Job Walkthrough Meeting

Add: The Contractor shall attend the Final Job Walkthrough Meeting to be held prior to final payment at a time designated by the Engineer.

The Contractor shall provide the following at the final job walkthrough meeting:

1. Contract Documents
2. All tools and labor to inspect the Contractors work

Full compensation for schedules and meetings shall be considered incidental to the project and

no separate payment shall be made. All costs related to schedules and meetings shall be included in the various other applicable items of work.

Paragraph 6-9: Delete and insert the following:

Paragraph 6-9.1 Liquidated Damages

Except as otherwise agreed to by the parties, consistent with Article 2 of the Contract Agreement, for each and every day that any portion of the work remains unfinished after the time fixed for final completion in the Contract Documents (November 30, 2018) as modified by any extension of time granted, damage will be sustained by the Board. It is determined in advance and agreed to by the parties hereto that the Contractor will pay the Board the amount of damages set forth herein as representing a reasonable forecast of the actual damages which the Board will suffer by the failure of the Contractor to complete the work within the stipulated time. The execution of the agreement shall constitute acknowledgment by the Contractor that he/she has ascertained and agrees that the Board will actually suffer damages in the amount herein fixed for each and every day during which the completion of the work is avoidably delayed beyond the stipulated completion date, and that these damages are levied in compliance with Government Code Section 53069.85.

Unless otherwise provided in the Contract Documents, the Contractor shall have no claim or right of action against the Board for damages, costs, expenses, loss of profits, or otherwise because or by reason of any delay in the fulfillment of the contract within the time limited therefore occasioned by any cause or event within or without the Contractor's control, and whether or not such delay may have resulted from anything done or not done by the Board under the contract.

Damages for avoidable delays shall be in the amount of **\$750.00** for each consecutive calendar day in excess of the time specified for final completion of the work.

Paragraph 6-11 Guarantee

Add: The Contractor shall warrant and guarantee the entire Work and all parts thereof, including that performed and constructed by subcontractors and others employed directly or indirectly on the Work, against faulty or defective materials, equipment or workmanship for a period of one (1) year from the date of acceptance of the Work. In addition thereto, for a period of one (1) year commencing on the date of acceptance of the Work, the Contractor shall, upon the receipt

of notice in writing from the Board, promptly make all replacements or repairs arising out of defective materials, workmanship or equipment and bear the cost thereof. Such Work shall be completed in a manner satisfactory to Board and within the time set forth in the Notice. The Board is hereby authorized to make such replacements or repairs and the Contractor and its performance bond Surety shall bear the cost thereof if, ten (10) days after the giving of such notice to the Contractor, the Contractor has failed to make or undertake with due diligence the repairs or has failed to complete the Work in a manner satisfactory to the Board; provided, however, that, in the case of an emergency where, in the opinion of the Board, delay could cause serious loss or damage, replacements or repairs may be made without notice being sent to the Contractor or Surety, and all expense in connection therewith shall be charged to the Contractor and Surety.

For the purpose of this article "Acceptance of the Work" shall mean the acceptance of the Work by the Board in accordance with Paragraph 6-8 but not for the purpose of extinguishing any covenant or agreement on the part of the Contractor to be performed or fulfilled under this Contract which has not in fact been performed or fulfilled at the time of such acceptance, all of which covenants and agreements shall continue to be binding on the Contractor until they have been fulfilled.

The effective date of acceptance of the Work and commencement of the Guaranty Period shall be the date of issue of the Notice of Completion.

SECTION 7 - RESPONSIBILITY OF THE CONTRACTOR

Paragraph 7-2.2.1 Overtime and Shift Work

Add: Overtime and shift work may be established as a regular procedure by the Contractor only with the written permission of the Engineer. Such permission may be revoked at any time. No work other than overtime and shift work established as a regular procedure shall be done between the hours of 5:00 p.m. and 8:00 a.m., nor on Saturdays, Sundays or legal holidays, except such work as is necessary for the proper care and protection of the work already performed or except in case of an emergency.

All costs for overtime inspection, except those occurring as a result of overtime and shift work established as a regular procedure, shall be paid by the Contractor. Overtime inspection shall include inspection required during holidays observed by the AGC and Trade Unions, Saturdays, Sundays, and any weekday between the hours of 5:00 p.m. and 8:00 a.m.. Such costs

will include but will not necessarily be limited to engineering, inspection, general supervision and other overhead expenses which are directly chargeable to the overtime work. All such charges shall be deducted by the Agency from payments due the Contractor.

Paragraph 7-3 Liability Insurance

Delete and replace with Insurance Requirements for Contractor, which forms part of the Contract Documents.

Paragraph 7-4 Workers' Compensation Insurance

Add to the last paragraph:

The Contractor and all subcontractors shall cover or insure all of their employees working on or about the construction site regardless of whether such coverage or insurance is mandatory or merely elective under the law.

Coverage value shall be: \$1,000,000

Workers' Compensation Insurance and Employer's Liability

Paragraph 7-6 The Contractor's Representative

Add the following language:

The Contractor's representative shall be designated at the pre-construction conference and cannot be changed thereafter without the consent of the Engineer.

The Contractor's Representative shall be the Construction Manager, designated by Contractor, as set forth in Article 1 of the Contract Agreement, unless otherwise designated by Contractor and approved by the Board.

Paragraph 7-6.1 Pre-Construction Conference

Add: A pre-construction conference will be held at a time and place to be designated by the Engineer. The Contractor's project manager and Representative and representatives of significant sub-contractors for this project shall attend. The Engineer will advise the Contractor as to which sub-contractors are deemed significant. Note that the project schedule shall be submitted seven (7) calendar days prior to the Pre-Construction Conference.

Paragraph 7-6.1 Weekly Meetings

Add: Engineer will hold weekly progress meetings. The Contractor's Representative and project representatives from the active subcontractors shall attend these meetings. The contractor shall be prepared to address any

outstanding issues from previous meetings and provide a list of activities from the previous week and a forecast of tasks to be accomplished in the following two weeks. The Engineer will prepare agendas and minutes for these meetings.

Paragraph 7-8.1.1 Work Area Appearance

Add: The Contractor shall maintain a neat appearance to the Work.

All unsuitable construction materials and rubbish and debris shall be regularly removed from the job site, be transported to a suitable location and be disposed of in a proper and legal manner.

Paragraph 7-8.6.3 Storm Water Pollution Prevention Plan (SWPPP)

Water pollution control work shall conform to the provisions in Section 7-8.6, "Water Pollution Control," of the Standard Specifications and these special provisions. This project lies within the boundaries of the Central Coast Regional Water Quality Control Board (RWQCB). The Contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP), file a Notice of Intent (NOI), and pay permit fees as required under the Construction Activities General Permit (General Permit).

The Contractor shall implement, monitor and maintain storm water pollution prevention measures in accordance with requirements of the Regional Water Quality Control Board General Permit and the approved SWPPP.

The SWPPP shall be prepared in conformance with the requirements of the Regional Water Quality Control Board, the General Permit, and in conformance with Caltrans "Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual," and Caltrans "Construction Site Best Management Practices (BMPs) Manual," including addenda to those permits.

The Contractor shall be responsible for penalties assessed or levied on the Contractor or the Board as a result of the Contractor's failure to comply with the provisions in this section, including, but not limited to, compliance with the applicable provisions of the Permit, the Manuals, and Federal, State and local regulations and requirements as set forth therein. Penalties as used in this section shall include fines, penalties and damages, whether proposed, assessed, or levied against the Board or the Contractor, including those levied under the Federal Clean Water Act and the State Porter-Cologne Water Quality Control Act, by governmental agencies or

as a result of citizen suits. Penalties shall also include payments made or costs incurred in settlement for alleged violations of the Permit, the Manuals, or applicable laws, regulations, or requirements. Costs incurred could include sums spent instead of penalties, in mitigation or to remediate or correct violations.

Upon the Engineer's approval of the SWPPP, the SWPPP shall be considered to fulfill requirements for development and submittal of a SWPPP. No work, having potential to cause water pollution, shall be performed until the SWPPP has been approved by the Engineer. Approval shall not constitute a finding that the SWPPP complies with applicable requirements of the Permit, the Manuals and applicable Federal, State and local laws, regulations, and requirements.

The Contractor shall designate a Water Pollution Control Manager qualified and authorized by the State and Regional Water Quality Control Board in the preparation and implementation of SWPPPs. The Water Pollution Control Manager shall be responsible for the preparation of the SWPPP and required modifications or amendments, and shall be responsible for the implementation and adequate functioning of the various water pollution control practices employed. The Contractor may designate different Water Pollution Control Managers to prepare the SWPPP and to implement the water pollution control practices. The Water Pollution Control Managers shall serve as the primary contact for issues related to the SWPPP or its implementation. The Contractor shall submit to the Engineer a statement of qualifications, describing the training, previous work history and expertise of the individual selected by the Contractor to serve as Water Pollution Control Manager. The Water Pollution Control Manager shall have a minimum of 24 hours of formal storm water management training or certification as a Certified Professional in Erosion and Sediment Control (CPESC). The Engineer will reject the Contractor's submission of a Water Pollution Control Manager if the submitted qualifications are deemed to be inadequate.

The SWPPP shall incorporate water pollution control practices in the following categories:

- A. Soil stabilization.
- B. Sediment control.
- C. Wind erosion control.
- D. Tracking control.
- E. Non-storm water management.
- F. Waste management and materials pollution control.

Construction Erosion Control Measures

Unless otherwise specified, upon approval of the SWPPP, the Contractor shall be responsible throughout the duration of the project for installing, constructing, inspecting, maintaining, removing, and disposing of the water pollution control practices specified in the SWPPP and in the amendments. Unless otherwise directed by the Engineer, the Contractor's responsibility for SWPPP implementation shall continue throughout temporary suspensions of work.

If the Contractor or the Engineer identifies a deficiency in the implementation of the approved SWPPP or amendments, the deficiency shall be corrected immediately unless requested by the Contractor and approved by the Engineer in writing, but shall be corrected prior to the onset of precipitation. If the Contractor fails to conform to the provisions of this section, the Engineer may order the suspension of construction operations until the project complies with the requirements of this section.

Implementation of water pollution control practices may vary by season. The Caltrans Construction Site BMPs Manual and these special provisions shall be followed for control practice selection of year-round, rainy season and non-rainy season water pollution control practices. Erosion control features identified on the project plans minimally address erosion control and are not necessarily adequate to address water pollution prevention requirements.

Contractor shall maintain construction erosion control program until post construction erosion control measures are placed and seeded areas become adequately established to prevent erosion.

Year-Round Implementation Requirements

The Contractor shall have a year-round program for implementing, inspecting and maintaining water pollution control practices for wind erosion control, tracking control, non-storm water management, and waste management and materials pollution control. Contractor shall have materials available on-site and adequate labor resources to implement sediment control measures should rain be predicted.

The National Weather Service weather forecast shall be monitored and used by the Contractor on a daily basis. An alternative weather forecast proposed by the Contractor may be used if approved by the Engineer. If precipitation is predicted, the necessary water pollution control

practices shall be deployed prior to the onset of the precipitation.

Disturbed soil areas shall be considered active whenever the soil disturbing activities have occurred, continue to occur or will occur during the ensuing 21 days. Non-active areas shall be protected as prescribed in the Caltrans Construction Site BMPs Manual within 14 days of cessation of soil disturbing activities or prior to the onset of precipitation, whichever occurs first.

In order to provide effective erosion control, the Contractor may be directed by the Engineer to apply permanent erosion control in small or multiple units.

Rainy Season Implementation Requirements

Soil stabilization and sediment control practices shall be provided throughout the rainy season, defined as between October 15 and April 15. For construction activities beginning during the rainy season, the Contractor shall implement applicable soil stabilization and sediment control practices.

Soil stabilization and sediment control materials shall be maintained on site in sufficient quantities to allow protection of disturbed soil areas. A detailed plan for the mobilization of sufficient labor and equipment shall be maintained to deploy the water pollution control practices required to protect disturbed soil areas prior to the onset of precipitation.

To ensure the proper implementation and functioning of water pollution control practices, the Contractor shall regularly inspect and maintain the construction site for the water pollution control practices identified in the SWPPP. The construction site shall be inspected by the Contractor as follows:

- A. Prior to a forecast storm.
- B. After a precipitation event which causes site runoff.
- C. At 24 hour intervals during extended precipitation events.
- D. Routinely, a minimum of every 5 work days.

The Contractor shall use the Storm Water Quality Construction Site Inspection Checklist or an alternative inspection checklist provided by the Engineer. One copy of each site inspection record shall be submitted to the Engineer within 24 hours of completing the inspection.

Analytical Requirements

In compliance with the General Permit or approved SWPPP prepared by the Contractor, there may be a requirement of the Contractor to implement specific sampling and analytical procedures to determine whether BMPs implemented on the construction site are:

- A. Preventing pollutants that are known or should be known by permittees to occur on construction sites that are not visually detectable in storm water discharges, to cause or contribute to an exceedance of water quality objectives, and
- B. Preventing further impairment by sediment in storm waters discharged into water bodies listed as impaired due to sediment, siltation or turbidity.

Paragraph 7-12 Advertising

Delete.

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

Delete. No facilities are required for Board personnel.

SECTION 9 - MEASUREMENT AND PAYMENT

Paragraph 9-2 Lump Sum Work

Items for which quantities are indicated as "lump sum," in the Cost Schedule will be paid for at the price indicated in the Cost Schedule. Such payment will be full compensation for all costs for labor, equipment, materials and plant necessary to furnish, construct and install the lump sum item of work, complete, in place, and for all necessary appurtenant work, including, but not limited to, all necessary cutting, patching, repair and modification of existing facilities, and cleanup of site.

If requested by COMB, Contractor shall furnish three copies of a detailed Schedule of Values which breaks down the lump sum work into its component parts and cost for each part, in a form and sufficiently detailed as to satisfy Engineer that it correctly represents a reasonable apportionment of the lump sum. This schedule is subject to approval by Engineer as to both the components into which the lump sum item is broken down, and the proportion of cost attributable to each component. If a more detailed Bid Schedule is not requested by COMB, the proposed Bid Schedule submitted by the Contractor may become the basis for progress payments.

This schedule will be the basis for progress payments for the lump sum work and shall be submitted to the Engineer for review and revisions sufficiently in advance to allow acceptance by the Engineer prior to submittal of the first progress payment request.

Paragraph 9-3.1.1 General Description of the Work

Add: Payment for Work conforming to the Standard Specifications and all the General and Special Provisions Modifications as stated in these specifications shall be considered to be included in the Contract lump sum price for the items of Work bid and shall include all costs for labor, materials, and equipment required for the execution of the Work unless otherwise set forth.

Paragraph 9-3.2 Partial and Final Payment

Add: Contractor shall furnish monthly progress payment requests to the Board.

The Board will retain five percent (5%) of any progress payment as retention for the protection and payment of any person or persons, mechanics, subcontractor, or material men who shall perform any labor upon the Contract or work thereunder, and all persons who shall supply such person or persons or subcontractors with components and supplies for carrying on such work. Retention can also be used for correction of defective work if Contractor refuses to perform corrective work after being so directed by Board.

Withholding and disbursement of retention proceeds shall be done in accordance with Public Contract Code Sections 7107 and 7201.

Contractor's attention is drawn to Public Contract Code Section 7200, relating to retention proceeds and the furnishing of bonds by and for subcontractors.

No progress payment made to the Contractor or its sureties will constitute a waiver of the liquidated damages specified in Paragraph 6-9.

A final balancing Change Order will be issued prior to submission of final pay request to incorporate all quantity variances from bid quantities into the final contract amount.

In accordance with Section 22300 of the California Public Contract Code, the Contractor will have the option of posting securities of equal or greater value in lieu of a cash retention.

Paragraph 9-3.2.2 Withholding Progress Payment

Add: Progress payment paid by the Board as contemplated herein, will be contingent upon the

Contractor submitting, in addition to any other required documents, an updated Contract Schedule when required and in the form prescribed by Paragraph 6-1.2. Failure of the Contractor to submit an acceptable updated Contract Schedule will result in the Board withholding partial payment, without liability to the

Board, until such an acceptable updated Contract Schedule is submitted. Nothing herein will allow the Contractor to suspend or slow progress of the work.

END OF SECTION

SECTION C - SPECIAL PROVISIONS – TECHNICAL
PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE
IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

C-1 Cost Schedule Item Descriptions and Payment

The proposed improvements are shown on the Plans, and described in these Specifications. The Contractor is also directed to notes on the Plans which specify methods and materials. The plans represent existing conditions recorded at the beginning of the survey and design process, and changes may have occurred since the initial survey was performed. The Contractor shall inspect and completely familiarize itself with current conditions on the site and base the bid for each item described below on current conditions.

Cost Schedule Item Descriptions and Payment:

Item 1 – General Conditions and Mobilization.

This item consists of all planning, coordination, meetings, submittals, approvals, labor, materials, and equipment required to mobilize the Contractor's crew, prepare for onsite construction activities, and establish staging areas as described in the bid items below. As part of this item, Contractor shall perform work activities in conformance with all General Requirements and Special Provisions as outlined in the approved Road Encroachment Permit Issued by Santa Barbara including but not limited to the following: notice of USA Alert, preparation and approval of SWPPP, preparation and approval of a Erosion Control Plan, preparation and approval of a Traffic Management Plan, Additional staging areas shall be coordinated through COMB and adjacent private landowners at the expense of the Contractor.

Measurement & Payment

General Conditions and Mobilization will be measured and paid for at the contract Lump Sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "General Conditions and Mobilization" as specified in the Contract Plans (Conformed for Construction Plans – Section D), project permits (Section E), and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work shall be

performed with good practices and as directed by COMB shall be considered as included in the Lump Sum paid and no additional compensation will be allowed therefore.

Item 2 – Demolition, Clearing, Grubbing, and Disposal

This item consists of all labor, equipment, materials, haulage fees, and disposal fees associated with the removal of above and below ground elements of the existing bridge, bridge concrete sack abutments, underpinnings, and buried concrete low flow crossing in conformance with the Contract Plans the Specifications and as indicated on Sheet 4 of the Contract Plans. This item also includes all labor, equipment, sorting, and stockpiling associated with rubblizing of the existing road and preparation for its use as road embankment fill. All clearing and grubbing of vegetation required for project construction is also included in this item. All waste material shall be disposed of at an approved off-site disposal site meeting all State, Federal, and local requirements. Disposal of wood salvaged from clearing and grubbing activities shall be coordinated with COMB and adjacent private landowners.

Measurement & Payment

Demolition, Clearing, Grubbing, and Disposal and Mobilization will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Demolition, Clearing, Grubbing, and Disposal" as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with Contract Plans and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 3 – Install, Operate, and Monitor Dewatering Systems

This item consists of all planning, coordination, meetings, submittals, approvals, labor, materials, and equipment required to dewater the construction area and isolate individual work areas from ground water in conformance with all State and Federal environmental requirements, permits and plans provided in this packet. Contractor shall be responsible for all installations, operation, monitoring, maintenance, and removal of dewatering systems as required for the duration of the project.

Measurement & Payment

Install, Operate, and Monitor Dewatering Systems will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Install, Operate, and Monitor Dewatering Systems," as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with the Contract Plans and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 4 – Erosion Control

Under this item, Contractor shall furnish all planning, design, labor, materials, equipment, and activities in conformance with the approved SWPPP and permitting documentation provided in the Contract Specifications. Contractor shall hydro-seed all disturbed surfaces above the active channel with an approved erosion control seed mix in conformance with Civil Specification I.2) in the Construction Plans.

Measurement & Payment

Erosion Control will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Erosion Control and Revegetation," as specified in the SWPPP, the corresponding environmental permits, and these special provisions; full compensation for

furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 5 – Site Excavation, Stockpiling, and Material Preparation of Native Materials

This item includes all labor and equipment necessary to perform excavation, stockpiling and sorting of material resulting from the footing excavation. Contractor shall excavate native material as required to construct CIP footings described on Sheets 10, 11, and 12 of the Contract Plans. Contractor may encounter local bedrock and shall accommodate excavation through such material as required. Contractor shall excavate to the bottom elevation of proposed footings and coordinate with COMB's geotechnical engineer. COMB's geotechnical engineer will determine if the footing bedding is sufficient. Presence of bedrock does not exclude contractor from over-excavation for the incorporation of foundation rock as shown on Detail 1, Sheet 12 of the Contract Plans. Preparation of the footing is covered under Item 7 – Footing Preparation. Contractor shall sort, prepare and stockpile all native materials for use in additional construction elements. Upon completion of the road embankment and instream work, Contractor shall dispose of unused and unsuitable material at an off-site facility at the Contractors expense.

Measurement & Payment

Site Excavation, Stockpiling, and Material Preparation of Native Materials will be paid for at the contracted lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Site Excavation, Stockpiling, and Material Preparation of Native Materials," as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed COMB shall be considered as

included in the lump sum paid and no additional compensation will be allowed therefore.

Item 6 – Export of Unsuitable Materials

This item consists of all labor, equipment, and disposal fees required for the export of unsuitable materials. Upon completion of the road embankment and instream work, Contractor shall dispose of unused and unsuitable material at an off-site facility at the Contractors expense.

Measurement & Payment

Export of Unsuitable Materials will be measured and paid for at the contract lump sum. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment, and incidentals involved in “Export of Unsuitable Materials,” as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 7 – Footing Preparation

This item consists of all labor, equipment, and materials required for the preparation of the CIP footing, as described on Sheet 12 of the Contract Plans. This item includes the placement of geotextile fabric and foundation rock as shown on Detail 1 of Sheet 12 to a depth of 2 feet under the bottom of footings unless otherwise directed by COMB. All open excavations shall be inspected by a Registered Geotechnical engineer hired by COMB prior to backfill to ensure that foundation material is adequate. Contractor may backfill footing excavations with foundation rock upon approval by Geotechnical Engineer, COMB, and Engineer. Any additional removals up to 10% of additional volume required by the Geotechnical Engineer will be performed at the Contractor’s expense.

Measurement & Payment

Footing Preparation will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in “Footing Preparation”, as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 8 – Construct Cast-In-Place Footings

This item includes all labor, materials, equipment, and surveying required to orient and construct cast-in-place footings per Sheets 10, 11, and 12 of the Contract Plans. The Contractor shall furnish all concrete, forms, reinforcing steel, bracing, and appurtenances as required. Contractor shall provide a concrete design submittal and rebar submittal to COMB for approval prior to placing concrete.

Measurement & Payment

Construct Cast-In-Place Footings will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in “Construct Cast-In-Place Footings”, as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 9 – Install 54-foot Span Prefabricated Arch Bridge System

This item consists of planning, coordination, and installation of a 54-foot prefabricated arch bridge system and wingwalls in conformance

with manufacture shop drawings and installation guidelines to the lines and grades provided the Contract Plans. Contractor will be responsible for coordinating delivery and furnishing all labor, equipment, and materials required for installation. The bridge system is a pre-purchased item by COMB and therefore the price for fabrication and delivery of the bridge system is not part of this contract.

Measurement & Payment

Install 54-foot Span Prefabricated Arch Bridge System will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Install 54-foot Span Prefabricated Bridge Arch System," as specified in the Contract Documents and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with manufacturer guidelines and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 10 – Road-Embankment Fill, Compaction, and Grading

This item consists of the labor, materials, stockpiling of materials, and equipment required to backfill the prefabricated bridge system per manufacture requirements and construct bridge approach embankments to the lines and grades as indicated in the Contract Plans and Specifications. Contractor shall re-use suitable native backfill materials originating from on-site cut and fill operations which meet Specification requirements. The remainder of the required fill quantity may be imported at the Contractor's expense. Additional soil testing may be requested by COMB to ensure that imported material meets structural or road-embankment backfill specifications. Additional testing shall be performed at the Contractor's expense.

Measurement & Payment

Road-Embankment Fill, Compaction, and Grading will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item,

including furnishing all labor, materials, tools, equipment and incidentals involved in "Road-Embankment Fill, Compaction, and Grading", as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 11 – Road Base Import, Preparation, and Grading

This item consists of the labor, equipment, and materials to install the finished road base course to the lines and grades shown in the Contract Plans. Materials Specifications shall be submitted to COMB for approval prior to importing.

Measurement & Payment

Road Base Import, Preparation, and Grading will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Road Base Import, Preparation, and Grading," as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 12 – Site Drainage

This item includes all labor and equipment necessary for the construction of slope drains as shown in the Contract Plans. Contractor shall re-use suitable native cobbles originating from on-site cut and fill operations. The remainder of the required cobbles may be imported at the Contractor's expense.

Measurement & Payment

Site Drainage will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Site Drainage," as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 13 – Install Asphaltic Concrete Pavement

This item includes all labor, materials, and equipment required for the installation of an 18-foot wide hot mixed asphalt travel lane finished to the lines and grades shown in the Contract Plans and Specifications.

Measurement & Payment

Install Asphaltic Concrete Pavement will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Install Asphaltic Concrete Pavement", as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 14 – Install Guardrail and Bridge Rail System

This item includes all labor, materials, and equipment required to install the guardrail and bridge rail traffic systems per the Contract Plans and Specifications. Installation includes standard metal-beam guard rail and modified FHWA California Type 115 bridge rail with single bike rail at 54-inches. All metal beam guardrail components shall be composed of galvanized metal with an oxidation accelerant as specified in the specifications. All metal bridge rail structural components shall be

weathering steel in conformance with the specifications. All nuts, bolts, and washers shall be galvanized. Bolt heads shall be painted with like color when visible from the travel way.

Measurement & Payment

Install Guardrail and Bridge Rail System will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Install Guardrail and Bridge Rail System," as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 15 – Apply Bridge Coating System (Anti-Graffiti)

This item includes all labor, materials, and equipment required to apply anti-graffiti finish coating as described in the Contract Specifications.

Measurement & Payment

Apply Bridge Coating System will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Apply Bridge Coating System," as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, and disposing of materials in accordance with good practices and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 16 – Install Salvaged Rootwad Habitat Feature

This bid item includes all labor, materials, and equipment required to install a salvaged rootwad habitat feature as indicated in the Contract documents and as directed by the Engineer. This item includes incidental work associated with rootwad installation such as: salvaging the tree indicated on the plans with as much root mass and bark intact as possible; staging rootwad; excavating the streambed as required to accept rootwad as indicated in the Contract Plans and as directed by Engineer; placement of rootwad under direction of the Engineer; compacting material by hand and approved equipment methods; and instream grading to provide preformed pool and smooth transition to adjacent streambed grades.

Measurement & Payment

“Install Salvaged Rootwad Habitat Feature” will be measured and paid for at the contract Lump Sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in “Install Salvaged Rootwad Habitat Feature”, as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by the Engineer shall be considered as included in the Lump Sum paid and no additional compensation will be allowed therefore.

Item 17 – Construct Rock Weirs

This bid item includes all labor, materials, and equipment required to install two rock weirs as indicated in the Contract documents and as directed by the Engineer. This item includes incidental work associated with rock weir installation such as: providing material submittal for approval; sorting and staging grade control rock as required by the Engineer; excavating the streambed as required to accept rock structure as indicated in the Contract Plans; placement of grade control rock under direction of the Engineer; compacting material by hand and approved equipment methods; repositioning rock as required to meet the intent of the design; plugging of interstitial space with mixture of native streambed material; and instream

grading to provide smooth transition between rock weir and adjacent streambed grades.

Measurement & Payment

“Construct Rock Weirs” will be measured and paid for at the contract Lump Sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in “Construct Rock Weirs”, as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by the Engineer shall be considered as included in the Lump Sum paid and no additional compensation will be allowed therefore.

Item 18 – Install Engineered Streambed Material (ESM)

This bid item includes all labor, materials, and equipment required to install ESM as indicated in the Contract documents and as directed by the Engineer. This item includes incidental work associated with ESM installation such as: sorting, mixing, and staging native streambed material originating from on-site excavation or imported as required; providing material submittals if additional imported material is required; excavating the streambed as required to accept the ESM as indicated in the Contract Plans; placing individual large boulders as directed by the Engineer; compacting material by hydro-washing and mechanical methods; repositioning rock as required to meet the intent of the design; plugging of interstitial space with mixture of course streambed cobbles, streambed sediment, and native streambed material; and instream grading to provide smooth transition between the ESM limits and adjacent streambed grades.

Measurement & Payment

“Install Engineered Streambed Material (ESM)” will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in “Install Engineered Streambed Material (ESM),” as

specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by the Engineer shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore..

Item 19 – Rock Slope Protection

This item includes all labor, materials, and equipment required to install rock slope protection as indicated in the Contract Plans and Specifications. All incidental work associated with installation should be accounted for such as slope grading and preparation; excavation; staging of materials; and transition to existing grade.

Measurement & Payment

Rock Slope Protection will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in “Rock Slope Protection,” as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, and construction in accordance with good practices and as directed by the Engineer shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 20 – Perform Finished In-stream Grading and Contouring

This item includes the labor and equipment required to re-grade the streambed to the lines and grades shown in the Contract Plans under direction of the Engineer. Contractor shall prepare and stockpile all native materials for use in additional construction elements. Upon completion of the road embankment and instream work, Contractor shall dispose of unused and unsuitable material at an off-site facility at the Contractors expense.

Measurement & Payment

Perform Finished In-stream Grading will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in “Perform Finished In-stream Grading,” as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by the Engineer shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 21 – Revegetation

This line item includes all labor and equipment required to dig up to 30 holes for placement of native shrubs and trees by other. Contractor shall coordinate locations of holes with COMB. The native plants and their installation will be performed by others and will not be part of this contract.

Measurement & Payment

Revegetation will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in “Revegetation,” as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 22 – Cattle Exclusion Fencing

This item includes all labor, materials, and equipment required to install cattle exclusion fencing beneath the bridge system as shown on Sheet 12 of the Contract Plans.

Measurement & Payment

Cattle Exclusion Fencing will be measured

and paid for at the contract lump sum. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Cattle Exclusion Fencing," as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by Agents of COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 23 – Replace Existing Fence

This item includes the labor, materials, and equipment required to replace all disturbed livestock fencing in like condition. Connection to the proposed structure shall be coordinated with Engineer prior to installation. All fencing alignments shall be approved by landowner and COMB prior to completion.

Measurement & Payment

Replace Existing Fence will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Replace Existing Fence," as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by Agents of COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 24 – Site Clean-Up and Demobilization

This item includes removal of all construction debris, restoration of staging areas and finished surfaces, haulage of tools and equipment off site, completion of final punch lists, and complete demobilization from the project site. Contractor shall also complete items denoted in the Contract Plans under Civil Specification I.1) Site Restoration.

Measurement & Payment

Site Clean-Up and Demobilization will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Site Clean-Up and Demolition," as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 25 – County Required Delineators, Signs, and Fall Protection

This line item includes coordination with County field inspectors and installation of all approved delineators, object markers, and road signs as described in keynote 4 on Sheet 13 of the Contract drawings. This line item also includes installation of all fall protection measures near bridge system wing-walls in conformance with County requirements.

Measurement & Payment

Install County Required Delineators, Signs, and Fall Protection will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Install County Required Delineators, Signs, and Fall Protection," as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

Item 26 – Protection of Existing Facilities

This line item includes coordination with ConTech Construction Products Incorporated

drivers and installation of measures to protect storm water facilities and private property existing within the road right-of-way during delivery of the prefabricated concrete arch bridge system. This line item also includes private road access improvements for ConTech Construction Products Incorporated drivers during delivery of the prefabricated concrete arch bridge system between Crossing 6 and Crossing 8. Access road improvements will include grading short sections of the private access road as well as protection of existing storm water facilities. Protection elements shall be approved by COMB prior to installation. . This item also includes any necessary field fit required to accommodate changes as a result of construction.

Measurement & Payment

Protection of Existing Facilities will be measured and paid for at the contract lump sum price. Full compensation for conforming to the provisions in this item, including furnishing all labor, materials, tools, equipment and incidentals involved in "Protection of Existing Facilities," as specified in the Contract Plans and these special provisions; full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installation, construction, removals, and disposing of materials in accordance with good practices and as directed by COMB shall be considered as included in the lump sum paid and no additional compensation will be allowed therefore.

SECTION D – DESIGN DRAWINGS

**PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE
IMPROVEMENT ON CROSSING 8, QUIOTA CREEK**

SECTION E – PROJECT PERMITS and PLANS

PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE IMPROVEMENT ON CROSSING 8, QUIOTA CREEK

Permits:

- 401 Regional Water Quality Control Board (forthcoming – 2018 Quiota Creek Crossing 9 project permit included that will be very similar)
- 1600 California Department of Fish and Wildlife
- 404 US Army Corps of Engineers (forthcoming – 2018 Quiota Creek Crossing 9 project permit included that will be very similar)
- Santa Barbara County Encroachment (forthcoming - 2018 Quiota Creek Crossing 9 project permit included that will be very similar)

Project Plans:

- Dewatering Plan
- Fish Relocation Plan
- Erosion Control Plan
- Road Access Plan
- Revegetation Plan
- Maintenance and Monitoring Plan

SECTION F – GRANT AGREEMENT

**PROJECT: CACHUMA OPERATION & MAINTENANCE BOARD – FISH PASSAGE
IMPROVEMENT ON CROSSING 8, QUIOTA CREEK**

Project Grant Agreements:

- California Department of Fish and Wildlife FRGP Grant Agreement Number P1850902

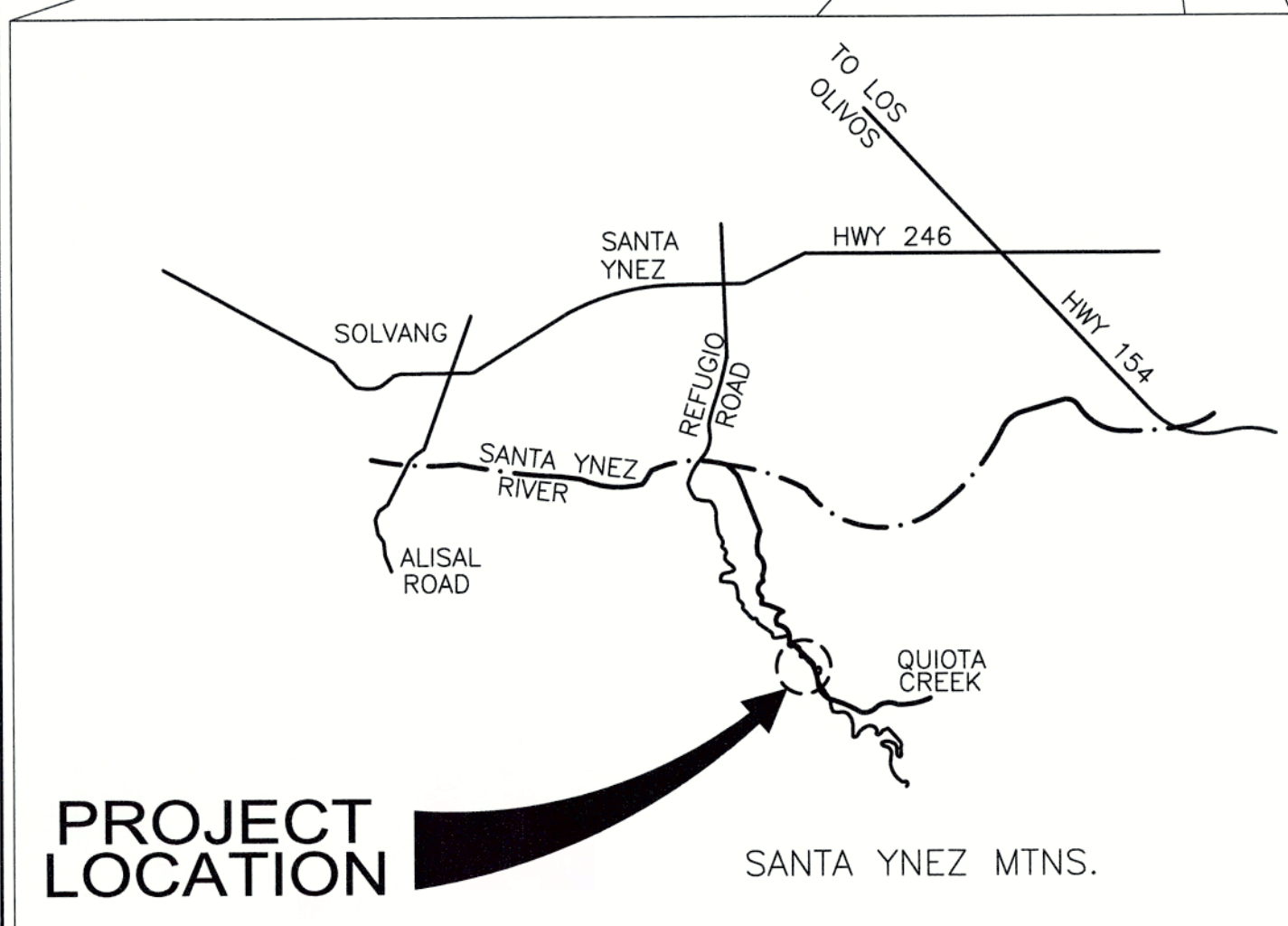
QUIOTA CREEK FISH PASSAGE IMPROVEMENT AT REFUGIO ROAD CROSSING 8 Cachuma Operation and Maintenance Board

ISSUED FOR BID



PROJECT VICINITY

STATE MAP



PROJECT LOCATION

VICINITY MAP

PROJECT LOCATION:
APN 137-320-002, APN 141-290-008, AND APN 137-320-004



DRAWING LIST:

- 1 TITLE SHEET, LOCATION MAP AND LIST OF DRAWINGS
- 2 SPECIFICATIONS
- 3 KEY MAP/SURVEY CONTROL
- 4 EXISTING SITE/DEMO PLAN
- 5 CREEK PLAN AND PROFILE
- 6 ROAD PLAN AND PROFILE 1
- 7 ROAD PLAN AND PROFILE 2
- 8 CIVIL SECTIONS AND DETAILS 1
- 9 CIVIL SECTIONS AND DETAILS 2
- 10 BRIDGE AND FOOTING PLAN
- 11 BRIDGE SECTIONS
- 12 TYPICAL BRIDGE SECTIONS AND DETAILS
- 13 GUARDRAIL AND BRIDGERAIL PLAN, SECTION AND DETAILS
- 14 DEWATERING PLAN AND PROFILE

NOTE:
CONTECH PREFABRICATED BRIDGE STRUCTURE SEALED
FABRICATION DRAWINGS UNDER A SEPARATE COVER.

COUNTY APPROVED DESIGN VARIANCES:

1. BRIDGE DESIGNED TO CONVEY THE 50-YEAR PEAK FLOW WITH MINIMUM OF 1 FT FREEBOARD, AND THE ABILITY TO WITHSTAND THE 100-YEAR PEAK FLOW EVENT.
2. ROADWAY DESIGN SPEED OF 20 MPH.
3. MINIMUM CLEAR TRAVEL WIDTH OF 18 FT.
4. ALLOWANCE FOR USE OF TL-1 RATED BARRIER DESIGNS.

"I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OF THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONAL CODE. I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE COUNTY OF SANTA BARBARA IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN."

FIRM: HDR
ADDRESS: 4717 97TH ST NW GIG HARBOR, WA 98332
TELEPHONE: 253-432-5027

SIGNATURE OF ENGINEER: *Shaun P. Bevan*

PRINT NAME OF ENGINEER: SHAUN P. BEVAN

PROFESSIONAL REGISTRATION NUMBER/EXP. DATE: C84579 9/30/19

DISCIPLINE: CIVIL

APPROVED

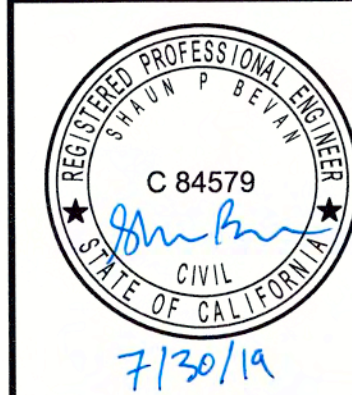
COUNTY PUBLIC WORKS SIGNATURE: _____

DATE: _____



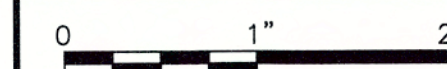
ISSUE	DATE	DESCRIPTION
1	7/25/19	ISSUED FOR BID

PROJECT MANAGER	M. GARELLO
CHECKED BY	R. THOMPSON
CHECKED BY	-
DESIGNED BY	S. BEVAN
DESIGNED BY	M. GARELLO
DRAWN BY	J. CAMPBELL
PROJECT NUMBER	10067867



CROSSING 8 DESIGN DRAWINGS
CACHUMA OPERATION AND
MAINTENANCE BOARD

TITLE SHEET, LOCATION MAP
AND LIST OF DRAWINGS



DATE JULY 25, 2019
SCALE NONE

SHEET
1

GENERAL SPECIFICATIONS

- A. THE CONTRACTOR IS DEFINED HEREIN AS THE ENTITY RESPONSIBLE FOR ON SITE INSTALLATION OF ALL ITEMS SPECIFIED AND SHOWN IN THE CONTRACT DOCUMENTS.
- B. UNLESS OTHER ARRANGEMENTS ARE MADE THE CONTRACTOR SHALL LIMIT THEIR ACTIVITIES TO THE PROJECT BOUNDARY LIMIT INDICATED ON THE DRAWINGS. ADDITIONAL STAGING AREAS REQUIRED FOR CONSTRUCTION SHALL BE OBTAINED AT THE CONTRACTOR'S EXPENSE. AUTHORIZATION OF WORK WITHIN PROJECT BOUNDARY WILL BE OBTAINED BY COMB.
- C. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING WHATEVER MEASURES ARE NECESSARY FOR THE PROTECTION OF ALL EXISTING FACILITIES, INCLUDING THOSE ASSOCIATED WITH TEMPORARY ACCESS OR STAGING ON ADJOINING PROPERTIES, DURING THE COURSE OF THE CONSTRUCTION. ANY REPAIRS, REPLACEMENTS OR RESTORATION MEASURES MADE NECESSARY BY THE CONTRACTOR'S ACTIVITIES WILL BE MADE AT THE CONTRACTOR'S EXPENSE.
- D. THE CONTRACTOR SHALL VERIFY ALL ONSITE MEASUREMENTS OF EXISTING STRUCTURES PRIOR TO SUBMISSION OF SHOP DRAWINGS OR COMMENCING WITH ANY STRUCTURAL FABRICATION. CONTRACTOR TO NOTIFY COMB IMMEDIATELY OF ANY DISCREPANCIES FOUND THAT MAY AFFECT THE INTENDED WORK.
- E. THE SAFETY OF ALL ON SITE WORKERS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL CONFORM TO ALL LAWS AND CODES GOVERNING WORKER SAFETY.
- F. FOR ANY CONFLICT ON THE DRAWINGS AND/OR SPECIFICATIONS AND/OR CODES, THE MORE STRINGENT REQUIREMENT SHALL APPLY. ANY SUCH CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER FOR RESOLUTION.
- G. ALL WORK SHALL BE PERFORMED BY CONTRACTOR IN ACCORDANCE WITH APPLICABLE LOCAL STATE AND FEDERAL CODES, LAWS AND REGULATIONS.
- H. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL STIPULATIONS PRESENTED IN COUNTY, STATE AND FEDERAL PERMITS.
- I. CONTRACTOR IS RESPONSIBLE FOR COORDINATION, DEVELOPMENT, AND APPROVAL OF COUNTY TRAFFIC CONTROL PLAN. ALL APPROVED ELEMENTS SHALL BE CARRIED OUT BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. COUNTY FEE SHALL BE PAID BY THE OWNER.
- J. CONTRACTOR IS RESPONSIBLE FOR FURNISHING, INSTALLING AND MAINTAINING ALL NECESSARY MEASURES TO CONTROL EROSION IN ACCORDANCE WITH APPLICABLE STATE AND FEDERAL REGULATIONS. CONTRACTOR SHALL PREPARE AND SUBMIT APPROVED CONSTRUCTION SWPPP TO COMB PRIOR TO MOBILIZATION.

CIVIL SPECIFICATIONS

- A. EXISTING CONTOUR INFORMATION IS BASED ON SURVEY CONDUCTED BY PENFIELD AND SMITH IN JUNE 2008. SUPPLEMENTAL SURVEY WAS PERFORMED IN JANUARY 2019 BY PROBER LAND SURVEYING.
- B. CLEARING AND GRUBBING SHALL NOT EXCEED LIMITS OF CONSTRUCTION SHOWN ON THE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF CLEARING DEBRIS. DEBRIS SHALL BE DISPOSED TO A STATE APPROVED OFF-SITE FACILITY OR AT THE DIRECTION OF COMB.
- C. ALL DEBRIS RESULTING FROM DEMOLITION SHALL BE DISPOSED TO A STATE APPROVED OFF-SITE FACILITY AT THE EXPENSE OF THE CONTRACTOR. HOLES AND PITS CREATED BY REMOVAL OF EXISTING STRUCTURE SHALL BE BACKFILLED AND COMPACTED WITH STRUCTURAL BACKFILL MATERIAL, IN ACCORDANCE WITH PARAGRAPH H.
- D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVELOPMENT, INSTALLATION, OPERATION AND MAINTENANCE OF ALL DEWATERING FACILITIES REQUIRED FOR CONSTRUCTION.
 - 1) DEWATERING FACILITIES SHALL BE CONSTRUCTED, MAINTAINED AND REMOVED USING THE MATERIALS AND METHODS WHICH DO NOT PRODUCE SILTATION OR OTHER DEGRADATION OF THE WATER QUALITY OF THE RIVER OR STREAM WHICH EXCEEDS THE LIMITS OF APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ENVIRONMENTAL PERMIT STIPULATIONS PROVIDED IN THE CONTRACT DOCUMENTS.
 - 2) THE CONTRACTOR SHALL PREPARE A DEWATERING PLAN OR PLANS ADDRESSING EACH OCCURRENCE REQUIRED FOR CONSTRUCTION. THE PROPOSED PLAN(S) FOR DEWATERING FACILITIES SHALL ADDRESS, AT A MINIMUM, THE FOLLOWING ITEMS:
 - a) PREPARATION AND CONSTRUCTION METHODS OF REQUIRED COFFER DAM, PUMPING AND OUTFALL PROVISIONS.
 - b) PROVISION FOR LIMITING SILTATION OR OTHER EFFECTS ON THE RIVERS AND STREAMS AS REQUIRED BY ENVIRONMENTAL PERMITS.
 - c) PROVISIONS FOR REWATERING AND REMOVAL OF DEWATERING FACILITIES.
 - 3) A SHOP DRAWING SUBMITTAL OF THE PROPOSED DEWATERING PLAN SHALL BE PREPARED AND SUBMITTED TO COMB FOR REVIEW AND APPROVAL.
- E. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION AND BACKFILL WORK TO THE LINES, DIMENSIONS AND ELEVATIONS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH THE EXISTING SOIL CONDITIONS AT THE SITE BY PERSONAL EXAMINATION OF THE SITE.
- F. A GEOTECHNICAL REPORT PREPARED BY FUGRO WEST DATED 07/24/2003 WILL BE MADE AVAILABLE TO THE CONTRACTOR UPON REQUEST. ACQUISITION OF ADDITIONAL GEOTECHNICAL INVESTIGATIONS AND INFORMATION PERTAINING TO EXISTING SOIL PROPERTIES SHALL BE AT THE CONTRACTOR'S EXPENSE. COMB WILL PROVIDE 3RD PARTY INSPECTION OF EXCAVATION, AND FOUNDATION MATERIALS PRIOR TO INSTALLATION OF SPREAD FOOTINGS.
- G. EARTHWORK AND MATERIALS SHALL MEET ALL REQUIREMENTS SPECIFIED HEREIN BASED UPON MOST CURRENT CALTRANS STANDARD SPECIFICATIONS.
 - 1) STRUCTURAL FILL SHALL MEET CALTRANS STANDARD SPECIFICATION 26-1.02A CLASS 2 AGGREGATE BASE, 1-1/2" MAX. PASSING.

- 2) HOT MIX ASPHALT (HMA):
 - a) CONSTRUCT TO LINE, GRADE AND SECTION AS SHOWN ON DRAWINGS AND IN ACCORDANCE WITH SECTION 39 - HOT MIX ASPHALT OF THE CALTRANS STANDARD SPECIFICATIONS.
 - b) INSTALL AN 8-INCH COMPACTED LAYER OF CLASS 2 AGGREGATE BASE COURSE IN ACCORDANCE WITH SECTION 26 - AGGREGATE BASES OF THE CALTRANS STANDARD SPECIFICATIONS.
 - c) INSTALL A 2-INCH BINDER COURSE AND A 2-INCH SURFACE COURSE, BOTH SHALL BE 3/4 INCH TYPE A, IN ACCORDANCE WITH SECTION 39 - HOT MIX ASPHALT OF THE CALTRANS STANDARD SPECIFICATIONS.
 - d) TOLERANCE OF FINISHED GRADE: ±0.10 FEET FROM REQUIRED ELEVATIONS.
- 3) LOCAL BORROW AND IMPORTED BORROW SHALL CONSIST OF NATIVE SOIL ORIGINATING FROM ON SITE EXCAVATION OR IMPORTED FROM OFF-SITE LOCATION AS APPROVED BY ENGINEER. SHALL BE FREE OF ORGANIC MATTER, DELETERIOUS MATERIAL, AND OBJECTS GREATER THAN 6-INCHES.
- 4) ROCK SLOPE PROTECTION (RSP) MATERIAL SHALL CONSIST OF ANGULAR ROCK WITH A MINIMUM SPECIFIC GRAVITY OF 2.6 AND SHALL MEET CALTRANS STANDARD SPECIFICATIONS FOR 1 TON RSP CLASS, PLACED IN ACCORDANCE WITH METHOD A.
- 5) FOUNDATION ROCK SHALL BE COMPOSED OF CRUSHED AGGREGATE WITH A DIAMETER OF 3 INCHES AND LESS.
- 6) RSP BACKING SHALL CONFORM TO THE NO. 2 AGGREGATE CLASSIFICATION PER CALTRANS STANDARD SPECIFICATION SECTION 72-2.02B.
- 7) GRADE CONTROL ROCK SHALL CONSIST OF HARD, DURABLE, ANGULAR BOULDERS FREE FROM CRACKS WITH A MINIMUM SPECIFIC GRAVITY OF 2.6 AND A LENGTH TO INTERMEDIATE WIDTH RATIO LESS THAN 3. GRADATION SHALL CONFORM AS FOLLOWS:

MASS (LBS)	APPROX. CUBIC DIMENSION (INCHES)
4400-8000	44-54
- 8) ENGINEERED STREAM MATERIAL (ESM) SHALL CONSIST OF A WELL-GRADED MIXTURE OF DIVERSIFIED PARTICLE SIZES DESIGNED TO BE IMMOBILE UP TO A STABLE BED DESIGN FLOW. ESM SHALL BE COMPOSED OF AN INITIAL PLACEMENT OF STREAMBED BOULDERS AND THEN FILLED IN LIFTS WITH ONE PART BY VOLUME STREAMBED SEDIMENT AND TWO PARTS BY VOLUME OF STREAMBED COBBLES AS FOLLOWS:
 - c) STREAMBED SEDIMENT: FURNISH A WELL-GRADED MIX OF ROUNDED RIVER ROCK AND SEDIMENT WHICH IS FREE DRAINING AND FREE OF EXCESS MOISTURE, MUCK, FROZEN LUMPS, ROOTS, SOD OR OTHER DELETERIOUS MATERIAL CONFORMING TO THE FOLLOWING:

MAXIMUM PARTICLE SIZE	3 INCHES
MATERIAL PASSING NO. 200 SIEVE PER AASHTO T 27 AND T 11	15% MAX
 - d) STREAMBED COBBLES: FURNISH A WELL-GRADED MIXTURE OF SOIL, GRAVEL AND ROUNDED RIVER COBBLES TO SIMULATE A NATURAL STREAMBED. THE SOIL, GRAVEL AND ROUNDED RIVER COBBLES SHOULD BE HARD AND DURABLE ROCK WITH SIMILAR COLOR AND CHARACTERISTICS AS PRESENT AT THE CONSTRUCTION SITE. SCREENED, ON SITE, NATIVE COBBLES MEETING GRADATION REQUIREMENTS MAY BE SUBSTITUTED UPON ENGINEER APPROVAL. GRADATION REQUIREMENTS FOR STREAMBED COBBLES, SHALL CONFORM TO BED CLASS 6 CLASSIFICATION AS FOLLOWS:

SIZE DIAMETER	% PASSING
20-INCH	100
12-INCH	84
6-INCH	50
1-INCH	16
NO. 10	10
 - e) STREAMBED BOULDERS: HARD, DURABLE, ROUNDED BOULDERS FREE FROM CRACKS WITH A MINIMUM SPECIFIC GRAVITY OF 2.6 AND A LONG TO SHORT AXIS RATIO LESS THAN 3. GRADATION SHALL CONFORM AS FOLLOWS:

MASS (LBS)	APPROX. CUBIC DIMENSION (INCHES)
1300-3600	30-42

- H. COMPACTION:
 - 1) STRUCTURAL FILL, COMMON BORROW AND FOUNDATION ROCK.
 - a) COMPACTION SHALL BE ACCOMPLISHED BY APPROVED EQUIPMENT. THE MAXIMUM COMPACTION LIFTS SHALL NOT EXCEED 8 INCHES EACH LAYER AND SHALL BE AT LEAST 95 PERCENT OF LABORATORY MAXIMUM DENSITY.
 - b) COMB WILL HIRE 3RD PARTY TESTER AND PAY FOR TESTING. CONTRACTOR SHALL COORDINATE WITH THE TESTER. ANY LAYER OR PORTION OF A LAYER WHICH HAS NOT ATTAINED THE REQUIRED DENSITY SHALL BE SCARIFIED, MOISTURE ADDED IF REQUIRED, AND RECOMPACTED UNTIL THE REQUIRED DENSITY IS OBTAINED AT NO ADDITIONAL EXPENSE TO COMB.
 - c) FIELD COMPACTION TESTING SHALL BE DETERMINED IN ACCORDANCE WITH ASTM 2922 AT +/- 2% OPTIONAL MOISTURE CONTENT, IN ACCORDANCE WITH ASTM D3017. FREQUENCY OF TESTING SHALL BE IN ACCORDANCE WITH CALTRANS STANDARD SPECIFICATIONS PLUS (6) ADDITIONAL TESTS PER OWNER DIRECTION.
 - d) CONTRACTOR TO BACKFILL CONCRETE ARCH UNIFORMLY TO ENSURE EQUAL LOADING ON BOTH SIDES. DIFFERENCE SHALL NOT EXCEED THREE (3) LIFTS. CONTRACTOR SHALL CONFORM TO ADDITIONAL CONTECH SPECIFICATIONS NOTED ON SHOP DRAWINGS.
 - e) SEE ADDITIONAL COMPACTION SPECIFICATIONS FOR INSTREAM MATERIALS ON SHEET 8.
- I. SITE RESTORATION:
 - 1) ALL UNINTENTIONAL SCARS, DIVOTS, HOLES, TRENCHES OR GROUND SURFACE IRREGULARITIES LEFT BY CONSTRUCTION ACTIVITIES SHALL BE SMOOTHED, FILLED, COMPACTED AND RESTORED BY THE CONTRACTOR TO ORIGINAL CONDITION OR AS DIRECTED BY COMB.

- 2) AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE HYDROSEEDED WITH AN EROSION CONTROL GRASS MIX CONTAINING SEED NATIVE TO THE AREA AND APPROVED BY CDFW. HYDROSEED MIXTURE SHALL BE APPLIED PER MANUFACTURER'S RECOMMENDATIONS AND AT LEAST 48 HOURS PRIOR TO FORECASTED PRECIPITATION.
 - a) HYDROSEEDING SLURRY COMPONENTS SHALL BE COMPOSED OF THE FOLLOWING:

SPECIES	PURE LIVE SEED LBS/ACRE
AGROSTIS PALLENS	2.0
DISTICHLIS SPICATA SPICATA	1.0
ESCHSCHOLZIA CALIFORNIA	1.0
LEYMUS CONDENSATUS	2.0
LEYMUS TRITICOIDES	4.0
MELICA IMPERFECTA	4.0
MUHLENBERGIA RIGENS	0.5
NASSELLA CERNUA	3.0
NASSELLA LEPIDA	2.0
NASSELLA PULCHRA	4.0
POA SECHUNDA	3.0
SISYRINCHIUM BELLUM	1.5
TOTAL	28.0

STRUCTURAL SPECIFICATIONS

- A. CODES: AASHTO 6TH EDITION LRFD SPECIFICATION, CALTRANS EDITIONS AND AMENDMENTS, AWS LATEST EDITION, AISC LATEST EDITION.
- B. MATERIAL FOR BRIDGERAIL AND GUARDRAIL:
 - 1) STRUCTURAL STEEL SHAPES, PIPES, FASTENERS, MISCELLANEOUS METALS SHALL COMPLY WITH THE FOLLOWING:
 - a) STAINLESS STEEL:
 - q) STAINLESS STEEL PLATES: ASTM A167 OR A240, TYPE 304
 - b) BOLTS: ASTM A193, B8
 - c) NUTS: ASTM F594
 - WEATHERING STEEL:
 - a) WIDE FLANGE: ASTM A588
 - b) TUBING: ASTM A847 OR A588
 - 2) BOLTS, NUTS AND WASHERS:
 - a) GENERAL: BOLTS-STAINLESS STEEL TYPE 304 SHALL MEET ASTM A193. NUTS-STAINLESS STEEL SHALL MEET ASTM F594. WASHERS-STAINLESS STEEL SHALL MEET ANSI B18.22.1 TYPE A PLAIN. CONCRETE EPOXY ANCHORS DOWELED INTO CONCRETE SHALL BE ANCHORED WITH THE "HILTI" HVA ADHESIVE ANCHOR SYSTEM. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 - b) BRIDGERAIL AND GUARDRAIL: NUTS, BOLTS, AND WASHERS SHALL BE TYPE 3 SELF WEATHERING STEEL PER ASTM A325.
 - c) PAINT EXPOSED BOLT HEADS WITH LIKE COLOR.
 - 3) WELDING: SHOP AND FIELD WELDING DONE BY OPERATORS WHO HAVE PREVIOUSLY QUALIFIED BY TESTS AS PRESCRIBED IN THE AMERICAN WELDING SOCIETY "STANDARD QUALIFICATION PROCEDURE" TO PERFORM THE TYPE OF WORK REQUIRED. ALL STRUCTURAL WELDING SHALL CONFORM TO STRUCTURAL WELDING CODE AWS D1.1-00 FOR STEEL. WELDING ELECTRODES ARE TO BE E70XX OR TYPE 308-15, AS REQUIRED FOR BEE METAL.
- C. METAL FABRICATION SURFACE TREATMENT FOR BRIDGERAIL AND GUARDRAIL
 - 1) HOT DIP GALVANIZING: CONFORM TO REQUIREMENTS OF ASTM A123, A153, A385 AND A525. PROVIDE MINIMUM OF 2.3 OZ/SQ. FT. GALVANIZING ON ALL SURFACES.
 - 2) FIELD GALVANIZING (TOUCH UP): MOLTEN GALV-WELD OR APPROVED EQUAL.
 - 3) STAINLESS STEEL: STANDARD MILL FINISH, CLEANED OF ALL FOREIGN MATTER BEFORE DELIVERY TO THE JOB SITE. STAINLESS SHALL HAVE SMOOTH POLISHED SURFACES AND EDGES FREE OF ANY BURRS.
 - 4) BRIDGERAIL FINISH:
 - a) MATERIALS SHALL BE SELF-WEATHERING STEEL.
 - b) PAINT EXPOSED BOLT HEADS WITH LIKE COLOR.
 - 5) MIDWEST GUARDRAIL SYSTEM FINISH:
 - a) GALVANIZED
 - b) PROVIDE TWO COATS OF NATINA STEEL OXIDATION ACCELERANT PER MANUFACTURERS RECOMMENDATIONS.
- D. CAST IN PLACE CONCRETE:
 - 1) ALL STRUCTURAL CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS. ALL WORK SHALL BE IN ACCORDANCE WITH AASHTO 6TH EDITION AND CALTRANS STANDARD SPECIFICATION SECTIONS 51 AND 90.
 - 2) ALL EXPOSED CORNERS AND EDGES SHALL BE CHAMFERED 1/4 INCH INCLUDING RE-ENTRANT CORNERS. ALL WALLS TO FLOOR CORNERS SHALL HAVE A 1/4 INCH CHAMFER.
 - 3) CONTRACTOR RESPONSIBLE FOR COORDINATING LABORATORY TESTING AND DESIGN OF CONCRETE MIXES.
 - 4) SUBMIT CONCRETE DESIGN PROPOSED FOR USE FOR APPROVAL BY COMB.
 - a) SUBMITTAL SHALL INCLUDE:
 - a. SIEVE ANALYSIS AND SOURCE OF AGGREGATES.
 - b. PROPORTIONING OF ALL MATERIALS.
 - c. SLUMP
 - d. AIR CONTENT
 - e. 28-DAY CYLINDER TEST TRIALS PER CALTRANS SPECIFICATION SECTION 90-1.01D(5)(6) WITH 12 MONTH CERTIFIED BREAK HISTORY.

- 5) COMB TO HIRE 3RD PARTY TESTER AND PAY FOR TESTING. CONTRACTOR TO COORDINATE, OBTAIN AND PROVIDE TESTING RESULTS FOR 8-CYLINDERS PER EVERY 20 YARDS OF DELIVERED CONCRETE. (1) CYLINDER SHALL BE TESTED AT 3 DAYS, (2) CYLINDER AT 7 DAYS, (2) CYLINDERS AT 14 DAYS, (2) CYLINDER AT 28 DAYS, AND (1) CYLINDER SHALL BE HELD FOR COMB.
- E. CAST IN PLACE REINFORCING STEEL:
 - 1) ALL REINFORCING STEEL BARS SHALL BE DETAILED AND FABRICATED IN ACCORDANCE WITH THE "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES". ALL BARS SHALL BE CLEAN AND FREE OF ALL RUST, SCALE, DIRT AND CONFORM TO ASTM-A615, GRADE 60 BARS.
 - 2) SECURELY TIE IN PLACE (MINIMUM 50% TIE ALL BARS) WITH DOUBLE ANNEALED IRON WIRE OR APPROVED CLIPS.
 - 3) UNLESS OTHERWISE NOTED ON THESE DRAWINGS PROVIDE A MINIMUM CLEAR COVER ON ALL REINFORCING BAR AS FOLLOWS:
 - a) CONCRETE AGAINST SOIL - 3 INCHES
 - b) WALLS, AND BEAMS EXPOSED TO WATER - 2 INCHES
 - c) STIRRUPS OR TIES - 1 1/2 INCHES
 - 5) CUTTING OR BENDING OF REINFORCING BARS WITH USE OF A TORCH SHALL NOT BE PERMITTED.
 - 6) CONTRACTOR SHALL NOTIFY ENGINEER FOR ADVISEMENT IF CONFLICTS ARISE WHILE LAYING OUT REBAR AND BOLTS.
- F. NON-SHRINK GROUT:
 - 1) NON-METALLIC, NON-CORROSIVE, NON-STAINING. PRE-MIXED WITH ONLY WATER TO BE ADDED.
 - 2) GROUT TO PRODUCE POSITIVE CONTROLLED EXPANSION. NOT TO BE PRODUCED BY GAS LIBERATION.
 - 3) GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS. CONTRACTOR SHALL USE GROUT SPECIFIED TO ATTAIN 5,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS TO ALLOW FOR EARLIER BRIDGE BACKFILLING.
 - 4) GROUT SHALL MEET ASTM C-1107 (GRADE C) STANDARDS.
 - 5) COMB TO HIRE 3RD PARTY TESTER AND PAY FOR TESTING. CONTRACTOR TO COORDINATE, OBTAIN AND PROVIDE TESTING RESULTS FOR 6-CYLINDERS PER EVERY 20 YARDS OF DELIVERED CONCRETE. (1) CYLINDER SHALL BE TESTED AT 3 DAYS, (1) CYLINDER AT 7 DAYS, (1) CYLINDER AT 14 DAYS, (2) CYLINDER AT 28 DAYS, AND (1) CYLINDER SHALL BE HELD FOR COMB.
- G. CONTECH@SYSTEMS:
 - 1) CONTECH@ SYSTEMS PRECAST BRIDGE SYSTEMS SHALL BE MANUFACTURED AND INSTALLED PER SEALED SPECIFICATIONS AND SHOP DRAWINGS PROVIDED BY CONTECH@.
 - a) COMB WILL PRE-PURCHASE THE BRIDGE AND WINGWALL SYSTEM.
 - b) PRICE OF BRIDGE AND WINGWALL SYSTEM NOT INCLUDED IN CONTRACT.
 - c) CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF DELIVERY AND INSTALLATION OF BRIDGE AND WINGWALLS AS SPECIFIED BY CONTECH@.
 - d) CONTECH'S APPROVED HAULER TO APPLY FOR HAULING PERMIT PRIOR TO DELIVERY OF BRIDGE AND WINGWALL SYSTEM.
 - 2) APPLY SEALER, MASONRY STAIN, AND ANTI-GRAFFITI COATING TO PREFABRICATED CONCRETE BRIDGE SYSTEM.
 - a) ALL CONCRETE COATING SYSTEMS SHALL BE COMPATIBLE WITH ONE ANOTHER AND APPLIED PER MANUFACTURER SPECIFICATIONS.
 - b) CLEAN PREFABRICATED CONCRETE ARCH STRUCTURE SUCH THAT ALL SURFACES ARE FREE OF DIRT, MARKINGS, AND OIL. FILL CONCRETE BLEMISHES WITH RAPID-SET CONCRETE ALL SURFACES SHALL BE DRY PRIOR TO APPLICATION.
 - c) APPLY ONE COAT OF CONCRETE SEALER. SEALER SHALL BE SINAK™ SEALER HLQ-625 OR APPROVED OTHER.
 - d) APPLY TWO TO THREE COATS OF PIGMENTED MASONRY STAIN. STAIN SHALL BE DECORA-STAIN™ BY SURFACE FX INC. COLOR SHALL BE USFS BROWN. OBTAIN COMB APPROVAL OF COLOR AND TEST IN INCONSPICUOUS AREA PRIOR TO APPLICATION.
 - e) APPLY TWO COATS OF ANTI-GRAFFITI COATING. COATINGS SHALL BE PERMASHIELD SACRIFICIAL GRAFFITI CONTROL SYSTEM BY MONOCHEM.



1	7/25/19	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION

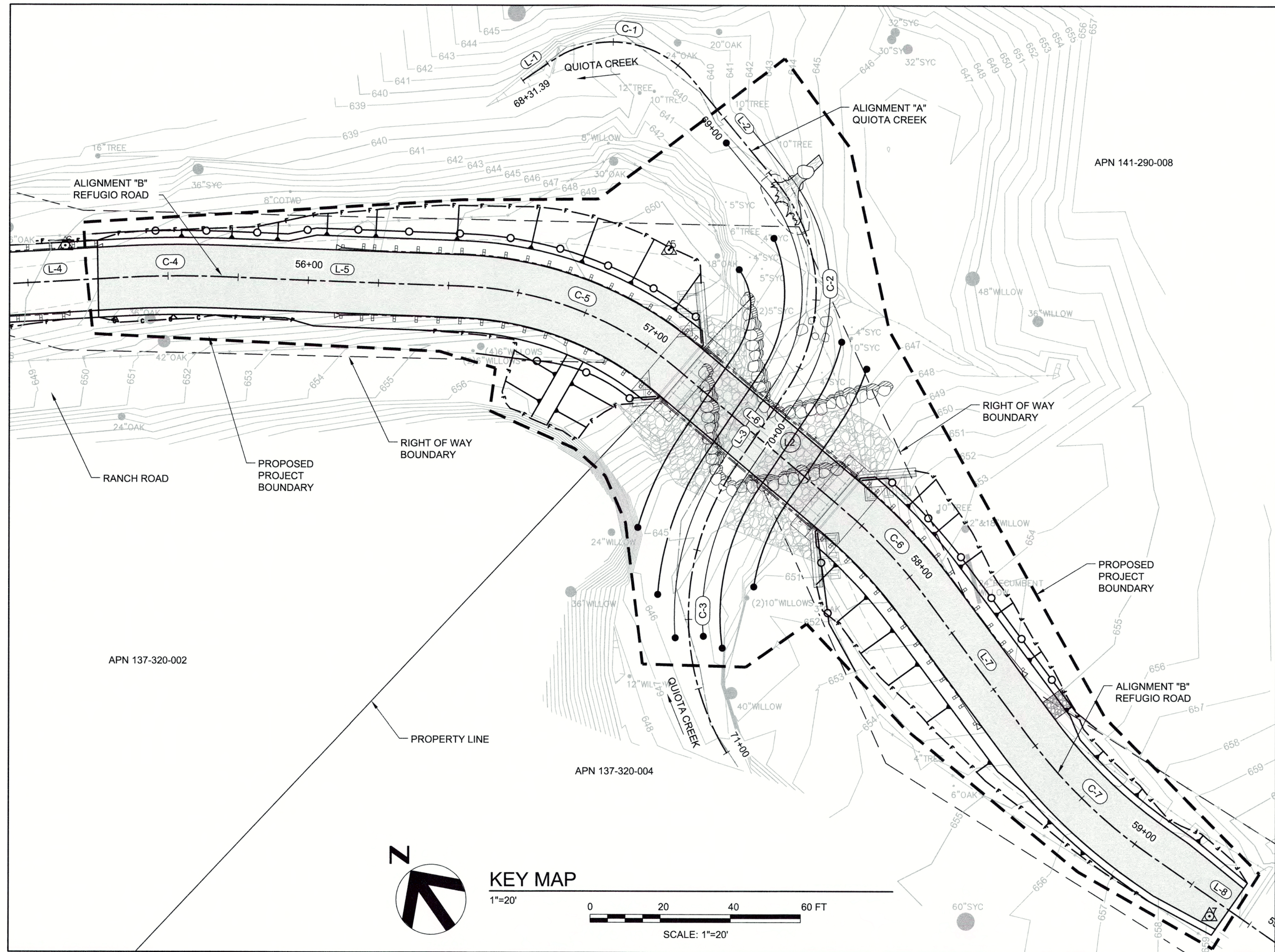
PROJECT MANAGER	M. GARELLO
CHECKED BY	R. THOMPSON
CHECKED BY	-
DESIGNED BY	S. BEVAN
DESIGNED BY	M. GARELLO
DRAWN BY	J. CAMPBELL
PROJECT NUMBER	10067867



**CROSSING 8 DESIGN DRAWINGS
CACHUMA OPERATION AND
MAINTENANCE BOARD**

SPECIFICATIONS

0 1" 2"	DATE	JULY 25, 2019	SHEET
	SCALE	NONE	2



CONTROL POINT LISTING

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1*	2032841.4690	5933855.4710	628.622	PK&TIN
2*	2032634.2900	5933967.5600	632.977	1/2" IP
3*	2032555.5280	5934030.5030	636.622	PK&TIN
4*	2032385.8630	5934108.6950	635.851	PK&TIN
5	2032211.6750	5934376.7020	650.527	PK&TIN
6	2032311.1310	5934236.2100	645.170	60d NAIL
7	2031967.5060	5934394.5090	659.063	PK&TIN

* NOT SHOWN ON KEY MAP

- LEGEND:**
- EXISTING FENCE
 - ALIGNMENTS AND STATIONING (FT)
 - CUT EXTENTS
 - FILL EXTENTS
 - PROPOSED FENCE
 - RIGHT OF WAY
 - PROPOSED PROJECT BOUNDARY
 - EXISTING FEATURES
 - PROPOSED FEATURES
 - TREE
 - ROCK SLOPE PROTECTION (RSP)
 - PROPOSED HMA ROAD LIMITS
 - ROCK WEIR
 - SLOPE FILL
 - SLOPE CUT
 - CURVE NUMBER
 - LINE NUMBER
 - POINT OF TANGENT
 - POINT OF CURVATURE
 - POINT OF REVERSE CURVATURE
 - CONTROL POINT

CREEK ALIGNMENT "A" LINE TABLE

LINE NO.	LENGTH	DIRECTION	START POINT (N,E)	END POINT (N,E)
L-1	10.36'	S89°11'10"E	2032275.19, 5934370.15	2032275.04, 5934380.52
L-2	37.50'	S4°28'31"E	2032247.39, 5934410.00	2032210.00, 5934412.92
L-3	27.37'	S68°42'54"W	2032159.51, 5934381.23	2032149.57, 5934355.72

ROAD ALIGNMENT "B" LINE TABLE

LINE NO.	LENGTH	DIRECTION	START POINT (N,E)	END POINT (N,E)
L-4	67.43'	S58°18'36"E	2032329.85, 5934186.64	2032294.42, 5934244.02
L-5	69.57'	S52°56'07"E	2032278.54, 5934267.24	2032236.61, 5934322.75
L-6	61.96'	S14°53'21"E	2032182.51, 5934359.13	2032122.62, 5934375.05
L-7	49.51'	S1°37'28"E	2032088.33, 5934380.02	2032038.85, 5934381.43
L-8	43.60'	S20°17'40"E	2031991.07, 5934390.68	2031950.18, 5934405.80

CREEK ALIGNMENT "A" CURVE TABLE

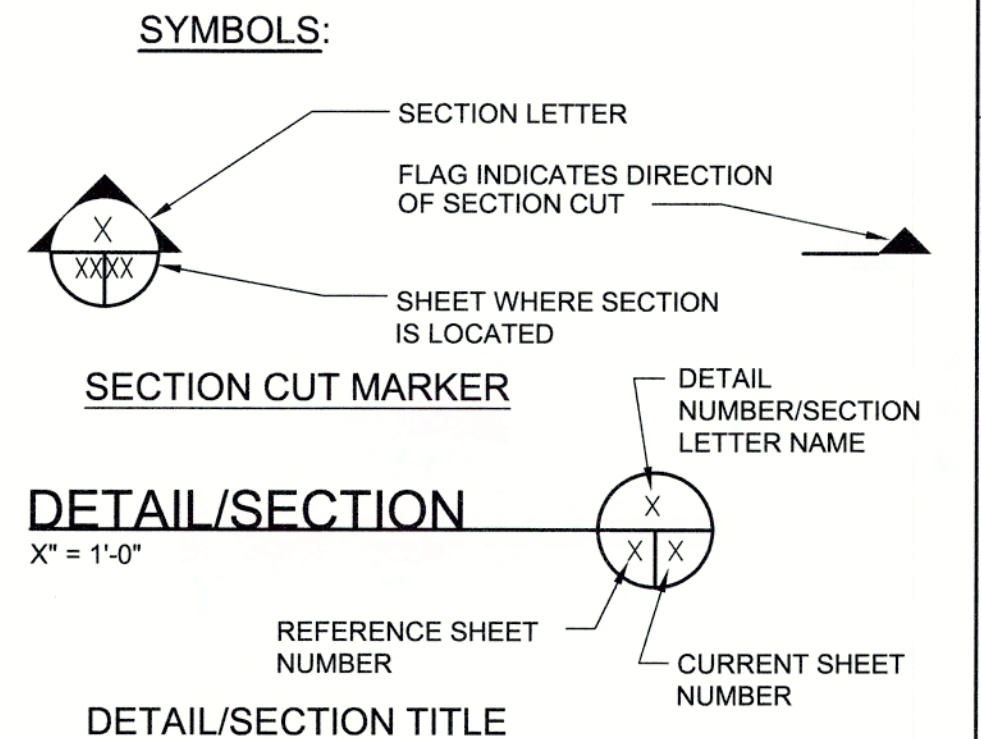
CURVE NO.	PI STATION	Δ	RADIUS	TANGENT	LENGTH	CHORD DIRECTION	CHORD LENGTH
C-1	68+69.11	95°17'22"	30.00'	27.35'	44.35	S46°49'50.32"E	40.42'
C-2	69+60.74	106°48'35"	50.00'	37.13'	63.87	S32°07'11.54"W	59.62'
C-3	70+62.68	114°57'08"	75.00'	47.82'	85.15	S36°11'28.21"W	80.65'

ROAD ALIGNMENT "B" CURVE TABLE

CURVE NO.	PI STATION	Δ	RADIUS	TANGENT	LENGTH	CHORD DIRECTION	CHORD LENGTH
C-4	55+60.69	174°37'31"	300.00'	14.08'	28.14	S55°37'21.95"E	28.13'
C-5	56+78.80	141°57'14"	100.00'	34.48'	66.40	S33°54'44.41"E	65.19'
C-6	57+90.13	166°44'07"	150.00'	17.44'	34.73	S8°15'24.91"E	34.65'
C-7	58+81.58	161°19'48"	150.00'	24.66'	48.88	S10°57'34.26"E	48.66'

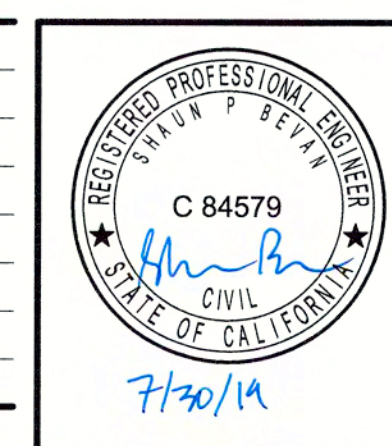
SURVEYOR'S NOTES:

- ORIGINAL SURVEY PERFORMED IN JUNE 2008 BY PENFIELD AND SMITH. SUPPLEMENTAL SURVEY PERFORMED IN JANUARY 2019 BY PROBER LAND SURVEYING.
- ALL DISTANCES AND COORDINATES SHOWN AS MEASURED OR CALCULATED ARE EXPRESSED IN CCS, NAD 83, ZONE V GRID US SURVEY FOOT UNITS.
- THE VERTICAL DATUM FOR THIS SURVEY IS NAVD88. DEFINED LOCALLY BY CONTINUOUSLY OPERATING REFERENCE STATIONS OPERATED BY THE CALIFORNIA SPATIAL REFERENCE CENTER. THIS SURVEY TIED TO STATION BDDM, COPR, TJRN AND VNDP.
- THE SITE COMBINATION FACTOR IS 0.99990284 AND THE SITE MAPPING ANGLE IS -01°11'17", BOTH CALCULATED AT CONTROL POINT 4. CP 4 IS A LARGE MAG PK NAIL AND SHINER SET NEAR THE WEST EDGE OF PAVEMENT OF REFUGIO ROAD.
- ALIGNMENT "A" REFERS TO PROPOSED CREEK ALIGNMENT.
- ALIGNMENT "B" REFERS TO PROPOSED REFUGIO ROAD ALIGNMENT.



ISSUE	DATE	DESCRIPTION
1	7/25/19	ISSUED FOR BID

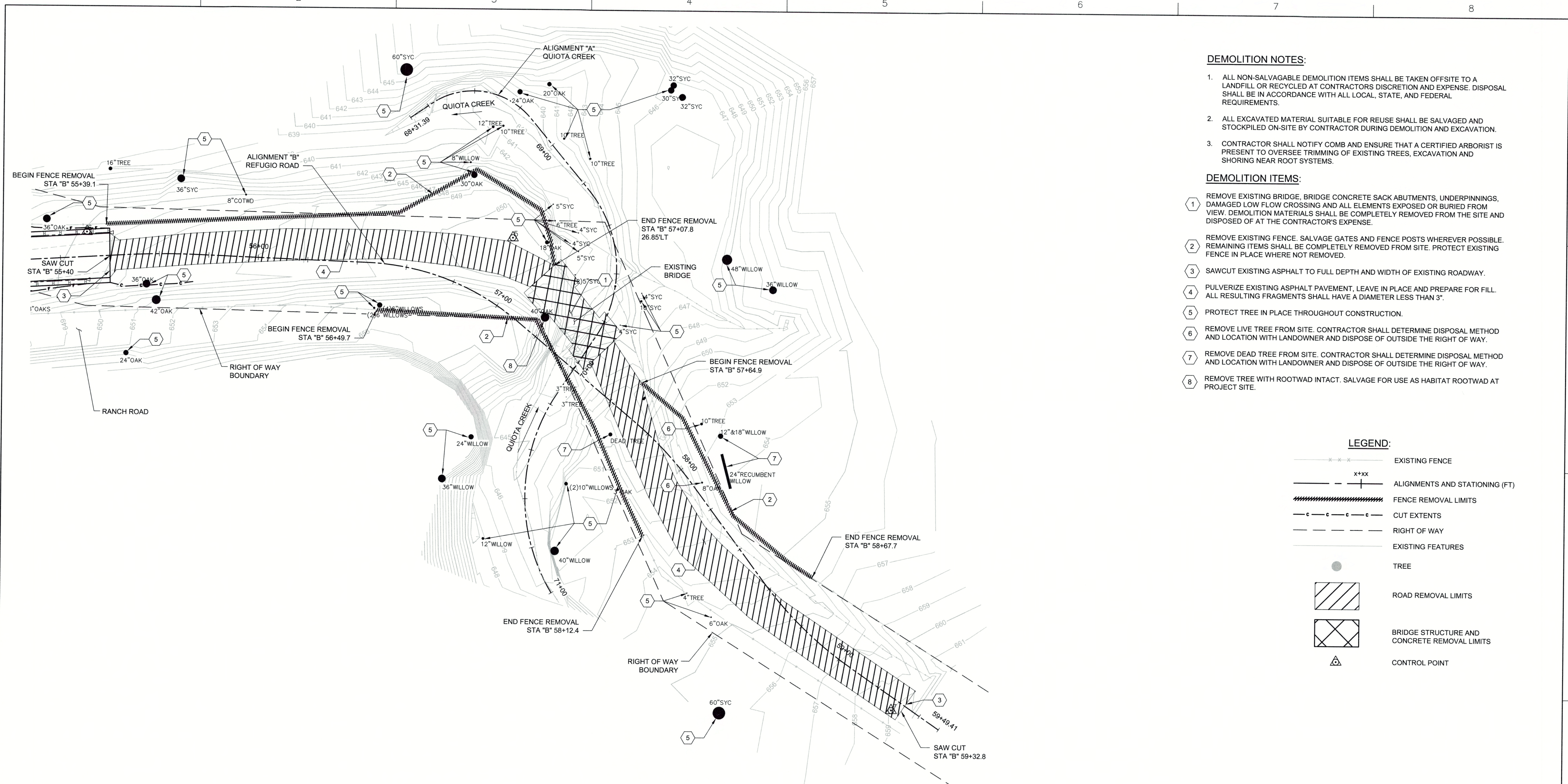
PROJECT MANAGER	M. GARELLO
CHECKED BY	R. THOMPSON
DESIGNED BY	S. BEVAN
DESIGNED BY	M. GARELLO
DRAWN BY	J. CAMPBELL
PROJECT NUMBER	10067867



**CROSSING 8 DESIGN DRAWINGS
CACHUMA OPERATION AND
MAINTENANCE BOARD**

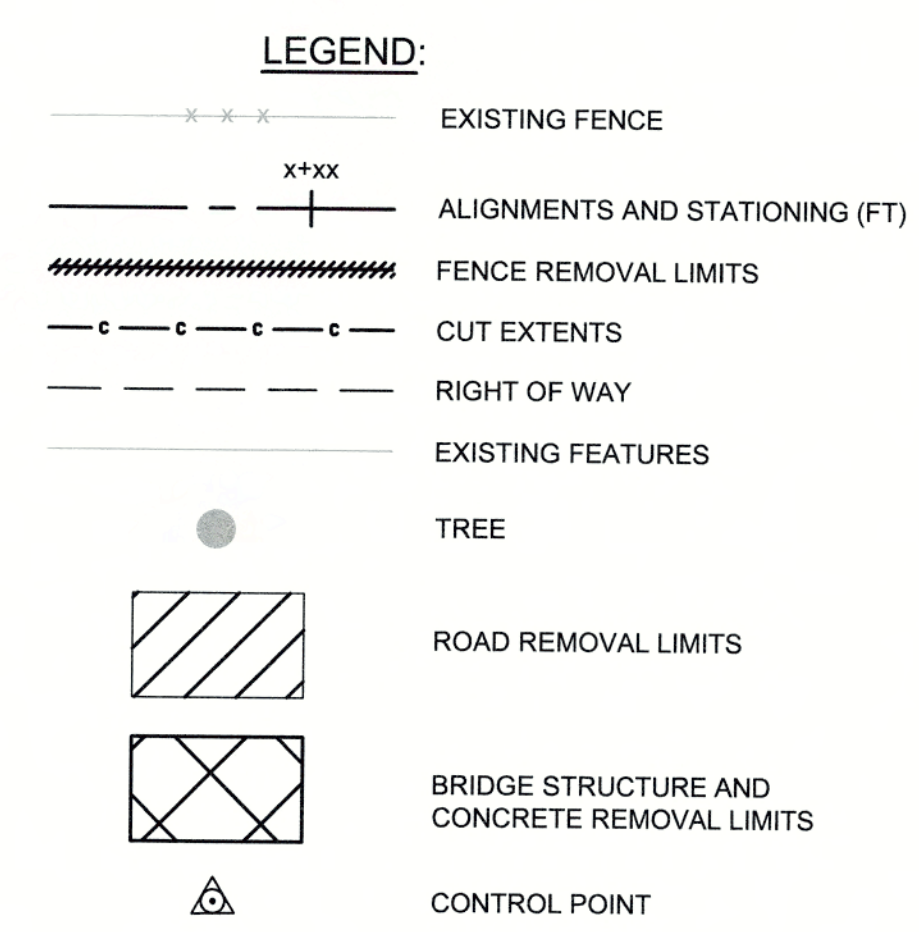
**KEY MAP/
SURVEY CONTROL**

DATE	JULY 25, 2019	SHEET	3
SCALE	AS NOTED		

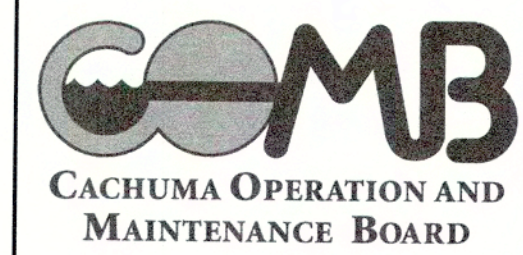


- DEMOLITION NOTES:**
1. ALL NON-SALVAGABLE DEMOLITION ITEMS SHALL BE TAKEN OFFSITE TO A LANDFILL OR RECYCLED AT CONTRACTORS DISCRETION AND EXPENSE. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.
 2. ALL EXCAVATED MATERIAL SUITABLE FOR REUSE SHALL BE SALVAGED AND STOCKPILED ON-SITE BY CONTRACTOR DURING DEMOLITION AND EXCAVATION.
 3. CONTRACTOR SHALL NOTIFY COMB AND ENSURE THAT A CERTIFIED ARBORIST IS PRESENT TO OVERSEE TRIMMING OF EXISTING TREES, EXCAVATION AND SHORING NEAR ROOT SYSTEMS.

- DEMOLITION ITEMS:**
- 1 REMOVE EXISTING BRIDGE, BRIDGE CONCRETE SACK ABUTMENTS, UNDERPINNINGS, DAMAGED LOW FLOW CROSSING AND ALL ELEMENTS EXPOSED OR BURIED FROM VIEW. DEMOLITION MATERIALS SHALL BE COMPLETELY REMOVED FROM THE SITE AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
 - 2 REMOVE EXISTING FENCE, SALVAGE GATES AND FENCE POSTS WHEREVER POSSIBLE. REMAINING ITEMS SHALL BE COMPLETELY REMOVED FROM SITE. PROTECT EXISTING FENCE IN PLACE WHERE NOT REMOVED.
 - 3 SAWCUT EXISTING ASPHALT TO FULL DEPTH AND WIDTH OF EXISTING ROADWAY.
 - 4 PULVERIZE EXISTING ASPHALT PAVEMENT, LEAVE IN PLACE AND PREPARE FOR FILL. ALL RESULTING FRAGMENTS SHALL HAVE A DIAMETER LESS THAN 3".
 - 5 PROTECT TREE IN PLACE THROUGHOUT CONSTRUCTION.
 - 6 REMOVE LIVE TREE FROM SITE. CONTRACTOR SHALL DETERMINE DISPOSAL METHOD AND LOCATION WITH LANDOWNER AND DISPOSE OF OUTSIDE THE RIGHT OF WAY.
 - 7 REMOVE DEAD TREE FROM SITE. CONTRACTOR SHALL DETERMINE DISPOSAL METHOD AND LOCATION WITH LANDOWNER AND DISPOSE OF OUTSIDE THE RIGHT OF WAY.
 - 8 REMOVE TREE WITH ROOTWAD INTACT. SALVAGE FOR USE AS HABITAT ROOTWAD AT PROJECT SITE.



**CROSSING 8
EXISTING SITE/DEMO PLAN**
1"=20'
0 20 40 60 FT
SCALE: 1"=20'



ISSUE	DATE	DESCRIPTION
1	7/25/19	ISSUED FOR BID

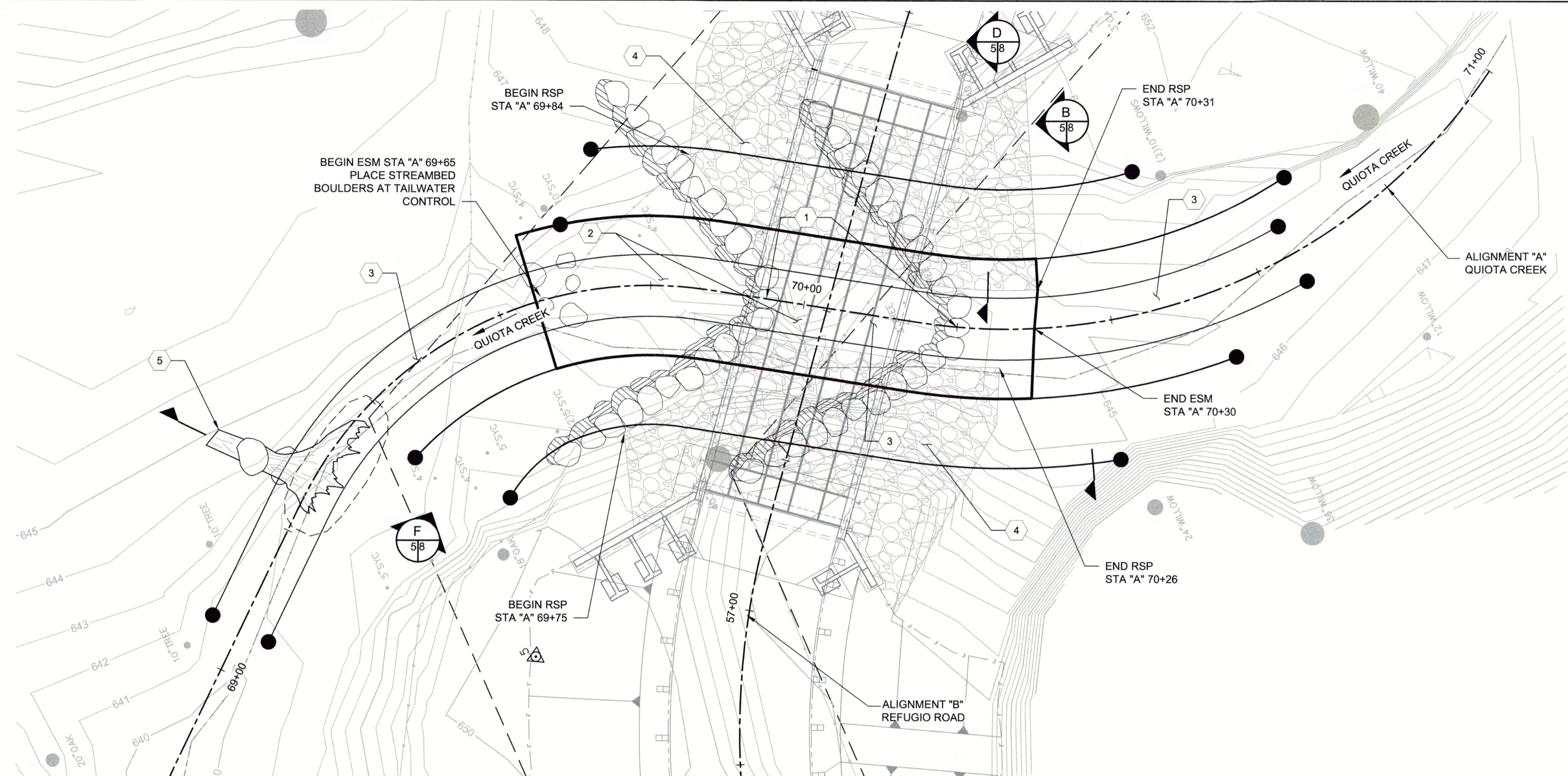
PROJECT MANAGER	M. GARELLO
CHECKED BY	R. THOMPSON
CHECKED BY	—
DESIGNED BY	S. BEVAN
DESIGNED BY	M. GARELLO
DRAWN BY	J. CAMPBELL
PROJECT NUMBER	10067867



**CROSSING 8 DESIGN DRAWINGS
CACHUMA OPERATION AND
MAINTENANCE BOARD**

EXISTING SITE/DEMO PLAN

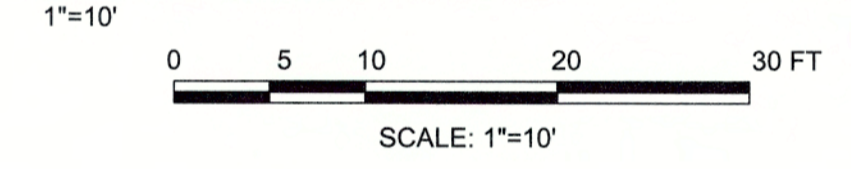
	DATE	JULY 25, 2019	SHEET 4
	SCALE	AS NOTED	



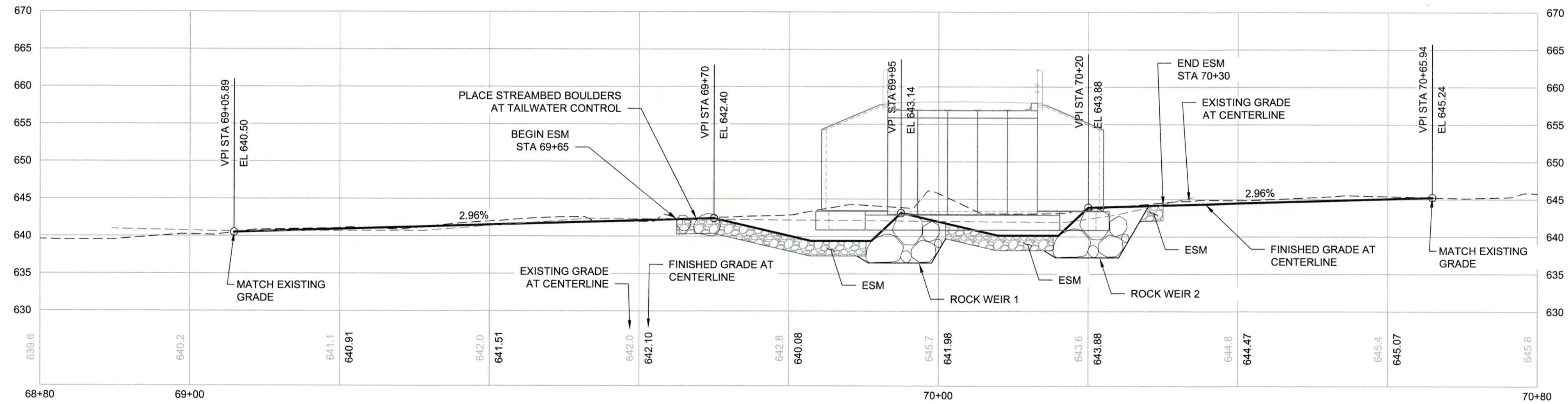
- CONSTRUCTION NOTES:**
- 1 CONSTRUCT TWO (2) GRADE CONTROL ROCK WEIRS. SEE PLAN 1 ON SHEET 9.
 - 2 INSTALL ENGINEERED STREAMBED MATERIAL (ESM) TO EXTENT SHOWN IN PROFILE AND TYPICAL SECTION C ON SHEET 8.
 - 3 PROVIDE FINISH GRADING FOR ALL IN STREAM WORK AS DIRECTED BY PROJECT ENGINEER. SEE SECTION B ON SHEET 8 FOR TYPICAL CREEK SECTION.
 - 4 CONSTRUCT RSP TO EXTENTS SHOWN PER SECTION D ON SHEET 8.
 - 5 INSTALL SALVAGED ROOTWAD PER SECTION F ON SHEET 8.

- LEGEND:**
- x--- x--- EXISTING FENCE
 - x--- x--- ALIGNMENTS AND STATIONING (FT)
 - --- --- FILL EXTENTS
 - --- --- EXISTING FEATURES
 - --- --- PROPOSED FEATURES
 - TREE
 - ⊠ ROCK SLOPE PROTECTION (RSP)
 - ▭ ENGINEERED STREAMBED MATERIAL (ESM) EXTENT
 - ⊞ ROCK WEIR
 - ▲ SLOPE FILL
 - △ CONTROL POINT

CREEK PLAN

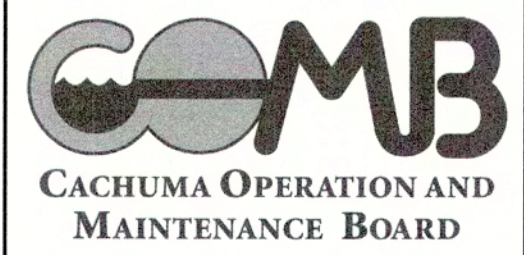


NOTE: BRIDGE IMPROVEMENTS SCREENED FOR CLARITY.



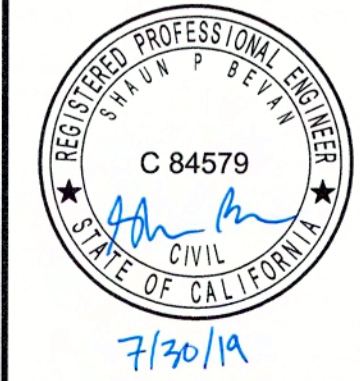
CREEK PROFILE

1"=10'



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1	7/25/19	ISSUED FOR BID

PROJECT MANAGER	M. GARELLO
CHECKED BY	R. THOMPSON
CHECKED BY	-
DESIGNED BY	S. BEVAN
DESIGNED BY	M. GARELLO
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PROJECT NUMBER	10067867



**CROSSING 8 DESIGN DRAWINGS
CACHUMA OPERATION AND
MAINTENANCE BOARD**

CREEK PLAN AND PROFILE

DATE	JULY 25, 2019	SHEET	5
SCALE	AS NOTED		

CONSTRUCTION NOTES:

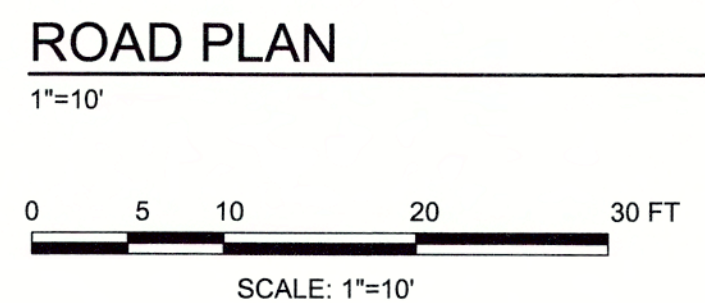
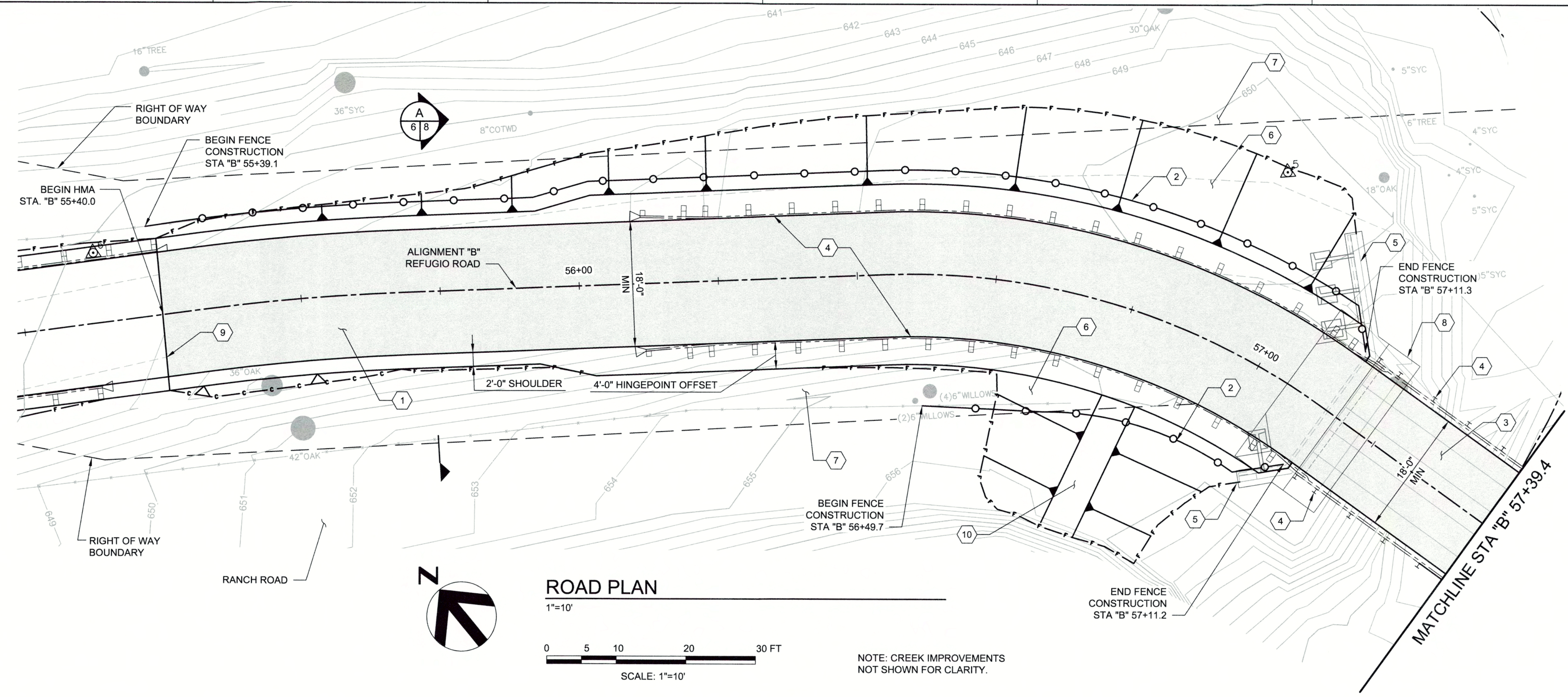
- 1 CONSTRUCT ROAD PER TYPICAL ROAD SECTION A ON SHEET 8.
- 2 REPLACE APPROXIMATELY 383 LF OF EXISTING FENCE IN KIND IN LOCATIONS SHOWN. COORDINATE FENCE REPAIR AND INSTALLATION WITH OWNER AND COMB.
- 3 INSTALL 54' SPAN CONCRETE ARCH SYSTEM PER MANUFACTURER SHOP DRAWINGS AND SPECIFICATIONS. SEE SHEETS 10, 11 AND 12 FOR DETAILS.
- 4 CONSTRUCT BRIDGERAIL AND GUARDRAIL PER DETAILS ON SHEET 13.
- 5 INSTALL PRECAST WINGWALLS PER MANUFACTURERS SHOP DRAWINGS AND SPECIFICATIONS.
- 6 CONSTRUCT ROAD EMBANKMENT PER SECTION 19 OF THE CALTRANS STANDARD SPECIFICATIONS. CONSTRUCT HINGEPOINT OFFSETS AS SHOWN IN DRAWINGS.
- 7 EDGE OF ROADWAY EMBANKMENT SHALL BE REGRADED TO DRAIN TO QUIOTA CREEK.
- 8 CONSTRUCT SPREAD FOOTING PER DETAIL 1 ON SHEET 12.
- 9 CONTRACTOR SHALL GRADE TRANSITION FROM FINISHED ROADWAY TO EXISTING ROADWAY TO FORM SMOOTH SURFACE.
- 10 RAISE RANCH ROAD FINISHED GRADE TO ELEVATION 658.0 FT WITH 5 FT WIDE EMBANKMENT.

LEGEND:

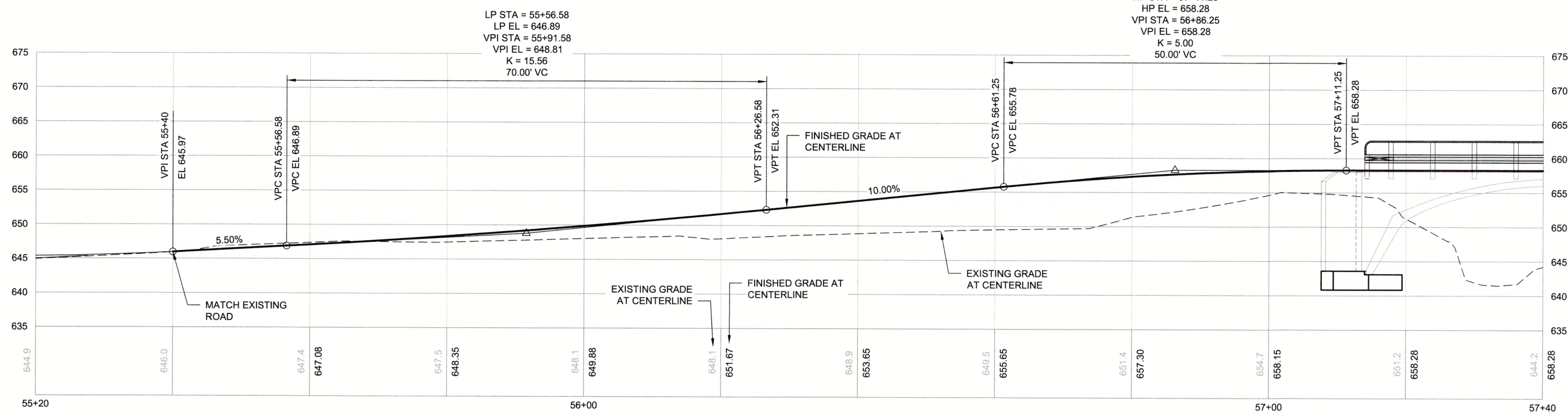
- x---x--- EXISTING FENCE
- x---x--- ALIGNMENTS AND STATIONING (FT)
- - - - - CUT EXTENTS
- - - - - FILL EXTENTS
- - - - - PROPOSED FENCE
- - - - - RIGHT OF WAY
- - - - - EXISTING FEATURES
- - - - - PROPOSED FEATURES
- TREE
- PROPOSED HMA ROAD LIMITS
- ⌊ ROCK WEIR
- ▲ SLOPE FILL
- ▼ SLOPE CUT
- △ CONTROL POINT

GENERAL NOTES:

1. PURCHASE AND DELIVERY OF PREFABRICATED CONCRETE BRIDGE SYSTEM AND WINGWALLS BY COMB.
2. CONTRACTOR TO COORDINATE WITH SUPPLIER AND COMB PRIOR TO DELIVERY AND INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF BRIDGE AS DEPICTED ON THE PLANS.



NOTE: CREEK IMPROVEMENTS NOT SHOWN FOR CLARITY.

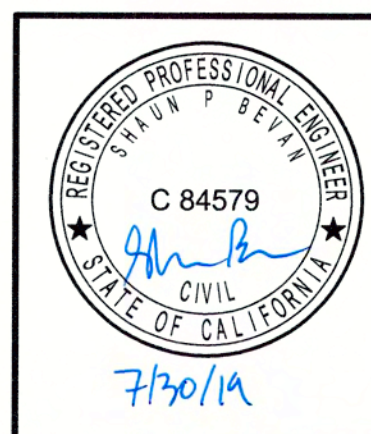


ROAD PROFILE
1"=10'



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PROJECT MANAGER	M. GARELLO
CHECKED BY	R. THOMPSON
CHECKED BY	-
DESIGNED BY	S. BEVAN
DESIGNED BY	M. GARELLO
DRAWN BY	J. CAMPBELL
PROJECT NUMBER	10067867

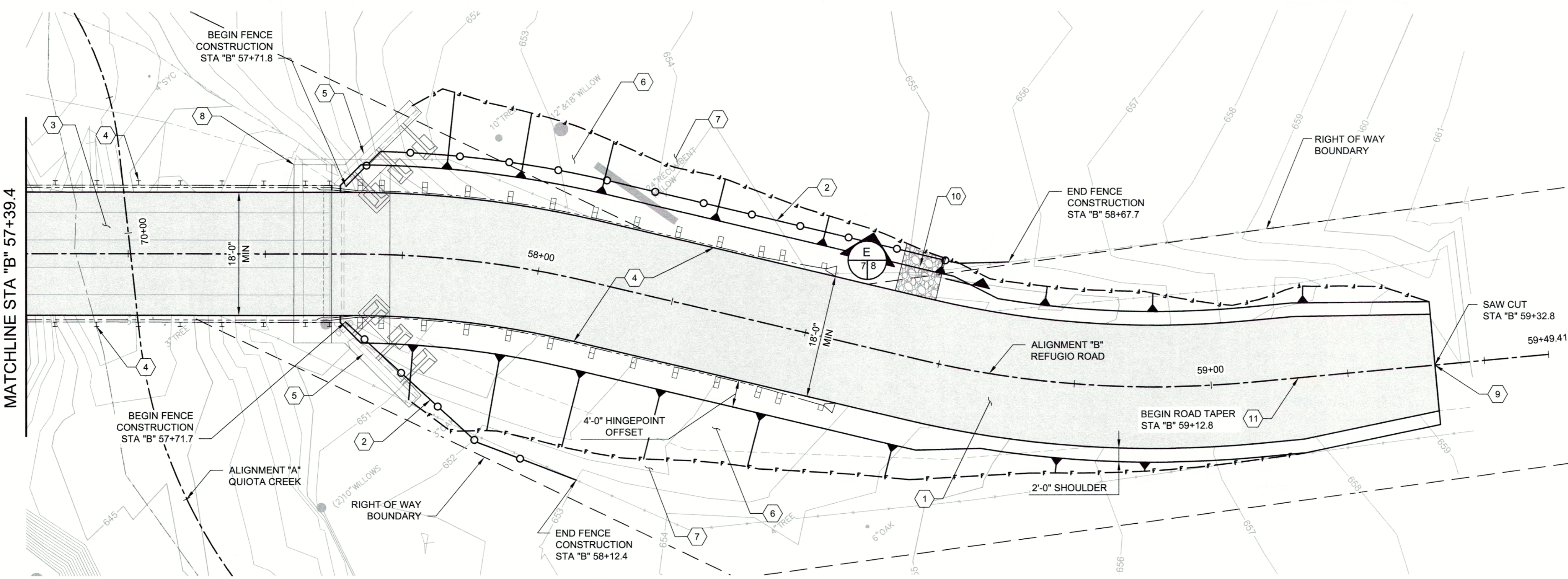


**CROSSING 8 DESIGN DRAWINGS
CACHUMA OPERATION AND
MAINTENANCE BOARD**

ROAD PLAN AND PROFILE 1

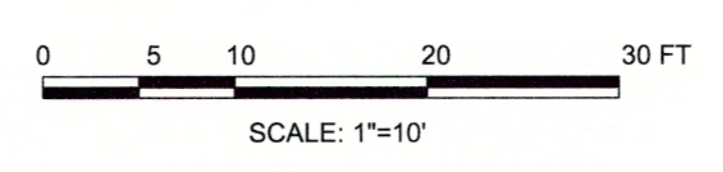
DATE: JULY 25, 2019
SCALE: AS NOTED

SHEET
6



ROAD PLAN

1"=10'



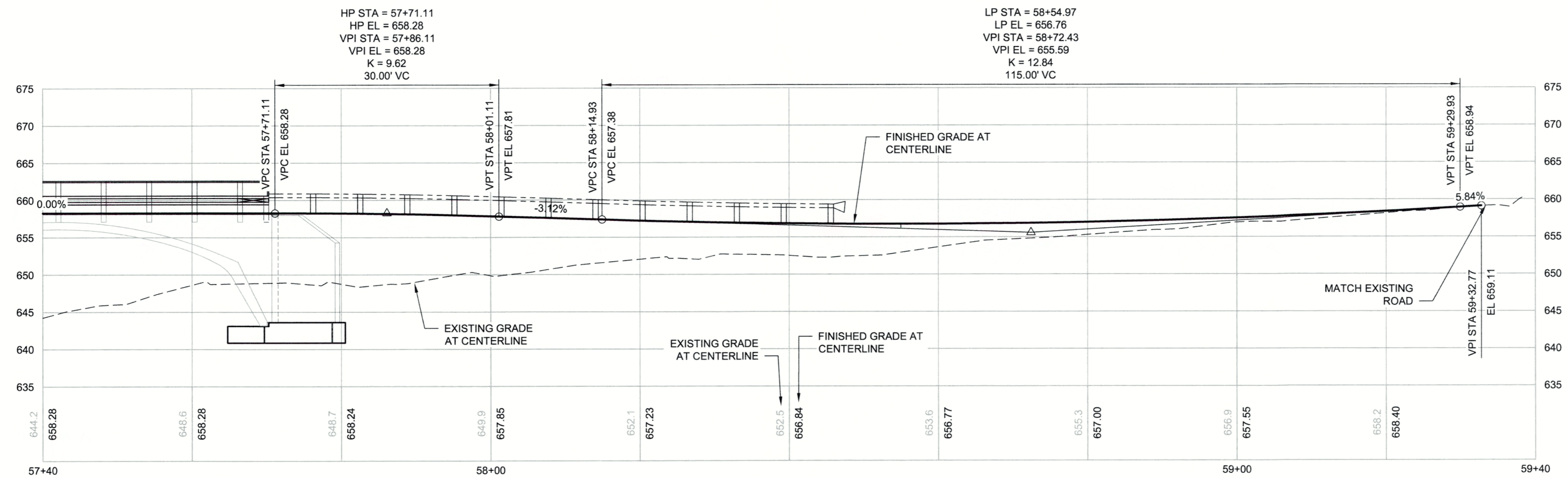
NOTE: CREEK IMPROVEMENTS NOT SHOWN FOR CLARITY.

CONSTRUCTION NOTES:

- 1 CONSTRUCT ROAD PER TYPICAL ROAD SECTION A ON SHEET 8.
- 2 REPLACE APPROXIMATELY 383 LF OF EXISTING FENCE IN KIND IN LOCATIONS SHOWN. COORDINATE FENCE REPAIR AND INSTALLATION WITH OWNER AND COMB.
- 3 INSTALL 54' SPAN CONCRETE ARCH SYSTEM PER MANUFACTURER SHOP DRAWINGS AND SPECIFICATIONS. SEE SHEETS 10, 11 AND 12 FOR DETAILS.
- 4 CONSTRUCT BRIDGERAIL AND GUARDRAIL PER DETAILS ON SHEET 13.
- 5 INSTALL PRECAST WINGWALLS PER MANUFACTURERS SHOP DRAWINGS AND SPECIFICATIONS.
- 6 CONSTRUCT ROAD EMBANKMENT PER SECTION 19 OF THE CALTRANS STANDARD SPECIFICATIONS. CONSTRUCT HINGEPOINT OFFSETS AS SHOWN IN DRAWINGS.
- 7 EDGE OF ROADWAY EMBANKMENT SHALL BE REGRADED TO DRAIN TO QUIOTA CREEK.
- 8 CONSTRUCT SPREAD FOOTING PER DETAIL 1 ON SHEET 12.
- 9 CONTRACTOR SHALL GRADE TRANSITION FROM FINISHED ROADWAY TO EXISTING ROADWAY TO FORM SMOOTH SURFACE.
- 10 INSTALL SLOPE DRAIN AS SHOWN IN SECTION E ON SHEET 8.
- 11 BEGIN ROAD TAPER TO MATCH EXISTING ROADWAY WIDTH, APPROXIMATELY 14 FT WIDE.

LEGEND:

- EXISTING FENCE
- x+xx ALIGNMENTS AND STATIONING (FT)
- - - CUT EXTENTS
- - - FILL EXTENTS
- - - PROPOSED FENCE
- - - RIGHT OF WAY
- EXISTING FEATURES
- PROPOSED FEATURES
- TREE
- ⊠ ROCK SLOPE PROTECTION (RSP)
- ▭ PROPOSED HMA ROAD LIMITS
- ▲ SLOPE FILL
- ▼ SLOPE CUT
- △ CONTROL POINT

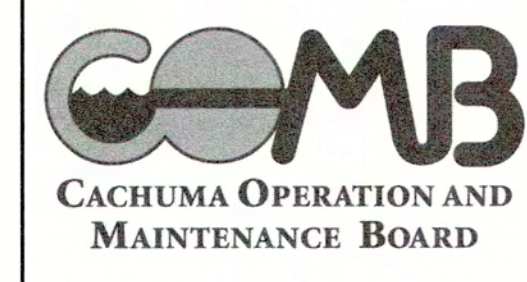


ROAD PROFILE

HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=5'

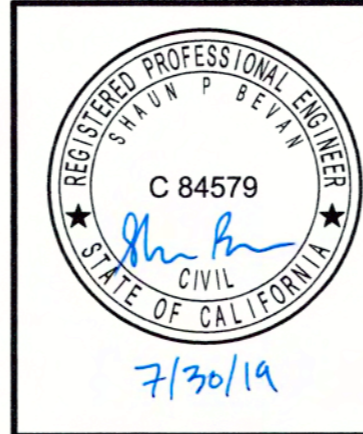
GENERAL NOTES:

1. PURCHASE AND DELIVERY OF PREFABRICATED CONCRETE BRIDGE SYSTEM AND WINGWALLS BY COMB.
2. CONTRACTOR TO COORDINATE WITH SUPPLIER AND COMB PRIOR TO DELIVERY AND INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF BRIDGE AS DEPICTED ON THE PLANS.



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PROJECT MANAGER	M. GARELLO
CHECKED BY	R. THOMPSON
CHECKED BY	-
DESIGNED BY	S. BEVAN
DESIGNED BY	M. GARELLO
DRAWN BY	J. CAMPBELL
PROJECT NUMBER	10067867

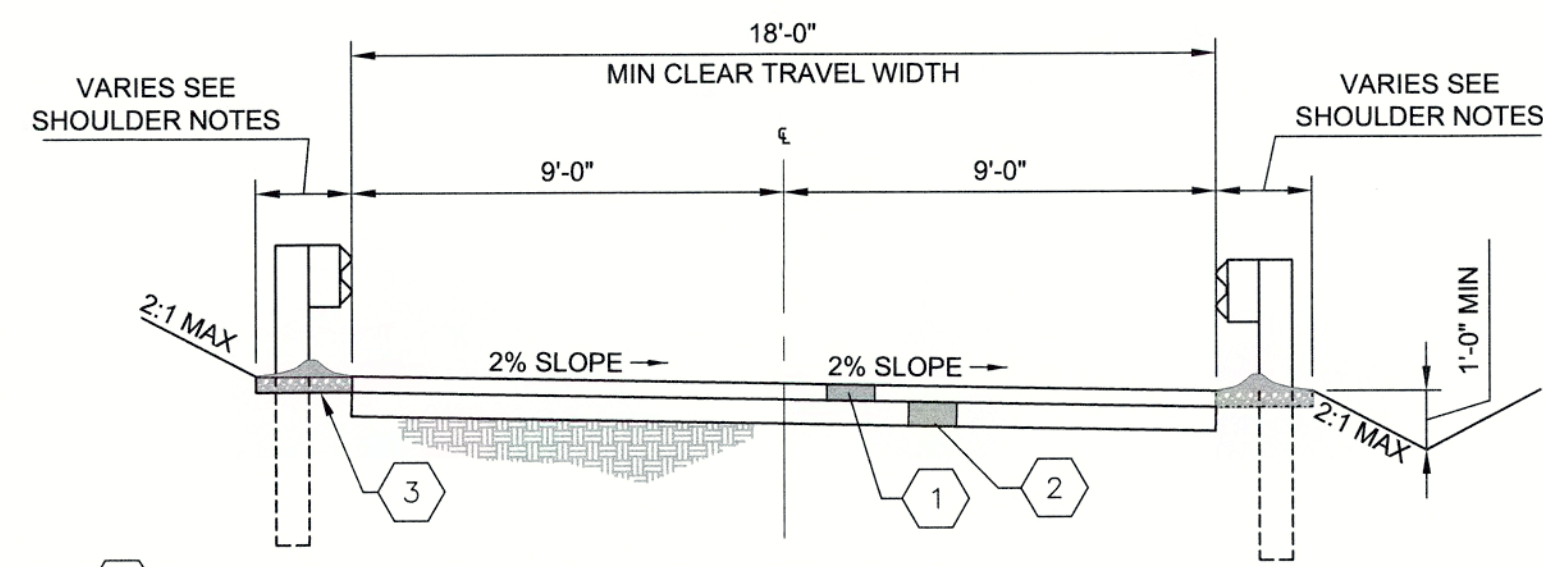


**CROSSING 8 DESIGN DRAWINGS
CACHUMA OPERATION AND
MAINTENANCE BOARD**

ROAD PLAN AND PROFILE 2

0 1" 2"

DATE	JULY 25, 2019	SHEET	7
SCALE	AS NOTED		



- 1 4" HMA 3/4" TYPE A PER CALTRANS SPECIFICATION 39-2.02.
- 2 8" CLASS 2 AGGREGATE BASE PER CALTRANS SPECIFICATION 26.
- 3 2" SHOULDER AND 4" TALL BERM USING CLASS 2 AGGREGATE BASE PER CALTRANS SPECIFICATION 26. INSTALL OPENINGS IN BERM FOR DRAINAGE AS DIRECTED BY OWNER.

NOTE:

TRANSITION STATION 55+40 TO 55+80 TO MATCH EXISTING ROAD
 CROSS SLOPE STATION 55+80 TO 56+60, REVERSE CROWN TOWARD UPSTREAM.
 TRANSITION STATION 56+60 TO 57+00.
 CENTER CROWN STATION 57+00 TO 57+80.
 TRANSITION STATION 57+80 TO 58+20.
 CROSS SLOPE STATION 58+20 TO 59+00, REVERSE CROWN TOWARDS DOWNSTREAM.
 TRANSITION STATION 59+00 TO 59+32.80 TO MATCH EXISTING ROAD.

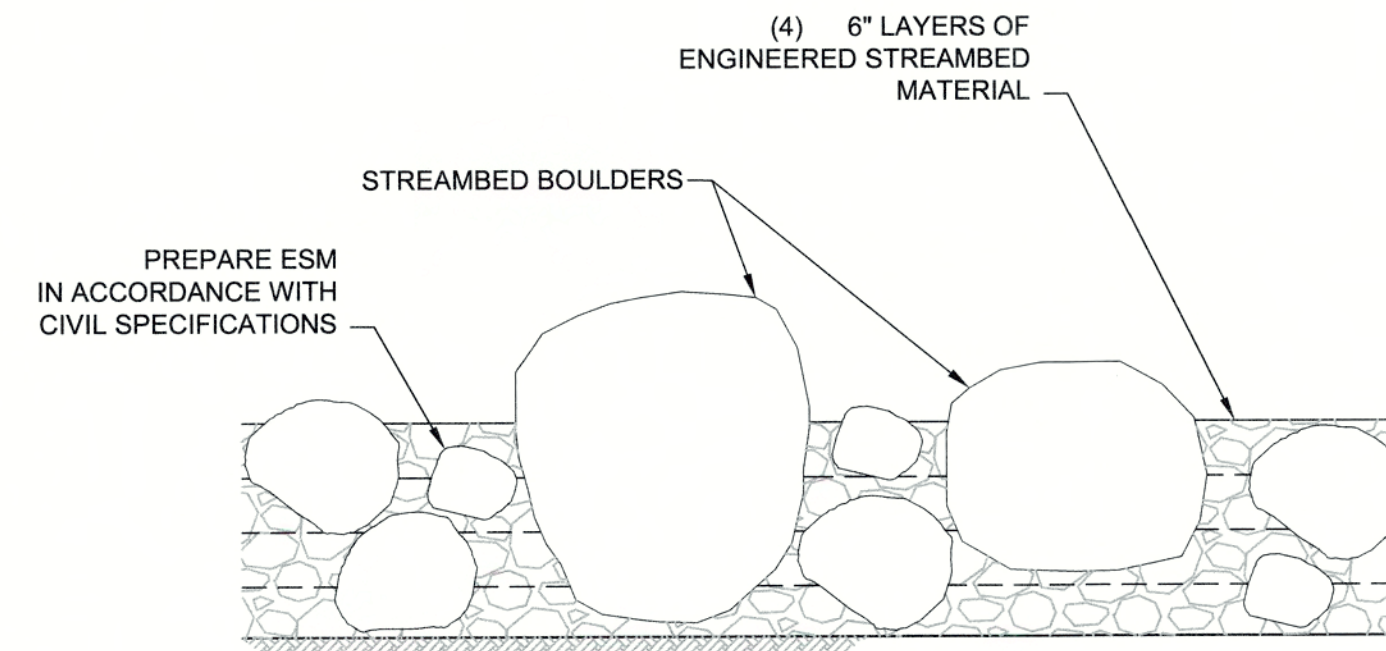
REFUGIO ROAD TYPICAL SECTION

NTS



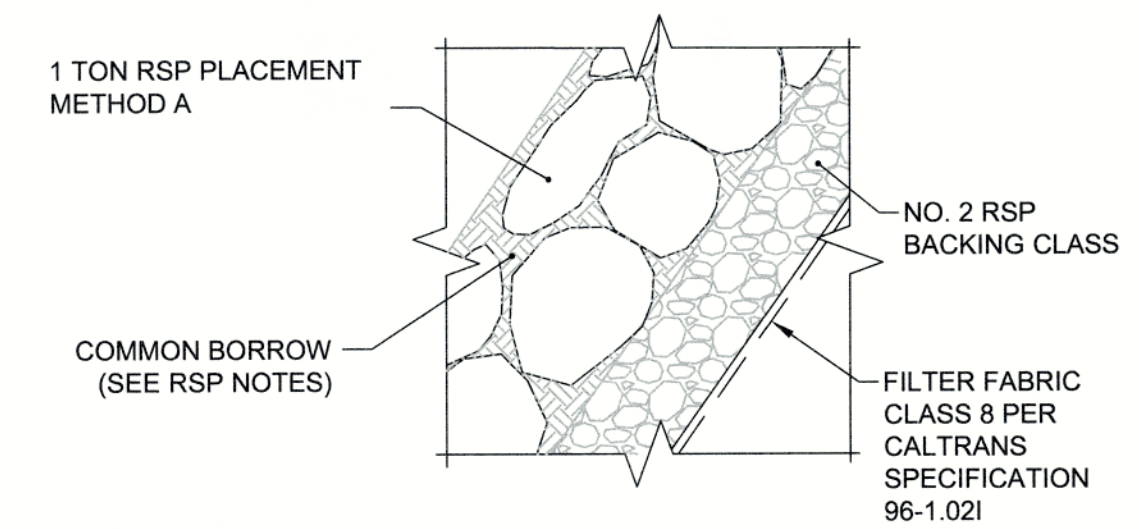
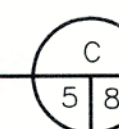
SHOULDER NOTES:

1. SHOULDER 2'-0" AT LOCATIONS WITHOUT GUARDRAIL.
2. AT LOCATION WITH GUARDRAIL HINGE POINT OFFSET SHALL BE 4'-0" TO ALLOW FOR INSTALLATION OF CALTRANS STANDARD A77N3 DETAIL A.



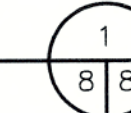
ESM TYPICAL SECTION

NTS



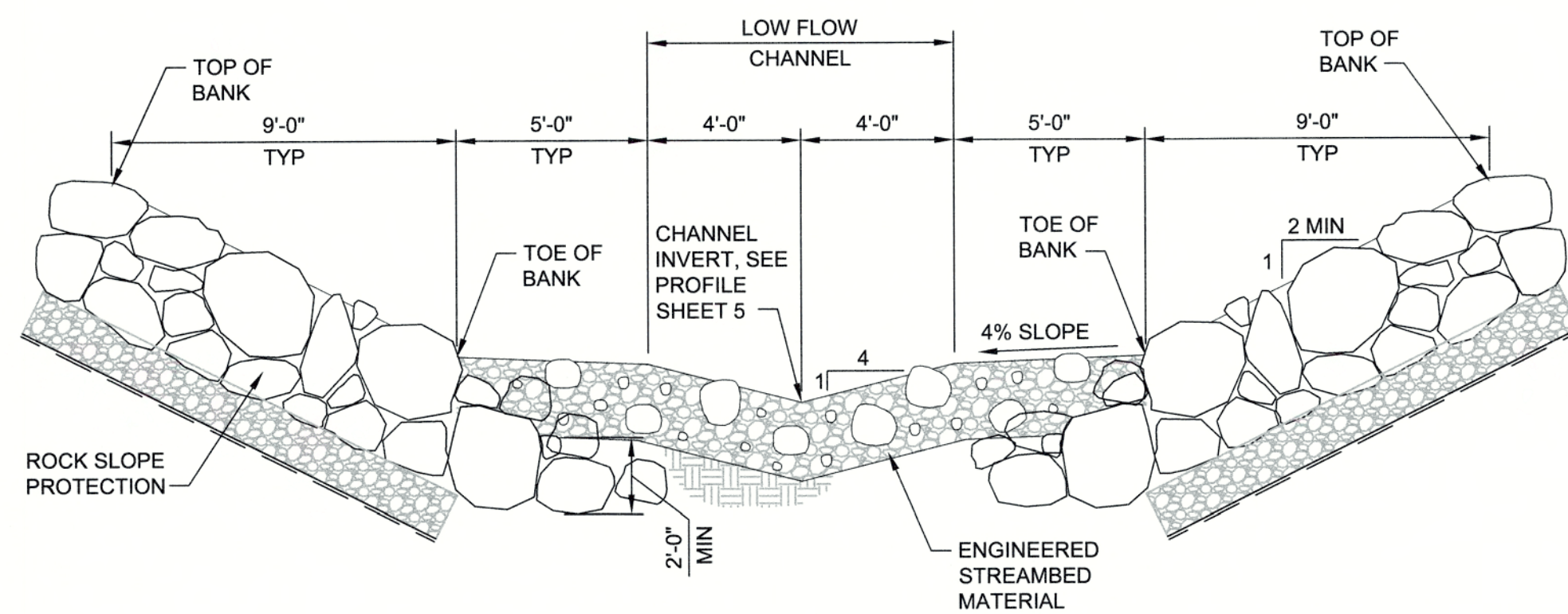
DETAIL

NTS



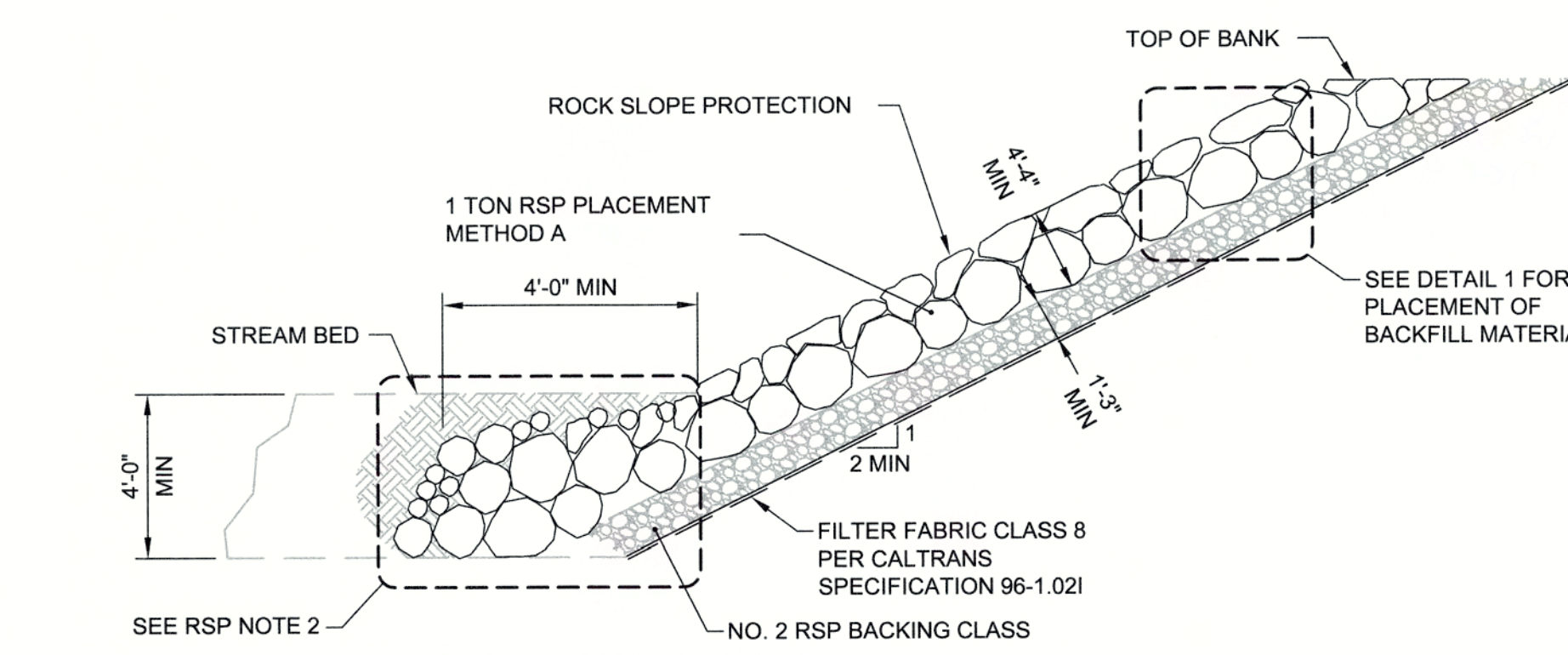
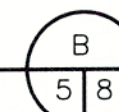
RSP NOTES:

1. RSP SHALL BE PLACED SUCH THAT ALL INTERSTITIAL SPACES ARE FILLED WITH COMMON BORROW AND NATIVE TOPSOIL WITH LESS THAN 3" DIA ROCKS AND A HIGH PERCENTAGE OF FINES. MATERIAL SHALL BE PLACED TO COVER ALL RSP BY 3".
2. CONTRACTOR TO USE FLOODING OR JETTING TO FILL VOIDS OF RSP WITH FINES AT BANK TOE TO PREVENT SUBSURFACE FLOW.
3. REVEGETATION OF RSP WILL BE THE RESPONSIBILITY OF COMB. CONTRACTOR SHALL COORDINATE REVEGETATION EFFORTS WITH COMB PRIOR TO RSP PLACEMENT.



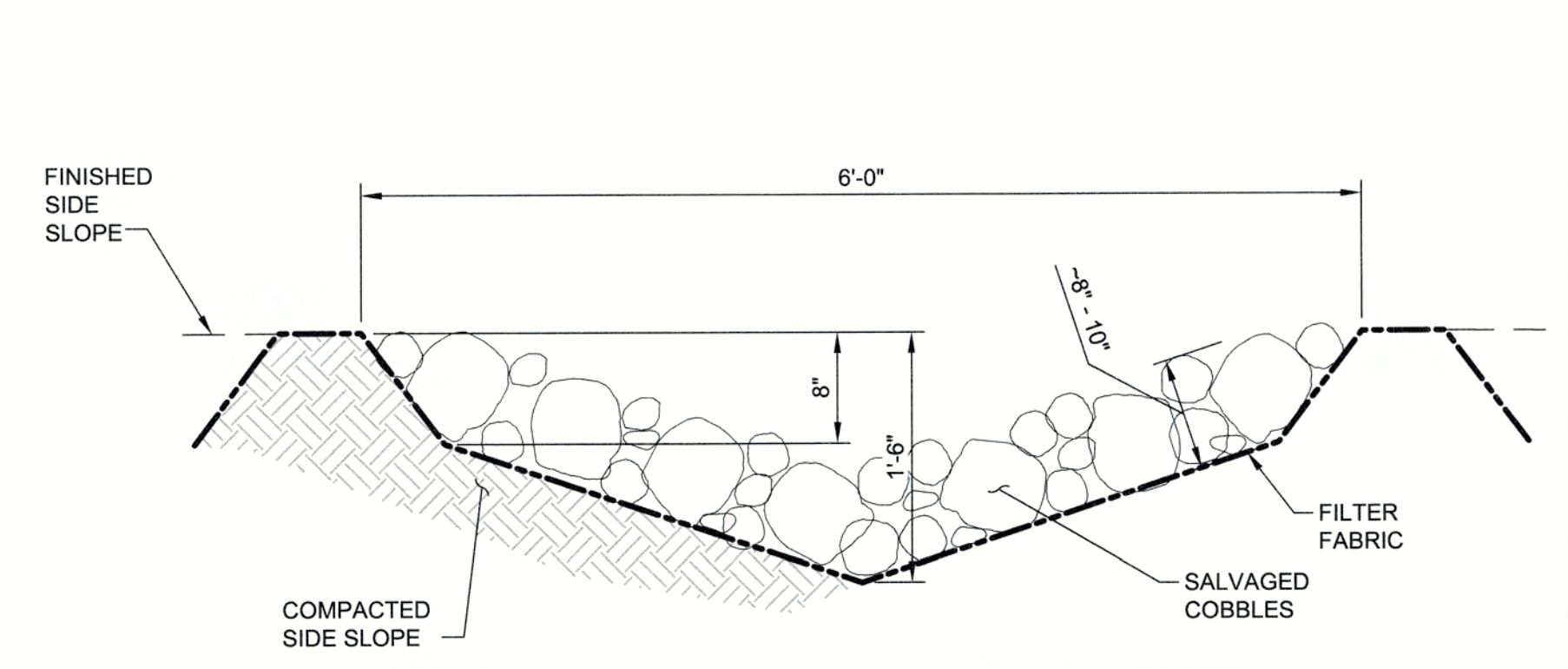
TYPICAL CREEK GRADING SECTION

NTS



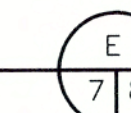
ROCK SLOPE PROTECTION SECTION

NTS



SLOPE DRAIN SECTION

NTS

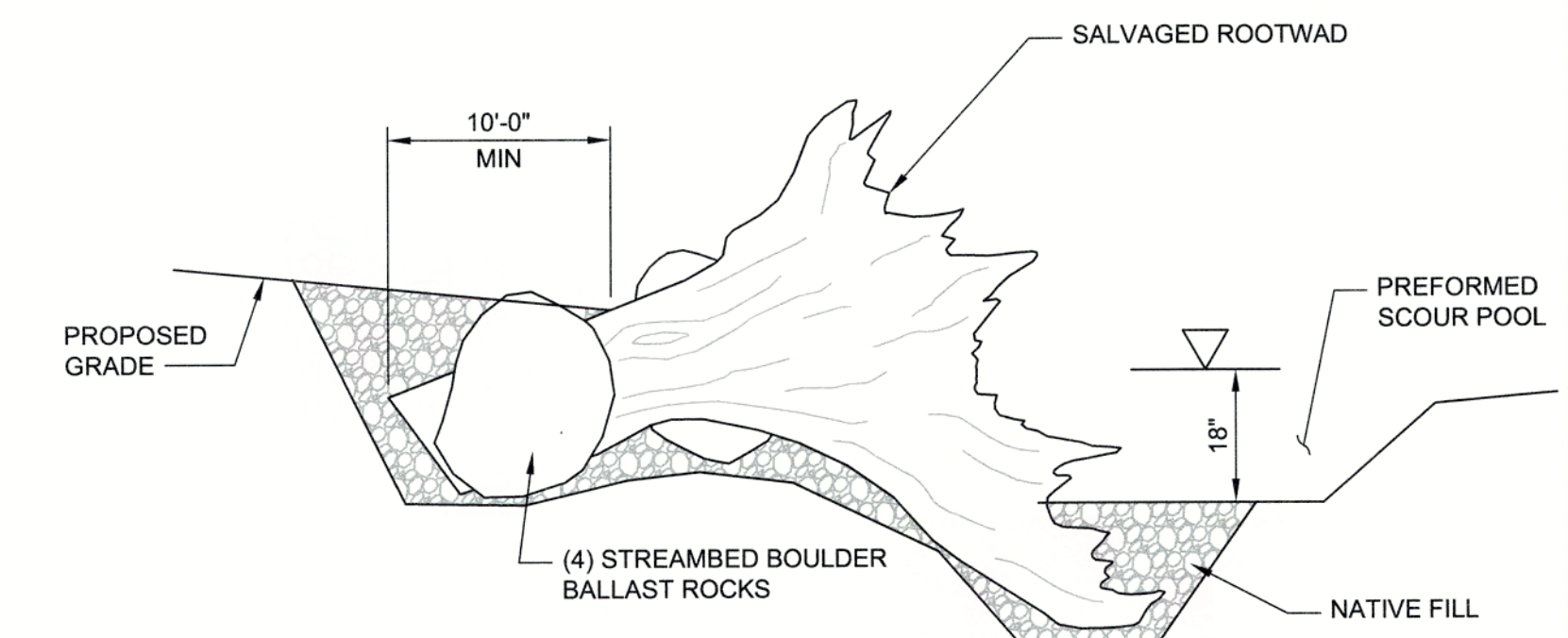


CREEK GRADING NOTE:

1. USE ESM AND RSP FOR CREEK GRADING IN LOCATIONS INDICATED ON SHEET 5. USE EXISTING STREAMBED MATERIAL AT ALL OTHER CREEK GRADING LOCATIONS.

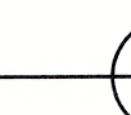
COMPACTION OF NATIVE STREAMBED, PIT-RUN COBBLES, AND ESM NOTES:

- a. CONTRACTOR SHALL USE APPROPRIATE EQUIPMENT, METHODS AND MEANS NECESSARY TO INSTALL COMPACTED NATURAL MATERIALS THAT ARE FREE OF VOIDS AND WHICH LIMITS THE SUBSURFACE FLOW OF WATER. CONTRACTOR SHALL EMPLOY MULTIPLE METHODS AS NECESSARY AND/OR AS DIRECTED BY ENGINEER TO PROVIDE ADEQUATE COMPACTION. CONTRACTOR SHALL BE RESPONSIBLE FOR DEMONSTRATING THAT WATER FLOWS OVER THE SURFACE OF THE FINISHED GROUND. SITUATIONS WHERE WATER FLOWS BELOW THE FINISHED GRADE OR BELOW THE CREST OF THE ROCK RIFFLES SHALL BE CORRECTED AT THE CONTRACTORS EXPENSE PRIOR TO FINAL APPROVAL OF THE PROJECT.
- b. COMPACTION BY IMPACT OR VIBRATORY EQUIPMENT SHALL INCLUDE THE USE OF BUCKETS AND VIBRATORY PLATES MOUNTED ON TRACKED EXCAVATORS
- c. COMPACTION BY FLOODING OR JETTING SHALL INCLUDE THE USE OF WATER TO ELIMINATE TRAPPED AIR AND FILL INTERSTITIAL VOIDS WITH FINES, SANDS, AND SAND GRAVELS ALREADY EXISTING WITHIN THE INSTALLED MATERIAL. WATER SHALL BE CIRCULATED WITH THE USE OF PUMPS AND JETTED ONTO THE SURFACE OF PLACED MATERIAL WITH THE USE OF HIGH PRESSURE NOZZLES. AVAILABLE FINES, SANDS AND GRAVELS SHALL BE WASHED INTO VOIDS UNTIL LARGER COBBLES AND ROCKS ARE EXPOSED AND WATER CLEARLY FLOWS ON THE SURFACE OF THE PROPOSED GROUND SURFACE.
- d. COMPACTION BY HAND SHALL BE PERFORMED WITH THE USE OF LABORERS BY PLACING FINES, GRAVELS, AND COBBLES INTO VOIDS BY HAND OR WITH SHOVELS AND USING SHOVELS, ROCK BARS, OR HAND OPERATED COMPACTION EQUIPMENT TO COMPACT MATERIAL INTO PLACE.



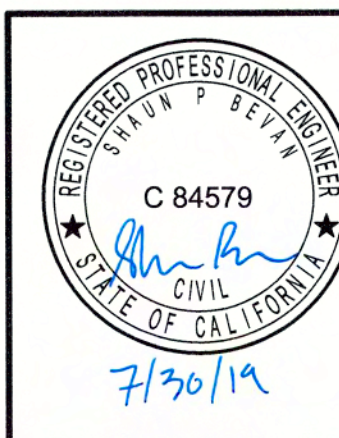
ROOTWAD SECTION

NTS



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1	7/25/19	ISSUED FOR BID

PROJECT MANAGER	M. GARELLO
CHECKED BY	R. THOMPSON
DESIGNED BY	S. BEVAN
DRAWN BY	J. CAMPBELL
PROJECT NUMBER	10067867



**CROSSING 8 DESIGN DRAWINGS
 CACHUMA OPERATION AND
 MAINTENANCE BOARD**

**CIVIL
 SECTIONS AND DETAILS 1**

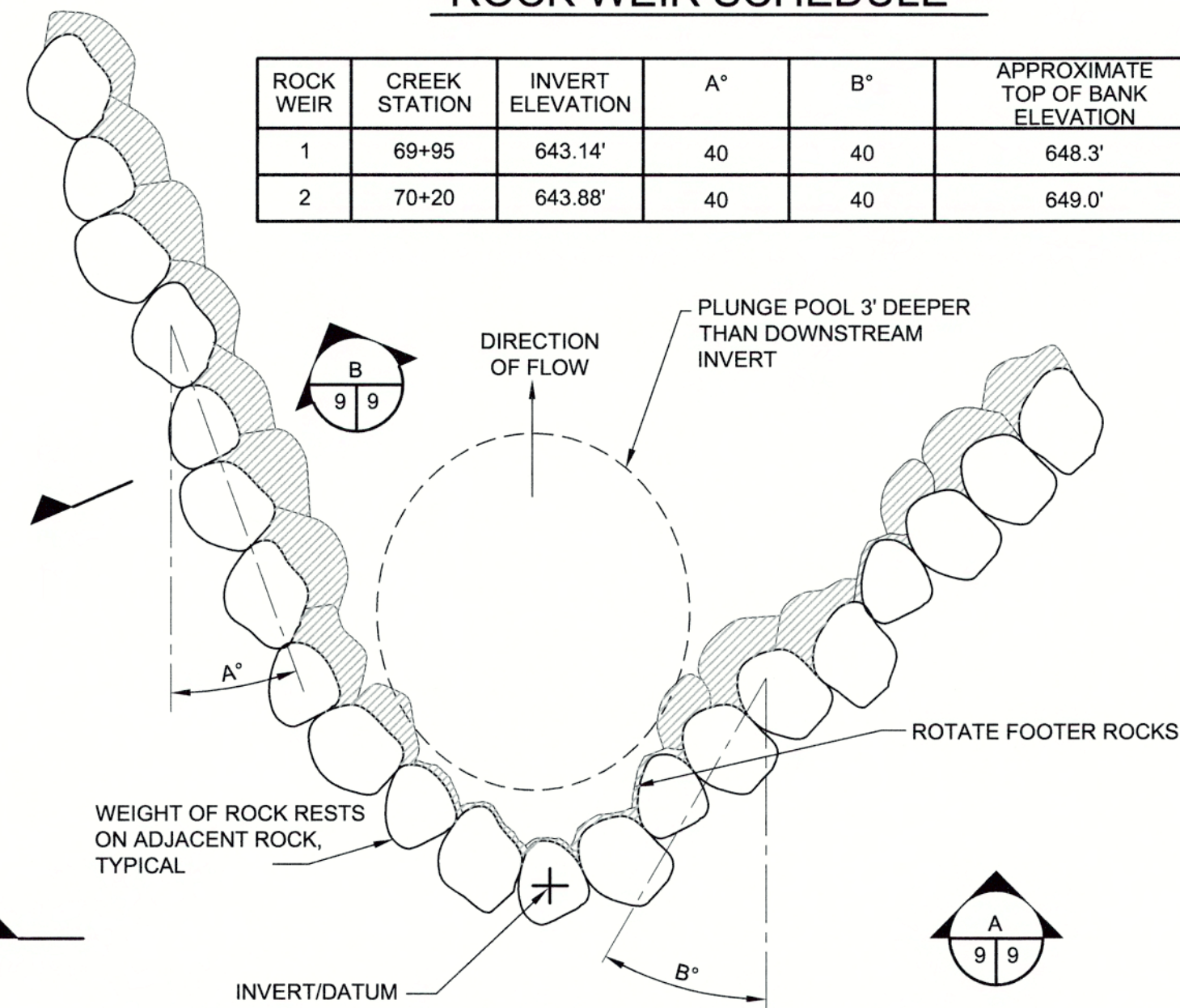


DATE JULY 25, 2019
 SCALE AS NOTED

SHEET
8

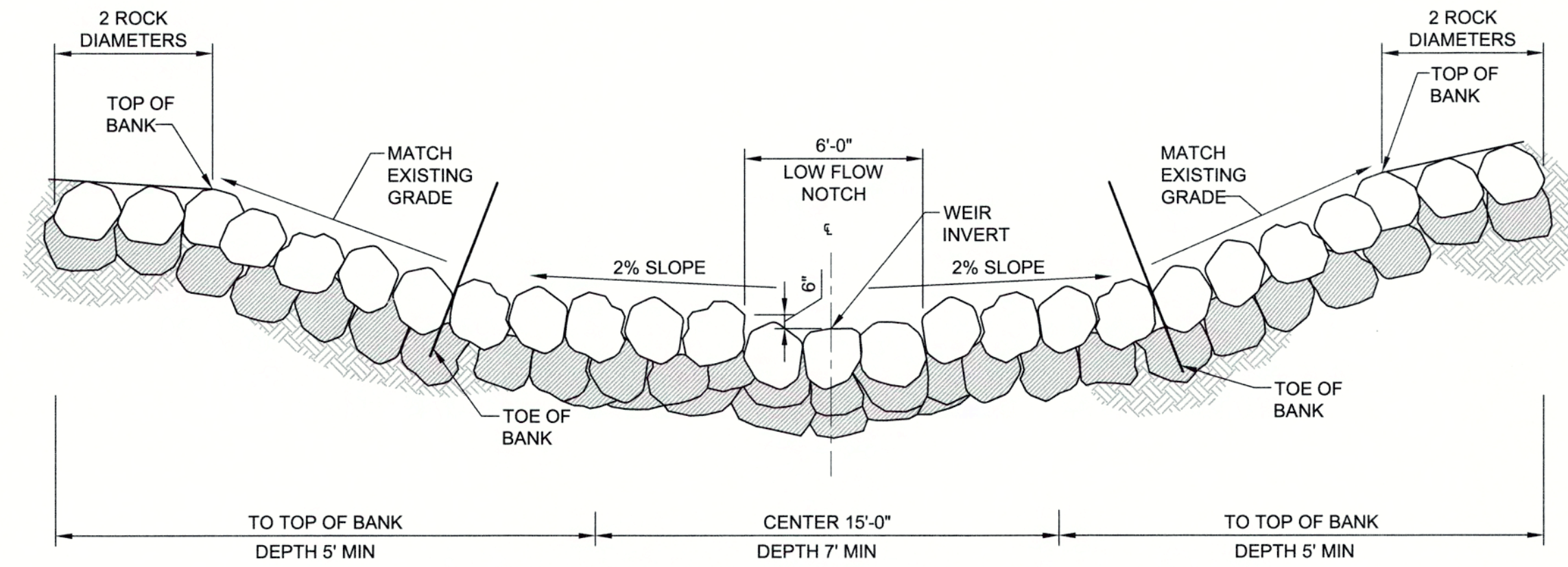
ROCK WEIR SCHEDULE

ROCK WEIR	CREEK STATION	INVERT ELEVATION	A°	B°	APPROXIMATE TOP OF BANK ELEVATION
1	69+95	643.14'	40	40	648.3'
2	70+20	643.88'	40	40	649.0'



TYPICAL ROCK WEIR PLAN

NTS 1
5 9

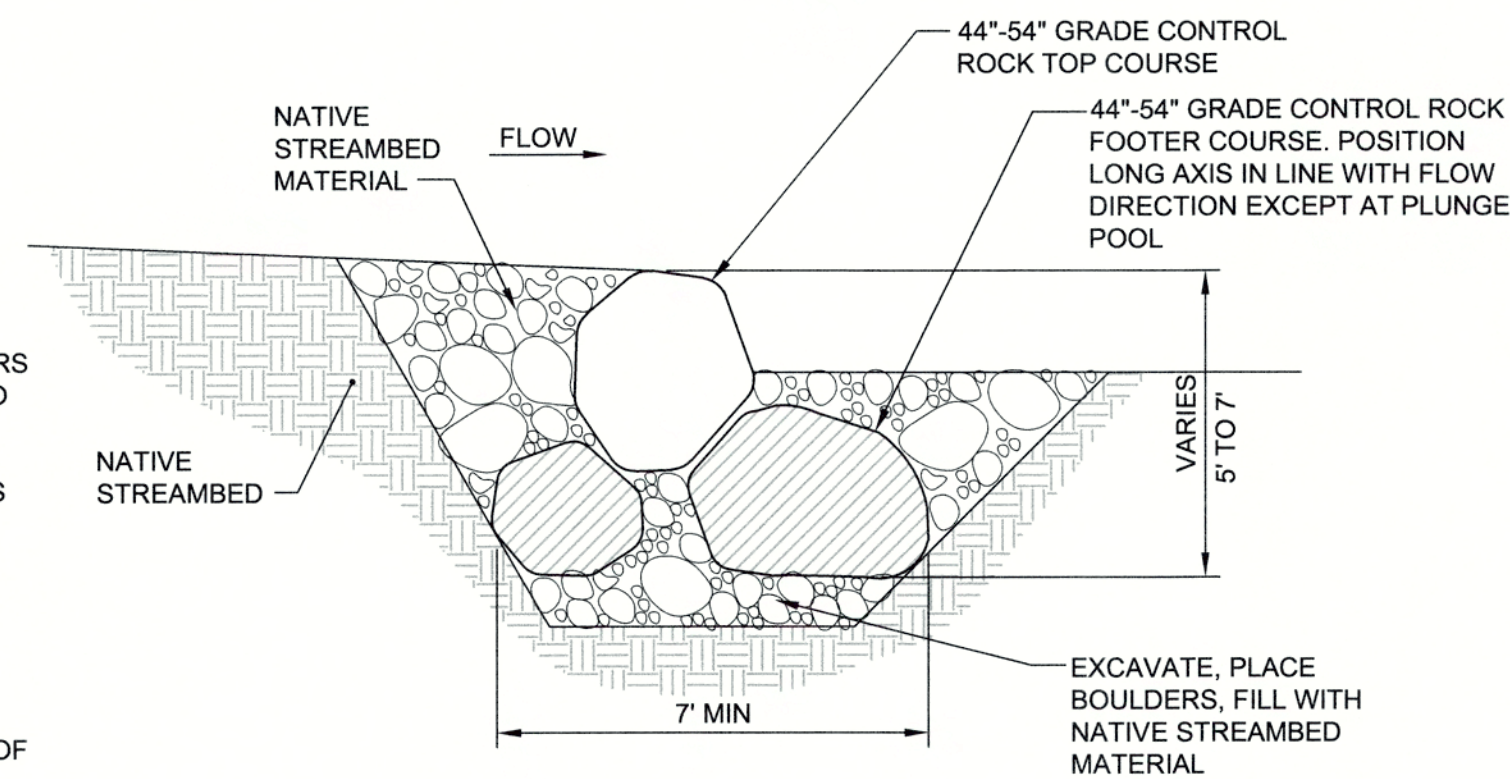


TYPICAL ROCK WEIR SECTION

NTS A
9 9

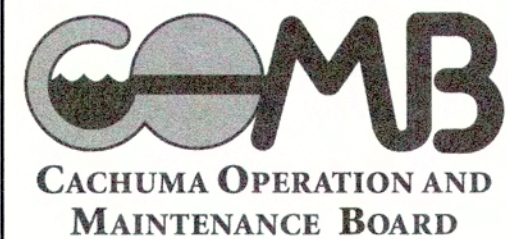
WEIR NOTES:

- FOOTER COURSE SHALL OVERLAP TOP COURSE BY 1/3 DIAMETER MINIMUM.
- FOOTER COURSE AND TOP COURSE SHALL BE INSTALLED IN LAYERS WITH NATIVE STREAMBED MATERIAL AND SMALLER ROCK USED TO SEAL INTERSTITIAL SPACES.
- SMALL ROCKS AND FINES SHALL BE HAND COMPACTED AS LAYERS OF STREAMBED SEDIMENT ARE ADDED.
- FINES SHALL BE FLUSHED INTO PLACE WITH WATER UNTIL WEIRS ARE COMPLETELY SEALED AND WATER FLOWS OVER WEIR CREST ONLY.
- ROCKS PRESENT WITHIN THE LOW FLOW NOTCH SHALL BE ORIENTED TO CONSOLIDATE LOW FLOWS TO A POINT AT CENTER OF THE CHANNEL UNDER DIRECTION OF THE ENGINEER.
- ROCKS PLACED ALONG THE WEIR CREST MUST BE ORIENTED AT A 2 TO 5% ANGLE TO PRODUCE A SHARP CREST IN LINE WITH EACH ADJACENT ROCK.



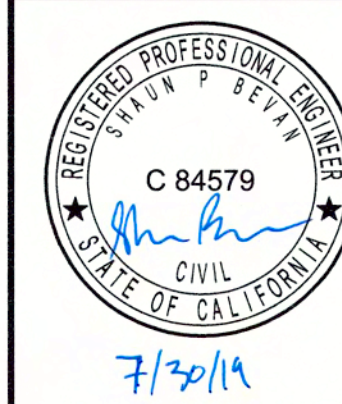
TYPICAL WEIR SECTION

NTS B
9 9



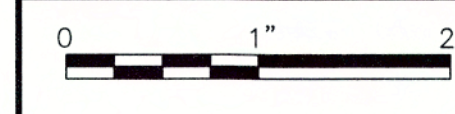
ISSUE	DATE	DESCRIPTION
1	7/25/19	ISSUED FOR BID

PROJECT MANAGER	M. GARELLO
CHECKED BY	R. THOMPSON
CHECKED BY	-
DESIGNED BY	S. BEVAN
DESIGNED BY	M. GARELLO
DRAWN BY	J. CAMPBELL
PROJECT NUMBER	10067867



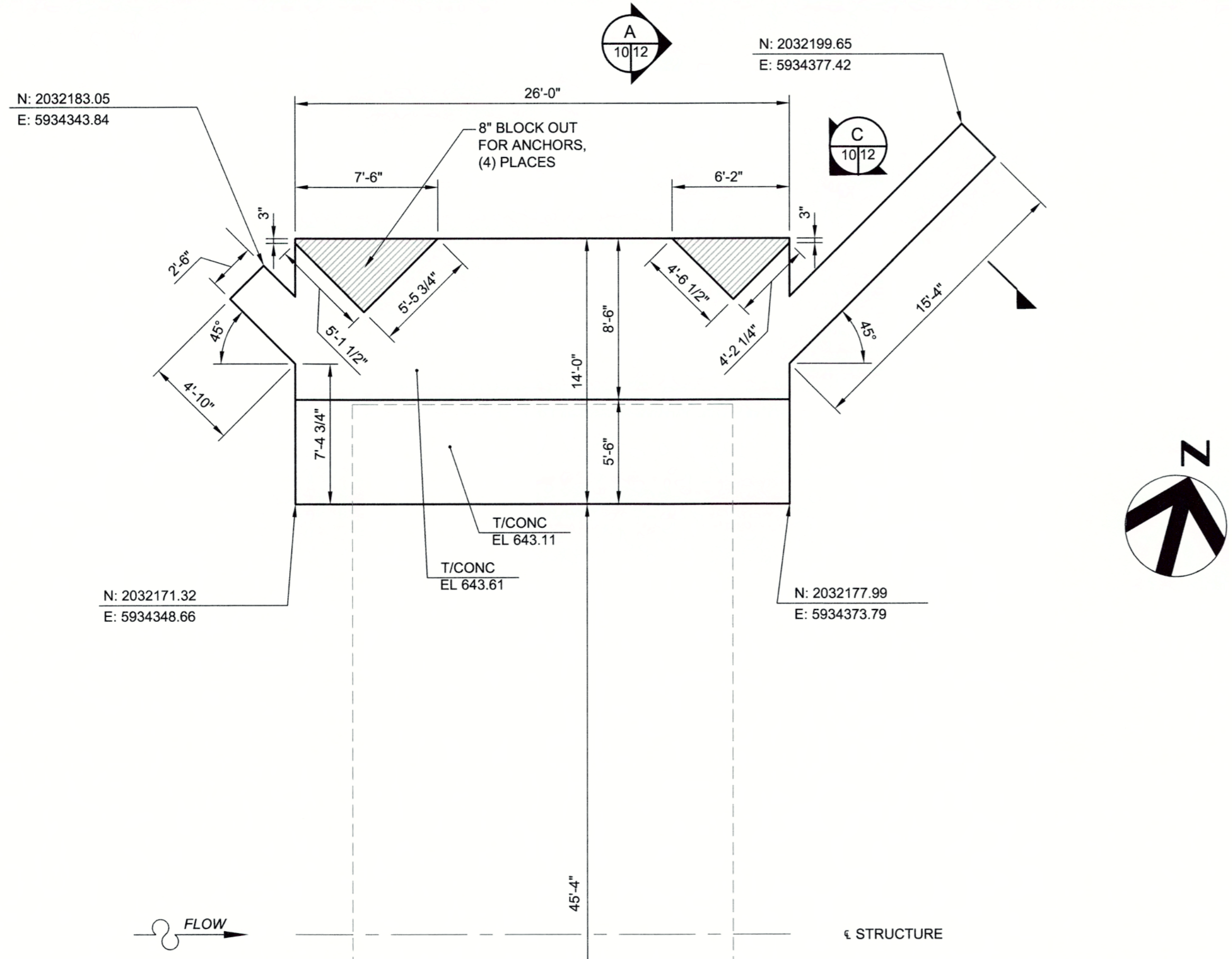
**CROSSING 8 DESIGN DRAWINGS
CACHUMA OPERATION AND
MAINTENANCE BOARD**

**CIVIL
SECTIONS AND DETAILS 2**

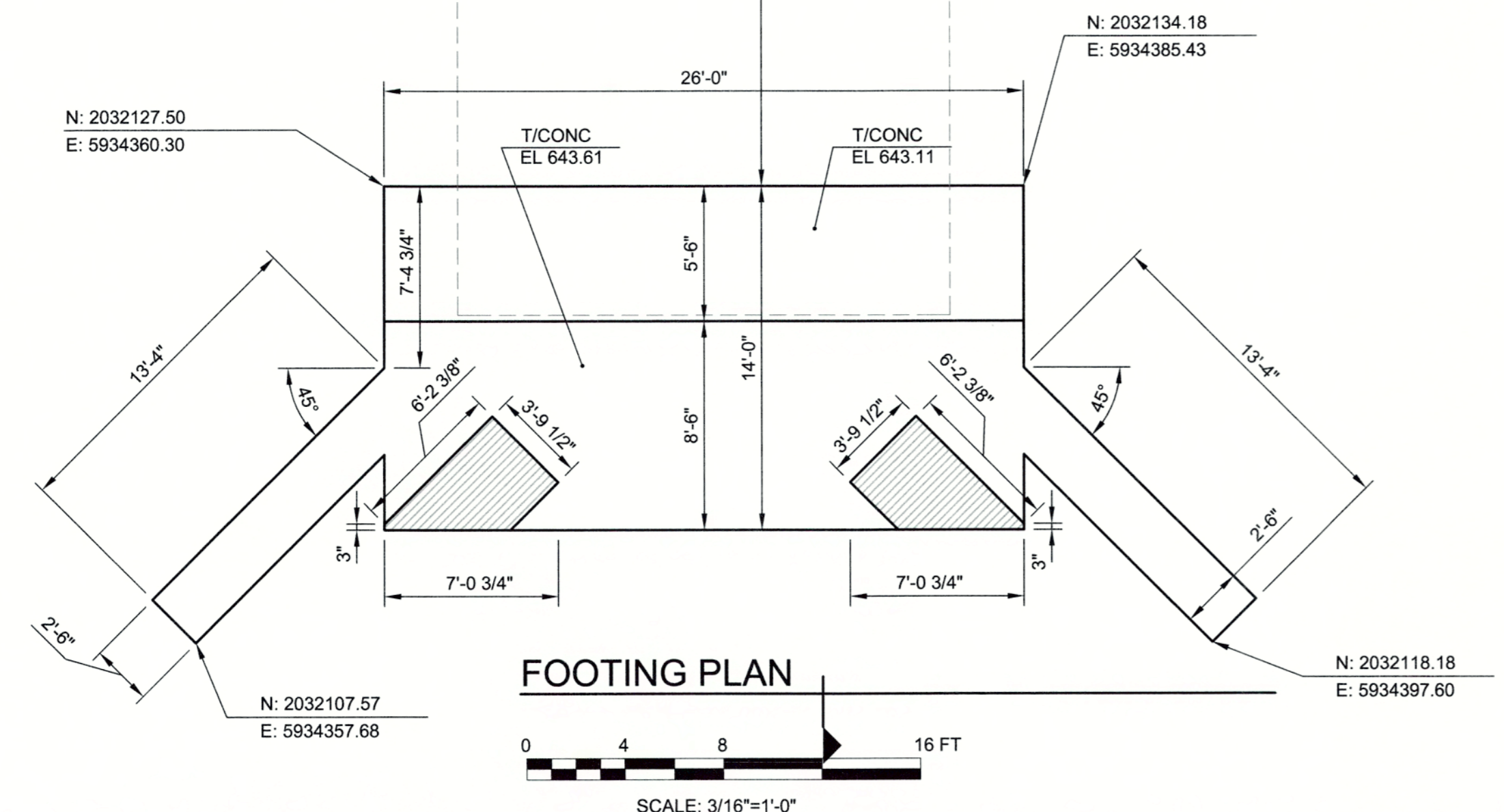


DATE	JULY 25, 2019
SCALE	AS NOTED

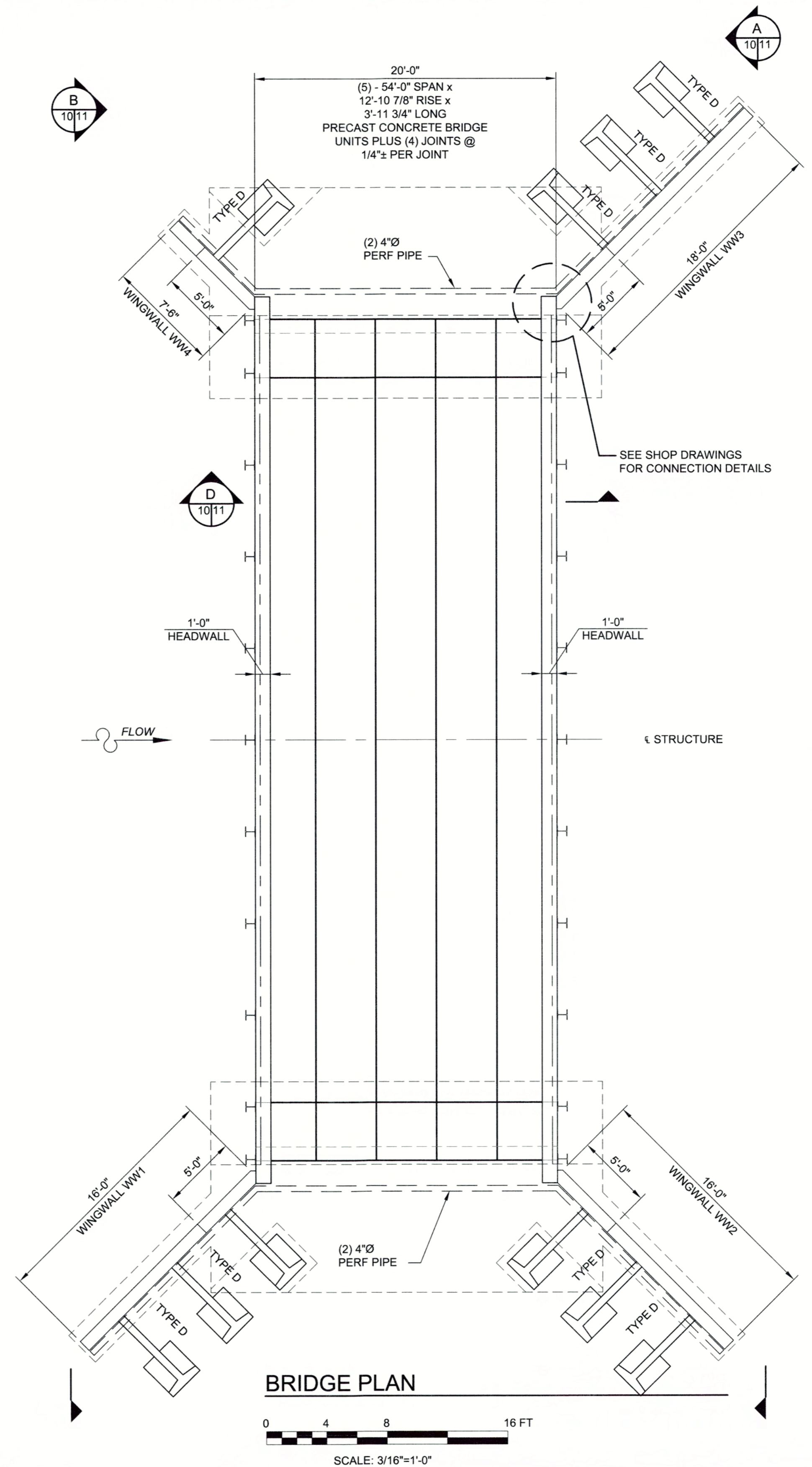
SHEET
9



- NOTES:**
- SEE TYPICAL FOOTING DETAIL 1 ON SHEET 12 FOR KEYWAY INFORMATION.
 - BLOCK OUTS SHALL BE 8" IN DEPTH.



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



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

DESIGN DATA:

DESIGN LOADING:
BRIDGE UNITS: HL93
HEADWALLS: EARTH PRESSURE + LIVE LOAD SURCHARGE + LIVE LOAD IMPACT TRANSFERRED THROUGH BRIDGE RAIL CONNECTION
WINGWALLS: EARTH PRESSURE + LIVE LOAD SURCHARGE
DESIGN FILL HEIGHT: 1'-0" FROM TOP OF CROWN TO TOP OF PAVEMENT.
DESIGN METHOD: LOAD AND RESISTANCE FACTOR DESIGN (LRFD) PER AASHTO 6TH EDITION LRFD SPECIFICATION AND CALTRANS AMENDMENTS.

NET ALLOWABLE SOIL BEARING PRESSURE: 3000 PSF

FOUNDATION EXCAVATION AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT FOR THIS PROJECT PREPARED BY: FUGRO WEST, INC. DATED 7/24/2003. A PROFESSIONAL GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF CALIFORNIA SHALL INSPECT OPEN FOOTING EXCAVATION TO VERIFY EXISTING SOIL CONDITIONS PRIOR TO INSTALLATION OF FOOTINGS.

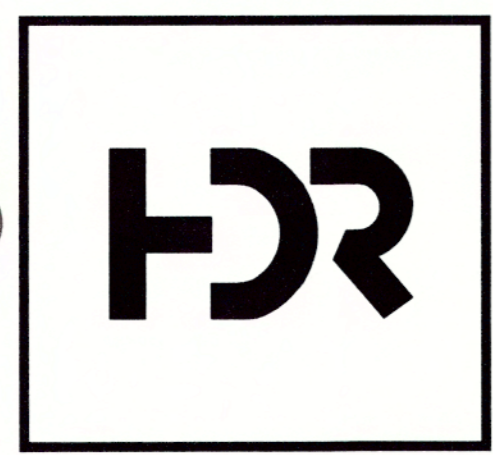
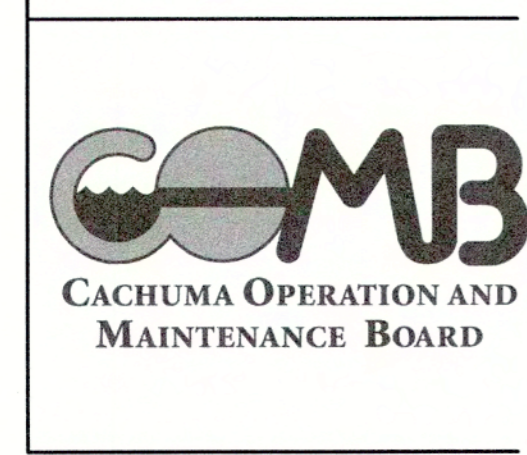
MATERIALS:

PRECAST UNITS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH CON/SPAN® SPECIFICATIONS. CONCRETE FOR FOOTINGS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI. REINFORCING STEEL FOR FOOTINGS SHALL CONFORM TO ASTM A615 OR A996 TYPE A, BOTH GRADE 60.

- HYDRAULIC DESIGN:**
- 50-YEAR DESIGN EVENT (3,263 CFS)
 - MINIMUM 1.0 FT OF FREEBOARD AT LOW CHORD
 - ABLE TO STRUCTURALLY WITHSTAND OVERTOPPING OF 100-YEAR EVENT (4,303 CFS)

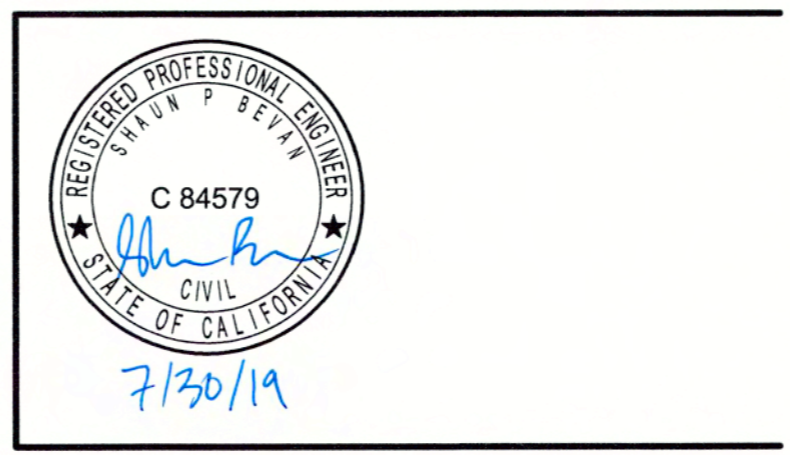
FREQUENCY (YEARS)	DESIGN FLOOD	BASE FLOOD	OVERTOPPING FLOOD
DISCHARGE (CUBIC FEET PER SECOND)	50	100	-150
WATER SURFACE ELEVATION AT BRIDGE (FT)	3,263	4,303	4,500
DRAINAGE AREA = 5.3 SQUARE MILES	654.0	656.3	658.3

- GENERAL NOTES:**
- PRIOR TO CONSTRUCTION, CONTRACTOR MUST VERIFY ALL ELEVATIONS AND DIMENSIONS SHOWN.
 - ONLY CONTECH BRIDGE SOLUTIONS INC., APPROVED PRECASTER IN CALIFORNIA MAY PROVIDE THE STRUCTURE DESIGNED IN ACCORDANCE WITH SEALED SHOP DRAWINGS.
 - REFER TO SEALED CONTECH FABRICATION DRAWINGS PRIOR TO INSTALLATION.



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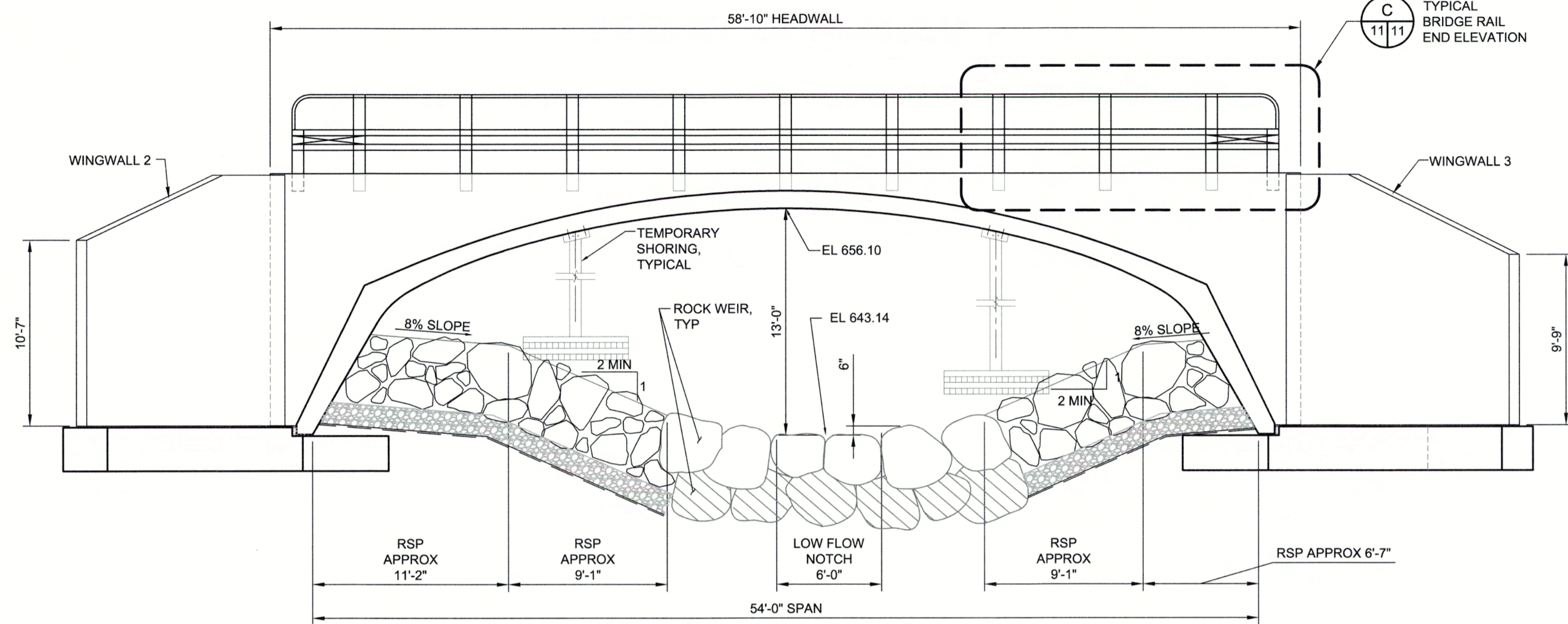
PROJECT MANAGER	M. GARELLO
CHECKED BY	R. THOMPSON
DESIGNED BY	S. BEVAN
DESIGNED BY	M. GARELLO
DRAWN BY	J. CAMPBELL
PROJECT NUMBER	10067867



**CROSSING 8 DESIGN DRAWINGS
CACHUMA OPERATION AND
MAINTENANCE BOARD**

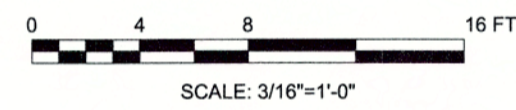
BRIDGE AND FOOTING PLAN

DATE: JULY 25, 2019
SCALE: AS NOTED
SHEET: 10



DOWNSTREAM ELEVATION

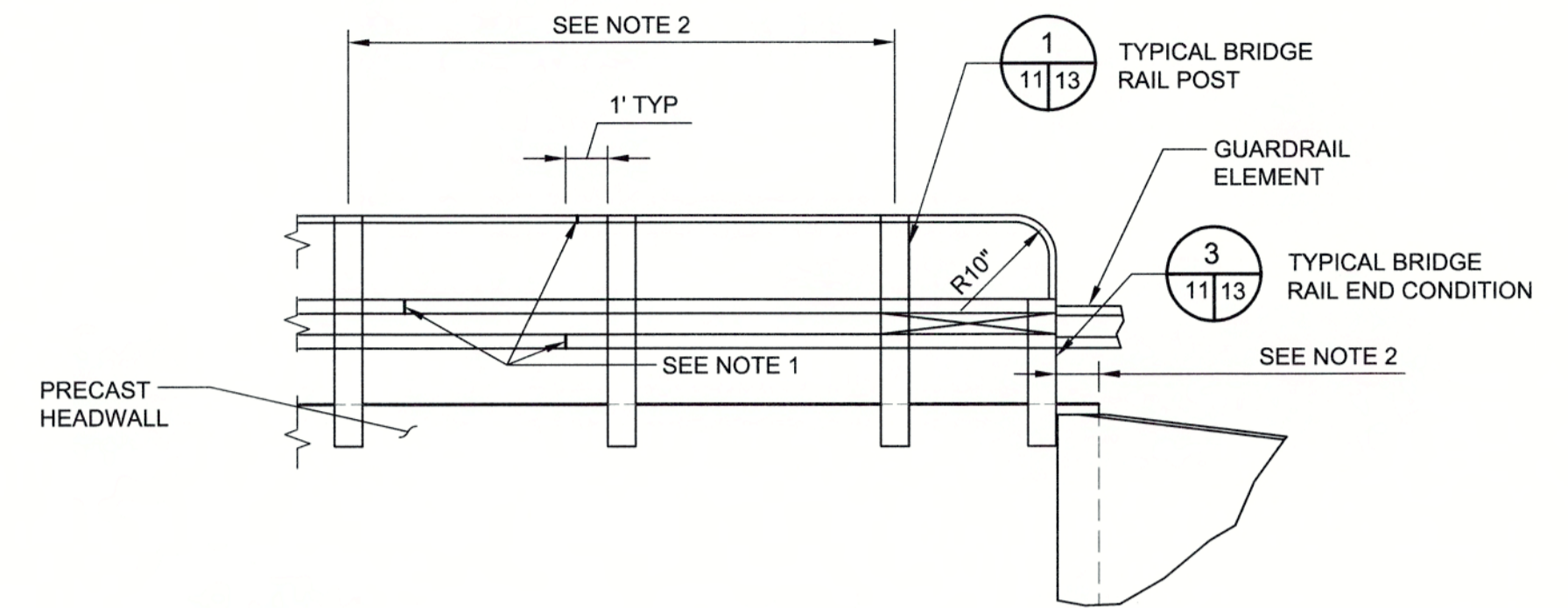
3/16" = 1'-0" (LOOKING UPSTREAM)



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

A
10 | 11

NOTE: TEMPORARY SHORING PER SHORING PLAN DEVELOPED BY CONTRACTOR PER CONTECH RECOMMENDATIONS



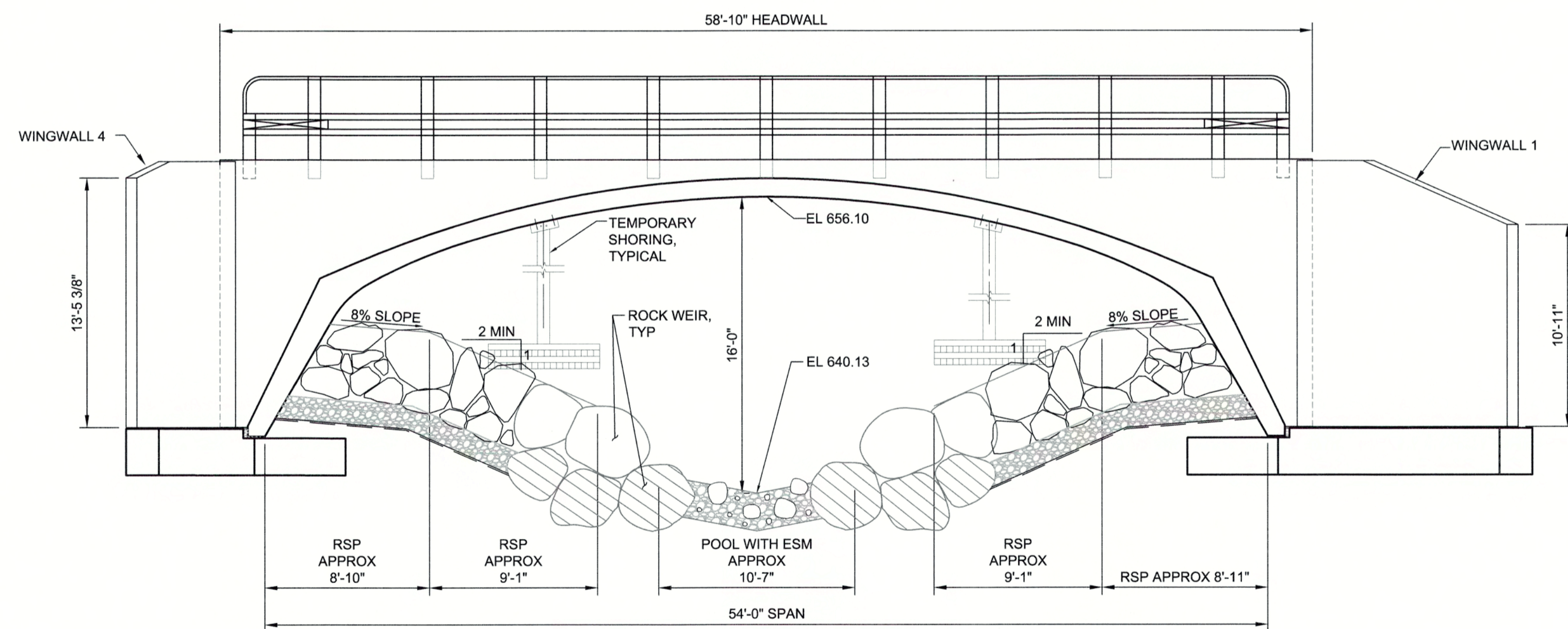
TYPICAL BRIDGE RAIL END ELEVATION

NTS

C
11 | 11

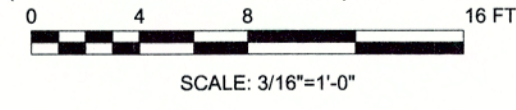
NOTES:

1. INSERT TUBE SPLICE (4) PLACES AT (4) PANELS. SEE DETAIL 2 ON SHEET 13.
2. SEE SEALED CONTECH FABRICATION DRAWINGS FOR BRIDGE RAIL POST SPACING.



UPSTREAM ELEVATION

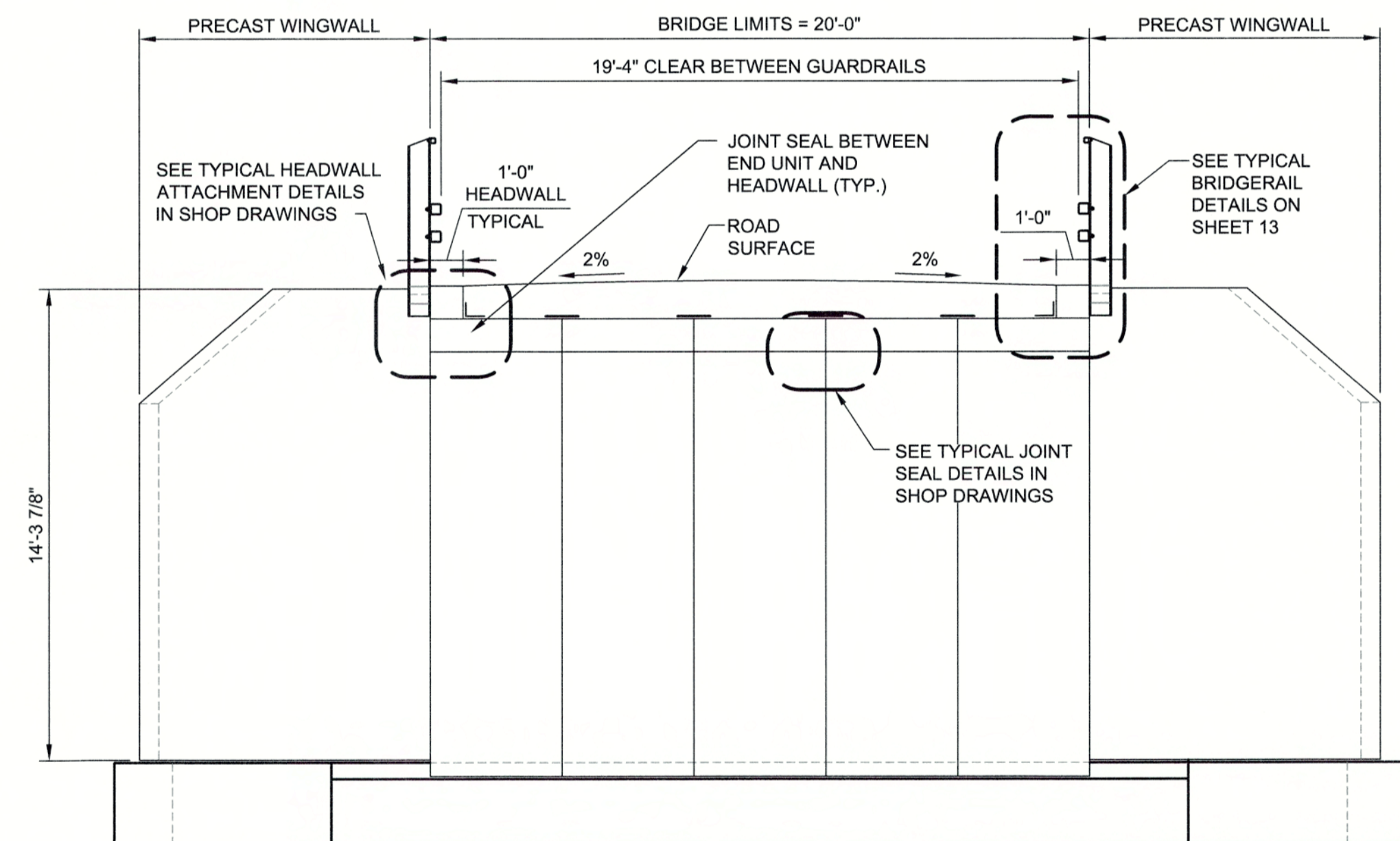
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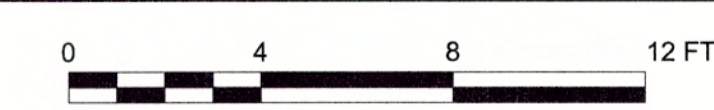
SCALE: 3/16"=1'-0"

B
10 | 11

NOTE: TEMPORARY SHORING PER SHORING PLAN DEVELOPED BY CONTRACTOR PER CONTECH RECOMMENDATIONS

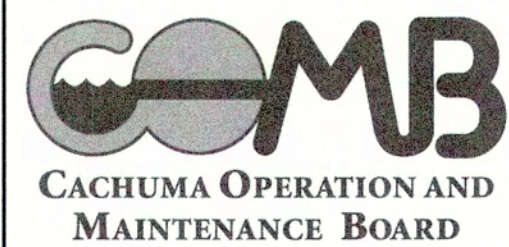


TYPICAL BRIDGE SECTION



SCALE: 1/4"=1'-0"

D
10 | 11



ISSUE	DATE	DESCRIPTION
1	7/25/19	ISSUED FOR BID

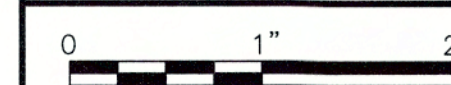
PROJECT MANAGER	M. GARELLO
CHECKED BY	R. THOMPSON
CHECKED BY	-
DESIGNED BY	S. BEVAN
DESIGNED BY	M. GARELLO
DRAWN BY	J. CAMPBELL
PROJECT NUMBER	10067867



7/30/19

**CROSSING 8 DESIGN DRAWINGS
CACHUMA OPERATION AND
MAINTENANCE BOARD**

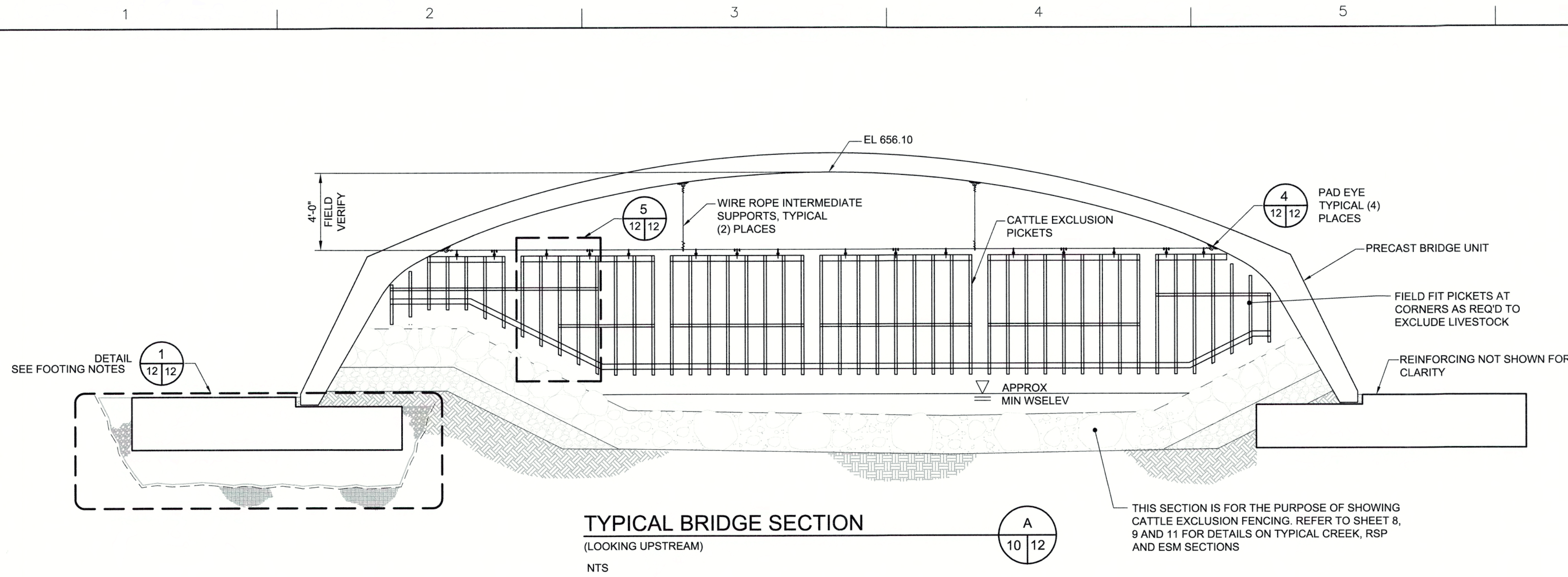
BRIDGE SECTIONS



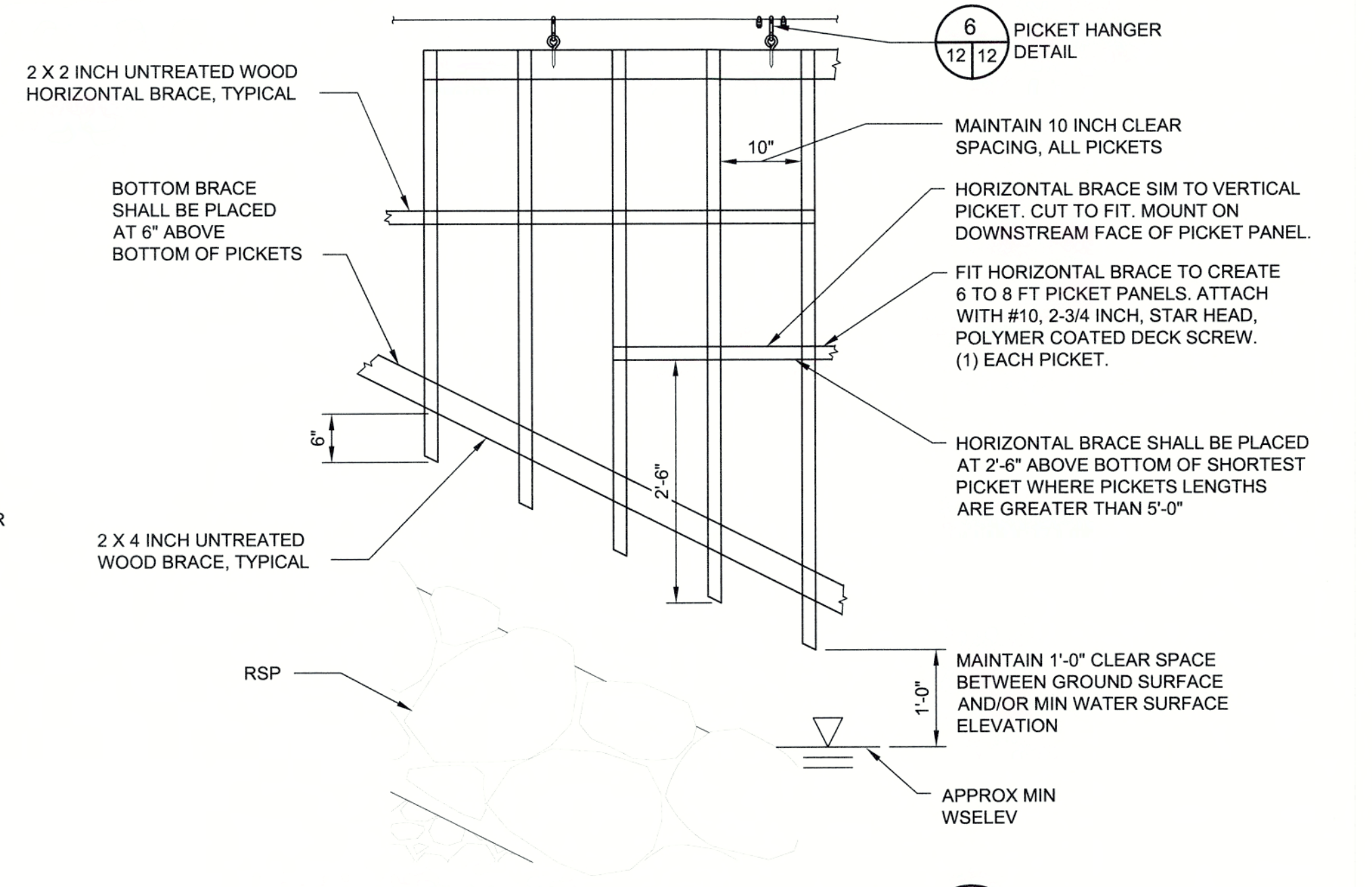
DATE	JULY 25, 2019
SCALE	AS NOTED

SHEET

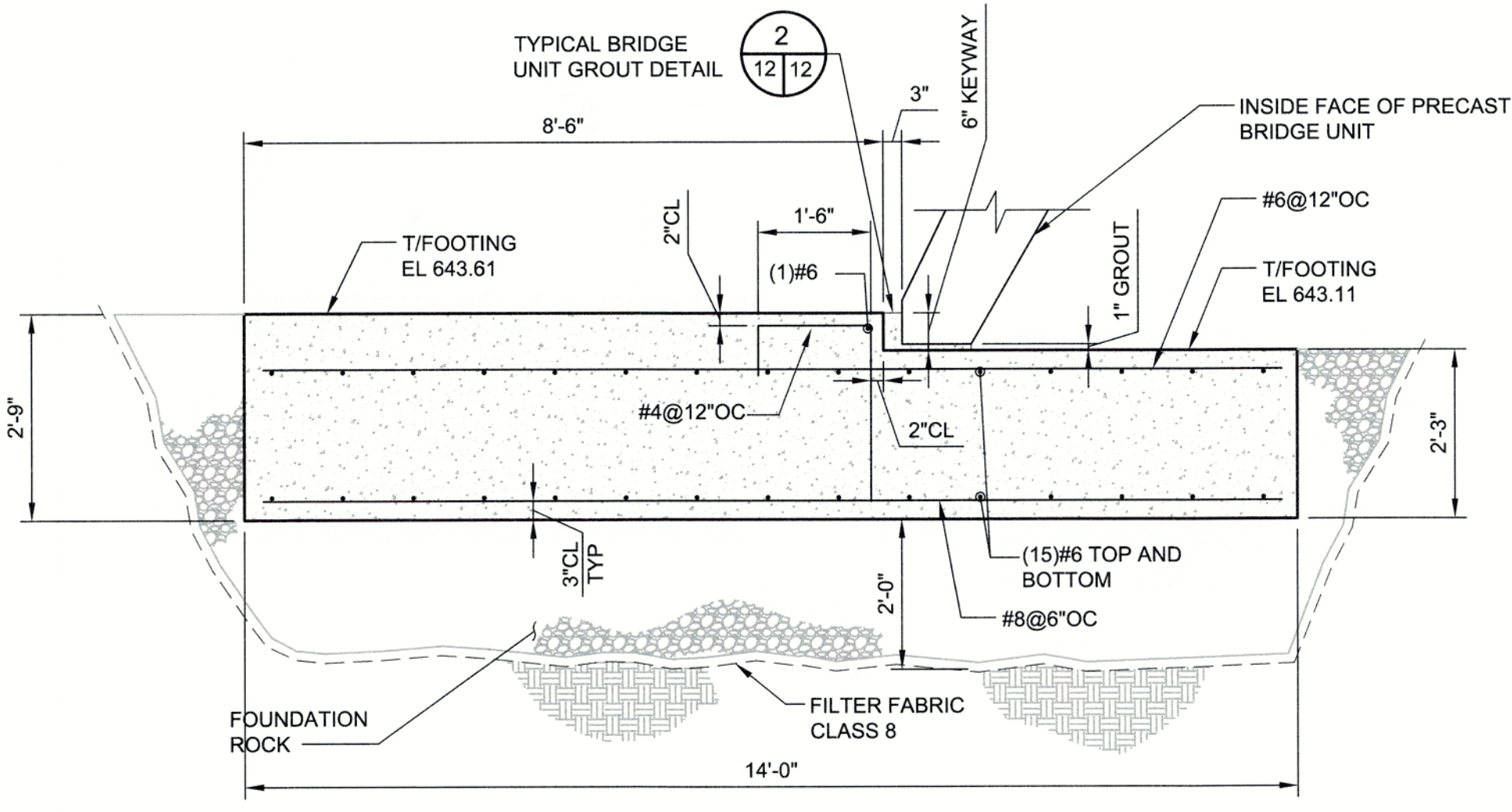
11



TYPICAL BRIDGE SECTION
(LOOKING UPSTREAM)
NTS

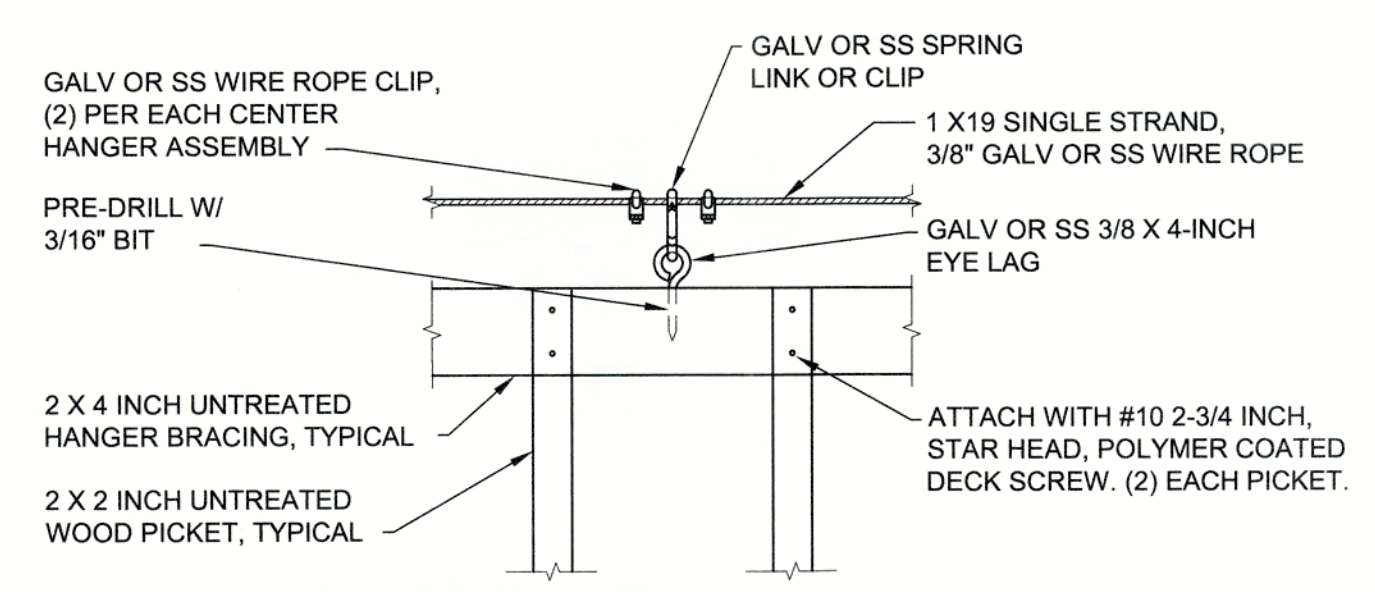


CATTLE EXCLUSION DETAIL
SCALE: 3/4"=1'-0"

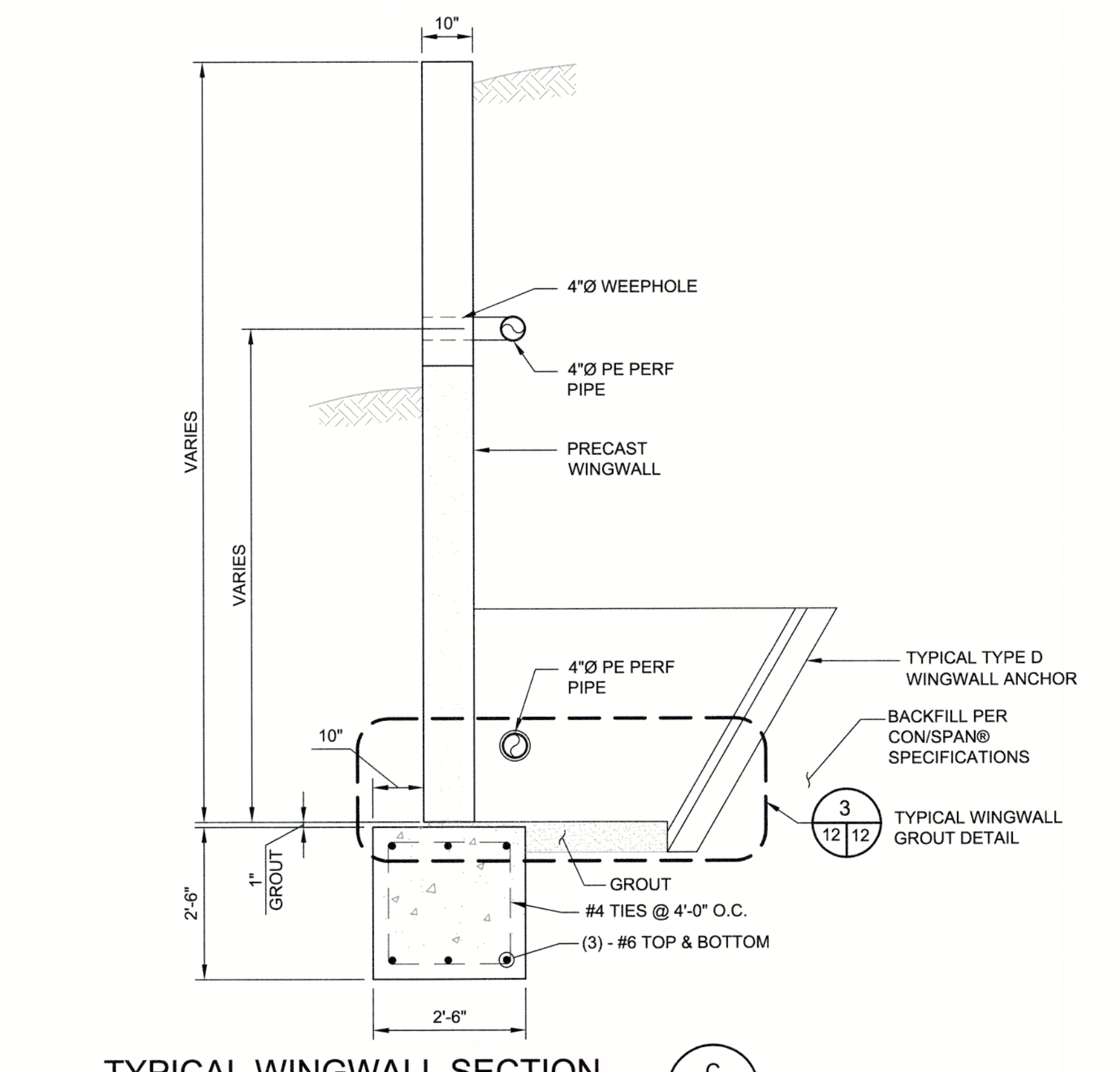


TYPICAL BRIDGE UNIT GROUT DETAIL
NTS
SCALE: 1/2"=1'-0"

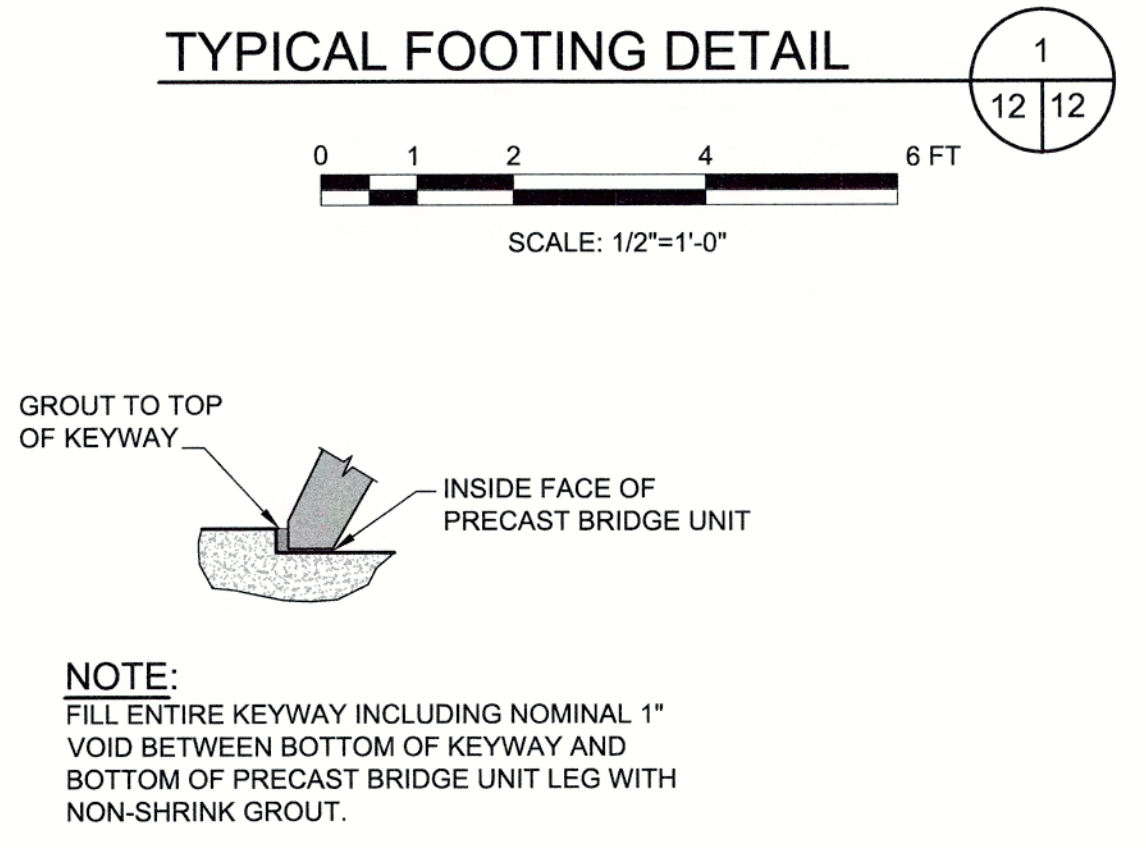
- FOOTING NOTES:**
- FOOTING DESIGN BASED ON SOIL BEARING PRESSURE OF 3000 PSF AND NO PRESENCE OF BEDROCK.
 - FOOTING PREPARATION, FOOTING ROCK AND GEOTEXTILE FABRIC APPLIES TO BOTH BRIDGE AND WINGWALL FOOTINGS.
 - FINAL INSTALLATION OF FOOTING SHALL OCCUR AFTER SUBGRADE INSPECTION AND APPROVAL BY COMB'S GEOTECHNICAL ENGINEER.
 - REBAR SHOWN IN TYPICAL WINGWALL SECTION EXTEND INTO FOOTING FOR FULL LENGTH OF WINGWALL.
 - BOTTOM OF RSP SHALL BE INSTALLED AT ELEVATION 640.0 FT ALONG FOOTING FOR SCOUR PROTECTION.



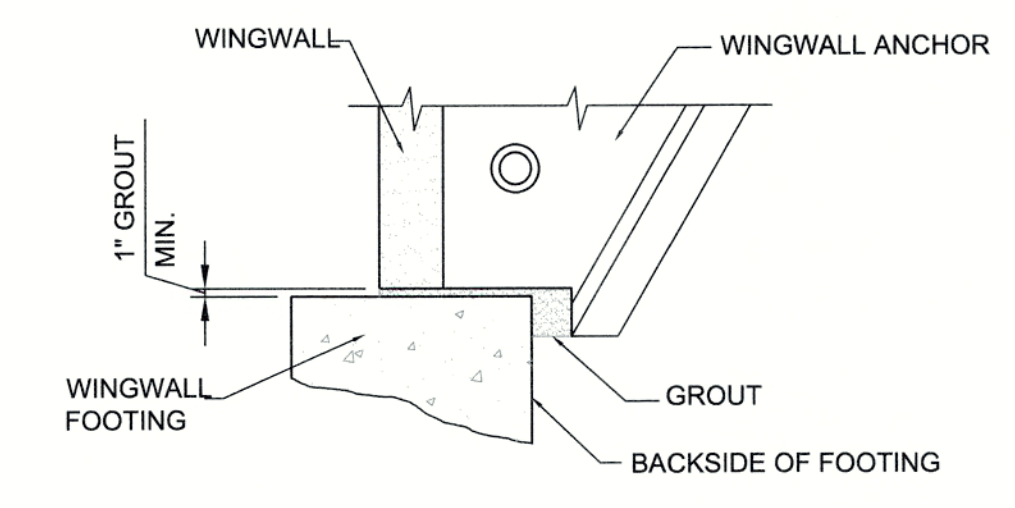
PICKET HANGER DETAIL
SCALE: 1 1/2"=1'-0"



TYPICAL WINGWALL SECTION
SCALE: 1/2"=1'-0"

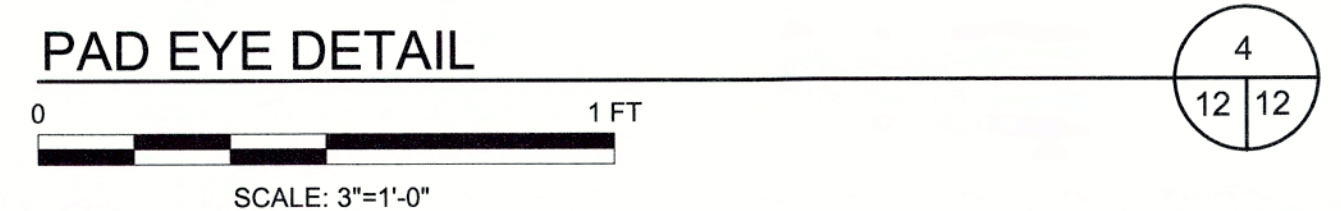


TYPICAL FOOTING DETAIL
SCALE: 1/2"=1'-0"



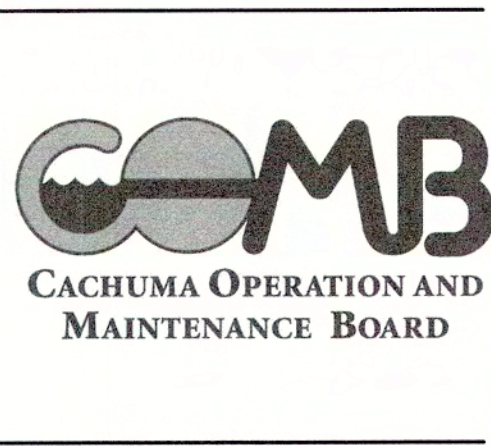
- NOTES:**
- MINIMUM 1" GROUT UNDER WINGWALL LEG & ANCHOR STEM.
 - AREA BETWEEN WINGWALL FOOTING AND WINGWALL ANCHOR SHALL BE GROUTED SOLID BEFORE BACKFILL.
 - FORM BACKSIDE OF FOOTING TO DIMENSIONS SHOWN ON BRIDGE AND FOOTING PLAN.

TYPICAL WINGWALL GROUT DETAIL
NTS



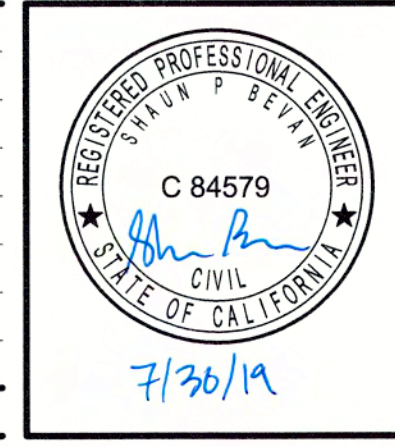
PAD EYE DETAIL
SCALE: 3"=1'-0"

TYPICAL BRIDGE UNIT GROUT DETAIL
NTS



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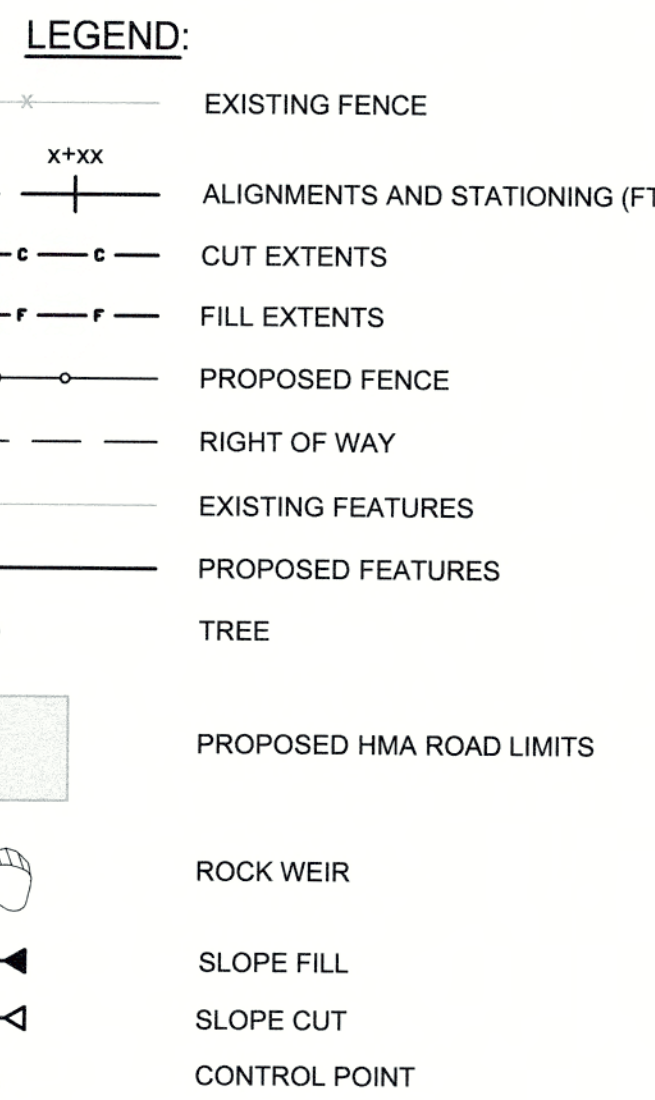
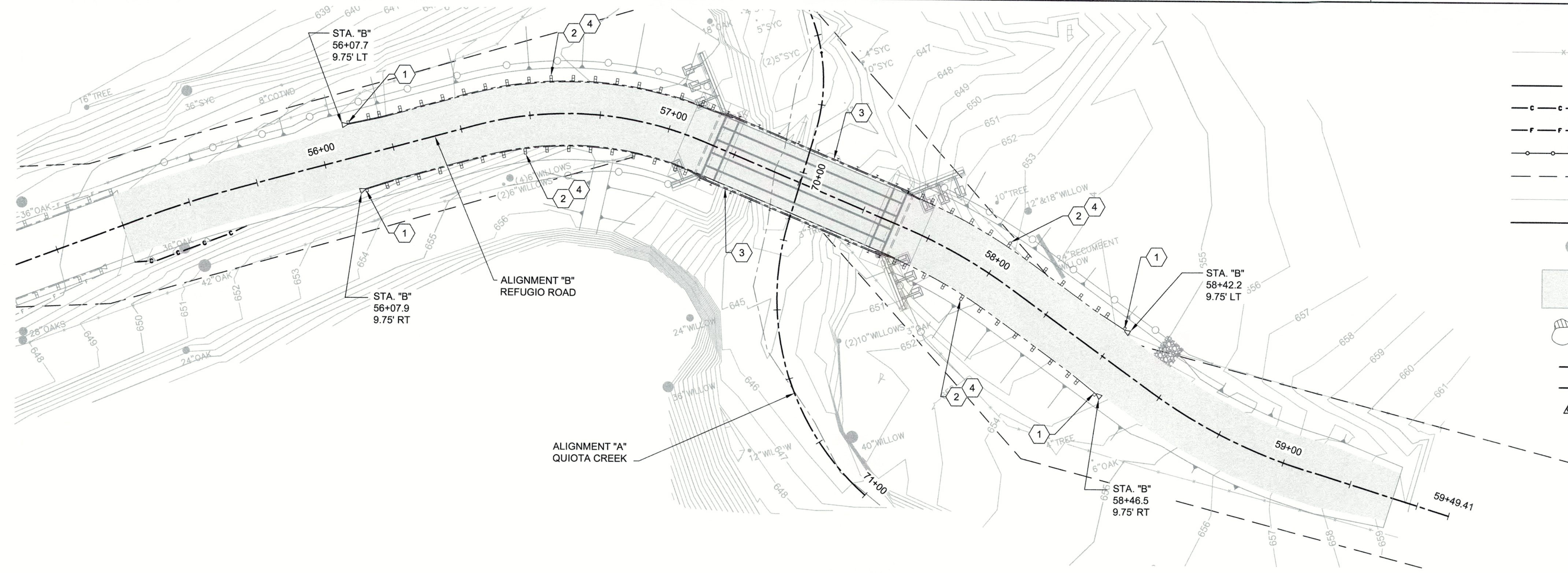


**CROSSING 8 DESIGN DRAWINGS
CACHUMA OPERATION AND
MAINTENANCE BOARD**

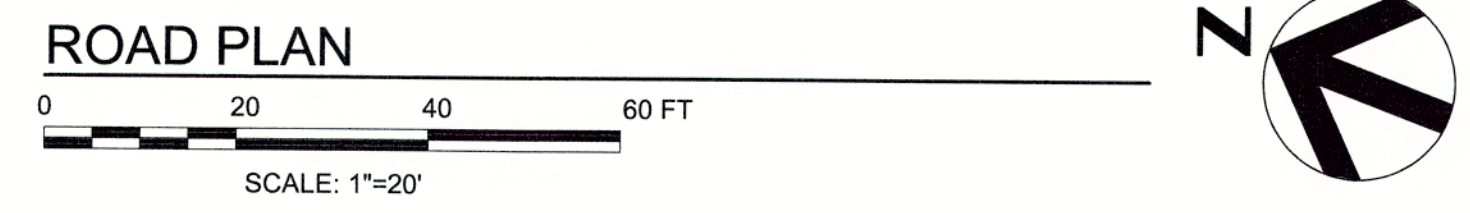
**TYPICAL BRIDGE SECTIONS
AND DETAILS**

DATE JULY 25, 2019
SCALE AS NOTED

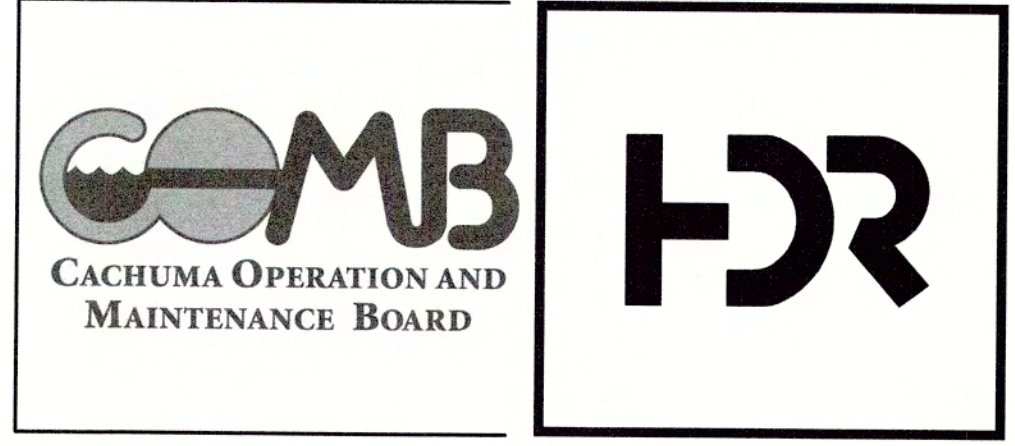
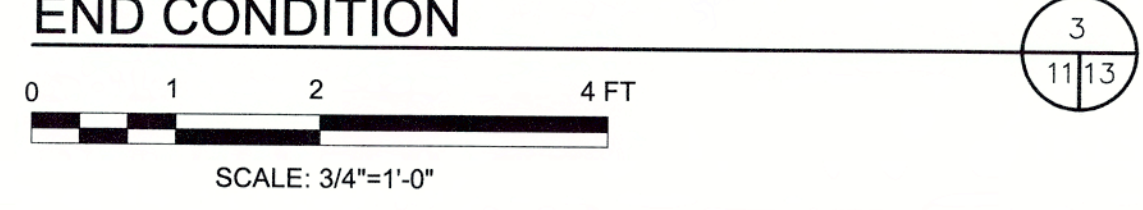
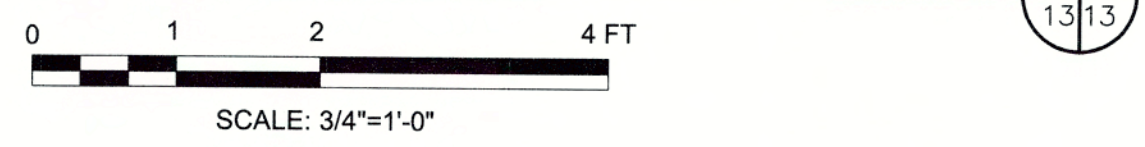
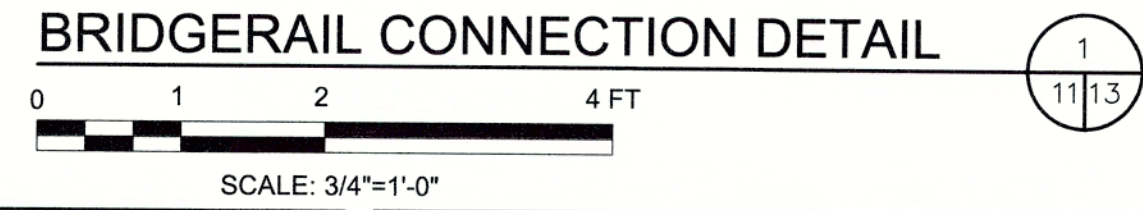
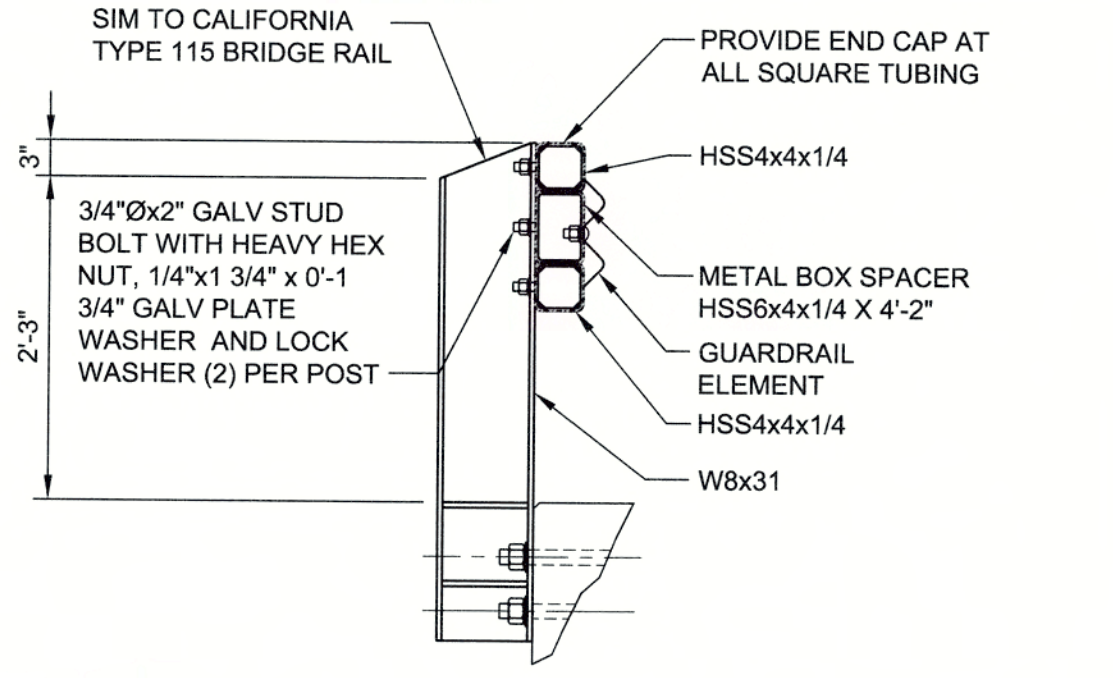
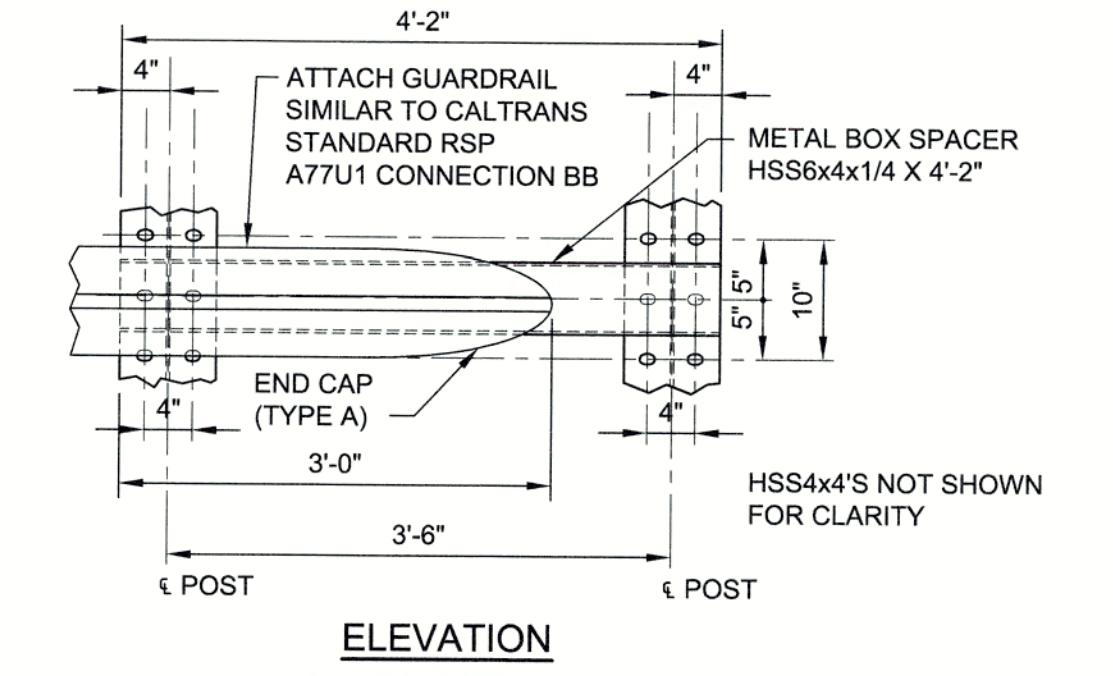
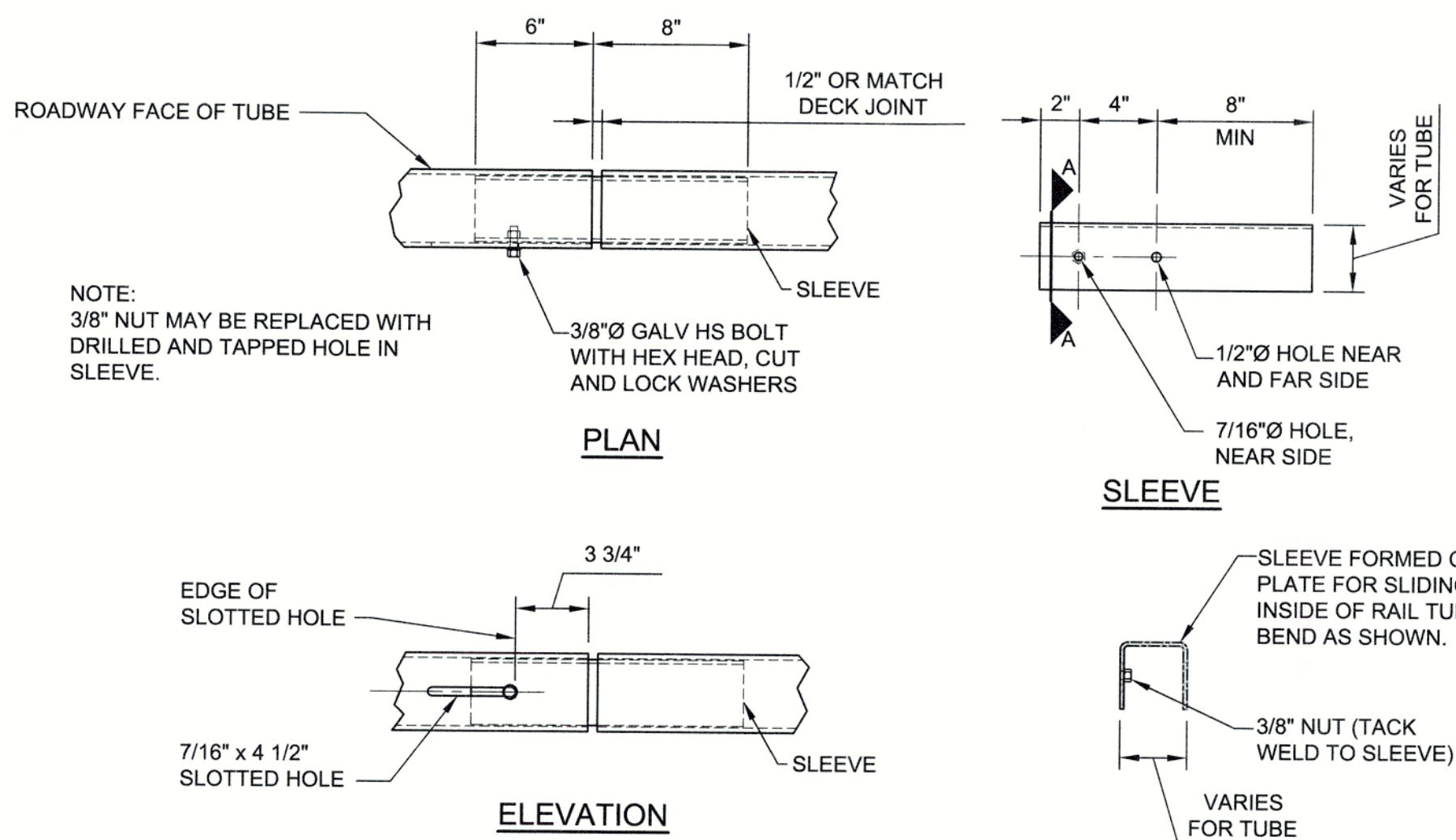
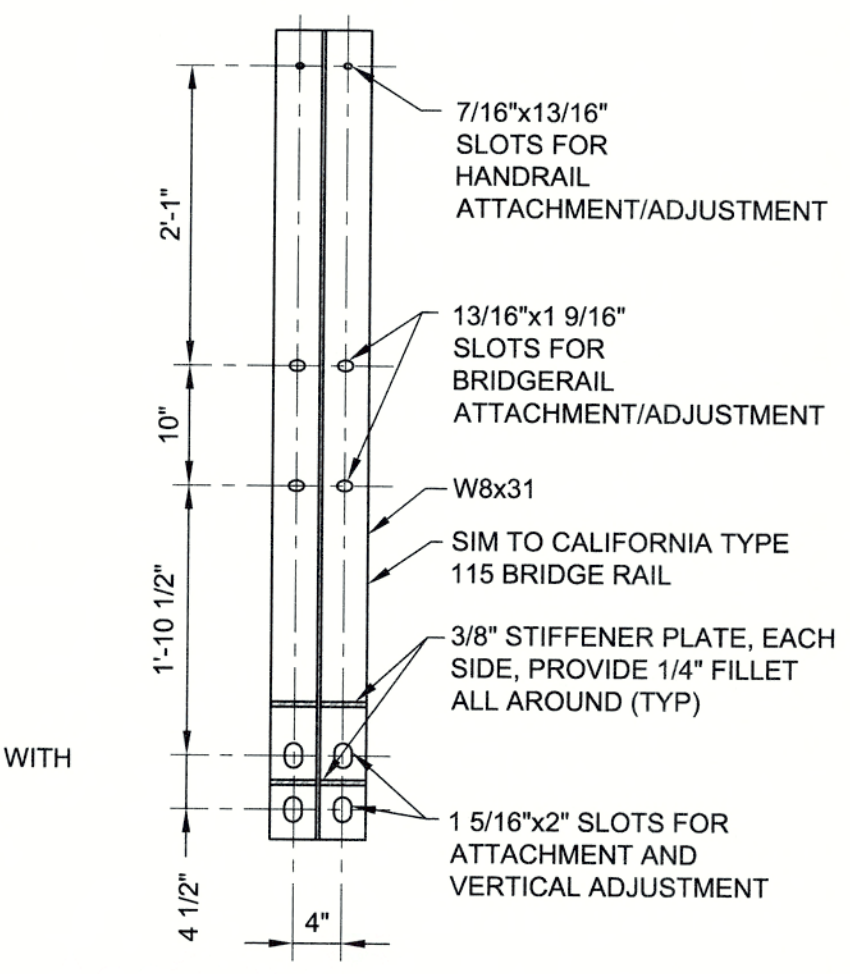
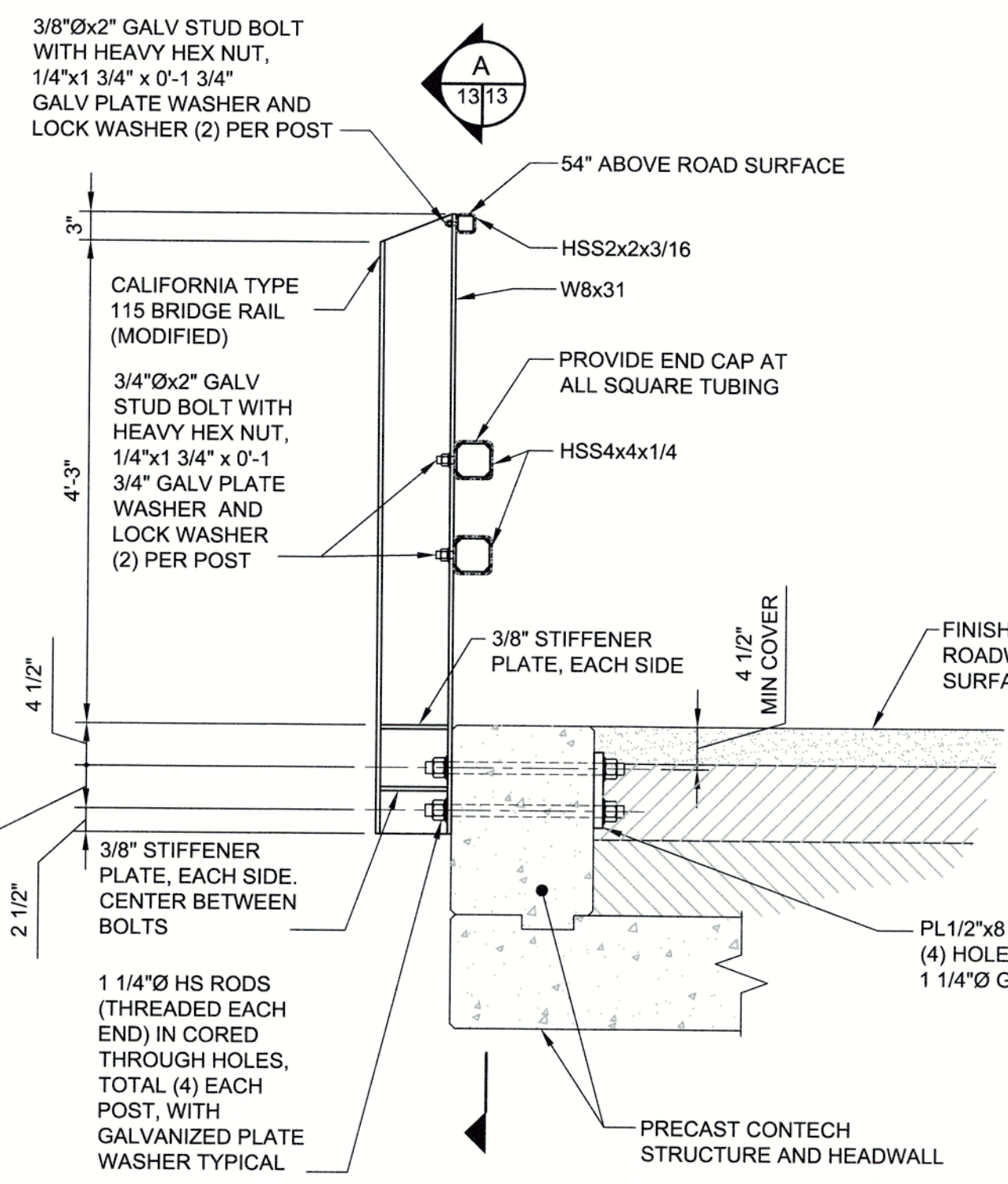
SHEET
12



- CONSTRUCTION NOTES:**
- 1 INSTALL CALTRANS APPROVED 31" INLINE TERMINAL SYSTEM END TREATMENT PER PLAN RSP A77Q1. OMIT THE 25'-0" TYPE WB-31 SECTION.
 - 2 INSTALL GUARDRAIL SYSTEM PER CALTRANS STANDARD PLAN RSP A77L1 AND A77N3 DETAIL A..
 - 3 INSTALL FHWA TYPE 115 METAL TUBE BRIDGE RAILING ON PREFABRICATED BRIDGE SYSTEM PER DETAIL 1 ON SHEET 13 AND ELEVATION C ON SHEET 11.
 - 4 INSTALL TYPE E GUARDRAIL DELINEATORS PER CALTRANS STANDARD PLAN RSP A77N3. AT 25 FEET ON CENTER.
- BRIDGERAIL NOTES:**
1. BRIDGERAIL COMPONENTS TO BE WEATHERING STEEL UNLESS OTHERWISE NOTED.
 2. BRIDGE HEADWALL WILL BE PREDRILLED TO ACCEPT BRIDGERAIL VERTICAL POST.
 3. SEE CONTECH SHOP DRAWINGS FOR BRIDGERAIL POST SPACING AND BOLT HOLE PATTERN. CONTRACTOR SHALL FIELD VERIFY HOLE SPACING PRIOR TO FABRICATION OF BRIDGERAILS.
 4. STUD BOLTS ARE TO BE ATTACHED WITH FULL PENETRATION BUTT WELD TO TUBING.
 5. BRIDGERAIL RATED FOR TL-1 LOADING.

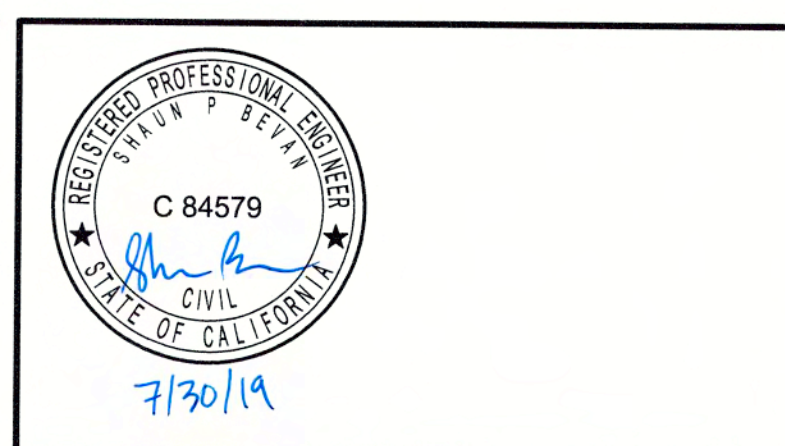


NOTE: PROPOSED BRIDGE AND ROADWAY IMPROVEMENTS SCREENED. CREEK IMPROVEMENTS NOT SHOWN FOR CLARITY.



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DESIGNED BY	M. GARELLO
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PROJECT NUMBER	10067867



CROSSING 8 DESIGN DRAWINGS
CACHUMA OPERATION AND
MAINTENANCE BOARD

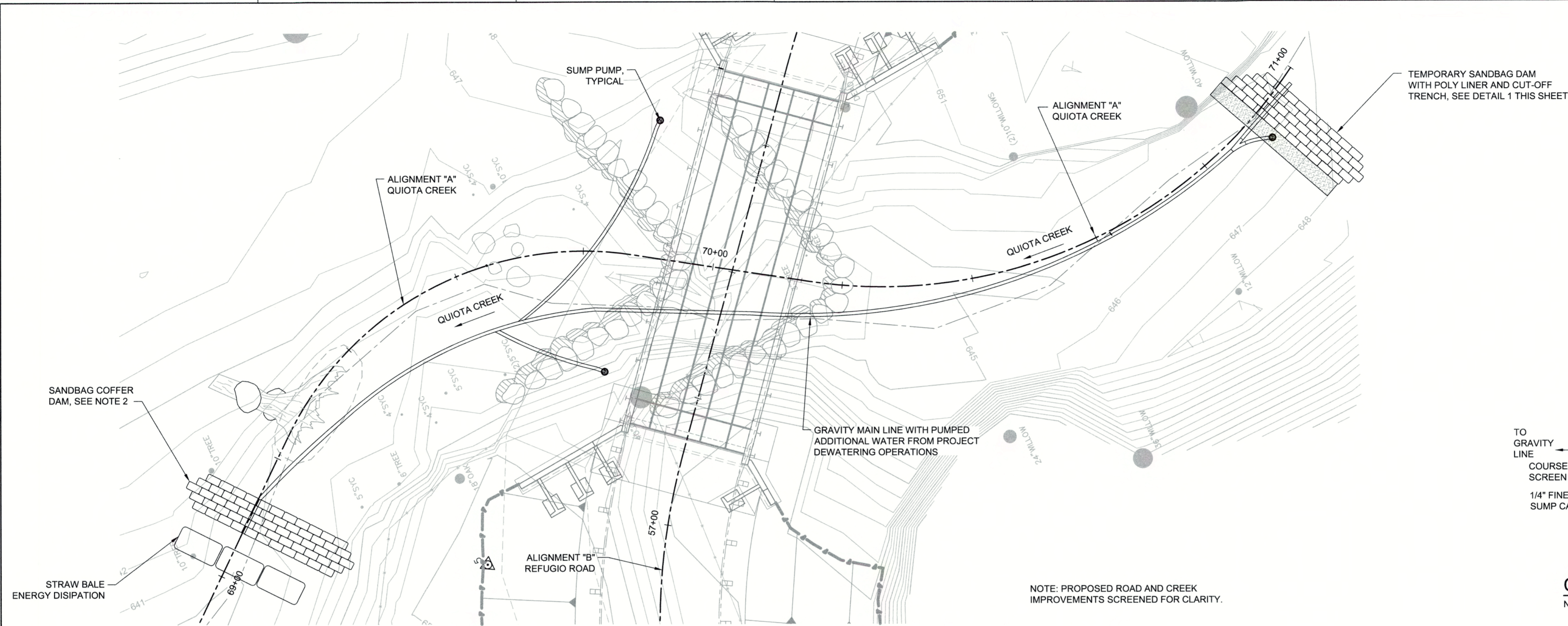
GUARDRAIL AND BRIDGERAIL PLAN, SECTION, AND DETAILS

0 1 2"

DATE: JULY 25, 2019

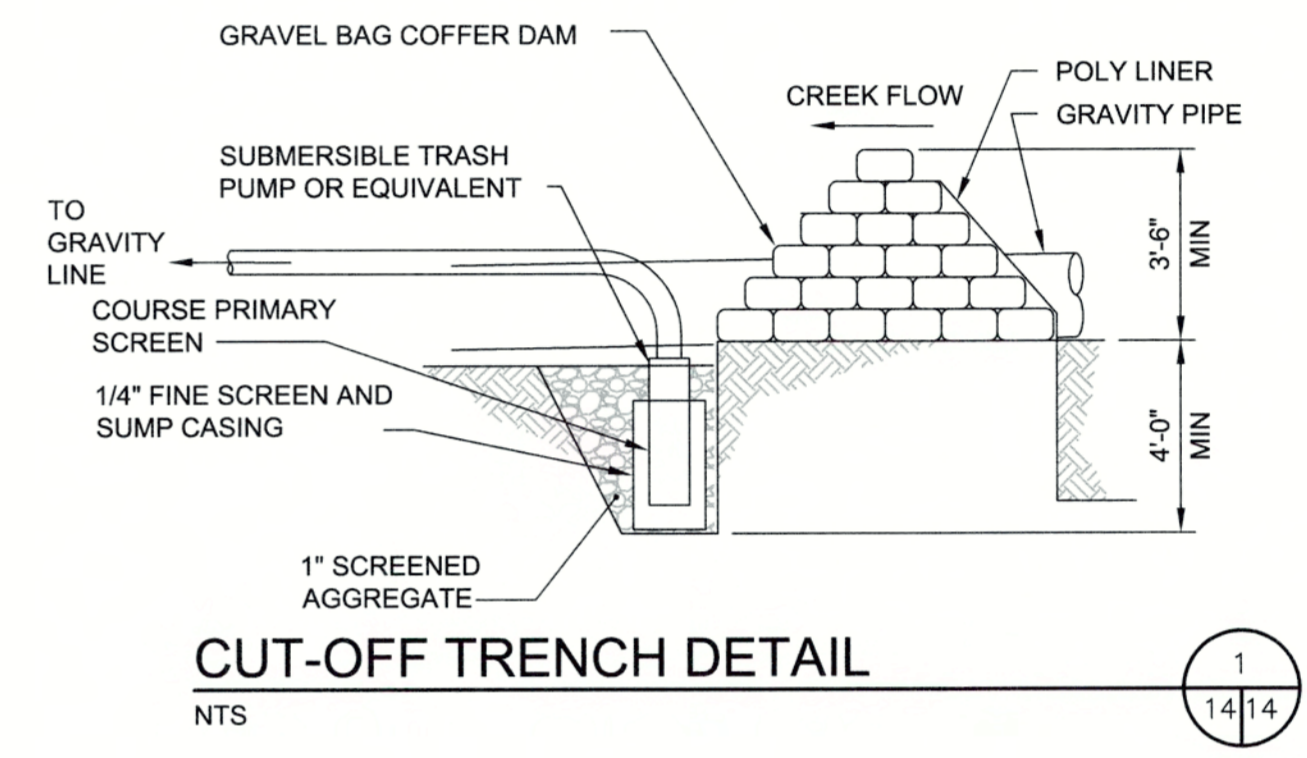
SCALE: AS NOTED

SHEET: 13



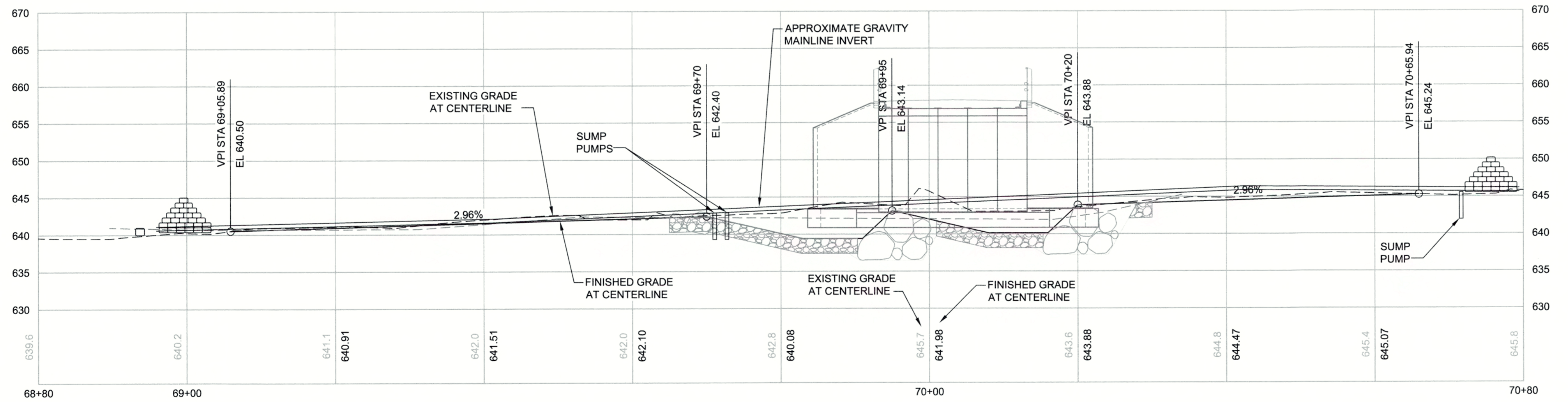
DEWATERING NOTES:

1. LENGTH AND POSITIONING OF DIVERSION PIPE ARE APPROXIMATE. CONTRACTOR SHALL PROVIDE LENGTH OF PIPE NECESSARY TO DIVERT CREEK FLOW. CONTRACTOR SHALL POSITION PIPE AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL PROVIDE PLASTIC SHEET LINED SANDBAG COFFERDAM SUFFICIENT TO DIVERT ALL WATER TO DIVERSION PIPE DURING ENTIRE CONSTRUCTION PERIOD.
3. CONTRACTOR SHALL PROVIDE SANDBAG OR OTHER STRUCTURAL SUPPORTS TO ELEVATE DIVERSION PIPE ABOVE WORK AND SHALL RELOCATED DIVERSION PIPE AND SUPPORTS AS REQUIRED TO COMPLETE CONSTRUCTION.
4. CONTRACTOR SHALL OPERATE AND MAINTAIN SUMP PUMPS AS REQUIRED FOR THE DURATION OF CONSTRUCTION.
5. SUBMIT DEWATERING PLAN FOR ENGINEER APPROVAL PRIOR TO IMPLEMENTATION.



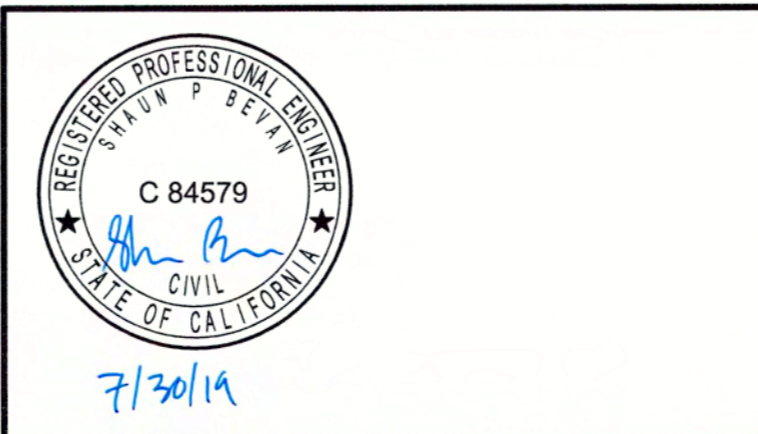
LEGEND:

- x--- x--- EXISTING FENCE
- x--- ALIGNMENTS AND STATIONING (FT)
- CUT EXTENTS
- FILL EXTENTS
- PROPOSED FENCE
- RIGHT OF WAY
- EXISTING FEATURES
- PROPOSED FEATURES
- TREE
- PROPOSED HMA ROAD LIMITS
- ⌋ ROCK WEIR
- ▲ SLOPE FILL
- ▽ SLOPE CUT
- △ CONTROL POINT



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CHECKED BY	-
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DESIGNED BY	M. GARELLO
DRAWN BY	J. CAMPBELL
PROJECT NUMBER	10067867



**CROSSING 8 DESIGN DRAWINGS
CACHUMA OPERATION AND
MAINTENANCE BOARD**

**DEWATERING
PLAN AND PROFILE**

DATE: JULY 25, 2019
SCALE: AS NOTED

SHEET
14



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

July 23, 2018

Timothy Chorey
California Department of Fish and Wildlife
Watershed Restoration Grants Program
Fisheries Restoration Grant Program
P.O. Box 944209
Sacramento, CA 94244-2090

SUBJECT: WATER QUALITY ORDER NO. (WQ 2018-0012-EXEC) CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER FOR THE 2017 FISHERIES HABITAT RESTORATION PROJECTS (SWRCB FILE #SB18022IN)

Dear Mr. Chorey:

Enclosed please find a Clean Water Act Section 401 Water Quality Certification and Order, authorized by State Water Resources Control Board (State Water Board) Executive Director, Eileen Sobeck. This Order is issued to the California Department of Fish and Wildlife for the 2017 Fisheries Habitat Restoration Projects (Project). Attachments A through G of the Enclosure are also part of this Order.

This Order is issued in response to an application submitted by the California Department of Fish and Wildlife for proposed Project discharges to waters of the state to ensure that the water quality standards for all waters of the state impacted by the Project are met. You may proceed with your Project according to the terms and conditions of the enclosed Order.

If you require further assistance, please contact me by phone at (916) 341-5462 or by email at brendan.reed@waterboards.ca.gov. You may also contact Beth Payne, Chief of the Water Quality Certification Unit, by phone at (916) 341-5579 or email at Elizabeth.Payne@waterboards.ca.gov.

Sincerely,

Brendan Reed
Environmental Scientist
Division of Water Quality – Water Quality Certification Unit
State Water Resources Control Board

Enclosures (1): Order for the 2017 Fisheries Habitat Restoration Projects

FELICIA MARCUS, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

cc: [Via email only] (w/ enclosure):

Sam Ziegler
Chief, Wetlands Regulatory Office
(WTR-8)
U.S. Environmental Protection Agency, Region 9
Ziegler.Sam@epa.gov

Richard Bottoms
Chief, Regulatory Branch
San Francisco District
U.S. Army Corps of Engineers
Richard.M.Bottoms@usace.army.mil

David Castanon
Chief, Regulatory Branch
Los Angeles District
U.S. Army Corps of Engineers
David.J.Castanon@usace.army.mil

Steve Henry
Field Supervisor
U.S. Fish & Wildlife Service
Steve_Henry@fws.gov

Neil Manji
Regional Manager
California Dept. of Fish and Wildlife, Northern Region
Neil.Manji@wildlife.ca.gov

Craig Weightman
Regional Manager
California Dept. of Fish and Wildlife, Bay Delta Region
Craig.Weightman@wildlife.ca.gov

Julie Vance
Regional Manager
California Dept. of Fish and Wildlife, Central Region
Julie.Vance@wildlife.ca.gov

Ed Pert
Regional Manager
California Dept. of Fish and Wildlife, South Coast Region
Ed.Pert@wildlife.ca.gov

cc: Continued on next page

cc: (Continued)

Karen Mogus
Deputy Director
Division of Water Quality
State Water Resources Control Board
Karen.Larsen@waterboards.ca.gov

CWA Section 401 WQC Program
Division of Water Quality
State Water Resources Control Board
Stateboard401@waterboards.ca.gov

Stephen Bargsten
Program Manager
North Coast Regional Water Quality Control Board
Stephen.Bargsten@waterboards.ca.gov

Keith Lichten
Program Manager
San Francisco Bay Regional Water Quality Control Board
Keith.Lichten@waterboards.ca.gov

Phil Hammer
Program Manager
Central Coast Regional Water Quality Control Board
Phillip.Hammer@waterboards.ca.gov

Dylan Inskeep
Regulatory Coordinator, Watershed Restoration Grants Program
California Department of Fish and Wildlife
Dylan.Inskeep@wildlife.ca.gov

Tom Weseloh
Chief Consultant
Joint Committee on Fisheries and Aquaculture
Tom.Weseloh@sen.ca.gov



State Water Resources Control Board

ORDER WQ 2018-0012-EXEC
CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER

Effective Date: July 23, 2018

Program Type: Restoration

Reg. Meas. ID: 421042
Place ID: 846666
SWRCB ID: SB18022IN
USACOE#: 2003-279220
and
SPL-2003-01123-BAH

Project Type: Ecological Aquatic/Stream/Habitat Restoration

Project: 2017 Fisheries Habitat Restoration Projects (Project)

Applicant: California Department of Fish and Wildlife (CDFW)
Applicant Contact: Timothy Chorey
Senior Environmental Scientist
CDFW Watershed Restoration Grants Program
P.O. Box 944209
Sacramento, CA 94244-2090
Phone: (916) 327-8842
Email: timothy.chorey@wildlife.ca.gov

Applicant's Agent: Dylan Inskeep
Environmental Scientist
CDFW Watershed Restoration Grants Program
P.O. Box 944209
Sacramento, CA 94244-2090
Phone: (916) 327-8658
Email: dylan.inskeep@wildlife.ca.gov

State Water Board Staff: Brendan Reed
Environmental Scientist
1001 I Street
Sacramento, CA 95814
Phone: (916) 341-5462
Email: brendan.reed@waterboards.ca.gov

State Water Board Contact Person:

If you have any questions, please call State Water Resources Control Board (State Water Board) Staff listed above or (916) 341-5478 and ask to speak with the Water Quality Certification Unit Program Manager.

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- Attachment G** Mitigation, Monitoring and Reporting Program for the 2017 Fisheries Habitat Restoration Project

I. Order

This Clean Water Act (CWA) section 401 Water Quality Certification action and Order (Order), including attachments A through G, is issued at the request of the California Department of Fish and Wildlife (hereinafter Permittee) for the Project. This Order is for the purpose described in the application and supplemental information submitted by the Permittee. The application was received on April 13, 2018. The application was deemed complete on May 23, 2018. Prior to receiving a complete application, State Water Board staff issued a notice of incomplete application and the Permittee responded to the request for application information on the following dates (Table 1).

Table 1: Record of Notice(s) of Incomplete Application	
Date of Notice of Incomplete Application	Date all requested information was received.
4/30/2018	5/16/2018

II. Public Notice

The State Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 from June 8, 2018 to June 29, 2018. The State Water Board did not receive any comments during the comment period.

III. Project Purpose

The purpose of the Project is to restore anadromous fisheries habitat in non-tidal reaches of rivers and streams, improve watershed conditions impacting salmonid streams, and improve the survival, growth, migration, and reproduction of anadromous fish.

IV. Project Description

The 2017 Fish Habitat Restoration (FHR) Project (Project) includes Fisheries Restoration Grant Program (FRGP) projects and Forest Land Anadromous Restoration (FLAR) projects. The entities that implement these individual projects (Grantees) use grant funds to restore degraded anadromous fish habitat in coastal streams. Individual restoration projects must be implemented in accordance with procedures found in the most recent version of the "California Salmonid Stream Habitat Restoration Manual."

This Project supports a variety of restoration activities, from sediment reduction to watershed education, throughout coastal California. Funded projects must be implemented within two to four years, and most of the habitat restoration activities, especially work in stream channels, must take place during the dry summer season. The majority of the funding is awarded for habitat restoration projects that improve fish shelter, spawning gravels, and pool habitat. These habitat restoration activities conform to the mandates of the Fish and Game Code and the Public Resources Code.

V. Project Location

The Project occurs in various coastal streams in the following counties: Humboldt, Marin, Mendocino, Monterey, San Luis Obispo, San Mateo, Santa Barbara, Siskiyou, and Sonoma. A map showing Project locations is found in Attachment A of this Order.

VI. Project Impact and Receiving Waters Information

The Project is located within the jurisdiction of the North Coast, San Francisco Bay, and Central Coast Regional Water Quality Control Boards (collectively Regional Water Boards). Receiving waters and groundwater potentially impacted by this Project are protected in accordance with the applicable water quality control plans (Basin Plan) for the regions and other plans and policies which may be accessed online at: http://www.waterboards.ca.gov/plans_policies/. The Basin Plans include water quality standards, which consist of existing and potential beneficial uses of waters of the state, water quality objectives to protect those uses, and the state and federal antidegradation policies.

It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.

Project impact and receiving waters information can be found in Attachment B. Table 1 of Attachment B shows the receiving waters and beneficial uses of waters of the state impacted by the Project. Individual impact location and quantity is shown in Table 2 of Attachment B.

VII. Description of Direct Impacts to Waters of the State

This Order authorizes direct permanent and temporary impacts to waters of the state associated with the Project. Project activities that will result in impacts to waters of the state include (1) installation of large woody debris, log structures, boulder structures, and other structures associated with in-stream habitat improvements; (2) removal of fish passage barriers; (3) placement of new non-barrier stream crossings; (4) stabilization of stream banks; (5) decommissioning of roads within, or which may discharge to, waters of the state; and (6) restoration of riparian habitat. Individual project impact locations and quantities are shown in Table 2 of Attachment B.

Total Project fill/excavation quantities for all impacts are summarized in Table 2. Permanent impacts are categorized as those resulting in a physical loss in area and also those degrading ecological condition only.

Aquatic Resource Type	Temporary Impact ²			Permanent Impact					
				Physical Loss of Area			Degradation of Ecological Condition Only		
	Acres	CY	LF	Acres	CY	LF	Acres	CY	LF
Riparian Zone	0.095		724						
Stream Channel	3.231		3,000	4.053		7,805			

VIII. Description of Indirect Impacts to Waters of the State

The State Water Board recognizes the potential for indirect impacts to waters of the state associated with the Project. Indirect impacts to waters of the state and their designated

¹ Cubic Yards (CY); Linear Feet (LF)

² Includes only temporary direct impacts to waters of the state and does not include upland areas of temporary disturbance which could result in a discharge to waters of the state.

beneficial uses could potentially result from Project activities. Such impacts would likely be short term and may result from the installation of instream structures, removal of instream structures, and disturbances associated with access routes. The potential indirect impacts are adequately reduced through adherence to this Order and the Project Mitigation Measures, Monitoring and Reporting Program (MMRP), Attachment G.

IX. Avoidance and Minimization

Projects receiving certification from the State Water Board must demonstrate that the Project design has first avoided and then minimized impacts to waters of the state to the maximum extent practicable. Adequate avoidance and minimization measures to waters of the state are required by the Project's Mitigated Negative Declaration (MND) and Mitigation Measures, Monitoring and Reporting Program (MMRP), Attachment G. The minimization measures generally focus on preventing degradation of beneficial uses by preventing wastes from entering waters of the state, preventing degradation of water quality caused by water diversions and construction activities, preventing harm to aquatic and riparian organisms, preventing channel/riparian instability, and monitoring to prevent pollutant discharges to waters of the state.

X. Compensatory Mitigation

No compensatory mitigation was required for permanent impacts because the Project is a fisheries restoration project that results in a net benefit to waters of the state.

XI. California Environmental Quality Act (CEQA)

On February 28, 2018, the California Department of Fish and Wildlife, as lead agency, adopted an initial study/mitigated negative declaration (IS/MND) (State Clearinghouse (SCH) No. 2017112068) for the Project and filed a Notice of Determination (NOD) at the SCH on February 28, 2018. Pursuant to CEQA, the State Water Board has made Findings of Facts (Findings) which support the issuance of this Order and are included in Attachment C.

XII. Petitions for Reconsideration

Any person aggrieved by this action may petition the State Water Board to reconsider this Order in accordance with California Code of Regulations, title 23, section 3867. A petition for reconsideration must be submitted in writing and received within 30 calendar days of the issuance of this Order.

XIII. Fees Received

An application fee of \$400 was received on April 13, 2018. The fee amount was determined as required by California Code of Regulations, title 23, sections 3833(b)(3) and 2200(a)(3), and was calculated as category D - Ecological Restoration and Enhancement Projects (fee code 85) with the dredge and fill fee calculator.

XIV. Conditions

The State Water Board has independently reviewed the record of the Project to analyze impacts to water quality and designated beneficial uses within the watersheds of the Project. In accordance with this Order, the Permittee may proceed with the Project under the following terms and conditions:

A. Authorization

Impacts to waters of the state shall not exceed quantities shown in Table 2.

B. Reporting and Notification Requirements

The following section details the reporting and notification types and timing of submittals. Requirements for the content of these reporting and notification types are detailed in Attachment F, including specifications for photo and map documentation during the Project.

Written reports and notifications must be submitted using the Reporting and Notification Cover Sheet located in Attachment F, which must be signed by the Permittee or an authorized representative.

1. Project Reporting

- a. **Annual Reporting:** The Permittee shall submit an Annual Report each year on the anniversary of the effective date of this Order. Annual reporting shall continue until a Notice of Project Complete Letter is issued to the Permittee.

2. Project Status Notifications

- a. **Commencement of Construction:** Each year, the Permittee shall submit a Commencement of Construction Report at least twenty-four hours prior to the start of in-stream work activities. The Commencement of Construction Report shall list the anticipated start dates for each individual project approved by this Order.
- b. **Request for Notice of Completion of Discharges Letter:** The Permittee shall submit a Request for Notice of Completion of Discharges Letter following completion of active Project construction activities. This request shall be submitted to the State Water Board staff within thirty (30) days following completion of all Project construction activities. Upon acceptance of the request, State Water Board staff shall issue a Notice of Completion of Discharges Letter to the Permittee which will end the active discharge period and associated annual fees.
- c. **Request for Notice of Project Complete Letter:** The Permittee shall submit a Request for Notice of Project Complete Letter when construction and/or any post-construction monitoring is complete,³ and no further Project activities will occur. This request shall be submitted to State Water Board staff within thirty (30) days following completion of all Project activities. Upon approval of the request, the State Water Board staff shall issue a Notice of Project Complete Letter to the Permittee which will end the post discharge monitoring period and associated annual fees.

3. **Conditional Notifications and Reports:** The following notifications and reports are required as appropriate.

³ Completion of post-construction monitoring shall be determined by State Water Board staff and shall be contingent on successful attainment of restoration and mitigation performance criteria.

a. Accidental Discharges of Hazardous Materials⁴

Following an accidental discharge of a reportable quantity of a hazardous material, sewage, or an unknown material, the following applies (Wat. Code, § 13271):

- i. As soon as (A) Permittee has knowledge of the discharge or noncompliance, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures then:
 - first call – 911 (to notify local response agency)
 - then call – Office of Emergency Services (OES) State Warning Center at: (800) 852-7550 or (916) 845-8911
 - Lastly follow the required OES procedures as set forth in:
http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill_Booklet_Feb2014_FINAL_BW_Acc.pdf
- ii. Following notification to OES, the Permittee shall notify State Water Board, as soon as practicable (ideally within 24 hours). Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.
- iii. Within five (5) working days of notification to the State Water Board, the Permittee must submit an Accidental Discharge of Hazardous Material Report.

b. Violation of Compliance with Water Quality Standards: The Permittee shall notify the State Water Board of any event causing a violation of compliance with water quality standards. Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.

- i. Examples of noncompliance events include: lack of storm water treatment following a rain event, discharges causing a visible plume in a water of the state, and water contact with uncured concrete.
- ii. This notification must be followed within three (3) working days by submission of a Violation of Compliance with Water Quality Standards Report.

c. In-Water Work

- i. The Permittee shall notify the State Water Board at least forty-eight (48) hours prior to initiating work in water or stream diversions. Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.
- ii. Within three (3) working days following completion of work in water or stream diversions, an In-Water Work/Diversions Water Quality Monitoring Report must be submitted to State Water Board staff.

⁴ "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. (Health & Saf. Code, § 25501.)

d. Modifications to Project

Project modifications may require an amendment of this Order. The Permittee shall give advance notice to State Water Board staff if Project implementation as described in the application materials is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority by submitting a Modifications to Project Report. The Permittee shall inform State Water Board staff of any Project modifications that will interfere with the Permittee's compliance with this Order. Notification may be made in accordance with conditions in the certification deviation section of this Order.

- e. Transfer of Long-Term BMP Maintenance:** If maintenance responsibility for post-construction BMPs is legally transferred, the Permittee must submit to the State Water Board a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer or designer specifications. The Permittee must provide such notification to the State Water Board with a Transfer of Long-Term BMP Maintenance Report at least 10 days prior to the transfer of BMP maintenance responsibility.

C. Water Quality Monitoring

- 1. General:** If surface water is present, continuous visual surface water monitoring shall be conducted to detect accidental discharge of construction related pollutants (e.g. oil and grease, turbidity plume, or uncured concrete).
- 2. Accidental Discharges/Noncompliance:** Upon occurrence of an accidental discharge of hazardous materials or a violation of compliance with a water quality standard, State Water Board staff may require water quality monitoring based on the discharge constituents and/or related water quality objectives and beneficial uses.
- 3. In-Water Work or Diversions:**
A water quality monitoring plan shall be submitted to State Water Board staff prior to commencement of any individual project that involves in-water work or construction dewatering or diversions. The water quality monitoring plan shall be in conformance with the applicable Regional Water Quality Control Board's basin plan and provide for monitoring of appropriate parameters.

D. Standard

- This Order is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330, and California Code of Regulations, title 23, chapter 28, Article 6 commencing with section 3867. Additionally, the State Water Board reserves the right to suspend, cancel, or modify and reissue this Order, after providing notice to the Permittee, if the State Water Board determines that: the Project fails to comply with any of the conditions of this Order; or, when necessary to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) or federal Clean Water Act section 303 (33 U.S.C. § 1313). For purposes of Clean Water Act section 401(d), the condition constitutes a limitation necessary to assure compliance with water quality standards and appropriate requirements of state law.

2. This Order is not intended and shall not be construed to apply to any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license, unless the pertinent certification application was filed pursuant to subsection 3855(b) of chapter 28, title 23 of the California Code of Regulations, and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. This Order is conditioned upon total payment of any fee required under title 23 of the California Code of Regulations and owed by the Permittee.
4. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under state and federal law. For purposes of Clean Water Act, section 401(d), the applicability of any state law authorizing remedies, penalties, processes, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Order.

E. General Compliance

1. Failure to comply with any condition of this Order shall constitute a violation of the Porter-Cologne Water Quality Control Act and the Clean Water Act. The Permittee and/or discharger may then be subject to administrative and/or civil liability pursuant to Water Code section 13385.
2. Permitted actions must not cause a violation of any applicable water quality standards, including impairment of designated beneficial uses for receiving waters as adopted in the Basin Plans by any applicable Regional Water Board or any applicable State Water Board (collectively Water Boards) water quality control plan or policy. The source of any such discharge must be eliminated as soon as practicable.
3. In response to a suspected violation of any condition of this Order, the State Water Board may require the holder of this Order to furnish, under penalty of perjury, any technical or monitoring reports the Water Boards deem appropriate, provide that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The additional monitoring requirements ensure that permitted discharges and activities comport with any applicable effluent limitations, water quality standards, and/or other appropriate requirement of state law.
4. The Permittee must ensure that, at all times, each individual Grantee fully comply with this Order and any engineering plans, specifications, and technical reports submitted to support this Order; and all subsequent submittals required as part of this Order. The conditions within this Order and Attachments supersede conflicting provisions within Permittee submittals.
5. This Order and all of its conditions contained herein continue to have full force and effect regardless of the expiration or revocation of any federal license or permit issued for the Project. For purposes of Clean Water Act, section 401(d), this condition constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements of state law.

6. The Permittee must ensure that each individual Grantee adheres to all requirements in Attachment G, the Mitigation Measures, Monitoring and Reporting Program for the 2017 Fisheries Habitat Restoration Project (MMRP) (February 28, 2018), and any additional measures as outlined in Attachment C, CEQA Findings of Fact.
7. **Construction General Permit Requirement:** The Permittee shall, for each individual project, ensure compliance with conditions described in, and required by, NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ; NPDES No. CAS000002).

F. Administrative

1. Signatory requirements for all document submittals required by this Order are presented in Attachment D of this Order.
2. This Order does not authorize any act which results in the taking of a threatened, endangered or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, §§ 2050-2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531-1544). If a "take" will result from any act authorized under this Order held by the Permittee, the Permittee must obtain authorization for the take prior to any construction or operation of the portion of the Project that may result in a take. The Permittee is responsible for meeting all requirements of the applicable endangered species act for the Project authorized under this Order.
3. The Permittee shall grant State Water Board staff, Regional Water Board staffs, or an authorized representative (including an authorized contractor acting as a Water Board representative), upon presentation of credentials and other documents as may be required by law, permission to:
 - a. Enter upon the Project or compensatory mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records are kept.
 - b. Have access to and copy any records that are kept and are relevant to the Project or the requirements of this Order.
 - c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order.
 - d. Sample or monitor for the purposes of assuring Order compliance.
4. A copy of this Order shall be provided to any consultants, contractors, and subcontractors working on the Project. Copies of this Order shall remain at the Project site for the duration of this Order. The Permittee shall be responsible for work conducted by its consultants, contractors, and any subcontractors.
5. A copy of this Order must be available at Project site(s) during construction for review by site personnel and agencies. All personnel performing work on the Project shall be familiar with the content of this Order and its posted location at the Project site.

G. Construction**Dewatering**

1. All temporary dewatering/diversion methods shall be designed to have the minimum necessary impacts to waters of the state to isolate the immediate work area.
2. All dewatering/diversion facilities shall be installed such that natural flow is maintained upstream and downstream of Project areas.
3. Any temporary dams or diversions shall be installed such that the dewatering/diversion does not cause sedimentation, siltation, or erosion upstream or downstream of Project areas.
4. All dewatering/diversion methods shall be removed immediately upon completion of dewatering/diversion activities.

Fugitive Dust

5. If dust suppression measures are utilized, they shall be performed such that they do not result in a discharge to waters of the state.

Good Site Management "Housekeeping"

6. Except for temporary stockpiling of waste or spoils generated by Project activities (temporary in this instance means generated and removed during the same working day), waste materials shall not be placed in a manner where they may be washed by rainfall, or otherwise discharged into waters of the state.
7. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete Project implementation.
8. Where temporary or permanent impacts have not been approved, construction vehicles must not enter waters of the state.
9. When no longer needed, all construction-related equipment, materials, and temporary BMPs shall be removed from Project sites.
10. All imported riprap, rocks, and gravels that are used shall be pre-washed.

Hazardous Materials

11. Prior to use in waters of the state, all equipment shall be cleaned of any substances that are detrimental to water quality.
12. All Operation and storage of vehicles and equipment shall not result in a discharge or threatened discharge to waters of the state.
13. Vehicles and equipment that operate in waters of the state shall be regularly inspected for leaks. At no time shall the Permittee allow the use of any vehicle or equipment that leaks any substance that may impact water quality.
14. On-site containment for storage of chemicals classified as hazardous shall include secondary containment and appropriate management as indicated in the Construction General Permit.

Invasive Species and Soil Borne Pathogens

15. Imported fill material must be free of weed and invasive species seeds and live plants.

In-Water Work

16. In the event of rain, any in-water work area shall be temporarily stabilized before stream flow overtops or overwhelms the diversion structure. The stream bed shall be stabilized so that the disturbed areas will not come in contact with stream flow.
17. The Permittee shall not use or allow the use of erosion control products that contain synthetic materials within waters of the state at any time, except for plastic sheeting used in water diversion and dewatering activities. The Permittee shall first request approval from the State Water Board if an exception from this requirement is needed for a specific location.
18. All work performed within waters of the state shall be completed in a manner that minimizes impacts to beneficial uses.

Roads

19. Existing roads shall be used to access Project sites when practicable.
20. All existing roads used for the Project shall be left in a condition equal to or better than their condition prior to Project use.
21. Where use of existing roads is not practicable, the temporary access routes shall be designed and constructed such that they do not cause a discharge to waters of the state. Several forest road planning, construction, and maintenance guidebooks exist for reference when identifying potential access routes.

Special Status Species

22. The Permittee shall follow all conditions of other state and federal permits pertaining to special status species that may be affected by the Project.

Stabilization/Erosion Control

23. Effective erosion and sediment control BMPs shall be used for all disturbed areas to prevent discharges to waters of the state.
24. All erosion and sediment control materials shall be on site and ready for use prior to initiation of ground disturbing activities.
25. Sediment control structures shall be installed and maintained for effectiveness at least forty-eight (48) hours before a rain event and shall be repaired or replaced as needed. Buildup of soil behind silt fences shall be removed and any breaches or undermined areas repaired.
26. Disturbed work areas within waters of the state must be temporarily stabilized to prevent erosion at least 48 hours prior to the predicted commencement of a rainfall event that is forecast to bring greater than or equal to one-half inch of precipitation with a greater than a 50 percent probability of occurrence, as predicted by the National Oceanic and Atmospheric Administration (NOAA) - National Weather Service. If the predicted commencement of such a rainfall event is less than 48 hours after the prediction is

issued, temporary stabilization of the disturbed in-water work areas must begin immediately.

H. Total Maximum Daily Load (TMDL)

1. Project activities must not cause or contribute to an exceedance of wasteload allocations within any waters with TMDLs.

I. Mitigation for Temporary Impacts

1. The Permittee shall restore all areas of temporary impacts to waters of the state (Table 3) and all Project site upland areas of temporary disturbance which could result in a discharge to waters of the state in accordance with the MMRP (Attachment G) and the individual project specifications which were submitted as part of the application and incorporated herein by reference.
2. The State Water Board may extend the monitoring period beyond requirements of the MMRP and individual project specifications upon a determination by State Water Board Executive Director that the performance standards have not been met or are not likely to be met within the monitoring period.
3. Compensatory mitigation may be required for any authorized impact site (as listed in Attachment B, Table 2) where first-year restoration work for disturbed areas in, or immediately adjacent to, waters of the state is not completed within one year of completion of ground-disturbing activity at that impact site (i.e., to offset temporal loss of aquatic resource functions or beneficial uses).

Table 3: Required Project Mitigation Quantity for Temporary Impacts ⁵									
Aquatic Resource Type	Mit. Type ⁶	Units	Method ⁷						
			Est.	Re-est.	Reh.	Enh.	Pres.	Unknown	
Riparian Zone	PR	Acres			0.095				
Stream Channel	PR	Acres			3.326				

⁵ For Staff use only: Record quantities in CIWQS table side B for mitigation for temporary impacts and for permanent degradation of ecological condition; ecological restoration/enhancement projects.

⁶ Mitigation type for onsite restoration of temporary impacts is Permittee Responsible (PR).

⁷ Methods: establishment (Est.), reestablishment (Re-est.), rehabilitation (Reh.), enhancement (Enh.), preservation (Pres.). Unknown applies to advance credits with an unknown method and or location.

J. Ecological Restoration and Enhancement: The quantity of waters of the state permanently gained or restored by the Project is shown in Table 4.

Table 4: Total Ecological Restoration and Enhancement Quantity⁸							
Aquatic Resource Type	Res.⁹ Type	Units	Method¹⁰				
			Est.	Re-est.	Reh.	Enh.	Pres.
Riparian Zone ¹¹	PR	Acres		8.26	9.937	0.298	
Riparian Zone	PR	LF		56,692	12,822	541	
Stream Channel	PR	Acres	3.25	0.63	14.651	8.251	
Stream Channel	PR	LF	2,112	1,528	22,713	20,711	

K. Certification Deviation

1. Minor modifications of Project locations or predicted impacts may be necessary as a result of unforeseen field conditions, necessary engineering re-design, construction concerns, or similar reasons. Some of these prospective Project modifications may have impacts on water resources. Some modifications of Project locations or predicted impacts may qualify as Certification Deviations as set forth in Attachment E. For purposes of this Certification, a "Certification Deviation" is a Project locational or impact modification that does not require an immediate amendment of the Order, because the State Water Board has determined that any potential water resource impacts that may result from the change are sufficiently addressed by the Order conditions and the CEQA

⁸ For Staff use only: Record quantities in CIWQS mitigation/restoration table side B for mitigation for temporary impacts and for permanent degradation of ecological condition; ecological restoration/enhancement projects.

⁹ Restoration (Res.)

¹⁰ Methods: establishment (Est.), reestablishment (Re-est.), rehabilitation (Reh.), enhancement (Enh.), preservation (Pres.).

¹¹ Riparian zone restoration and enhancement quantity is higher in Table 4 than in Attachment B because Table 4 includes upslope restoration activities that do not directly impact waters, but reduce sediment discharges to riparian zones and stream channels.

Findings. After the termination of construction, this Order will be formally amended to reflect all authorized Certification Deviations and any resulting adjustments to the amount of water resource impacts and required compensatory mitigation amounts.

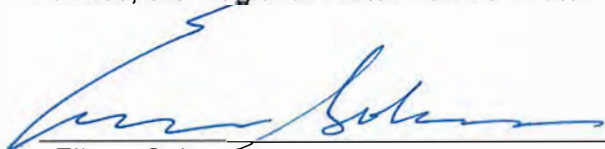
- 2. A Project modification shall not be granted a Certification Deviation if it warrants or necessitates changes that are not addressed by the Order conditions or the CEQA environmental document such that the Project impacts are not addressed in the Project's environmental document or the conditions of this Order. In this case a supplemental environmental review and different Order will be required.

XV. Water Quality Certification

I hereby issue the Order for the 2017 Fisheries Habitat Restoration Projects, Order WQ 2018-0012-EXEC certifying that as long as all of the conditions listed in this Order are met, any discharge from the referenced Project will comply with the applicable provisions of Clean Water Act sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards).

The State Water Board will file a Notice of Determination (NOD) at the SCH within five (5) working days of issuance of this Order. This discharge is also regulated pursuant to State Water Board Water Quality Order No. 2003-0017-DWQ which authorizes this Order to serve as Waste Discharge Requirements pursuant to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.).

Except insofar as may be modified by any preceding conditions, all Order actions are contingent on: (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the conditions of this Order and the attachments to this Order; and, (b) compliance with all applicable requirements of Statewide Water Quality Control Plans and Policies, the Regional Water Boards' Water Quality Control Plans and Policies.

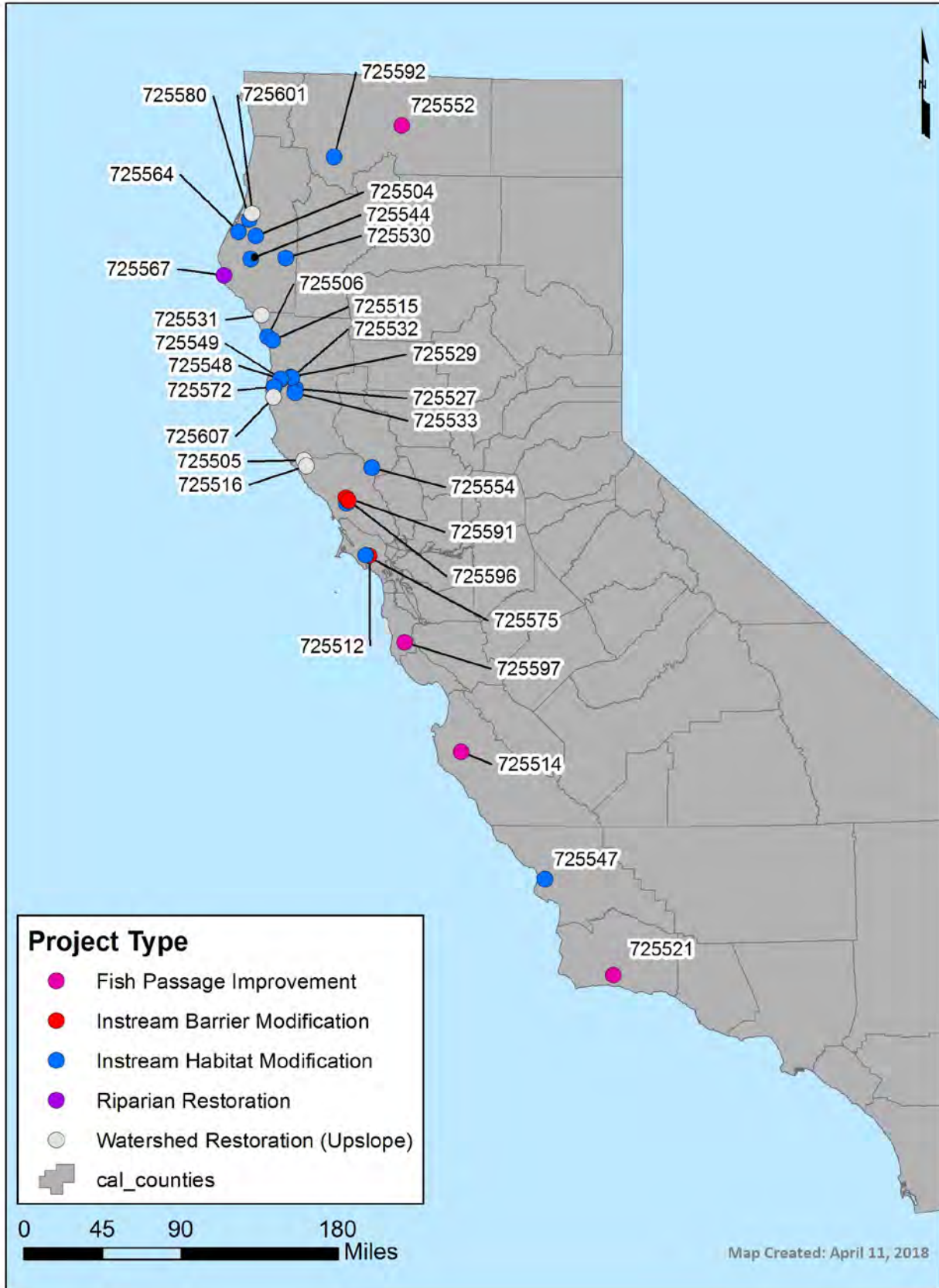


Eileen Sobeck
Executive Director
State Water Resources Control Board

7/23/2018
Date

- Attachment A** Project Maps
- Attachment B** Receiving Waters, Impact, and Mitigation Information
- Attachment C** CEQA Findings of Facts
- Attachment D** Signatory Requirements
- Attachment E** Certification Deviation Procedures
- Attachment F** Report and Notification Requirements
- Attachment G** Mitigation, Monitoring and Reporting Program for the 2017 Fisheries Habitat Restoration Project

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Deputy Director
Ecosystem Conservation Division
Post Office Box 944209
Sacramento, CA 94244-2090
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



July 17, 2019

Timothy H. Robinson
Cachuma Operation and Maintenance Board
3301 Laurel Canyon Road
Santa Barbara, CA 93105
(805) 687-4011 x 215
trobinson@cachuma-board.org

RECEIVED

JUL 23 2019

CACHUMA O & M BOARD

**Subject: Habitat Restoration and Enhancement Act–Request for Approval;
Request No. 1652-2019-029-001-R5 for Fish Passage Improvement at
Crossing 8, Quiota Creek; Santa Barbara County**

Dear Mr. Robinson:

The California Department of Fish and Wildlife (CDFW) has reviewed your request to approve the Fish Passage Improvement at Crossing 8, Quiota Creek (Project), dated May 24, 2019, pursuant to Fish and Game Code section 1652. CDFW has determined that your request includes all the information required in section 1652(b) and the Project meets all the requirements in section 1652(c). Therefore, CDFW hereby approves your Project summarized below.

Project Location: The Project is located where Quiota Creek crosses under South Refugio Road within the town of Santa Ynez, Santa Barbara County (See Figures 1 and 2 in the supplemental attachment to the request to approve). The Project is located approximately 3.0 miles upstream of the confluence of Quiota Creek and the Santa Ynez River at approximately 34.55858000 degrees latitude, -120.08358000 degrees longitude. The proposed work within Quiota Creek will extend approximately 80 feet upstream and 120 feet downstream of the South Refugio Road crossing. The proposed roadwork will extend approximately 220 feet south and 200 feet north of the Quiota Creek crossing.

Project Description: The primary purpose of the Project is habitat improvement and barrier removal. The Project will mediate the limiting factors of spawning requirements (e.g., gravel, riffle-pool complex, resting areas-pools), salmonid rearing requirements (e.g., velocity, lack of shelter, pools) and fish passage (i.e., emigration and immigration). The species likely to benefit from this Project include but are not limited to southern California steelhead/rainbow trout (*Oncorhynchus mykiss*), California red-legged frog (*Rana draytonii*), southwestern pond turtle (*Actinemys pallida*), and two-striped garter snake (*Thamnophis hammondi*). Southern California steelhead is designated as an endangered species and California red-legged frog is designated as a threatened species pursuant to the federal Endangered Species Act (ESA) (16 U.S.C. § 1531 et seq.).

The Project includes the following components: removing a deteriorated wooden bridge and the associated concrete apron and concrete sack bridge abutments; installing a new 54-foot pre-fabricated bottomless-arched culvert (bridge); grading the streambed upstream and downstream to improve fish passage and in-stream conditions for both juvenile and adult salmonids; placing vegetated rock slope protection to limit scour, maintain streambank stability, and add hydraulic roughness; placing two rock weir grade-control structures to maintain currently existing pool habitat and to act as stream profile control; installing a salvaged rootwad and constructing an associated scour pool near the downstream end of the project; and placing engineered streambed material within the stream to roughen the streambed and help maintain configuration during high-flow events. All areas disturbed by construction activities will be revegetated using locally native plant cuttings and hydro-seed. Specifically, the Project will provide a net benefit to southern California steelhead by re-opening access to 3.03 miles of spawning and rearing habitat for all size classes and eliminating delays in spawning. Additionally, the Project will improve riparian cover and stream functionality improving habitat for California red-legged frog, southwestern pond turtle, and two-striped garter snake. Due to the presence of cattle grazing in neighboring properties and the need to prevent cattle from crossing underneath the bridge, the Project will also include installing cattle exclusion fencing that allows high flow and debris to pass under the fencing while deterring cattle from crossing.

A complete project description can be found in the Supplemental Document for Item 6G, the Quiota Creek Crossing 8 Project Drawings (Appendix 1.1) and the supporting Technical Memo (Appendix 1.2) of the Request to Approve (DFW 1652), as submitted by the Applicant. The Applicant shall make this approval, and all related project documents, readily available at the project site at all times and shall present the approval and related documents to CDFW personnel, or personnel from another state, federal, or local agency upon request.

The Project will commence on September 3, 2019, and is expected to finalize on December 11, 2020, with a total of 70 working days. Construction will be completed by December 11, 2020.

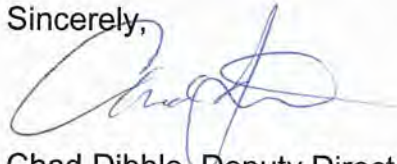
Monitoring and Reporting: You are responsible for meeting the monitoring and reporting requirements in section 1652. These include providing CDFW: (1) a notice of completion, no later than 30 days after the Project has been completed and in the manner prescribed by section 1652(e); and (2) a monitoring report that describes whether the Project is meeting each of the restoration goals stated in your request for habitat restoration or enhancement approval, as prescribed by section 1652(f).

This approval is in lieu of all CDFW permits and approvals that otherwise would be necessary for your Project, as described in your request. Please note that any material changes to the approved Project will require a separate approval. You are also responsible to obtain any other necessary approvals from local, state, or federal agencies.

Timothy H. Robinson
Cachuma Operation and Maintenance Board
July 17, 2019
Page 3 of 4

If you have any questions or require further assistance, please contact Sarah Rains, Environmental Scientist, at (805) 498-2385 or by e-mail at sarah.rains@wildlife.ca.gov.

Sincerely,



Chad Dibble, Deputy Director
Ecosystem Conservation Division

Enclosure

cc: California Department of Fish and Wildlife

Wendy Bogdan, General Counsel
Office of the General Counsel
wendy.bogdan@wildlife.ca.gov

Stafford Lehr, Deputy Director
Wildlife and Fisheries Division
stafford.lehr@wildlife.ca.gov

Richard Macedo, Branch Chief
Habitat Conservation Planning Branch
richard.macedo@wildlife.ca.gov

Kevin Shaffer, Branch Chief
Fisheries Branch
kevin.shaffer@wildlife.ca.gov

Ed Pert, Regional Manager
Region 5: South Coast Region
ed.pert@wildlife.ca.gov

Madeleine Wieland, Environmental Scientist
Habitat Conservation Planning Branch
madeleine.wieland@wildlife.ca.gov

Mark Cassady, Environmental Scientist
Regional Water Quality Control Board
mark.cassady@waterboards.ca.gov

Brendan Reed, Environmental Scientist
State Water Resources Control Board
brendan.reed@waterboards.ca.gov

Timothy H. Robinson
Cachuma Operation and Maintenance Board
July 17, 2019
Page 4 of 4

Chris Dellith
U.S. Fish and Wildlife Service
chris_dellith@fws.gov

Darren Brumback
National Marine Fisheries Service
darren.brumbach@noaa.gov

County of Santa Barbara (Palmer Jackson,
private landowner and Mitchell Ranch, private landowner)
pwweb@co.santa-barbara.us

Notice of Exemption

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

From:
Department of Fish and Wildlife
South Coast Region 5
3883 Ruffin Road
San Diego, CA 92123



Street Address:
1400 Tenth Street
Sacramento, CA 95814

Project Title: Fish Passage Improvement at Crossing 8, Quiota Creek (Request No. 1652-2019-029-001-R5)
Project Applicant: Timothy H. Robinson, Cachuma Operation and Maintenance Board

Project Location (include county): The Project is located where Quiota Creek crosses under South Refugio Road within the town of Santa Ynez, Santa Barbara County. The Project is located approximately 3.0 miles upstream of the confluence of Quiota Creek and the Santa Ynez River at approximately 34.55858000 degrees latitude, - 120.08358000 degrees longitude.

Project Description: Pursuant to Fish and Game Code section 1652, the California Department of Fish and Wildlife has approved the Fish Passage Improvement at Crossing 8, Quiota Creek, submitted by Cachuma Operation and Maintenance Board represented by Timothy H. Robinson.

The Project includes the following components: removing a deteriorated wooden bridge and the associated concrete apron and concrete sack bridge abutments; installing a new 54-foot pre-fabricated bottomless-arched culvert (bridge); grading the streambed upstream and downstream to improve fish passage and in-stream conditions for both juvenile and adult salmonids; placing vegetated rock slope protection to limit scour, maintain streambank stability, and add hydraulic roughness; placing two rock weir grade-control structures to maintain currently existing pool habitat and to act as stream profile control; installing a salvaged rootwad and constructing an associated scour pool near the downstream end of the project; and placing engineered streambed material (ESM) within the stream to roughen the streambed and help maintain configuration during high-flow events. All areas disturbed by construction activities will be revegetated using locally native plant cuttings and hydro-seed. Specifically, the Project will provide a net benefit to southern California steelhead by re-opening access to 3.03 miles of spawning and rearing habitat for all size classes and eliminating delays in spawning. Additionally, the Project will improve riparian cover and stream functionality improving habitat for California red-legged frog, southwestern pond turtle, and two-striped garter snake. Due to the presence of cattle grazing in neighboring properties and the need to prevent cattle from crossing underneath the bridge, the Project will also include installing cattle exclusion fencing that allows high flow and debris to pass under the fencing while deterring cattle from crossing.

Public Agency Approving Project: California Department of Fish and Wildlife

Person or Public Agency Carrying Out Project: Cachuma Operation and Maintenance Board represented by Timothy H. Robinson

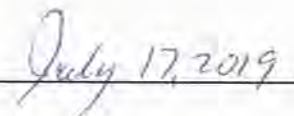
Exempt Status:

Categorical Exemption. Type – Class 33 California Code of Regulations, title 14, section 15333

Reasons why project is exempt: Class 33 consists of small projects not to exceed 5 acres in size to assure the maintenance, restoration, enhancement, or protection of habitat for fish, plants, or wildlife.

CDFW Contact Person: Sarah Rains, Environmental Scientist, (805) 498-2385

Signature: 
Chad Dibble, Deputy Director **Governor's Office of Planning & Research**

Date: 

Date received for filing at OPR: **JUL 18 2019**
STATE CLEARINGHOUSE



**REQUEST TO APPROVE HABITAT RESTORATION OR ENHANCEMENT PROJECT
FISH AND GAME CODE SECTION 1652**

FISH AND GAME CODE SECTION 1652

Completion and submission of this form is voluntary and serves to streamline project review pursuant to Fish and Game Code section 1652. Use this form when the project has not received certification pursuant to the State Water Resources Control Board's (SWRCB) Order for Clean Water Act Section 401 General Water Quality Certification for Small Habitat Restoration Projects.

Submit three hardcopies of this form and all attachments; OR one hard copy and two CDs of the entire project file.

MAIL FORM AND ATTACHMENTS TO:
California Department of Fish and Wildlife
Attn: Director's Office (FGC 1652)
Post Office Box 944209
Sacramento, California 94244-2090

MARK ONLY ONE ITEM:	<input checked="" type="checkbox"/> New Request <input type="checkbox"/> Amendment to Request ¹ # _____
---------------------	--------------------------------------------------------------------------------------------------------------------

1. APPLICANT PROPOSING PROJECT

Name:	Timothy H. Robinson
Business/Agency/Organization:	Cachuma Operation and Maintenance Board
Street Address:	3301 Laurel Canyon Road
City, State, Zip:	Santa Barbara, Ca. 93105
Telephone:	805-687-4011 x215
E-mail:	trobinson@cachuma-board.org

2. CONTACT PERSON

Check Box if Same As Applicant

Name:	
Business/Agency/Organization:	
Street Address:	
City, State, Zip:	
Telephone:	
E-mail:	

3. PROPERTY OWNER

Check Box if Same As Applicant

Name:	County of Santa Barbara (Palmer Jackson, private L.O. and Mitchell Ranch, private L.O.)
Business/Agency/Organization:	County of Santa Barbara
Street Address:	123 East Anapamu Street
City, State, Zip:	Santa Barbara, California, 93101
Telephone:	805-568-3000
E-mail:	pwweb@co.santa-barbara.us

¹ Fish and Game Code section 1654(c)(2).



4. PROJECT NAME AND TERM

A. Project Name:	Fish Passage Improvement at Crossing 8, Quiota Creek (see 4 C in the attached Supplemental Document)			
B. Project Term:	Beginning (year)	09/03/2019	Ending (year)	12/11/20
C. Seasonal Work Period:	Beginning (mm/dd/yyyy)	Ending (mm/dd/yyyy)	Number of work days	
Year 1	09/03/2019	12/11/2020	70	
Year 2				
Year 3				
Year 4				
Year 5				

5. PROJECT LOCATION

A. Physical address or description of project location:				
The Quiota Creek watershed is located in the lower half of the Santa Ynez River watershed, 8.4 stream miles downstream of Bradbury Dam (Lake Cachuma) (Figures 1 and 2 in the Supplemental attachment) and 39.6 miles inland from the Pacific Ocean. Quiota Creek enters the Santa Ynez River near the town of Santa Ynez within the County of Santa Barbara. Crossing 8 is located 3.0 miles upstream of the Santa Ynez River. The proposed work in the creek will extend approximately 80 feet upstream and 120 feet downstream of the South Refugio Road crossing. The proposed road work extends approximately 220 feet south and 200 feet north of the stream crossing.				
B. Check box to verify that a map of at least 1:24000 (1" = 2000') detail of the proposed project site (e.g., USGS 7.5 minute topo map) is enclosed:			<input checked="" type="checkbox"/> Project Map Enclosed	
C. County:	Santa Barbara			
D. Assessor's Parcel No:	Jackson -APN-137-320-004 Santa Barbara County - road easement along Refugio Road			
E. Coordinates: (If available)				
Latitude/Longitude:	Latitude:	34.55858000	Longitude:	-120.08358000
F. Name river(s), stream(s), lake(s), or wetland(s) affected by the project:	Quiota Creek, tributary to the Lower Santa Ynez River			
G. Name receiving watershed or water body:	Santa Ynez River			

6. PROJECT INFORMATION

A. Verify project ² does not exceed five acres in size.	<input checked="" type="checkbox"/> I verify this to be true.
B. Verify project's primary purpose is voluntary habitat restoration or enhancement, and not part of a larger project whose primary purpose is not habitat restoration (e.g., land development or flood management).	<input checked="" type="checkbox"/> I verify this to be true.
C. Verify project is not part of a regulatory permit for a nonhabitat restoration or enhancement construction activity, a regulatory settlement, a regulatory enforcement action, or a court order.	<input checked="" type="checkbox"/> I verify this to be true.
D. Verify project meets eligibility requirements of the State Water Resources Control Board's Order for Clean Water Act Section 401 General Water Quality Certification for Small Habitat Restoration Projects.	<input checked="" type="checkbox"/> I verify this to be true.

² CEQA Guidelines section 15378



**REQUEST TO APPROVE HABITAT RESTORATION OR ENHANCEMENT PROJECT
FISH AND GAME CODE SECTION 1652**

E. Verify project will not result in cumulative adverse environmental impacts that are significant when viewed in connection with the effects of past, current, or probable future projects.	<input checked="" type="checkbox"/> I verify this to be true.
F. Verify project is consistent with or identified in, sources that describe best available restoration and enhancement methodologies. List references below and attach or provide weblink to document(s).	<input checked="" type="checkbox"/> I verify this to be true.
<p>- National Marine Fisheries Service, 2012, Final Southern California Steelhead Recovery Plan, National Marine Fisheries Service, Long Beach, Ca.</p> <p>- Becker, G. S., I. J. Reining, et al., 2008, Steelhead/Rainbow Trout (<i>Oncorhynchus mykiss</i>) Resources South of the Golden Gate, California, Prepared for the California State Coastal Conservancy and the Resources Legacy Fund Foundation for the Center of Ecosystem Management and Restoration, Oakland, Ca.</p> <p>- Cachuma Conservation Release Board, 2009, Quiota Creek Watershed Enhancement Plan, Cachuma Conservation Release Board, prepared with assistance from HDR/FISHPRO, Santa Barbara, Ca.</p> <p>- Stoecker, Matt W., 2004, Steelhead migration barrier inventory and recovery opportunities for the Santa Ynez River, CCSRP, PSMFC, etc.</p>	
G. Describe the project in detail and enclose diagrams, drawings, plans ³ , and/or maps that provide all of the following: site specific construction details; dimensions of each structure; extent of activity in the bed channel, bank or floodplain; where equipment will enter or exit the area, if applicable, project overview showing the location of each structure and calculations at each site of area of disturbance. <i>(Attach additional sheets as needed.)</i>	
Please see the attached Supplemental Document for Item 6 G; the Quiota Creek Crossing 8 Project Drawings (Appendix 1.1), and the supporting Technical Memo (Appendix 1.2).	
H. Primary purpose of the project: <i>(check one or more boxes below)</i>	
<input checked="" type="checkbox"/> Habitat Improvement <input type="checkbox"/> Wetland Restoration <input type="checkbox"/> Native Plant Restoration <input checked="" type="checkbox"/> Barrier Removal <input type="checkbox"/> Bank Stabilization	<input type="checkbox"/> Sediment Control <input type="checkbox"/> Invasive Plant Control <input type="checkbox"/> Large Woody Material Enhancement <input type="checkbox"/> Watercourse Crossing Replacement <input type="checkbox"/> Other: _____
I. Limiting factor(s) remediated by the project: <i>(check one or more boxes below)</i>	
<input type="checkbox"/> Water quantity (lack of flow, diversions, runoff) <input type="checkbox"/> Water quality (temperature, chemistry, turbidity) <input type="checkbox"/> Riparian dysfunction (lack of shade, excessive nutrients, roughness, elements) <input type="checkbox"/> Excessive sediment yield (pool and gravel quality) <input checked="" type="checkbox"/> Spawning requirements (gravel, riffle-pool complex, resting areas-pools)	<input checked="" type="checkbox"/> Salmonid rearing requirements (velocity, lack of shelter, pools) <input type="checkbox"/> Estuary / lagoon issues (closure during migration periods) <input checked="" type="checkbox"/> Fish passage (emigration and immigration) <input type="checkbox"/> Other: _____

³ All professional engineering plans, specifications, reports, or documents submitted shall be prepared pursuant to Business and Professions Code sections 6700 et seq.



J. How will the project provide a net benefit to fish and wildlife habitat or species?		
<p>Removing the dilapidated wooden bridge (which is acting as a velocity barrier) and installing the new bottomless-arched culvert (bridge) at Crossing 8 along Quiota Creek will provide access to 3.03 miles of spawning and rearing habitat for southern steelhead (<i>Oncorhynchus mykiss</i>). This project will open upstream habitat for all size classes of steelhead/rainbow trout, and improve riparian cover and creek functionality. The new bridge at Crossing 8 will provide complete juvenile and adult passage throughout the determined range of fish passage flows of 1-148 cfs, eliminating delays and opening spawning.</p>		
K. Common and scientific name of species expected to benefit from this project:		
<p>Southern California Steelhead/rainbow trout (<i>Oncorhynchus mykiss</i>) California red-legged frogs (<i>Rana draytonii</i>) Southwestern Pond Turtle (<i>Actinemys pallida</i>) Two-striped Garter snake (<i>Thamnophis hammondi</i>)</p>		
L. Specify the equipment and machinery (if any) that will be used to complete the project. Describe in detail the measures that will be taken to prevent discharges and spills of oil, grease, and other petroleum products.		
<p>The majority of the project will use an excavator to remove the existing road, conduct grade control and place vegetative RSP. A concrete boom truck will be used to pour the foundations. A crane will be used to place and install the bottomless-arched culvert. A haul truck, skid steer loader, and a vibratory compactor will be used to install the road base and road asphalt. All fueling and maintenance of vehicles as well as other equipment will be conducted at least 100-feet away from the stream channel. Drip pans will be placed under equipment, absorbent material will be on site, and concrete washout off-channel.</p>		
M. Will water be present during the proposed work period?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown	
N. Will the proposed project require work in the wetted portion of the channel? If yes, please describe the work that will be required, the type of equipment to be used, whether the channel will need to be dewatered, and how long equipment will be in the wetted portion of the channel.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
<p>Although Quiota Creek is not expected to contain flowing water at the crossing during the construction period, the stream channel area is expected to be wet directly underneath the existing temporary bridge. If flowing water is present, a gravel bag coffer dam with plastic sheeting, submersible trash pump and diversion pipeline will be installed to divert all water through the diversion pipeline downstream during the entire construction period. Please see the supplemental Dewatering Plan (Appendix (A) 2.1) for details and supplemental pages for Item N for further detail.</p>		
O. Has a hydrological study been completed for the project or project site? ⁴	<input checked="" type="checkbox"/> Yes (please attach)	<input type="checkbox"/> No
P. Has any other scientific or technical study (e.g. biological ⁵ , soil study) been completed for the project or project site?	<input type="checkbox"/> Yes (please attach)	<input checked="" type="checkbox"/> No
Q. Verify an environmental assessment of the project area has been prepared (per sec. 1652(b)(3) by professional(s) below and are attached to this application.	<input checked="" type="checkbox"/> I verify this to be true.	

⁴ A hydrological study or other information on site hydraulics (e.g., flows, channel characteristics, and/or flood recurrence intervals) may be necessary to evaluate potential project impacts on hydrology.

⁵ A biological assessment or study may be necessary to evaluate potential project impacts on biological resources.



REQUEST TO APPROVE HABITAT RESTORATION OR ENHANCEMENT PROJECT

FISH AND GAME CODE SECTION 1652

R. Verify project has received design review and approval from the following professional(s) (check one or more boxes below) as appropriate. Attach separately a statement of qualifications (SOQ) for each professional, including but not limited to name, affiliation, license number (if applicable), contact information, qualifications, experience, and example of similar projects completed.

- | | |
|---------------------------------------------------------|----------------------------------------------------|
| <input checked="" type="checkbox"/> Fisheries Biologist | <input checked="" type="checkbox"/> Civil Engineer |
| <input type="checkbox"/> Wildlife Biologist | <input type="checkbox"/> Engineering Geologist |
| <input type="checkbox"/> Hydrologist | <input type="checkbox"/> Landscape Architect |
| <input type="checkbox"/> Geomorphologist | <input type="checkbox"/> Other _____ |
| <input checked="" type="checkbox"/> Hydraulic Engineer | |

7. PROJECT EFFECTS

A. Identify the type(s) of material that are proposed to be introduced, or "discharged" into any river, stream, or lake as a result of the project.

- | | |
|----------------------------------------------------------|----------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Soil | <input type="checkbox"/> Erosion Control Materials (jute netting, wattles, etc.) |
| <input checked="" type="checkbox"/> Rock Rip-Rap | <input checked="" type="checkbox"/> Culverts or Bridges |
| <input checked="" type="checkbox"/> Native Vegetation | <input type="checkbox"/> Anchoring (bolts, cables, chains, etc.) |
| <input type="checkbox"/> Non-native Vegetation | <input type="checkbox"/> Fertilizers |
| <input checked="" type="checkbox"/> Large Woody Material | <input type="checkbox"/> Pesticides or Herbicides ⁶ |
| <input type="checkbox"/> Rootwads | <input type="checkbox"/> Other: _____ |

B. For each of the materials identified above, identify the volume or quantity of material that is intended to be introduced or "discharged" into any river, stream, or lake. Declare whether or not the material type is expected to cause a "temporary" or "permanent" effect. Include estimates of incidental material discharges that may occur from project implementation, or as a result of post-project adjustment.

Material Type	Volume or Number	Temporary Effect	Permanent Effect
1. Float rock	200 tons	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Rock slope protection	670 tons	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3. Streambed roughen channel boulders	140 tons	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4. Two rock weirs	330 tons	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. Common barrow fill	2150 tons	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

C. Describe the intended purpose or reason for the discharges associated with each of the material type(s) listed above. (Attach additional sheets as needed.)

Common barrow fill will be used underneath the newly constructed road once the bottom-less arched culvert is in place. Float rock will be placed underneath the bridge footings for structural stability of the bridge foundations. Rock slope protection will be placed along the banks of the project area to key in the new bridge and to prevent scour around the bridge foundations and stream banks as well as future erosion within the project site. Crushed road base will be used underneath and to the sides of the newly constructed road once the bottom-less arched culvert is in place. Two rock riffles and one rootwad (salvaged from a removed tree) will be placed for profile control and to maintain existing pool habitat within the project footprint. Native trees will be planted at (or above) typical standards to account for the trees removed or damaged during project construction. Please see the project Revegetation Plan in the Supplemental Document (Appendix 2.4).

⁶ The point source discharge of aquatic pesticides into Waters of the United States requires a separate National Pollutant Discharge Elimination System (NPDES) permit administered by the State Water Resources Control Board. Information about pesticide permits can be found at the following Web address: http://www.waterboards.ca.gov/water_issues/programs/npdes/aquatic.shtml



REQUEST TO APPROVE HABITAT RESTORATION OR ENHANCEMENT PROJECT

FISH AND GAME CODE SECTION 1652

D. For each of the applicable water body type(s) listed below, indicate the area(s) in length (linear feet) and area (square feet or acres) that will be affected by the project and identify the impact(s) as permanent or temporary. For project disturbances (e.g. staging areas, access roads, etc.) outside of any river, stream, or lake, estimate the total disturbance in acres (linear feet does not apply) as "Other."

Water Body Type	Temporary Impact		Permanent Impact	
	Acres	Linear Feet	Acres	Linear feet
<i>Wetland</i>				
<i>Riparian</i>				
<i>Streambed/Stream bank</i>	0.01	25.00	0.08	160.00
<i>Lake/Reservoir</i>				
<i>Ocean/Estuary/Bay</i>				
<i>Other (Staging Areas, Access Roads, etc.)</i>				
TOTAL AREA AFFECTED:	0.01	25	0.08	160

E. Will the project affect any vegetation? Yes (complete table below) No

Vegetation Type	Temporary Impact		Permanent Impact	
	Acres	Linear Feet	Acres	Linear Feet
1.			0.02	200.00
2.				
3.				
4.				

Tree Species	Number of trees to be removed	Trunk diameter (DBH) (range)
1. Coast Live Oak	1.00	8.00
2. Coast Live Oak	1.00	40.00
3.		
4.		



F. Are any special status animal or plant species, or habitat that could support such species, known to be present on or near the project site? *(Attach additional sheets as needed.)*

Yes (list each species and/or describe the habitat below) No

Federally endangered Southern California Steelhead/rainbow trout (*Oncorhynchus mykiss*) are found within Quiota Creek but are not expected to be present at this particular location (Crossing 8) due to the recent long-term drought, which has confined most of the remaining population to upstream areas above the project site.

Federally threatened California red-legged frogs (*Rana draytonii*) are known to inhabit Quiota Creek. They are normally found within the perennial sections (particularly pools) of Quiota Creek, which includes the pool directly underneath Crossing 8. U.S. Fish and Wildlife Service (USFWS) approved biologists (from COMB) will be conducting protocol surveys for frogs prior to construction to remove and relocate any frogs found within the project footprint. Double layers of exclusionary silt fencing will be installed upstream and downstream of the project to keep frogs from moving back into the construction zone. In addition, COMB biologists will be on site daily during construction to sweep the project area and ensure no sensitive species are present. All terms and conditions of the USFWS Programmatic Biological Opinion for California red-legged frogs will be implemented and followed.

G. Additional information relative to project impacts or effects can be included in the space provided below. *(Attach additional sheets as needed.)*

8. MEASURES TO PROTECT FISH, WILDLIFE, AND PLANT RESOURCES

A. Describe the techniques (e.g. best management practices) that will be used to prevent sediment from entering watercourses during and after construction. *(Attach additional sheets as needed.)*

Please see the attached Supplemental Document for Item 8 A - Erosion Control Plan (Appendix 2.2).

B. Describe project avoidance and/or minimization measures to protect fish, wildlife, and plant resources. *(Attach additional sheets as needed.)*

Please see Supplemental Document for Item 8 B - Fish Removal and Relocation Plan (Appendix 2.3) and Revegetation Plan (Appendix 2.4).



REQUEST TO APPROVE HABITAT RESTORATION OR ENHANCEMENT PROJECT

FISH AND GAME CODE SECTION 1652

9. MONITORING PLAN⁷

Monitoring Plan is attached (check box)

Monitoring Plan must be included with the *Request to Approve* and shall include, but is not limited to, the following information (*Attach additional sheets as needed*):

A. Project purpose and goal(s):
 The Quiota Creek Crossing 8 Project intends to remove an existing dilapidated wooden bridge on Refugio Road and replace it with a 54-foot bottomless-arched culvert to enable fish passage for all age classes of steelhead/rainbow trout under the crossing. The project will improve riparian cover, functionality, and connectivity within the stream corridor by removing the road and concrete from the stream. The bottomless-arched culvert is designed to convey the 50-year flood with one foot of freeboard and withstand the 100-year flood over the top. It will provide a roughened stream channel, improve fish passage for fish and will make Refugio Road safer for vehicles and pedestrians.

B. A description of performance standards and success criteria appropriate to each goal:
 Implementation monitoring: biological monitoring will be conducted throughout the project to assure compliance with all project permits. Effectiveness monitoring: monitoring of the stream channel will be conducted to record if design specifications over time are met and ensure that the instream elements freely convey flow and maintain the integrity of the creek channel. Performance monitoring: further monitoring will be conducted to (a) ensure physical design elements are maintained over time (configuration and function), (b) ensure biological objectives are met, and (c) verify revegetation success in and around the project site.

C. Location of photographic monitoring plans and photographic orientation (pre-project photos must be submitted with the application and post project photos must be submitted with the Notice of Completion).
 Photo monitoring will occur at several established locations around the project site including; the upstream view of Crossing 8 from below the crossing, the downstream view of Crossing 8 from above the crossing, the side view of Crossing 8 from Refugio Road looking north, the side view of Crossing 8 from Refugio Road looking south, as well as additional photo monitoring locations once the project is underway.

D. Estimated date when the Notice of Completion, Monitoring Report, and post-project photographs will be submitted (required within 30-days after project completion)
 January, 2020.

E. The timeframe and responsible party for determining attainment of performance standards:
 Fish passage criteria will be monitored annually for a period of 5 years. Data will be obtained during annual performance evaluations using As-Built and project area surveys to assure that the stream channel slope has not adjusted detrimentally and that the bottomless-arched culvert is functioning as designed. Re-vegetation success will be monitored continuously for 5 years. COMB is the responsible party.

10. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

All project approvals under the Act must comply with the terms of the California Environmental Quality Act (CEQA). The Act anticipates that many of the projects will meet the criteria for CEQA's Categorical Exemption for Small Habitat Restoration Projects (Cal. Code Regs., tit. 14, § 15333), although other CEQA analyses may also be used. Please review the CEQA statute and guidelines to ensure conformance with CEQA (<http://resources.ca.gov/ceqa/>).

I certify that the project will comply with CEQA, which may include, but not be limited to, the requirements of Cal. Code Regs., tit. 14, § 15333.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
This project conforms to the requirements of CEQA through the Categorical Exemption for Small Habitat Restoration Projection (Section 15333).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Other CEQA Document (Complete items below)
CEQA Document (if applicable)	<input checked="" type="checkbox"/> Attach CEQA Document <input type="checkbox"/> Attach Notice of Determination State Clearinghouse Number: <u>2003071160</u>

⁷ Monitoring reports for Section 401 Water Quality Certification or waste discharge requirements of the State Water Resources Control Board or a regional water quality control board, or for department or federal voluntary habitat restoration programs, including, but not limited to, the Fisheries Restoration Grant Program, may be submitted in lieu of this requirement (FGC 1652(f)).



11. PROJECT REQUEST FEES

Pursuant to Fish and Game Code section 1655, subdivision (c), CDFW shall assess an application fee for a project submitted pursuant to Section 1652 consistent with the fees adopted by the department pursuant to Chapter 6 (commencing with Section 1600). Current fees are listed in title 14 of the California Code of Regulations, section 699.5, subdivision (b) <https://www.wildlife.ca.gov/Conservation/LSA/>

The required fee is included with this form.

12. CERTIFICATION

I verify that this project meets all of the requirements described in Fish and Game Code section 1652, subdivision (c), and that I have submitted all of the information required therein Section 1652, subdivision (b).

I hereby certify that to the best of my knowledge the information herein is true and correct and that I am authorized to sign this request as, or on behalf of, the applicant. I understand that if any information in this project request is found to be untrue or incorrect, the Department may suspend processing this request or suspend or revoke any approval issued pursuant to this request. I understand also that if any information in this request is found to be untrue or incorrect and the project described in this request has already begun, I may be subject to civil or criminal prosecution.

Applicant Signature

Date

Printed Name

Fish Passage Improvement at Crossing 8, Quiota Creek

Supplemental Document for CDFW AB 2193 Permit Application

4 C – Project Name and Term

The project will most likely be constructed during the first construction season (September-December, 2019). In the unlikely event of any permit delays, the project would be built during the second construction season (September-December, 2020). This is reflected in the CDFW-FRGP Grant contract. Construction is expected to take 70 days.

6 G – Project Information (Detailed Project Description)

Quiota Creek confluences with the Santa Ynez River approximately 8.4 miles downstream of Bradbury Dam (Figure 1). Refugio Road crosses Quiota Creek nine times and historically those crossings have been in the form of Arizona (fair weather or low flow) crossings and temporary bridges. Eight of the nine crossings (Crossings 1, 2, 3, 4, 5, 6, 7 and 9) have been replaced with bottomless-arched culverts that now provide unimpeded juvenile and adult passage for the endangered southern steelhead while vastly improving road safety.

The proposed project will replace an existing dilapidated wooden bridge and concrete apron at Crossing 8 (Figure 2) with a 54-foot prefabricated concrete bottomless-arched culvert (bridge). The total length of stream that will be treated is 0.038 miles, which includes the removal of one wooden bridge, the removal of one concrete apron and bags (installed as abutments for the bridge), and replacing it with a 54-foot prefabricated bottomless-arched culvert (Figure 3). The miles of stream made accessible by treating the crossing is approximately 3.03 miles. The two listed species that could be found within the project footprint are southern steelhead trout (*Oncorhynchus mykiss*) and California red-legged frog (*Rana draytonii*). The pool underneath the existing bridge is expected to contain water and pre-project surveys for sensitive species will be conducted by the project proponent, Cachuma Operation and Maintenance Board (COMB) specifically the Fisheries Division (FD) staff. Approved National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) protocol surveys will be conducted prior to construction activities to ensure no listed species are harmed during all aspects of construction. Any sensitive species found within the project footprint will be captured and relocated to areas outside of the construction zone.

Final approval by the California Department of Fish and Wildlife (CDFW) and NMFS fish passage engineers, and Santa Barbara County of the 100% design drawings (produced by HDR Fisheries Design Center) is expected in the summer of 2019.

The bulk of the on-the-ground construction activities will be accomplished by a hired contractor, which will be determined through a competitive bidding process using a pre-approved CDFW qualified contractor list.

There are 13 specific construction categories within this project description described below: Proposed Project Design Elements, Hydraulic Design, Prefabricated Concrete Arch Bridge, Footing Construction, Profile Control, Rock Slope Protection, Roughened Channel and Engineered Streambed Material, Instream Grading and Contouring, Cattle Exclusion Fencing, Revegetation and Mitigation Planting, Construction, Monitoring and Maintenance, and Public Outreach.

Proposed Project Design Elements

The proposed project will replace an existing temporary bridge that was never designed for fish passage and abandoned “at-grade” concrete crossing with a prefabricated concrete bottomless arch culvert (bridge). The new bridge will be designed to meet the width guidelines presented for the hydraulic design technique in CDFW guidelines (CDFG, 2009). All bank protection, habitat and grade control features will be designed to withstand the 100-year peak flow event. The bridge will be designed to convey the 50-year peak flow event with a minimum of 1 foot of freeboard, and the ability to withstand the 100-year peak flow event. This design criterion varies from County requirements; however, a similar variance was reviewed and accepted by the County of Santa Barbara during the design and implementation of Crossings 1, 2, 3, 4, 5, 6, 7, and 9. Variances at Crossings 1, 2, 3, 4, 5, 6, 7, and 9 were granted due to the rural nature of the project area and current condition of the Refugio Road within that region of the Quiota Creek watershed. The design variances received by the County included: allowance for use of a lower 20 mph design speed; allowance for use of self-weathering steel bridge rail and guard rail elements; allowance for use of 18 feet travel lane over the bridge; and allowance of TL-1 rated barrier designs. All County allowances are consistent with low-speed, low-volume rural roads such as South Refugio Road. A traffic survey conducted by the County on April 19, 2013 at Crossing 1 resulted in an 85th percentile of less than 25 mph, confirming the acceptability of the design variances. In addition to County design variances, one design variance was granted from NMFS which allowed the proposed project hydraulics to be designed such that depths and velocities mimic conditions observed in other nearby reaches of Quiota Creek.

There are no known utilities within the project limits, therefore measures to protect and avoid existing utilities are not identified in the Technical Memo or the design drawings.

The new bridge system will consist of an internal span of 54 feet and rise of approximately 12.9 feet. The bridge will be secured upon spread footings and protected with rock slope protection so that foreseeable “general” and “contraction” scour does not undermine its stability. Scour calculations are provided in Appendix C of the Technical Memo. If bedrock exists, the foundations will be constructed upon stable bedrock, and additional scour countermeasures will be implemented to reduce the potential for lateral scour at the footings. If bedrock does not exist,

two feet of 3-inch minus foundation rock will be installed below the bridge system foundations to provide for the appropriate substrate for foundation construction. Wing walls will be constructed at the upstream and downstream face of the new bridge to limit embankment erosion and limit embankment fill into the stream. Structural fill compacted to County and bridge manufacturer specifications will be used to backfill spaces behind the headwall and concrete wing walls. A granular base and top course will then be placed atop the structural fill to prepare for an 18-foot wide road surface. Any sloped edges of the structural fill above the headwalls will be mechanically stabilized and seeded with native grasses and native trees commonly found in the area.

A single 18-foot wide lane road surface will be constructed over the top of the arch connecting to the existing County road surface. The total travel lane width after installation of the bridge rail and guard rail elements will be a minimum of 18 feet wide. Approach embankments on either side of the crossing will be required. The road surface and its alignment will be designed and constructed in compliance with County approval.

The resulting creek bed will be graded upstream and downstream to improve fish passage conditions for juveniles and adults and to provide a more natural channel bed gradient under the bridge, where there is currently a severe narrowing due to the concrete sack bridge abutments. Vegetated rock slope protection (RSP) will be added immediately upstream and downstream of the bridge to limit lateral scour under the bridge and toe scour along the channel slopes and to maintain embankment stability.

Hydraulic Design

The minimum span of the proposed facility was designed in accordance with CDFW (CDFG, 2009) and NMFS (2011) guidelines using the “Stream Simulation Design” methodology. However, due to the lack of an adjacent reference reach, the overall approach to design follows the “Hydraulic Design” methodology. The average bankfull width was approximated using a conservative approach by taking the average 2-year flood event wetted top-width along portions of the project reach unaffected by hydraulic influences from the existing stream crossing. Using this method, the resulting average wetted top-width was 30.5 feet. This average (30.5 feet) was multiplied by a factor of 1.5, which resulted in a design span of approximately 46 feet. The span was increased to a 54 foot bridge to account for the slight roadway skew and to accommodate County freeboard requirements discussed below.

The arch span and rise was governed by its ability to convey the 50-year flood event and to withstand the 100-year peak flood event. In this case, the rise of the arch was set to maintain a minimum freeboard of 1-foot between the 50-year water surface elevation and the bottom chord of the concrete arch on the upstream side of the bridge, per County requirements.

Prefabricated Concrete Arch Bridge

A 54-foot span and 20-foot wide prefabricated concrete bottomless arch bridge system was selected as the preferred conveyance structure for the project site. Through evaluation of multiple bridge systems, the selected prefabricated system reduces construction time, simplifies the design process, streamlines constructability, decreases road embankment fill due to its low profile, and eliminates multiple conflicts with site-specific issues. For this application, the system is composed of four wing-walls, upstream and downstream headwalls, and the bridge arch itself. All components will be hauled to the site in 14 pieces (5 arch, 4 headwall, and 5 wing wall pieces) via South Refugio Road. A crane positioned at the site during construction will lift each section and maneuver each piece onto the cast-in-place concrete spread footings.

All structural design calculations have been conducted per the guidelines presented in the AASHTO 6th edition conforming to the LRFD method with current Caltrans amendments. The bridge was designed to the HL-93 loading factor. The calculations will be stamped and signed by a Professional Engineer licensed in the State of California at the final level of design.

Footing Construction

The prefabricated concrete arch system will require spread footings to transfer the weight of the road embankment and bridge structure at a loading that meets the estimated bearing capacity of the underlying substrate. The footings will consist of cast-in-place concrete with dimensions of 2.5 feet thick and 14 feet wide and will extend the length of the bridge structure. Footings for the wing walls will extend from each side of the bridge footing, but will have a width of 2.5 feet. The size of each footing accommodates the bearing capacity of 3,000 pounds per square foot that is recommended in the Crossing 2, 6, and 8 geotechnical report (Fugro West, 2003). The footing elevation was estimated using a combination of resources. First, the geotechnical report indicates that if bedrock is present near the surface then footings should be constructed as deep as or deeper than the bedrock. Second, the presence of rock weirs, engineered streambed material, and vegetated rock slope protection reduces the potential for long-term channel degradation and will be designed to resist scour at the footings. The final selected elevation for the top of the footing is therefore 643.11 feet.

Through lessons learned during the construction of Crossings 1, 2, 3, 4, 5, 6, 7, and 9, the design team understands that the conclusions presented in the original geotechnical report may not be representative of the substrate that will be discovered during construction. The conclusions in the geotechnical report are based upon borings taken by the County in the vicinity of each proposed project. As such, collected data may misidentify large cobbles as bedrock. In addition, the design team understands that the data are presented for a small boring and that site conditions may vary laterally from that boring site. For example, the borings for Crossing 6 indicated refusal and the possible presence of bedrock at a certain elevation. However, during construction, it was demonstrated that the substrate contained a large mass fraction of boulders and cobbles ranging

from one foot to three feet in diameter. Bedrock was never actually encountered. In addition, shallow lenses of organic matter were discovered which required removal prior to footing construction.

In response to lessons learned in this specific project area, a more adaptive approach to footing construction was recommended by COMB and the design team for Crossing 8. This approach includes preparation of design plans that incorporate over-excavation and preparation of footings with engineered bedding material that will stabilize the footing bed as long as minimum footing conditions are met per geotechnical inspection. Bedding preparation would include a layer of heavy geotechnical fabric with screened quarry rock (float rock) with a gradation ranging from 1 inch to 3 inches in diameter. This method was one possible option recommended in the original geotechnical report and was approved for Crossings 1, 2, 3, 4, 5, 6, 7, and 9 after inspection and preparation of letter reports by a California registered geotechnical engineer from Fugro West, Inc.. Implementation of this method at Crossing 8 will produce a stable footing when constructed upon materials that may be discontinuous throughout the excavation and should accommodate the presence of both bedrock and alluvium as it is discovered during excavation. If the footing material consists primarily of bedrock, the over-excavation requirement can be waived by a qualified geotechnical engineer, and a credit may be discounted to the project. Inspection of the footing material will occur when an open excavation near each of the proposed footings has been developed during construction. If bedrock is encountered, excavator mounted equipment can be used to remove high spots in the bedrock to allow for proper foundation construction.

Profile Control

The vertical profile of Quiota Creek will be maintained with the use of two rock weir grade control structures. The fundamental purpose for including grade control in this project is to maintain pool habitat that currently exists at this site. Each of the existing pools provide vital over-summering habitat for adult and juvenile resident rainbow trout as well as juvenile steelhead. In addition to the rock weir grade control, a salvaged rootwad will be installed near the downstream end of the project. A local scour pool will be preformed around the rootwad. The rootwad will be located directly downstream of a spring that will help maintain water in the rootwad scour pool during low flow periods. It is an important aspect of this project that such habitat be maintained. As a secondary benefit, the rock weirs will act as profile control that will protect the structure footings from scour and potential undermining. The presence of habitat structures in the form of grade control also limits the depth at which the spread footing of the structure will be constructed. For instance, because grade control will be implemented to maintain instream habitat, bridge abutments and footings will inherently be protected to a greater level. Thus, the spread footings can be constructed higher in elevation than they could be without such grade control. Implementation of profile control is therefore beneficial from an environmental, cost, and constructability standpoint.

The goal of a properly constructed rock weir is to limit channel maintenance and head cutting as they are meant to aid the stream in formation of hydraulic diversity and possible formation of pools. The rock weirs are configured to facilitate low-flow fish passage and are shaped to maintain a plunge pool in the center of the channel. Rocks at the center invert are lowered by as much as 6 inches to create a notch that will facilitate greater passage depth at low-flows. Rocks within the low-flow notch are also rotated to enhance the formation of a vertical plunge pool and small low-flow notch. Rocks will be selected based upon their size and ability to be configured in such a manner that maintains a sharp crest rather than a flat surface. The plunge pool will be constructed with a minimum depth of 3 feet. The maximum hydraulic differential across each rock weir will be designed to a maximum of 9 inches. This measurement shall correspond from water surface to water surface across the crest of the weir and will be determined through hydraulic model runs up to the anticipated high fish passage design flow.

Caltrans (2000 and 2007) guidelines were used to establish rocks sizes for the rock weirs using the 100-year flood flow as the basis of design. Calculations are provided in Appendix A of the Technical Memo. The calculations suggest using a rock with a minimum weight of 4,400 lbs, which is approximately equivalent to a 44-inch diameter rock. The design will use rocks of 44-inches to 54-inches (4,400 to 8,000 lbs), which exceeds the calculated minimum required size.

The crest of the rock weirs will be placed at grade with pools graded downstream. The rock weirs will be embedded into the stream by as much as 5 to 7 feet to ensure that they do not degrade vertically over time. Each end of the crest will be extended to the top of bank or embedded into steep banks to ensure that each structure is not hydraulically flanked and each rock placed in an inter-locking arch to form maximum horizontal strength. The rock weirs will be flushed/hand packed with a well-graded sediment mix containing no less than 15% fine material to prevent interstitial flows.

Rock Slope Protection

Vegetated rock slope protection (RSP) will be placed in accordance with Method A of the California Bank and Shore Rock Slope Protection Design manual (Caltrans, 2000) and will possess an underlying backing aggregate to reduce the potential for hydraulic piping and soil loss. Rock sizing calculations are provided in Appendix A. The resulting minimum stable rock size is calculated to be 1,650 lbs. Therefore, the design will consist of 1 Ton RSP Class per Caltrans standard specifications with an outer layer thickness of 4.3 feet and is believed to be conservative. Per Caltrans (2000), the backing corresponding to 1 Ton RSP is Backing No. 1. However, to improve constructability, a 1.25 foot layer of Backing No. 2 will be placed as bedding to the outer layer.

Vegetation (hydro-seeding and willow staking) will be placed, to the extent possible, within the interstitial spaces of the RSP to facilitate overhanging shade and hydraulic roughness.

Revegetation will be implemented by COMB in a similar manner to the revegetation efforts performed for Crossing 1, 2, 3, 4, 5, 6, 7, and 9 on Quiota Creek.

Roughened Channel and Engineered Streambed Material

Engineered Streambed Material (ESM) will be placed in the proposed stream channel between the two rock weirs as well as downstream of the downstream weir to reduce the channel degradation beneath the proposed bridge. ESM will fundamentally coarsen the streambed slightly when compared to its current composition and will maintain the desired channel configuration throughout a greater range of anticipated flood events. CDFG (2009) guidelines were used to size the ESM for a project design discharge equal to the 100-year storm event.

It is anticipated that during most years, larger particle sizes will be covered with naturally occurring streambed material deposited throughout the reach during the receding limb of smaller storm events. During larger storm events, smaller material may be scoured away, which will leave the larger particles exposed and will prevent channel degradation beneath the proposed bridge. The particle sizes and proposed particle size distribution were selected based upon the guidelines presented in CDFG (2009). Calculations for ESM development are provided in Appendix A. The estimated D_{100} , D_{84} , and D_{50} rock diameters are calculated to be 98, 39, and 16 inches. Through professional experience and the use of incipient motion and stability calculations performed later in the Technical Memo, the design ESM material size was reduced to a D_{100} , D_{84} , and D_{50} diameters of 42, 30, and 12 inches, respectively. The remaining fill material will be composed of a well graded mix of particles sizes ranging from 8 inches and smaller. The mix will contain a minimum of 10 to 15% of fines by weight to fill interstitial voids between rocks.

In-Stream Grading and Contouring

The creek bed will be graded upstream and downstream of the culvert at a design gradient of 2.96%. This design slope was determined by examining the channel slope upstream and downstream of the existing crossing impediment. An average slope was determined based on two points, one located upstream and one located downstream of the existing crossing. Two rock weirs set at the design slope will be constructed with pools downstream of each. The improved condition will provide for similar hydraulics observed upstream and downstream of the proposed project and will provide for improved fish passage conditions. Rock weirs will be used as profile control to stabilize the bed and limit the potential for channel scour. ESM will be installed downstream of each rock weir to limit the potential for degradation which may ultimately reduce the potential for successful fish passage and undermine the structural footings.

The typical proposed channel is shown in Figure 9. As part of the final in-stream grading process, a small triangular low-flow channel will be established throughout the construction

channel reach. The purpose of the low-flow channel will be to concentrate lower flows into the center of the channel so that depth is maximized to the extent possible given local design slope limitations. The Rock Slope Protection and Engineered Streambed Material will only occur in the vicinity of the bridge, as shown in the design drawings. The proposed channel will have a typical top width of 36 ft. Hydraulic modeling indicated that the 2-year top width will be approximately 30.5 feet. As shown in Figure 10, the design slope of 2.96% and top width of 30.5 ft at the 2-year peak flow compares well with other Quiota Creek cross sections.

Cattle Exclusion Fencing

Property owners adjacent to Quiota Creek maintain livestock that graze near/along the creek on either side of Refugio Road. It is necessary to prevent the livestock from passing onto neighboring properties by way of the creek channel under the proposed bridge. Cattle exclusion fencing is therefore necessary to prevent unwanted cattle movement across properties. The design for the Crossing 8 exclusion fencing was based on a Freshet Fence (Martin, 1999) that allows high flows and debris to pass under the fencing but deters cattle from crossing.

For this project, the cattle exclusion fencing achieves the following objectives:

- Replace the existing fence and/or stationary hog panels which are typically constructed by the landowners across the creek,
- Provide a barrier to livestock travel under the bridge so that landowners do not lose cattle to adjacent properties,
- Provide a flexible system of pickets that limits collection of debris which may occlude flood conveyance area, and
- Achieve the above objectives while providing safe passage for fish throughout the anticipated range of migration flows.

To accomplish the above objectives, 2-inch by 2-inch untreated finished lumber will be configured into a series of picket panels which will then be hung by a wire rope tensioned across the span of the bridge at approximately 4 feet below the peak of the low chord. Each individual picket will be hung freely from the wire rope with the use of a 3/8-inch by 4-inch long stainless steel wire eye lag. Stainless steel wire rope clips will be positioned on either side of each eye so that there is a uniform clear spacing of 10 inches between each individual picket. A horizontal brace will be mounted midway down from the wire rope to form picket panels with relatively uniform lengths of 6 to 8 feet each. The horizontal brace assists with maintaining the intended clear spacing of 10 inches down the length of each picket, and also connects 6 to 9 pickets together so that they rotate about the wire rope as a single unit. A second horizontal brace will be added down towards the end of the pickets, as requested by the landowners to assure no calves get through the fence during low flow conditions. Each of the pickets will be trimmed to maintain approximately 1 foot or less of clear space between the low water surface elevation and/or the proposed ground surface (i.e. 0-1 cfs). As flows increase and make contact with the

bottom of a picket panel, each of the pickets will act as a hydraulic plane which will deflect the orientation of the picket panels so that they rotate and the bottom edge rises with rising water surface elevations. By inspecting the HEC-RAS model results provided as part of the final design report for this project, it is anticipated that the bottom of the pickets will be exposed to water at a stream flow of approximately 30 cfs. At extreme high flows (50-year or 100-year event), the system is simply meant to break away on one side and swing away to the stream bank. This will ensure that the wire rope and the associated pickets do not collect debris and occlude conveyance area below the bridge during extreme events.

COMB will conduct inspections and maintenance of the pickets, specifically to remove debris after every large storm event and conduct repairs or adjustments to the pickets as necessary. However, fence repair will be at the landowner's expense. The post construction maintenance and monitoring program is described at the end of the Technical Memo.

Revegetation and Mitigation Planting

The project area will be revegetated using native plantings to accomplish the following goals:

- Restore, stabilize, and limit erosion from all earthen areas disturbed by construction activities. At a minimum, all exposed and disturbed earth will be hydro-seeded with a native seed mix appropriate for this area.
- Stabilize banks and terraces by establishing live root networks which hold soils together and that reduce flow velocities at channel fringes. COMB staff will harvest live willow cuttings from the project site as well as from other readily accessible areas along Quiota Creek. These cuttings will be conditioned and kept alive throughout construction. Near the end of construction, COMB will reestablish a high density of cuttings on bare banks, in areas designated as vegetated rock slope protection, and in low-lying terraces appropriate for hydrophilic woody vegetation.
- Mitigate for permanent and temporary impacts to existing vegetation and trees associated with project implementation. Mitigation details are generally developed prior to final design and implemented into the project by COMB staff during the final stages of project construction and are in compliance with project permits.

Construction

All construction work will occur in the boundary of the construction zone, including all grading, excavation, filling, stockpiling, and equipment access. The existing paved road on each side of the crossing will be used for equipment staging and parking. Additional site work will include erosion control and repair of the area impacted, which will include planting and seeding of native vegetation.

Construction is anticipated to occur in late summer and fall when flows within Quiota Creek are at a minimum (0 to 5 cfs). Any stream flow will be diverted around the project area via temporary cofferdams and bypass piping. Erosion control and energy dissipation Best Management Practices will be employed both upstream and downstream of the project to reduce sedimentation to the stream channel. Elements within each plan will require approval by the Regional Water Quality Control Board, the County, COMB, NMFS, and CDFW prior to construction.

Specific construction tasks are as follows:

- Development and approval of the Stormwater Pollution Prevention Plan and Traffic Control Plan;
- Update and approval of Dewatering Plan if changes are necessary during construction;
- Fish rescue and relocation;
- Installation of the stream bypass and reach dewatering system;
- Demolition and removal of the existing temporary bridge and damaged concrete low flow stream crossing;
- Excavation for and construction of the bridge system and wing wall footings;
- Excavation and installation of rock weirs;
- Installation of engineered streambed material;
- Fabrication (off site) and installation of arch bridge and wing walls;
- Placement of rock slope protection
- Installation of salvaged habitat rootwad;
- Regrading of the stream bottom with native stream bed materials;
- Placement of embankment fill;
- Install asphalt road;
- Anti-graffiti treatment on exposed areas of concrete;
- Installation of bridge and road guardrails;
- Installation of the cattle exclusion fencing;
- Site cleanup; and
- Permanent erosion control and revegetation of the site with native plants.

Monitoring and Maintenance

A monitoring and maintenance plan similar to Crossings 1, 2, 3, 4, 5, 6, 7 and 9 will be implemented by COMB for Crossing 8. It will include monitoring the fish passage hydraulics as well as the condition of the concrete arch bridge, rock weirs, cattle exclusion fencing, and planted vegetation. Any maintenance issues that may arise will be addressed in a timely manner by COMB. An annual performance evaluation of the project will include an analysis of fish passage hydraulics completed by HDR based on annual field visits and data collection. Refer to Table 18 in the Technical Memo for the specific items to be addressed in the maintenance plan.

Public Outreach

All adjacent landowners, emergency services, and utilities will be notified prior to project implementation. Because this is a County road, all County imposed requirements will be met by the construction contractor and COMB. Upon completing the project, COMB will create a web-based newsletter that will describe the project and the objectives achieved for restoration of southern steelhead within the Santa Ynez River basin. Target recipients of the newsletter (approximately 500) are those interested or those directly involved with steelhead recovery, landowners, public representatives, school and libraries.

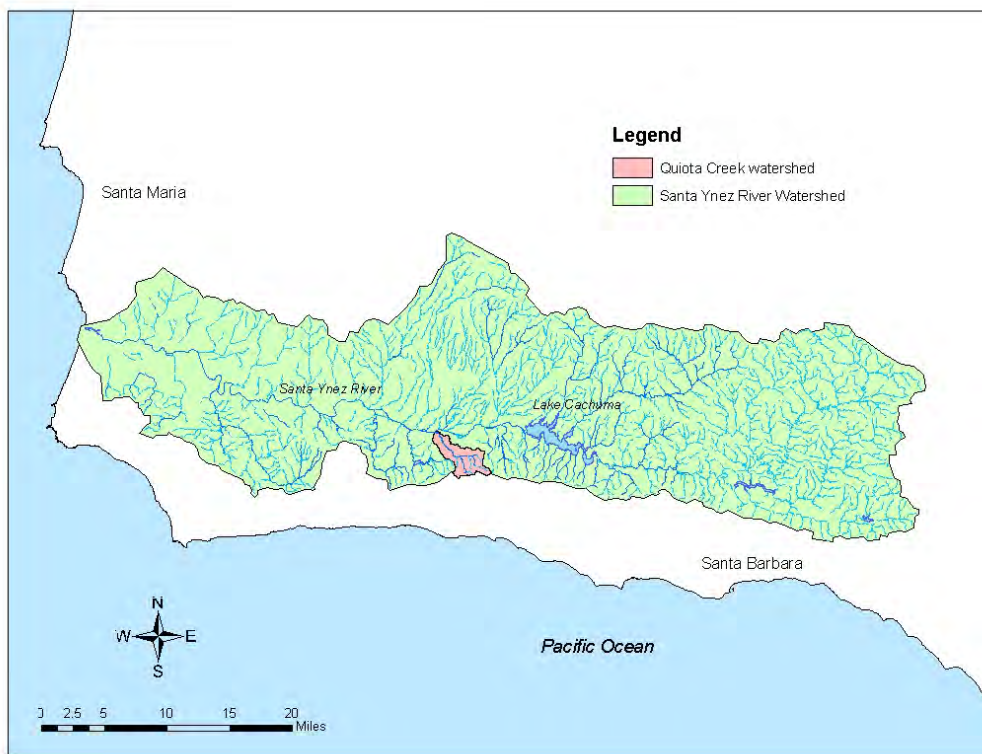


Figure 1: Santa Ynez watershed (green) showing the Quiota Creek watershed (pink).

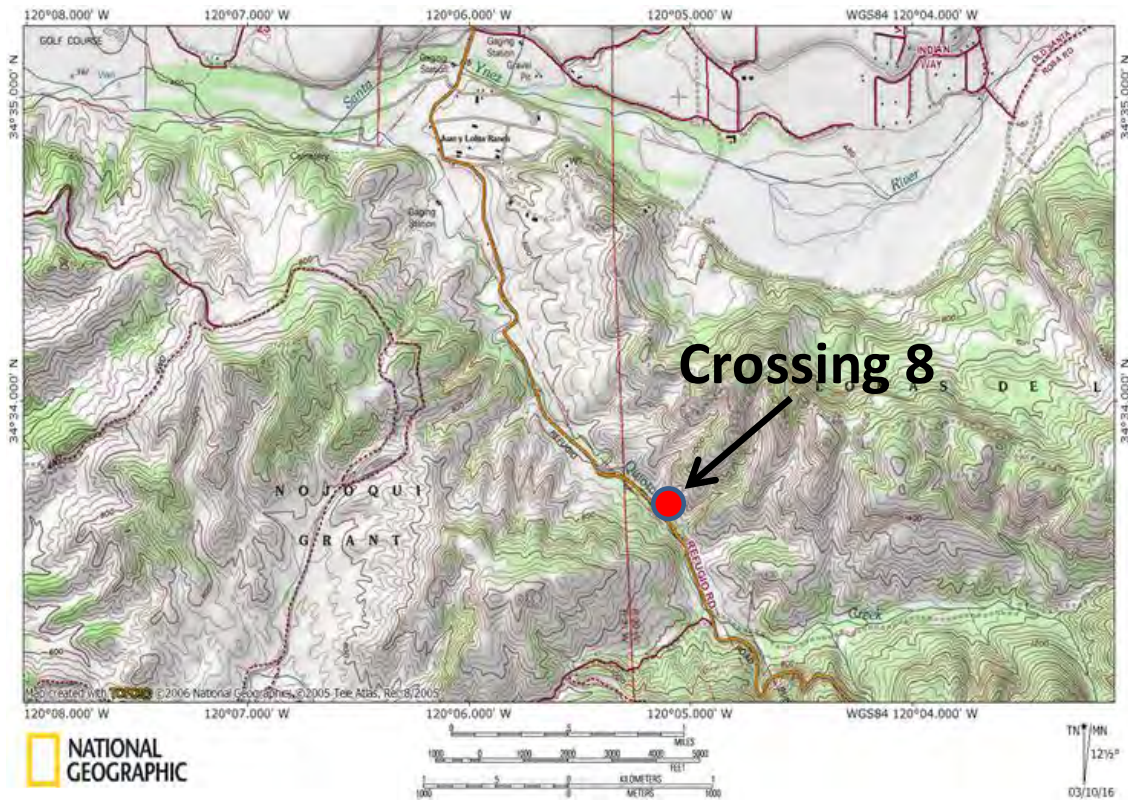


Figure 2: Quiota Creek Crossing 8 project location.



Figure 3: View of Quiota Creek Crossing 8 project location showing (a) the upstream view of the dilapidated bridge and (b) the downstream view of the dilapidated bridge.

Project Description References

Caltrans. 2007. Fish passage design for road crossings. Prepared in May 2007, California Department of Transportation.

CDFG. 2009. Fish passage design and implementation. Version distributed in April 2009.

Fugro, W., Inc. 2003. Geotechnical Report, Refugio Road Crossings 2, 6, and 8, Quiota Creek, Santa Ynez Area, Santa Barbara County, California. Prepare for the County of Santa Barbara, Fugro West, Inc.

Martin, George A. 1999. Fences, gates and bridges: And how to build them. 1st Lyons Press edition. Lyons Press, New York. 192p.

NMFS. 2012. Final Southern California Steelhead Recovery Plan. National Marine Fisheries Service, Southwest Regional Office, Long Beach, CA.

6 G – Project Information (Designs)

Please see attached Supplemental Document Appendix 1 for the Project Drawings and Technical Memo.

6 N – Project Information (Working within the Wetted Channel and Dewatering)

Although Quiota Creek is not expected to contain flowing water at the crossing during construction, the stream channel is expected to be wet directly underneath the existing temporary bridge. Any stream water found within the project site will be diverted through an 18-inch HDPE corrugated pipe situated along the north side of the creek (Dewatering Plan and Profile and Sheet 14 of the attached project designs). Approximately 200 feet of pipe will be needed to convey water around the project site. The intake for the by-pass pipe will be just upstream of a constructed sandbag coffer dam stretching from bank to bank that will be lined with plastic sheeting (visqueen) to minimize leakage. Both the construction of the pipeline and building of the coffer dam will happen over the course of one or two days before actual dewatering will occur. Joined pieces of HDPE pipe will be tightly wrapped with common plastic kitchen wrap then bracketed to prevent leakage of joined pieces. Each joined section will be stabilized with rock, soil, or construction lumber to prevent slippage and leakage as the pipe fills with water. Screening with a mesh size of 3 mm will be tightly fitted to the inlet and outlet of the by-pass pipe to prohibit steelhead/rainbow trout or other species from entering the pipe from either direction or being entangled within the screening mesh. Streamflow, if any, and velocities entering the by-pass pipe are anticipated to be very low during the project (less than 0.5 cfs in a low gradient reach) which will eliminate juvenile impingement concerns. Due to the anticipated no flow or low flow during the construction and the inability of fish to migrate at such shallow stream depths, it will not be practical to provide unimpeded passage for steelhead during construction. The pipeline and screening materials will be inspected (and cleaned in the case of the screens) daily and any significant leaks/breaks immediately fixed. Inflow to the pipe will pass through several rocks placed along the thalweg just upstream to hold any algae mats or leaf debris flowing downstream and subsequently not clog the screened pipe intake. Several weed-free hay bales will be placed at the exit of the pipe to hold the pipe in place and limit animal

migration into the project area. Water from the pipe will discharge onto stream cobbles to slow down the flow and allow sediment (if any) to drop out before reaching the thalweg of the undisturbed channel. If needed a groundwater sump will be installed at the upstream edge of the project area and groundwater will be pumped to a settling basin and discharged back to the stream below the project area.

Equipment to be used is as follows: excavator, front loader, skid steer loader, vibratory compactor, haul truck, concrete pumping truck, and crane truck.

Length of time equipment will be in wetted portion of the channel: All construction activities are expected to be completed between 9/3/19 and 12/11/19. Equipment will only be used during daytime hours and no equipment will be left within the creek channel overnight or in the channel when the creek is flowing. Although Quiota Creek is not expected to contain flowing water at the crossing during construction, the wetted channel area is expected to be wet directly underneath the existing temporary bridge.

6 O – Project Information (Hydrological Study)

See Quiota Creek Crossing 8 Project Technical Memo (Appendix 1.2).

6 Q – Project Information (Environmental Assessment)

See Quiota Creek Crossing 8 Project Technical Memo (Appendix 1.2).

6 R – Project Information (Statement of Qualifications)

COMB Fisheries Biologist and Project Administration:

Names: Timothy H. Robinson, Scott B. Engblom, and Scott J. Volan

Affiliation: Cachuma Operation and Maintenance Board

Phone Number: (805) 687-4011

COMB has been implementing the Lower Santa Ynez River Fish Management Plan and Cachuma Project BO since 2000, and conducted all of the supporting studies and research for those documents from 1993 to 2000 on behalf of the Bureau of Reclamation. COMB has extensive experience with steelhead/rainbow trout population and habitat assessments, and has compiled a hallmark dataset on *O. mykiss* within the Santa Ynez River basin. In addition, COMB has considerable experience with feasibility planning, design, and construction of fish passage enhancement projects throughout the LSYR basin with multiple projects totaling well over \$8 million: Hilton Creek Watering System (1999), Hilton Creek Cascade Chute Fish Passage Enhancement (2005), Salsipuedes Creek Fish Passage at Hwy 1 (2002) and Jalama Road bridges (2004), El Jaro Creek Streambed Enhancement (2004), Flashboards on Bradbury Dam to Surcharge Lake Cachuma (2004), San Julian Fish Ladder on El Jaro Creek, (2008) the Quiota Creek Crossing 6 bottomless-arched culvert (2008), the Cross Creek Ranch Project on El Jaro Creek (2009), the Quiota Creek Crossing 2 bottomless-arched culvert (2011), the Quiota Creek Crossing 7 bottomless-arched culvert (2012), the Quiota Creek Crossing 1 bottomless-arched

culvert (2013), the Quiota Creek Crossing 3 bottomless-arched culvert (2015), the Quiota Creek Crossing 4 and Crossing 0A bottomless-arched culverts (2016), and the Quiota Creek Crossing 5 and Crossing 9 bottomless-arched culverts (2018). The project proponent has also attended several fish passage and engineering design workshops sponsored by CDFW and NMFS. COMB staff has attended and regularly give talks at the annual meetings of the American Fisheries Society California-Nevada Chapter and Salmonid Restoration Federation conferences with technical tours since 2005.

COMB has on staff a Ph.D. in Environmental and Watershed Science (Timothy H. Robinson) and two Freshwater Fisheries Biologists (Scott B. Engblom and Scott J. Volan), as well as several consultants on retainer for technical assistance to implement this project in compliance with the regulatory criteria and the Cachuma Project Biological Opinion (HDR Fisheries Design Center, Cardno, Inc., and Hanson Environmental).

Timothy H. Robinson: Ph.D. in Environmental and Watershed Science from the Bren School of Environmental Science & Management at UC Santa Barbara. Dr. Robinson has been COMB's Senior Resources Scientist since 2005 where he focuses on watershed and fisheries management for the Santa Ynez River basin. He has been the project manager on various instream restoration and fish passage projects within the Lower Santa Ynez, most recently at Quiota Creek Crossings 5 and 9. Past research has been in nutrient loading by land use class to streams in Mediterranean climates for the Santa Barbara Coastal Long-Term Ecological Research project at U.C. Santa Barbara.

Scott B. Engblom: B.S. in Freshwater Fisheries from Humboldt State University. Mr. Engblom has been the Project Biologist for COMB since 1994 and has gathered a wealth of knowledge on the fisheries present in the Santa Ynez River basin. Prior work was with the California Department of Fish and Game Wild Trout Program and Trinity River Project.

Scott J. Volan: B.S. in Environmental Science with an emphasis in Freshwater Fisheries and Hydrology from U.C. Santa Barbara. Mr. Volan has been a Biologist for COMB since 1998 and is involved with all aspects of the LSYR Fisheries Monitoring Program. Prior work was with the California Department of Fish and Game Wild Trout Program.

Civil and Hydraulic Design Engineer:

Name: Michael Garello

Affiliation: HDR Fisheries Design Center

Job Title: Civil Engineer, PE

License Number: C68106, Business and Professionals Code 6701 and 6702.

Phone Number: (253) 432-5031

Name: Shaun Bevan

Affiliation: HDR Fisheries Design Center

Job Title: Civil Engineer, PE

License Number: C84579

Phone Number: (253) 432-5027

HDR Fisheries Design Center is one of the nation's premier professional service firms specializing in fisheries and aquatic resource engineering and they are tasked with all of the engineering and design work for this proposal. HDR Fisheries Design Center has highly skilled fisheries scientists that can assess existing barriers, develop plans to avoid impacts on aquatic environments during construction projects, and create innovative ways to add, remove, or adjust fish passageways. HDR Fisheries Design Center has exceptional experience with the Quiota Creek Watershed given their involvement with drafting the Plan and providing engineering and oversight for the Crossing 0A, 1, 2, 3, 4, 5, 6, 7 and 9 projects.

Examples of similar work include:

The following projects were designed by Mr. Garello and Shaun Bevan (2015 onward) at HDR and implemented by COMB staff:

Quiota Creek - Crossing 6 (2008): a damaged low flow crossing was replaced with a 48-foot bottomless-arched culvert with four rock weirs for grade control that created pool habitat. This successful project now provides for full passage of juvenile and adult steelhead/rainbow trout and has created spawning and over summer rearing habitat within the project area.

Quiota Creek - Crossing 2 (P1050005) (2011): a damaged low flow crossing was replaced with a 60-foot bottomless-arched culvert with one riffle and five rock bands for grade control. This successful project now provides for full passage of juvenile and adult steelhead/rainbow trout and has created spawning and over summer rearing habitat within the project area.

Quiota Creek - Crossing 7 (P1050003) (2012): a damaged low flow crossing was replaced with a 60-foot bottomless-arched culvert with 2 rock weirs installed for stream grade control and to create aquatic habitat. This successful project now provides for full passage of juvenile and adult steelhead/rainbow trout and has created spawning and over summer rearing habitat within the project area.

Quiota Creek - Crossing 1 (P1250007) (2013): a damaged low flow crossing was replaced with a 60-foot bottomless-arched culvert with 1 rock riffle installed for stream grade control. This successful project now provides for full passage of juvenile and adult steelhead/rainbow trout to the perennial reaches of the creek upstream.

Quiota Creek - Crossing 3 (P1450011) (2015): a damaged low flow crossing was replaced with a 53-foot bottomless-arched culvert with ESM installed for stream grade control. This successful project now provides for full passage of juvenile and adult steelhead/rainbow trout to the perennial reaches of the creek upstream.

Quiota Creek – Crossing 4 (P1550010) (2016): a damaged low flow crossing was replaced with a 54-foot bottomless-arched culvert with ESM and a root wad installed for stream grade control. This successful project now provides for full passage of juvenile and adult steelhead/rainbow trout to the perennial reaches of the creek upstream.

Quiota Creek – Crossing 0A (P1450014) (2016): a damaged low flow crossing was replaced with a 55-foot bottomless-arched culvert with ESM installed for grade control. This successful project now provides for full passage of juvenile and adult steelhead/rainbow trout to the perennial reaches of the creek upstream.

Quiota Creek – Crossing 5 (P1650902) (2018): a damaged low flow crossing was replaced with a 59-foot bottomless-arched culvert with 1 rock riffle installed for stream grade control. This successful project now provides for full passage of juvenile and adult steelhead/rainbow trout to the perennial reaches of the creek upstream.

Quiota Creek – Crossing 9 (P1750902) (2018): a damaged low flow crossing was replaced with a 60-foot bottomless-arched culvert with ESM installed for grade control. This successful project now provides for full passage of juvenile and adult steelhead/rainbow trout to the perennial reaches of the creek upstream.

8 A – Measures to Protect Fish, Wildlife, and Plant Resources (Sediment Prevention)

See the attached Erosion Control Plan (Appendix 2.2).

8 B – Measures to Protect Fish, Wildlife, and Plant Resources (Fish Protection)

See the attached Fish Removal and Relocation Plan (Appendix 2.3), Revegetation Plan (Appendix 2.4), and Maintenance and Monitoring Plan (Appendix 2.5).

10 – California Environmental Quality Act (CEQA)

CEQA coverage for the Quiota Creek Crossing 8 Project is contained within the the *EIR/EIS for the Lower Santa Ynez River Fish Management Plan and Cachuma Project Biological Opinion for Southern Steelhead Trout*. Due to its large document size of the EIR/EIS, it can be reviewed or downloaded at:

https://www.dropbox.com/sh/9a6i615488h8f6g/AADFFhDaX_1GPQuNpUOTyl6qa?dl=0

Supplemental Document

Appendix 1

- 1.1 Quiota Creek Crossing 8 Project Drawings.
- 1.2 Quiota Creek Crossing 8 Project Technical Memo.

Supplemental Document

Appendix 2

- 2.1 Quiota Creek Crossing 8 Project – Construction Site Dewatering Plan.
- 2.2 Quiota Creek Crossing 8 Project – Erosion Control Plan.
- 2.3 Quiota Creek Crossing 8 – Fish Removal/Relocation Plan.
- 2.4 Quiota Creek Crossing 8 – Revegetation Plan.
- 2.5 Quiota Creek Crossing 8 – Maintenance and Monitoring Plan.
- 2.6 Quiota Creek Crossing 8 – Road Access Plan.



DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
VENTURA FIELD OFFICE
60 SOUTH CALIFORNIA STREET, SECOND FLOOR
VENTURA, CA 93001

August 30, 2018

SUBJECT: Nationwide Permit (NWP) Verification

Tim Robison
Cachuma Operations and Maintenance Board
3301 Laurel Canyon Road
Santa Barbara, California 93105

Dear Mr. Robinson:

I am responding to your request (SPL-2018-00379-CLH) for a Department of the Army permit to provide fish passage enhancement at Quiota Creek Crossing No. 9. The proposed project is located in Quiota Creek on Refugio Road near the city of Lompoc, Santa Barbara County, California (Lat: 34.55477, Long:-120.08171).

Because this project would result in a discharge of dredged and/or fill material into waters of the U.S., a Department of the Army permit is required pursuant to Section 404 of the Clean Water Act (33 USC 1344; 33 CFR parts 323 and 330).

I have determined construction of your proposed project, if constructed as described in your application, would comply with Nationwide Permit (NWP) No. 14: *Linear Transportation Projects*. Specifically you are authorized to temporarily impact 0.20 acre by replacing the existing "at-grade" concrete crossing with a concrete arch bridge.

For this NWP verification letter to be valid, you must comply with all of the terms and conditions in Enclosure 1. Furthermore, you must comply with the non-discretionary Special Conditions listed below:

1. Within 45 calendar days of completion of authorized work in waters of the U.S., the Permittee shall submit to the Corps Regulatory Division a post-project implementation memorandum including the date(s) work within waters of the U.S. was initiated and completed, color photographs (including map of photopoints) taken at the project site before and after construction and the signed Certification of Compliance (attached as part of this permit package).
2. This Corps permit does not authorize you to take any threatened or endangered species, in particular the federally endangered southern steelhead (*Oncorhynchus mykiss*) or adversely modify its designated critical habitat. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g. ESA Section 10 permit, or a Biological Opinion (BO) under ESA Section 7, with "incidental take" provisions with which you must comply). The enclosed NMFS BO (F/SW3:EJS dated September 11, 2000) contains mandatory terms and conditions to implement the reasonable and prudent

measures that are associated with "incidental take" that is also specified in the BO. Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take of the attached BO, the terms and conditions of which are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BO, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permit.

3. Pursuant to 36 C.F.R. section 800.13, in the event of any discoveries during construction of either human remains, archeological deposits, or any other type of historic property, the Permittee shall notify the Corps' Regulatory Project Manager (Crystal L.M. Huerta at 805-585-2143) and the Corps' Archeology Staff within 24 hours (Danielle Storey at 213-452-3855 OR Meg McDonald at 213-452-3849). The Permittee shall immediately suspend all work in any area(s) where potential cultural resources are discovered. The Permittee shall not resume construction in the area surrounding the potential cultural resources until the Corps Regulatory Division re-authorizes project construction, per 36 C.F.R. section 800.13.
4. No debris, soil, sand, bark, slash, sawdust, rubbish, cement or washings thereof, asphalt, oil, or petroleum products, or any other material that may be harmful to fish and wildlife, that results from maintenance and associated activities shall be allowed to enter or be placed where it may be washed by rainfall or runoff into waters of the U.S. When maintenance activities are completed, all excess materials, and/or debris shall be removed from the work area to an approved off-site disposal areas, outside waters of the U.S.

This verification is valid through March 18, 2022. If on March 18, 2022 you have commenced or are under contract to commence the permitted activity you will have an additional twelve (12) months to complete the activity under the present NWP terms and conditions. However, if I discover noncompliance or unauthorized activities associated with the permitted activity I may request the use of discretionary authority in accordance with procedures in 33 CFR part 330.4(e) and 33 CFR part 330.5(c) or (d) to modify, suspend, or revoke this specific verification at an earlier date. Additionally, at the national level the Chief of Engineers, any time prior to March 18, 2022, may choose to modify, suspend, or revoke the nationwide use of a NWP after following procedures set forth in 33 CFR part 330.5. It is incumbent upon you to comply with all of the terms and conditions of this NWP verification and to remain informed of any change to the NWPs.

A NWP does not grant any property rights or exclusive privileges. Additionally, it does not authorize any injury to the property, rights of others, nor does it authorize interference with any existing or proposed Federal project. Furthermore, it does not obviate the need to obtain other Federal, state, or local authorizations required by law.

Thank you for participating in the Regulatory Program. If you have any questions, please contact me at (805) 585-2143 or via e-mail at crystal.huerta@usace.army.mil. Please help me to

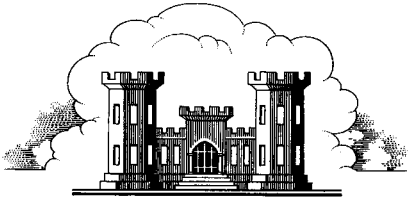
- 3 -

evaluate and improve the regulatory experience for others by completing the customer survey form at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey.

Sincerely,

Crystal L.M. Huerta
Senior Project Manager
North Coast Branch
Regulatory Division

Enclosures



**LOS ANGELES DISTRICT
U.S. ARMY CORPS OF ENGINEERS**

**CERTIFICATE OF COMPLIANCE WITH
DEPARTMENT OF THE ARMY NATIONWIDE PERMIT**

Permit Number: *SPL-2018-00379-CLH*

Name of Permittee: *Cachuma Operations and Maintenance Board, Attention: Tim Robinson*

Date of Issuance: *August 30, 2018*

Upon completion of the activity authorized by this permit and the mitigation required by this permit, sign this certificate, and return it by **ONE** of the following methods;

1) Email a digital scan of the signed certificate to crystal.huerta@usace.army.mil
OR

2) Mail the signed certificate to
U.S. Army Corps of Engineers
ATTN: Regulatory Division SPL-2018-00379-CLH
Ventura Field Office
60 S. California Street, Suite 201
Ventura, California 93001

I hereby certify that the authorized work and any required compensatory mitigation has been completed in accordance with the NWP authorization, including all general, regional, or activity-specific conditions. Furthermore, if credits from a mitigation bank or in-lieu fee program were used to satisfy compensatory mitigation requirements I have attached the documentation required by 33 CFR 332.3(1)(3) to confirm that the appropriate number and resource type of credits have been secured.

Signature of Permittee

Date

Enclosure 1: NATIONWIDE PERMIT NUMBER (NWP) 14 Linear Transportation Projects

1. Nationwide Permit(s) NWP 14 Linear Transportation Projects Terms:

14. Linear Transportation Projects. Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project. This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate. This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars. Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404) Note 1: For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d). Note 2: Some discharges for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under section 404(f) of the Clean Water Act (see 33 CFR 323.4). Note 3: For NWP 14 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, District Engineer's Decision. The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

2. General Conditions: The following general conditions must be followed in order for any authorization by an NWP to be valid:

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. The permittee shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: <http://www.rivers.gov/>.

17. Tribal Rights. No NWP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for

such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless ESA section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the NWP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the NWP activity and are later in time, but still are reasonably certain to occur.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed activity or that utilize the designated critical habitat that might be affected by the proposed activity. The district engineer will determine whether the proposed activity “may affect” or will have “no effect” to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have “no effect” on listed species or critical habitat, or until ESA section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word “harm” in the definition of “take” means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that

issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at <http://www.fws.gov/> or <http://www.fws.gov/ipac> and <http://www.nmfs.noaa.gov/pr/species/esa/> respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts to migratory birds or eagles, including whether “incidental take” permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (a) In cases where the district engineer determines that the activity may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act. If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based

on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect. Where the non-Federal applicant has identified historic properties on which the activity might have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed.

(d) For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. Restored riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where



**COUNTY OF SANTA BARBARA
DEPARTMENT OF PUBLIC WORKS - TRANSPORTATION
DEVELOPMENT PERMIT**



Permit No.: **D0190101**

DATE: **September 04, 2018**

ROAD NAME: **REFUGIO RD**

INSPECTION REQUIRED - SEE ATTACHED REQUIREMENTS

OWNER: **Refugio Rd Quiota Creek Crossing - Cachuma Operation & Maintenance Board**

Address: **3301 Laurel Canyon Road**

APPLICANT/AGENT: **Cachuma Operation and Maintenance Board - Timothy H Robinson**

Address: **3301 Laurel Canyon Road, Santa Barbara, CA 93105**

hereby makes application for permit to excavate and/or encroach in the Public Road/Right-of-way at the location(s) and as described herein, subject to the provisions required by Ordinance No. 1491, of Santa Barbara County, applicable State or Federal Regulations, AND ANY SPECIFIED REQUIREMENTS ATTACHED HERETO. In consideration of the granting of this permit the applicant agrees to defend, indemnify and save harmless the County of Santa Barbara its officers, agents and employees from any and all claims, demands, damages, costs, expenses (including attorney's fees), judgments or liabilities arising out of this permit or occasioned by the performance or attempted performance of the permit and any SPECIAL PROVISIONS of the permits hereof including but not limited to, any act or omission to act on the part of the applicant or his agents or employees or other independent contractors directly responsible to him; except those claims, demands, cost, expenses (including attorney's fees), judgments or liabilities resulting from the sole negligence or willful misconduct of the COUNTY. It is further agreed that if any facilities placed in the excavation or obstruction for which the application is granted and approved as a permit, shall become incompatible with future travel by the general public, then the applicant or its assigns or successors will, either remove such facilities in cases where such removal is necessary or in cases where the use thereof has been or is to be abandoned, or in other cases, applicant or its assigns or its successors, will relocate such facilities at a location designated by the Commissioner, as provided in Section 30 and 30.1 of Ordinance No. 1491 of the County of Santa Barbara.

The provisions of the foregoing sentence shall not apply in any case where the easement for the facilities was in existence prior to the existence as such of the public highway concerned herein.

DESCRIPTION:

This permit within the public right of way authorizes the Cachuma Operation & Maintenance Board to replace an existing concrete low crossing at Refugio Road COMB Quiota Creek Crossing #9 with a precast concrete bridge. This permit is issued per the attached HDR design plans dated 08/17/2018, signed by Shaun P. Bevan, RCE# 84579. All work of this permit shall be in accordance with the applicable sections of the Santa Barbara County Road Division Encroachment Permit Requirements including the latest editions of the County Engineering Design Standards and Caltrans Standard Plans and Specs.

Notes: 1) This permit is a partial permit that authorizes the construction of the structure portion only and the permit for the roadway embankment will be issued once the design exemption for the guard is approved. 2) A preconstruction meeting is required two weeks in advance with the affected utilities, contractor, County Permit, Traffic and Bridge Engineers, Materials Lab, Inspector, Design Engineer and Resident Engineer prior to construction. A weekly meeting is required with the contractor, Resident Engineer, COMB and the County Engineer. 3) Prior to preconstruction meeting, the contractor shall provide all the submittals including but not limited to mix-design, materials sample for review and approval. No materials shall be incorporated into the project without an original signed certificate of compliance. 4) Approved Traffic Control Plan including special construction signs shall be installed 3 weeks in advance. 5) Notify the Encroachment Permit office at (805) 681-4990 at least 72 hours prior to begin the work. Working hours shall be from 7:00 am to 3:30 pm, Monday through Friday excluding County observed holidays. If construction work goes beyond the working hours, the contractor shall call the County Dispatch at (805) 683-2724 (email: DispatchStaff@sbsheriff.org) to let them know that they will be working late that day. No work is allowed during the Fire Dept. "Red Flag Warning" posting. 6) Prior to the delivery of the bridge, the contractor shall notify the County Permit Inspector and Bridge Engineer two weeks in advance, and the contractor is responsible to apply for the required Transportation Permit for hauling the prefab bridge and the delivery of the crane on site. 7) Applicant shall be responsible for all the cost for providing a Resident Engineer working onsite and plant inspection for the bridge and affiliated work by a California Registered Civil Engineer approved by the County. Plant inspection for rebar install and pouring concrete shall be a 100% inspection. 8) Material Testing and Lab shall be performed by a Caltrans certified personnel and shall be provided by COMB. County will only oversight/part time inspection as part of this permit. 9) Creek bed and any debris plugging the bridge shall be maintained by COMB in perpetuity. 10) The Resident Engineer shall prepare and signed the final bridge report per Caltrans method (Construction Administration Guidelines) for all the inspection and testing including but not limited to as-built plans in Mylar.

Location: **0 REFUGIO RD, Santa Ynez - CROSS STREET: (REFUGIO RD)**

APN No.: **137-320-004** USA No.: _____ Tract No.: _____ File No.: _____

Contractor:

Bldg. Permit No.:

Contractor Phone: Cell:

Start Date:

Permit Received By: **AGENT**

Attachments: YES

Signed: *Timothy H. Robinson* Date: **9/4/18**

Prepared By: **Jemmi Irabon**

Issuer's Signature: *Jemmi Irabon* Date: **9/4/18**

Owner Ph: **805-687-4011** - Agent Ph: **(805) 687-4011**

The work indicated on this permit is complete and acceptable.

By Inspector: _____

Date: _____

Permit Fees:

Issuance Fee: **\$68.00**

Road Closure Fee **\$1,235.00**

Dev. Plan Check Review (Fix Fee) **\$10,000.00**

Dev Inspect Oversight & Admin Deposit (Reimb) **\$17,000.00**

Dev. Inspect_Final Reports (Fix Fee) **\$2,000.00**

TOTAL FEES: \$30,303.00

Payment Method: **Check**

Total Payment-(all receipts): **\$10,000.00**



County of Santa Barbara
 Department of Public Works, Road Division Permit Office
 4417 Cathedral Oaks Road 620 West Foster Road
 Santa Barbara, CA 93110 Santa Maria CA 93455

Road Encroachment Permit Application

Permit No. _____

DISCRETIONARY PROJECT: Y/N (If yes, provide copy of Cond of Approval) _____ APN: 137-320-004

ENCROACHMENT ADDRESS: SOUTH REFUGIO ROAD City SANTA YNEZ Zip 93460

DESCRIPTION OF WORK: REPLACE A CONCRETE LOW FLOW CROSSING (CROSSING 9) OF S. REFUGIO ROAD OVER QUISTA CREEK WITH A 60 FT BOTTOMLESS ARCHED CULVERT

OWNERS INFORMATION

Name: Tim Robinson E-mail address: TRROBINSON@CASHWA-BOARD.ORG

Mailing Address: 3301 LAUREL CANYON RD City SANTA BARBARA Zip 93105

Telephone: 805-687-4011 x215 (Cell) 805-689-8586 (Fax) 805-569-5825

Applicant Information Authorized Agent [] (fill out Authorization Signature below if checked)

Check one: CONTRACTOR [] ARCHITECT [] ENGINEER []

Company Name: HDR FISHERIES DESIGN Representative MIKE GARZOLLO

Telephone: 253-858-3875 (Cell) 253-858-5635 E-mail MIKE.GARZOLLO@HDRINC.COM

Address: 4717 7TH ST. NW, GIG HARBOR, WA 98329 State License C 68106

Worker's Comp. Insurer: _____ Exp. Date: _____

Check one: CONTRACTOR [] ARCHITECT [] ENGINEER []

Company Name: _____

Company Representative: _____ Registration No.: _____

Telephone: _____ (Cell) _____ E-mail _____

Address: _____

Worker's Comp. Insurer: _____ Exp. Date: _____

Authorization Signature (fill out only if Authorized Agent box on box 1 is checked)

I/We _____ authorize and give consent to _____ to act as _____

(Print Owner Name) (Print Agent Name)

my/our authorized agent to apply for, sign, and receive in my/our behalf, a Road Division Encroachment/Excavation Permit. I/we understand that as the legal property owner where the encroachment/excavation is to take place, that I/we are responsible and liable for all actions, costs, and liabilities associated with this Encroachment/Excavation Permit.

Signed: _____ Date: _____

Owner/Agent Signature (required to be filled out by owner or agent)

I TIMOTHY H. ROBINSON hereby make application to excavate and/or encroach in the Public Road/ _____

(Print Name)

Right-of-Way at the location(s) and as described herein, subject to the provisions required by Ordinance No. 1491, of Santa Barbara County, applicable State or Federal Regulations, AND ANY SPECIFIED REQUIREMENTS ATTACHED HERETO.

It is agreed by the applicant that the County of Santa Barbara and any officer or employee thereof shall be saved harmless by the applicant from any liability or responsibility for any accident, loss or damage to persons or property, happening or occurring as the proximate result of any of the work undertaken under the terms of this application and the permit or permits which may be granted in response thereto, and that all of said liabilities are hereby assumed by the applicant

Signed: Timothy H. Robinson Date: 4/19/18



County of Santa Barbara

Department of Public Works, Road Division Permit Office

620 W. Foster Road
Santa Maria, CA. 93455
Telephone: (805) 739-8750
Fax: (805) 739-8753

4417 Cathedral Oaks Road
Santa Barbara, CA. 93110
Telephone: (805) 681-4990
Fax: (805) 681-4991

REQUIREMENTS FOR ROAD DIVISION ENCROACHMENT

PERMIT "D0190101"

"COMB QUIOTA CROSSING #9"

"Refugio Road, Santa Ynez"

(Cachuma Operation and Maintenance Board)

ALL WORK SHALL BE IN CONFORMANCE WITH THE MOST CURRENT COUNTY OF SANTA BARBARA ENGINEERING DESIGN STANDARDS AND CALTRANS TRAFFIC CONTROL PROCEDURES.

PEDESTRIAN AND BICYCLE SAFETY SHALL BE OBSERVED AT ALL TIMES.

GENERAL PERMIT REQUIREMENTS

I. NOTIFICATION REQUIREMENTS

NOTE: FAILURE TO MAKE ALL REQUIRED NOTIFICATIONS AS OUTLINED IN THIS SECTION MAY INVALIDATE YOUR PERMIT

1. The Permittee shall call 805-739-8750 or fax 805-739-8753 (North County) or call 805-681-4990 or fax 805-681-4991 (South County) *and County Dispatch at (805) 683-2724 (email: !DispatchStaff@sbsheriff.org)* to give 72 Hours advance notice of a work start date. When requested, provide a Work Schedule and an Underground Service Alert (USA) number. (FAILURE TO CONTACT THE ROAD DIVISION MAY INVALIDATE YOUR PERMIT). Normal working hours shall be from 7:00 am to 3:30 p.m. (9:00am-3:00pm at signalize intersection) Monday through Friday, excluding holidays and weekends, unless otherwise stated within these permit requirements or as directed by the Senior Road Inspector.

Upon completion of the permitted work activities within the County Road right of way, the Permittee shall notify the Road Division immediately to request a final inspection for acceptance by the Public Works Department Road Division.

2. The Permittee and/or his contractor shall notify Mike Escobar (Signal Technician) at (805) 681-5681 or (805) 896-5577, 72 hours prior to any construction operation within (500) Five Hundred feet of a signalized intersection or immediately if any damage occurs to any traffic signal device. This pertains to Santa Barbara County Road right of way only. Special Note: Intersections shall be as defined within the California Vehicle Code. Refer to Section III: Traffic Requirements at the end of the General Permit Requirements for additional specific requirements.

3. The Permittee is responsible to contact all property owners affected by their construction operation/project a minimum of 72 hours in advance of start of work or as directed in the special conditions of this permit. If an overlay or micro seal is required upon completion of work, affected property owners shall be given both a 7-day and 72-hour written notice by the permittee prior to beginning the micro seal operations. The Permittee shall be responsible in resolving any concerns or complaints that may be lodged by the affected adjacent property owners/residents. Any complaints received by the Santa Barbara County Department of Public Works concerning this work/project will be reviewed by the Road Division Inspector. The inspector will inform/direct the Permittee and/or their contractor to rectify the problem at the Permittee's expense in an expedient manner. If the posting of NO PARKING signs is necessary to facilitate this work project, the Permittee shall coordinate the posting with the Road Division Permit Inspector and the California Highway Patrol. All laws, rules, and regulations of the County Code and the California Vehicle Code Book shall be complied with.
4. If this permit authorizes the complete closure of any road, additional notifications are to be made prior to beginning the work as dictated in the special provisions to this permit.

II. EXCAVATION AND CONSTRUCTION REQUIREMENTS

SPECIAL NOTE: When conflicts in construction criteria occur between other Agencies and the Santa Barbara County Public Works Department, the more stringent provisions shall govern.

1. The Road Encroachment Permit Office shall be provided an Underground Service Alert (USA) number and start date prior to the start of construction. Call 1-800-422-4133 for your U.S.A. "Inquiry Identification" number. The Permittee is also responsible for the continual upgrading of their USA number.
2. Inspection within County road right -of-way shall be performed under the direction of the Road Division Inspector. All materials testing and frequency of testing shall be performed by CALTRANS certified materials testing laboratories and results submitted to the Roads Inspector on a daily basis.
3. All construction work shall be performed by contractors holding the appropriate California Contractor's License for the work to be performed, and shall comply with the following safety guidelines of the State of California, "California Administrative Code," Title 8. "Industrial Relations," In Particular, Chapter 4. "Construction and Safety Orders," Article 8. "Explosives," Article 11. "Vehicles, Traffic Control Flaggers, Barricades, and Warning Signs," Section 1597, "Jobsite Vehicles," Section 1598, "Traffic Control for Public Streets and Highways," Section 1599, "Flaggers," and the Standard Specifications and these permit provisions:

Construction Workers: Workers shall, when on foot within the limits of the project or exposed to vehicular traffic, wear orange, strong yellow-green or fluorescent versions of these colored warning garments such as vests, jackets, or shirts. During rainy weather workers may wear rainwear which complies with these colors.

During hours of darkness, warning garments shall be retroreflective. The retroreflective material shall be visible at a minimum of 1,000 feet. The retroreflective clothing, or the retroreflective material added to the clothing, shall have a minimum of one horizontal stripe around the torso. White outer garments with retroreflective material that meets the above requirements may be worn during hours of darkness in lieu of colored vests, jackets and/or shirts.

Flaggers: Flaggers shall wear orange, strong yellow-green or fluorescent versions of these colored warning garments such as vests, jackets, or shirts. Rainwear, when worn, shall be of these colors. All flaggers shall wear white hard hats.

4. During hours of darkness, flaggers' stations shall be illuminated such that the flagger will be clearly visible to approaching traffic. Flaggers shall be outfitted in reflectorized garments that meet the same criteria as those of Construction Workers (see previous).

All County Roads shall be bored wherever possible. If open-cut trenching is being requested initially, the applicant shall show just cause as to why it is not feasible to use the boring method. A review by the County Engineering staff shall determine if open-cut trenching will be allowed. No cutting of new paving

- will be allowed for two years from date of overlay unless there is an emergency (ie: leak in pipe). Maintain a minimum of thirty-six (36) inch cover when using the boring method. If open trench cutting is approved, the Permittee shall adhere to Requirement No. (5) listed below. All pavement cuts shall be sawcut.
5. Trenching: Santa Barbara County Road Division Standard Details 2-020 and 2-030 are to be used as guidelines for all trenching operations within the County Road right of way. Trench backfill shall be a minimum one-sack per cubic yard cement slurry backfill in all paved areas to include driveways, "slot bores/trenches," sidewalk, curb and gutter. In the pavement area, the slurry cement shall be poured the entire trench width, from pavement cut to pavement cut, and from 0.50' above the pipe/structure, etc., to the asphalt concrete. The shading backfill 0.50' above the pipe/structure shall be compacted mechanically to the percentages required by current "Traffic Indexes." Maximum shading over pipe/conduit before slurry placement shall be six (6) inches. All slot bores - trenches shall be a minimum of 6 inches in width. A minimum of 6" trench asphalt concrete cap shall not be placed over the slurry cement backfill until the following day, with or without cement accelerators. Note: Upon request, the Permittee shall provide "Trip Tickets" (slurry cement receipts from the supplier) to the Road Division Inspector. When dewatering is necessary for the construction of this permitted project, a Dewatering Plan shall be required and submitted to the Road Division Encroachment Permit Office for review.
 6. Thirty (30) inch minimum cover shall be maintained over any pipe, conduit, structure, etc. within road right of way. Cover shall be measured from existing hardscape (road pavement, sidewalk, etc.) or if an earth cut, shall be measured from the common existing grade average for the area.
 7. *All existing pipelines to be abandoned shall be removed outside the County right of way. When this is deemed impractical or not cost effective, contractor may abandon existing pipelines in place per the approval of the County engineer. Prior to the pipe abandonment, material in the existing pipe shall be flushed and removed by methods per state and federal laws with the inspection by the Energy Division and Public Works.*
 8. Trench backfill in unpaved areas may be native material, unless such material is determined to be unsuitable by the County Lab Engineer. Trench backfill shall be as directed by Santa Barbara County Road Division Standard Details 1-020 and 1-030. (Note: testing and material samples shall be as directed by the County Materials Lab. Engineer with the associated costs billed to the Permittee). When cement slurry backfill is placed in trenches outside the paved roadway, it shall be poured to within eight (8) inches of existing finish grade and then backfilled with suitable native material and compacted. When the trench width is less than twelve (12) inches a (1) one-sack cement slurry backfill shall be required.
 9. Maximum density shall be determined by ASTM 1557 test method "C". If coring or testing is required by the Santa Barbara County Department of Public Works to determine the backfill and/or compaction of trenches, the Permittee shall be responsible for all associated costs performed by a CALTRANS certified materials testing company. Copies of all compaction-testing reports shall be provided to the Road Division Permit Office by the end of the work project. The private Materials Laboratory shall submit a Job Completion Statement on their letter-head affirming that the trench or excavation compaction that was tested met the minimum County Engineering compaction specifications.
 10. The Maximum length of trench excavated shall be no greater than that which can be backfilled, plated, and pinned by the end of each day. Any deviation requires approval from the Road Division Inspector and/or Engineer.
 11. Longitudinal trench excavations in all road locations shall be controlled from the existing gutter lip using the gutter lip as control for the trench. If this is not applicable, then whenever possible, trenching operations shall be conducted within the "center" portion of the travel lane. Special Note: No trenching shall be allowed within the "winged" flow line of the roadway. The unpaved earth shoulder should always be the first option for trenching if possible.
 12. All excavated material shall be hauled from the work zone immediately. No stockpiling shall be allowed in the County Road right of way, without prior approval from the Road Division Inspector. Stockpiling shall also be in compliance with the State Standard Specifications, Standard Plans and Special Provisions. If the stockpiling affects property not controlled by the County Road Division, the Permittee shall obtain permission directly from the party affected. Additionally, the Permittee shall not stage, stockpile or operate any equipment outside the permitted work zone without the written or verbal approval of the Road Division Inspector. The permitted work zone is as defined in the CalTrans 1996 "Manual of Traffic Controls" for Construction and Maintenance Work Zones. Where a Permittee has placed an obstacle within twelve (12)

feet of a lane carrying public traffic, the Permittee may be required by the Road Maintenance Manager or the County Traffic Engineer to install temporary railing (Type K).

13. No ponding or jetting of trenches will be allowed.
14. Plowing will not be allowed in the County Road right of way.
15. Trenches shall be maintained by the use of steel plates. Note: Plate bridging details shall be provided by the Permittee upon request and shall comply with Section 602.1 of the CalTrans Encroachment Permit Manual - Provide a Non-Skid Surface. Under no circumstances shall fiberglass plates, plywood or other non-D.O.T. approved materials be used as a covering for an excavation. The Permittee shall be responsible and liable for the cost and maintenance of securing the steel plates which are to be continuously safe to travel over. "ROUGH ROAD" or similar signage shall be required to be placed per CalTrans Manual of Traffic Controls, the latest edition of the MUTCD, or per direction of the road inspector. The signs shall be maintained and monitored at the Permittee's expense. "COLD MIX" material shall be placed and tamped around all sides of the steel plates per direction of the Road Division Inspector. Cold mix may not be required if the steel plates are beveled. All plating shall be pinned to help eliminate movement and wedges installed if necessary to help level out an uneven road surface. Steel plates shall not be left in the traveled roadway for a period of time of more than seven (7) days unless the County Inspector specifically approves a longer period of time. Plates are to be used only as a temporary method of covering an excavation. The Permittee shall be responsible to inspect and monitor steel plates continuously and to immediately correct any unsafe condition that may occur during their use. If an unsafe condition occurs and County personnel or a County contractor is called upon to immediately correct the unsafe condition to prevent harm or damage to the traveling public, all associated costs (time, labor, materials, etc.) shall be borne by the Permittee. Any damages or costs whatsoever that may arise from the placement of steel plates within County Road right of way shall be the responsibility of the Permittee. The Permittee shall rectify all complaints regarding the use of steel plates.
16. The Permittee shall as prescribed by Federal legislation, comply with all provisions of the Occupational Safety and Health Act (OSHA) Standards to include Subpart P - Excavations. (29 CFR Part 1926:650-.652). Special Note: An Excavation Permit shall be obtained from the Division of Occupational Safety and Health (DOSH) for any project involving the construction of any trench or excavation (including utility, foundation, and retaining wall construction involved within the excavation) which are five feet or deeper and into which a person is required to descend. It is the responsibility of the Permittee to obtain this permit and also responsible for submitting a Safety (Shoring) Plan (stamped and signed by the engineer) that shall outline the safety requirements to be adhered to at all excavations and work sites. The Permittee is responsible to provide a designated competent person (on site full time) and implement all safety measures required by law at his/her expense related to this project. This shall apply continuously seven days a week, 24 hours a day until the work project is complete and has been approved and signed off by the Road Division Inspector. The Permittee is liable for any and all damage or injuries that may occur as a result of his/her failure to implement/maintain the necessary safety measures as outlined above and as prescribed by County, State, and Federal law.
17. All pavement areas shall be re-paved with a structural section equivalent to the existing section (see conditions below), or a minimum 0.30' of Asphalt Concrete (A.C.) over 0.50' Class II Base if the Traffic Index is less than 5.5. If the Traffic Index is 5.5 or greater, a minimum of 0.50' min. of A.C. shall be placed. If the existing pavement structural section is greater than the above specifications, that greater section shall apply. Note: "Cold Mix" shall be replaced by "Hot Mix" within (7) seven days of slurry backfill as outlined in Ordinance No. 1491, Section 22 or as directed by the Road Inspector. All "Cold Mix" shall be painted with the color codes as designated by Underground Service Alert, Assembly Bill Number 73. Section 4216.3 and remain until replaced with "Hot Mix"). All asphalt paving operations shall be in compliance with applicable sections of Section 39, Asphalt Concrete of the most current State Standard Specifications. The smoothness tolerances shall be as outlined in Section 39 of the current CalTrans Standard Plans and Specifications. The minimum structural section is outlined in the current Santa Barbara County Road Division Standard Details, Section 1-010. Damage to or displacement of existing A.C. (asphalt concrete) at any location related to this project shall be thick lifted using 1/2 inch A.C. mix as directed by the Road Division Inspector.

18. Pavement Restoration: Pavement Restoration shall be commensurate to the two (2) previous years of road repair, e.g. micro seal, overlay, etc., and be completed in "kind" within (60) days after final pavement replacement. If lateral trenching is proposed, type II micro seal is required from edge of pavement to edge of pavement. If trenching does not include laterals, type II micro seal is required only to one half of the street if the other half of the street is not damaged by the construction activity. Micro seal type II proposed mix design shall be submitted to, and approved by, the Roads Division permit office prior to placement of the micro seal. Additionally, if there is 2 feet of pavement or less remaining adjacent to the edge of the road (edge of pavement, E.P.) permittee shall apply a micro seal to this area. A 0.13' shall be required if the micro seal does not adequately cover the replaced pavement area. In the event that an overlay is required, shoulder backing overlay may be required at the direction of the Road Division Inspector. If construction work causes additional damage to the pavement outside the trenched areas, additional pavement restoration shall be required. Any saw-cut lines left in the road right of way shall be sealed with a "crack-seal" compound approved by the County Engineer. The Santa Barbara County Public Works Department shall make the final determination as to the type of pavement restoration to be applied. (Note: The trenching/construction operation may be videotaped by Santa Barbara County Inspection personnel prior to commencement of construction operations).
19. All pavement markers and striping shall be replaced or restored to pre-permit condition. NOTE: Markers and striping shall be per the County General and Special Provisions and the current CalTrans Standard Plans. Note: See CalTrans STD. Plan A202 for additional criteria. These will be provided upon request. If the removal of existing striping is necessary, the striping shall be obliterated by sand blasting or grinding only. No painting over of striping shall be allowed within road right of way. Current County, State and/or Federal sandblasting rules and regulations shall be adhered to. Protection of the public during sandblasting is mandatory. The contractor shall coordinate with the County traffic engineer to cat track the striping for review and approval prior to striping operation and provide three coats of paint and glass beads at each direction at 5 mph spread rate.
20. Concrete: All concrete that is to be removed shall be sawcut and removed to the next expansion joint or score mark. All cuts are to be perpendicular to the curb & gutter with no longitudinal cuts. No diagonal cuts shall be allowed. For construction criteria relating curb ramps and sidewalks (Class 3), driveways and gutters (Class 2), see Road Standard Details. The contractor shall provide the concrete mix design for review and approval 14 days prior to construction. All concrete construction to include ramps shall be in accordance with the most current American Disability Act (A.D.A.) requirements.
21. The construction of residential and/or commercial driveways shall be per Santa Barbara County Public Works - Road Division Standard Details and as directed by the County Traffic Engineer; the Senior Development Engineer and/or the Road Division Inspector. The repair and maintenance of all hardscape, i.e.: driveway aprons, wings, sidewalk, curb & gutter, etc., shall be the responsibility of the property owner (Permittee). See Section 4-2.08 of the Santa Barbara County Engineering Design Manual for additional criteria. If applicable, driveways shall conform to equestrian trail guidelines where trails have been established. Maximum height of driveway lip at gutter line is ½ ". No saw cutting of asphalt concrete (A.C.) pavement shall be allowed without first consulting with the Road Division Inspector. When joining existing concrete with new, steel doweling shall be required. Historical drainage flow shall not be altered. If the driveway approach is not constructed/finished to engineering design standards it may be required to be removed and replaced at the Permittee's expense. All laws, rules, and regulations of the State of California, Department of Consumers Affairs, Contractors License Board shall be adhered to and complied with at all times when performing any work operation within the Santa Barbara County road right of way.
22. The Permittee shall maintain a clean and orderly work zone free and safe from debris and construction materials generated by this project. Final appearance of the project shall be returned to a pre-permit condition as directed by the Road Division Inspector. The aesthetics of the roadway shall be as it was or better than before work started. This shall include bike lanes, pedestrian and equestrian paths. Dust control measures shall be the responsibility of the Permittee. The Permittee at Permittee's expense shall resolve any complaints. Any over-spill of dirt, concrete, etc. associated with the Permittee's work project on the paved roadway or earthen road shoulder shall be monitored and cleaned up as it occurs at the Permittee's expense.

23. All miscellaneous facilities, i.e.: fences, walls, vaults, power supplies, pedestals, backflow devices, meters, pedestals, mailboxes, etc., constructed within the County Road right-of-way, shall adhere to the Sight Distance Requirements as outlined in Section 405.1 of the CalTrans "Highway Design Manual" and current County policy. Aboveground facilities may be required to be "screened" (fencing, wall, vegetation, etc.) at the expense of the Permittee. Any noise producing system that is proposed to be installed within the road right of way shall be disclosed at time of application submittal.
24. "Fixed Objects" e.g.: electrical poles, power supplies, vaults, pedestals, backflow devices, check valves, meters, walls/fences, etc., within the County Road right of way, shall be placed as directed by the CalTrans Traffic Manual, Chapter 7, the Roadside Design Guide, American Association of State Highway and Transportation Officials (AASHTO) 1989; the Highway Design Manual and current County policy as directed by the County Traffic Engineer and the Road Division Engineer. Any exceptions to this procedure shall be reviewed and approved by the County Traffic Engineer prior to any construction operation. If the replacement/removal of the fixed object(s) is required by the County Traffic Engineer, all costs shall be borne by the Permittee.
25. If existing public or private utilities conflict with the construction of this project, the Permittee shall make the necessary arrangements with the owners of such utilities for their protection, relocation and removal. The Applicant shall provide the inspection for the protection, relocation and removal of such utilities, if not accomplished by the utilities themselves. The responsibility for any and all costs related to inspection, permit fees and liabilities, shall be borne by the Permittee. Utility companies performing relocation work in the County Road right-of-way are required to obtain a County Road Division Encroachment Permit prior to the performance of the relocation work. Any relocated utilities shall be correctly located and identified on the final AS-BUILT plans. This requirement applies to public and/or private utilities as well. Special Note: If at a future date the Director of Public Works or his designee determines that this permitted project is in conflict with a County project, code, ordinance, or statute, a Community Plan, the traveling public, or accepted engineering and/or safety criteria, etc., all conflicting facilities installed under this permitted project shall be removed immediately at the Permittee's expense. See County Code - Chapter 28, Article 1 - Section 28-34 for additional criteria).
26. Preservation of Monuments: Any monument, benchmark or precise survey reference point shall not be removed without prior approval by the Department of Public Works. If the removal or replacement is allowed, all costs associated with this operation shall be borne by the Permittee as outlined in Section 48, of County Ordinance No. 1491.
27. Bike paths shall be restored according to the CalTrans Highway Design Manual Chapter 1000, "Bikeway Design." The base material shall be 0.50' foot Class II aggregate base. A safe minimum passageway of 4 feet shall be maintained through the work area, where pedestrian or bicycle facilities exist.
28. Special Sanitary Note: It is the responsibility of the Permittee to contact the appropriate sanitary district and obtain all required permits, clearances, etc., prior to the start of any sanitary construction activity. This contact of the district by the Permittee is specifically related to any sanitary construction activity that occurs within the County Road right of way. Manhole installations, sewer lines, covers, etc., shall be equal to County Specified Alhambra Foundry Co. products as shown in the County Road Standard Details. Any covers or facilities used or placed in bike paths, shall also be in accordance with the above and compatible with the appropriate sanitary district.
29. All drainage and erosion Control shall be per the Santa Barbara County Road Excavation Ordinance No. 1491 and/or the Santa Barbara County Grading Ordinance No. 3937. Any deviation from this requires approval from the Senior Development Engineer, County Grading Inspector, and/or the Road Maintenance Manager. All drainage and erosion control plans and/or calculations shall be submitted to the Road Division Permit Office for review and approval by the Senior Development Engineer or Flood Control Engineer, prior to construction. Special Note: The Permittee shall be responsible for correcting drainage and erosion problems resulting from their operations at the Permittee's expense. Additionally, the Permittee shall be responsible and liable for the immediate clean up of all mud and/or debris deposited onto the roadway as a result of their operation. The Permittee at Permittee's expense shall rectify any complaints or damages occurring from the Permittee's work project.

30. Any existing drainage flow lines, channels, etc., along County Roads shall be maintained by the Permittee or as directed by the Road Division Inspector. Drain lines to be placed through the curb face shall be a maximum of three inches in diameter and shall be cored. All other drains shall be as stated within Section 2-070 of the Santa Barbara County Road Division Standard Details entitled "Sidewalk Drain." The Permittee is responsible to maintain the structural integrity of sidewalk, driveway approach, curb areas where the drain/ irrigation pipe is installed.
31. Creek, Channel and/or Slope "Protection" shall be as stated in Detail Nos. (1 & 2) plates B-13-1 and B-13-2, outlined in the CalTrans Standard Plans, dated July 1992. Section (72) of the CalTrans "Standard Specifications," dated July 1992, may also be used as additional construction criteria. Erosion Control (Type D) shall conform to the provisions in Section 20-3, "Erosion," of the Santa Barbara County Standard Specifications and Special Provisions to be provided upon request. Final "slope" protection construction shall be as directed by the Santa Barbara County Flood Control Engineer, Road Maintenance Manager or Superintendent and/or Road Division Engineer.
32. Storm drain systems that are constructed within the County Road rights of way, shall be reviewed and approved by the Santa Barbara County Flood Control Manager and the Road Maintenance Manager. For installation of storm drains, see Road Standard Detail No. 1-040 for bedding and backfill requirements. Drop inlets shall be constructed per Santa Barbara County Road Division Standard Detail No. 2-025 with Class "A" concrete utilized on the bottoms and sides of these facilities.
33. Santa Barbara County Bridges, Box Culverts, etc. - Prior to the placement of any facility onto or within a bridge, box culvert, etc., and/or its abutment, all plans shall be reviewed and approved by the Santa Barbara County Bridge Engineer. Plans shall include as a minimum, location of proposed facilities; type of hangers/hardware; weight calculations, specifications, etc.
34. All landscaping shall conform to County requirements. A landscaping plan shall be submitted for approval with species, placement, quantities, etc. shown along with trees, shrubs, groundcover, etc. Sight distance, fixed object criteria, will be evaluated before plan is approved. Plan shall include irrigation facilities and a statement identifying the responsible party to water, and maintain the landscaped area within road right of way. All trees proposed shall adhere to the County Approved Tree List and if within ten feet of any hardscape (A.C. pavement, concrete, etc.) tree root barriers may be required. If a plan is not required, landscaping shall be replaced in kind to pre-permit condition. See County Ordinance No. 3703 for additional details. Contact the Road Division Permit Office for additional criteria.
35. It is the sole responsibility of the Permittee to "obtain and comply" with all applicable permit conditions, requirements and clearances from all Santa Barbara County Departments/Agencies, including Public Works, Planning & Development, etc., other Public Agencies, and any Community Plan (i.e.: Montecito Community Plan) approved and adopted by the County Board of Supervisors; including pertinent rules and regulations of the State of California and Federal Government pertaining to the above mentioned project, prior to the issuance of the Road Division Encroachment Permit. If this permit has been issued and it is determined that the Permittee has not obtained all permits required by law, this permit shall be "invalidated."
36. If any portion of this project enters into a known Native American/Chumash archaeological site, the Permittee shall be responsible for obtaining all clearances from other departments and agencies. This includes a Coastal Development Permit if necessary and any other applicable Permits required while performing work activities within a known Chumash site. The Permittee shall be responsible for all costs and liabilities incurred with their operation. Should any archaeological resources be revealed in the work vicinity or discovered during construction, the Permittee shall stop work in the immediate vicinity of the find and notify the Department's representative. The Permittee shall be responsible for costs associated with the evaluation of those finds, based on the recommendations of the archaeologists and the Native American monitor. Contact the Planning & Development Department for additional criteria.

37. The Permittee shall show proof that notice of construction has been given to all occupants and owners of real property located within the perimeters of the construction operation. This Notification compliance shall include all schools and/or agencies responsible for children. Whenever required by the Public Works Department, the Permittee shall provide at their expense crossing guards, etc., to facilitate the safe movement of children. Notification requirements and compliance shall be as outlined by the Public Works Department and the Planning & Development Department.
38. *When inclement weather is imminent, the Permittee shall take the necessary precautions to adequately protect the project site. No work is permitted during the "Red Flag" postings. If work is in operation when "Red Flag" warning is announced, stop the work and clear the road immediately. If work is allowed to continue by this office with the approval from the Fire Chief at the designated area, the Road Permit Inspector shall issue the "Red Flag Days" special conditions as an addendum to this permit.*
39. The Permittee may be required to obtain a Haul Permit prior to beginning construction activities at the discretion of the Road Encroachment Permit Office. If the Permittee is required to apply for a haul permit, a proposed Haul Route shall be submitted to the Road Encroachment Permit Office for review and approval at least 7 days prior to the start of construction. The haul route is required to cover the routes used for transporting any and all construction materials, i.e.: pipe, fittings and/or miscellaneous equipment. The materials shall be hauled under the following conditions: The Permittee assumes all liability for accidents resulting from their operations; accepts all clean up and road repair as directed by the Road Division Inspector and/or Engineer.
40. The Road Division Encroachment Permit Package shall be kept at the work site and must be shown upon request to any Department of Public Works representative. If this is not adhered to, it shall be considered to be a violation of permit requirements, and the work may be stopped or suspended if this requirement is not complied with immediately.
41. This permit is issued with the understanding that it does not establish a precedent. This encroachment permit is issued at the discretion of the Road Commissioner and the County Department of Public Works Road Division. It may be revoked or modified, at any time, at the sole discretion of the County of Santa Barbara, acting through the Road Commissioner and the Road Division. This encroachment permit does not grant the Permittee or the Permittee's successors or assigns any ongoing interest in the occupancy or use of the County road right-of-way or any improvements in the right-of-way except as specifically stated in the permit and while the permit is in force.
42. Unless stated within this road encroachment permit, or separate agreement, all costs incurred for work within the County Road rights of way, pursuant to this road encroachment permit shall be borne entirely by the Permittee. The Permittee hereby waives all claims for indemnification or contribution from the County of Santa Barbara for any such work. Indemnification shall be as outlined in the California Civil Code.
43. No party other than the Permittee or the Permittee's agent is allowed to work under this road encroachment permit.
44. The Permittee agrees, by the acceptance of this road encroachment permit, to properly maintain any encroachment within the County Road rights of way associated with this operation. This will include the inspection and repair of any damage to County facilities resulting from this road encroachment. The Permittee is responsible for the cost of all restoration, repair and County services resulting from the permitted work by authority of County Code and the Streets and Highways Code.
45. If any additional services of the Public Works staff are required, including Roads accounting, after payment of the initial Permit fee, the Permittee will be billed accordingly. Overtime compensation shall be paid at the current County rate and shall mean and include work prior to 7:00 a.m. and subsequent to 4:00 p.m., whether or not the total time of the work or improvement herein described exceeds eight hours on the date such overtime occurs. Overtime shall also include all work on Saturdays, Sundays or holidays as defined in the California Government Code, Section 6700. Bills are due and payable upon receipt. Denial for nonpayment of fees: Failure to pay Permit fees when due may result in rejection of future applications and denial of permits. All Permit fees/billings shall be paid before any Occupancy Clearance is granted.

46. The Permittee shall file the necessary bond(s) in advance, in the amount set by this Department. Failure to maintain bond(s) in full force and effect will result in suspension of all work and permit(s). Bonds are not required of public corporation or privately owned utilities, unless said Permittee failed to comply with provisions and conditions under a prior permit. Your surety (insurance) company will be responsible for any latent defects until such time as is provided for in the California Code of Civil Procedures, Section 337.15.

III. TRAFFIC REQUIREMENTS

1. The Permittee upon request shall submit a TRAFFIC MANAGEMENT PLAN to the Traffic Section, of the Santa Barbara Public Works Department, for review. This Plan shall be submitted no less than 7 days prior to the start of construction. This plan shall be for any encroachment and/or traffic operation performed on any county road, pedestrian path or bikeway. Work Area Traffic Control shall be in accordance with recognized standards (i.e.: latest California Manual on Uniform Traffic control Devices, WATCH California Joint Utility Traffic Control Committee, etc.) Deviations from recognized traffic standards may necessitate that a registered traffic engineer at the Permittee's expense prepares plans. This requirement shall be as directed by the County Public Works Department. Traffic Control Signing shall be in place forty-eight (48) hours prior to start of construction, and remain in place day or night for the duration of the construction operation. (FAILURE TO COMPLETE SIGNING MAY INVALIDATE YOUR PERMIT).
2. During working hours, a minimum of (1) 10 foot travel lane with Flaggers as required by the Road Division Inspector shall be maintained. Note: See CalTrans Standard Plan - Plate T13 or T-11 for additional criteria. During non-working hours, all travel lanes shall be open unless otherwise approved twenty-four (24) hours in advance by the Road Division Inspector.
3. Driveway or Parking access shall be interrupted only after 2 days advance notice by the Permittee to the property owner(s) affected. Driveway access shall be provided by the use of steel plates.
4. The Permittee shall immediately (within 24 hours) repair and/or replace all damaged Traffic Signal Devices, at his own cost. Note: See CalTrans Standard Specifications, Section 86-1.05 for additional details. "No Parking" on loop detectors will be allowed without prior approval from the Road Division Inspector. Special Note: If services are required of the Santa Barbara County Traffic staff as a result of damage to traffic devices during construction operations, the Permittee will be billed accordingly.
5. Working hours within Signalized Intersections shall be from (9:00 a.m. to 3:00 p.m.), Monday through Friday, or as directed by the Road Division Inspector. If Permit working hours is not adhered to, this Encroachment Permit may be subject to revocation. Any deviation from this schedule requires prior approval from the Road Division Inspector. Special Note: the Permittee and/or their contractor shall immediately comply with all direction given by Traffic Division staff. Any person who fails, neglects, or refuses to comply with any requirement shall be in violation of Section 28-53 of Chapter 28, Article 1 of Ordinance No. 1491. All violations of this or any other section of this chapter shall be strictly enforced. No saw cutting within or near a signalized intersection shall be performed within twenty-four (24) hours of the weekend. This specifically refers to work operations on Fridays, Saturdays, Sundays and holidays without prior written approval from the Road Division Inspector.
6. Work shall be planned and conducted as to create the least possible inconvenience to the traveling public. Traffic shall not be unreasonably delayed. The Permittee is authorized to place properly attired flaggers to stop or warn the traveling public. All flagging shall be in compliance with the current CalTrans "Manual of Traffic Controls".
7. All Road Closures shall be covered under an additional Road Encroachment Permit. This permit will cover working hours; traffic detours; the notification of emergency services i.e.: Sheriff, Fire, C.H.P., M.T.D., American Medical Response (ambulance) etc., local residents; schools; commerce; fees and special permit requirements.

NOTE: Failure to make all required notifications in advance of construction or to adhere to "any" permit requirement may invalidate this permit and result in forfeiture of bonds. In addition penalty fees may be imposed. Failure to complete "any" permit requirement, may also result in the denial of future permits.

Special Note: Ordinance Number 1491 Section #22 – Commencement of Completion of Work:

“Except in the case of annual permits, every permittee shall commence the proposed work within thirty (30) days after the granting of the permit or within such other time from thirty (30) days minimum to sixty (60) days maximum as the Road Commissioner shall specify, (or in the case of special single permits set out in Section 21 above, within thirty (30) days from the date when such permit becomes effective as to the particular job concerned) and thereafter shall prosecute the work to completion in a diligent and workmanlike manner and restore roads to their condition or as near as may be possible. The Commissioner may, for good cause excuse delay in commencement or completion of such work. In the event of unexcused delay or failure to commence, carry out or complete such work in the manner provided herein, the Commissioner may, in addition to any other remedies he may have, terminate or suspend such permit by notice in writing effective immediately upon personal delivery to permittee or his agent, or twenty-four hours after being deposited in the United States Mail addressed to permittee at the address shown on the application for permit except that the Commissioner may elect to have the work completed and the cost thereof charged to the permittee. Thereafter, no work shall be done under said permit unless and until it is reinstated by the Commissioner.”

Quiota Creek Crossing 8 Fish Passage Enhancement Project

Construction Site Dewatering Plan

The project proponent, Cachuma Operations and Maintenance Board (COMB), intends to remove an existing low flow concrete road crossing (Crossing 8) of Refugio Road on Quiota Creek and replace it with a 54-foot bottomless arched culvert to enable passage for all age classes of steelhead/rainbow trout (*Oncorhynchus mykiss*, *O. mykiss*) under the crossing. The project will improve riparian cover, functionality, and connectivity within the stream corridor by removing the road and concrete from the stream. The bottomless arched culvert is designed to convey the 50-year flood with one foot of freeboard and withstand the 100-year flood over the top, while providing a roughened stream channel, improve fish passage for juvenile and adult *O. mykiss*, and a safe road crossing. The design of the project is being reviewed by CDFW/NMFS as required under a Term and Condition of the 2019 Biological Opinion for the California Department of Fish and Wildlife Fisheries Restoration Grant Program (Regional General Permit 78). The project is located on Refugio Road, 3.01 miles upstream of the Santa Ynez River near the City of Santa Ynez (Lat 34.55858000 N, Long 120.08358000 W) (Figure 1). The project extent is the area around the existing passage impediment and the adjacent 200 foot long stream reach. Bank restoration will include some grading of the stream bank and then planting of native trees. The project will be constructed during the dry time of the year (late summer, early fall); hence any erosion issues resulting from project activities are expected to be minimal.

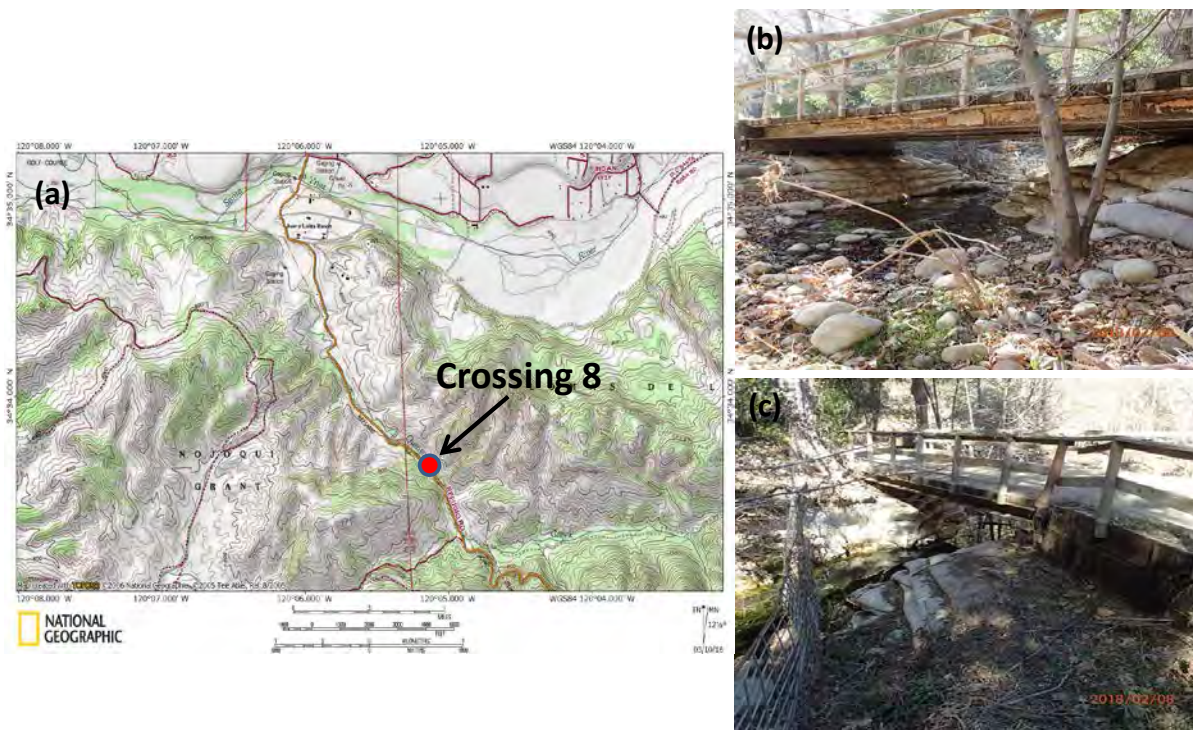


Figure 1: Quiota Creek Crossing 8 (a) project location, (b) view looking upstream under the temporary bridge and (c) view looking north across the temporary bridge on Refugio Road at the impediment.

Dewatering of the project site will be conducted if the site has water and once the erosion control and sediment retention measures are in place (see the Erosion Control Plan). COMB and its contractor will isolate the work space from any flowing stream water for the purpose of avoiding heavy equipment in flowing water creating turbidity, sedimentation, and direct effects to steelhead/rainbow trout. It is anticipated that the stream will contain a small amount of flowing water at that time of the year, and the project proponent will ensure continuous stream flow (if flowing) around the work space to below the project area at all times during the project. Stream flows to downstream reaches shall be provided at the same baseline stream flow quantity and water quality conditions as present at the upstream limit of the project area to continually support downstream aquatic life. COMB qualified fisheries biologists will continually monitor the placement and removal of any stream diversion system to isolate the work space from flowing water. They will also conduct all fish capture and relocation efforts as described in the project Fish Removal/Relocation Plan.

The following elements of the Construction Site Dewatering Plan outline the stream by-pass and subsurface dewatering systems that will be put in place. The dewatering systems will be done in a manner that shall prevent pollution and/or siltation to downstream reaches that could harm aquatic species. The by-pass pipe shall be inspected daily to ensure no seepage of water into or from the work area. The layout for the stream by-pass system was included in the project design currently being reviewed by CDFW/NMFS fish passage engineers.

Stream water will be diverted through an 8-inch HDPE pipe situated along one side of the creek (Figure 2). Approximately 200 feet of pipe will be used to convey water around the project site. The intake for the by-pass pipe will be just upstream of a constructed sandbag coffer dam stretching from bank to bank that will be lined with plastic sheeting (visqueen) to minimize leakage. Both the construction of the pipeline and building of the coffer dam will happen one and two days before actual dewatering will occur. Joined pieces of HDPE pipe will be glued together to prevent leakage of joined pieces. Each joined section will be stabilized with rock, soil, or construction lumber to prevent slippage and leakage as the pipe fills with water. Screening with a mesh size of 3 mm (approximately 1/8 inch) will be tightly fitted to the inlet and outlet of the by-pass pipe to prohibit steelhead/rainbow trout or other species from entering the pipe from either direction or being entangled within the screening mesh. Stream flow and velocities entering the by-pass pipe are anticipated to be low (or dry) during the project (less than 0.5 cfs) which will eliminate juvenile impingement concerns. Due to the anticipated low/zero flow during the construction and the inability of fish to migrate at such shallow stream depths, it will not be practical to provide unimpeded passage for steelhead during construction. Because of these factors, a greater biological benefit would be realized if no fish passage was provided, the project work area was isolated with the by-pass pipe and screening of the inlet and outlet of the pipe was done. The pipeline and screening materials will be inspected (and cleaned in the case of the screens) daily and any significant leaks/breaks immediately fixed. Inflow (if any) to the pipe will pass through several rocks placed along the thalweg just upstream to prevent any algae mats or leaf debris to clog the screened pipe intake. The outlet of the pipe will be held in place with sandbags and several weed-free hay bales will be placed just downstream of the end of the pipe to further filter the discharge and provide energy dissipation. Water from the pipe will discharge onto stream cobbles to slow

down the flow and allow sediment (if any) to drop out before reaching the thalweg of the undisturbed channel.

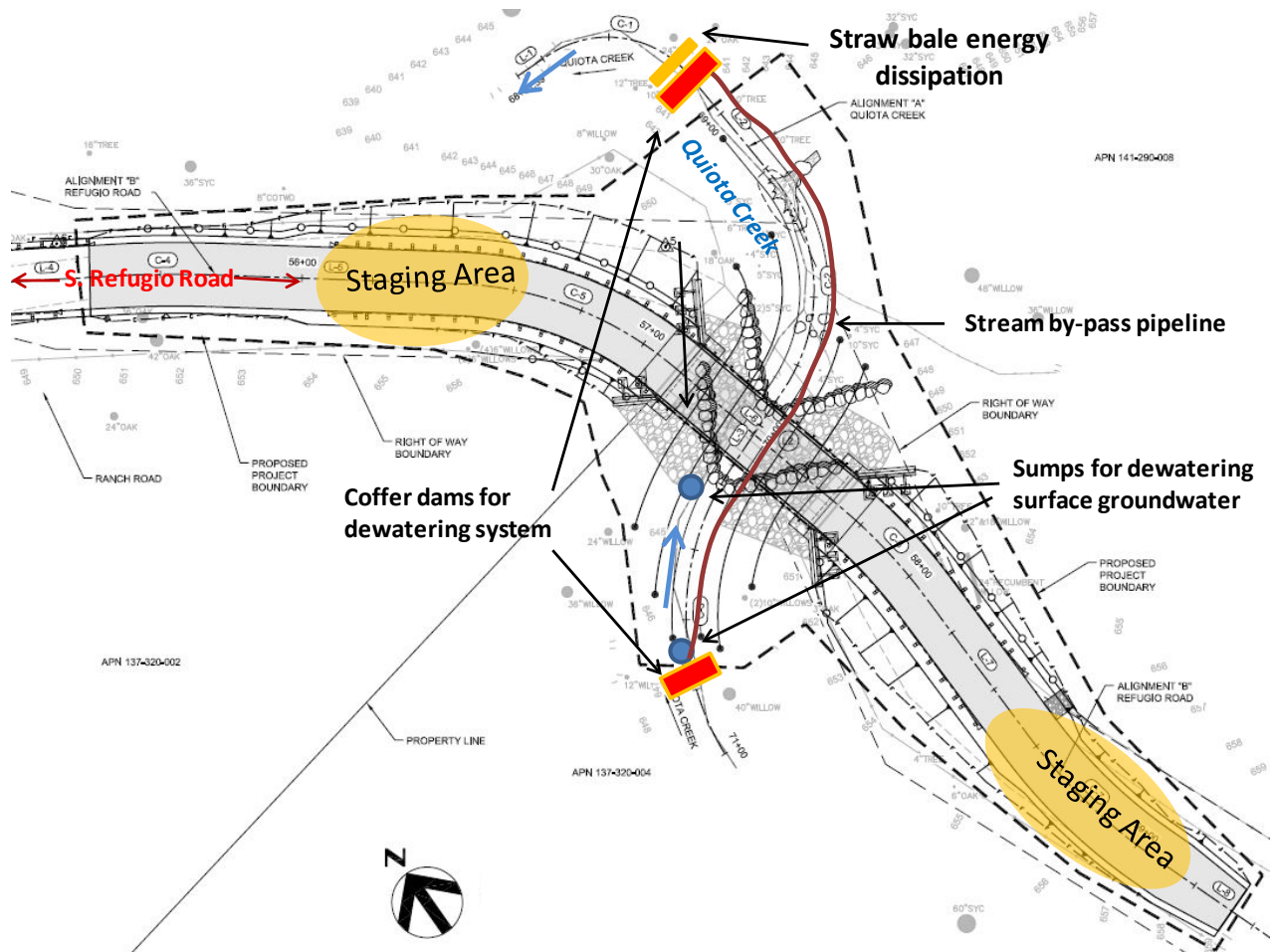


Figure 2: Site dewatering plan showing the stream by-pass system and sump for dewatering near surface groundwater.

When conducting the initial fish removal/relocation procedures, the stream by-pass system for the project area will be activated in the early morning hours between 7:00 AM to 10:00 AM to minimize overall stress to captured and relocated sensitive species before the increase of ambient daytime summer temperatures. Capture and relocation of aquatic species will follow the Fish Removal/Relocation Plan. Qualified COMB fisheries biologists will be on hand to conduct all sensitive species capture and relocation.

Dewatering of the subsurface will be done by placing clean perforated drums into the substrate at a depth just greater than the required excavation depth just downstream of the coffer dam. The part of the drum above the surface will be enclosed in screening with a mesh size no greater than 3 mm to ensure that debris and wildlife do not fall into the sump. Electric sump pumps (3/4-horse with a capacity of 68 gpm or greater) will be used to evacuate the water percolating into the drum which will create a topographic low point in the saturated media and allow for lowering of the groundwater table below the in-channel work area. One sump will be placed just downstream of the

coffer dam and a second in the vicinity of the bridge foundations as needed. The exact location of the sumps, discharge point and settling basin (if needed) will be at the discretion of the contractor, overseeing construction engineer, and field biologists. Water from the sumps will be discharged into a sedimentation basin to assure clear water discharge into the stream downstream of the project area. The intake for each sump pump will be screened to exclude any aquatic organism that may have ventured into the collection barrel. There will be backup pumps on-site at all times. Electricity for the pumps will be provided by gas powered generators that will be isolated from the environment by placing them in metal tubs to assure no contamination to the surrounding substrate. Pumps will be monitored throughout the work day to assure functionality and carefully checked at the close of each work day. The project proponent is prepared to have someone stationed at the site overnight if conditions warrant.

In the unlikely event of silty/turbid water is generated from the by-pass and subsurface dewatering systems or any other project activities, turbid waters shall not be discharged directly into the stream. Such water shall be settled and filtered in an off-channel system (settling basin) with outlet over straw and river cobbles before being discharged downstream of the project area. Treatment of turbid water is not expected given the project proponent's lengthy experiences with stream restoration projects in the Lower Santa Ynez River basin.

Water containing mud, silt or pollutants from equipment washing or other activities shall not be allowed to enter the stream or placed in locations that may be subject to high storm flows. These waters will be removed from the project site and disposed of responsibly.

If a significant storm runoff event is predicted, all pumps and diversion materials will be removed from the stream in advance of the storm in a manner that will not interrupt flow downstream if live stream conditions exist.

Once the project is completed, normal flows shall be restored to the affected stream immediately upon completion of the in-channel activities of the project. The groundwater collection system will be removed, stream water shall be routed back into the creek channel, and the entrance to the stream by-pass pipe will be slowly closed at incremental intervals. This will allow some flow to re-water the previously dry channel while at the same time keeping water flowing through the pipeline to downstream habitats. Once the stream flow reconnects in the undisturbed channel below the project area, the pipe entrance will be completely closed, drained of water, checked for organisms, and the by-pass pipe and coffer dams removed to allow free flowing water through the completed project area.

Quiota Creek Crossing 8 Fish Passage Enhancement Project

Erosion Control Plan

The project proponent, Cachuma Operations and Maintenance Board (COMB), intends to remove an existing low flow concrete road crossing (Crossing 8) of Refugio Road on Quiota Creek and replace it with a 54-foot bottomless arched culvert to enable passage for all age classes of steelhead/rainbow trout (*Oncorhynchus mykiss*, *O. mykiss*) under the crossing. The project will improve riparian cover, functionality, and connectivity within the stream corridor by removing the road and concrete from the stream. The bottomless arched culvert is designed to convey the 50-year flood with one foot of freeboard and withstand the 100-year flood over the top, while providing a roughened stream channel, improve fish passage for juvenile and adult *O. mykiss*, and a safe road crossing. The design of the project is being reviewed by CDFW/NMFS as required under a Term and Condition of the 2019 Biological Opinion for the California Department of Fish and Wildlife Fisheries Restoration Grant Program (Regional General Permit 78). The project is located on Refugio Road, 3.01 miles upstream of the Santa Ynez River near the City of Santa Ynez (Lat 34.55858000 N, Long 120.08358000 W) (Figure 1). The project extent is the area around the existing passage impediment and the adjacent 200 foot long stream reach. Bank restoration will include some grading of the stream bank and then planting of native trees. The project will be constructed during the dry time of the year (late summer, early fall); hence any erosion issues resulting from project activities are expected to be minimal.

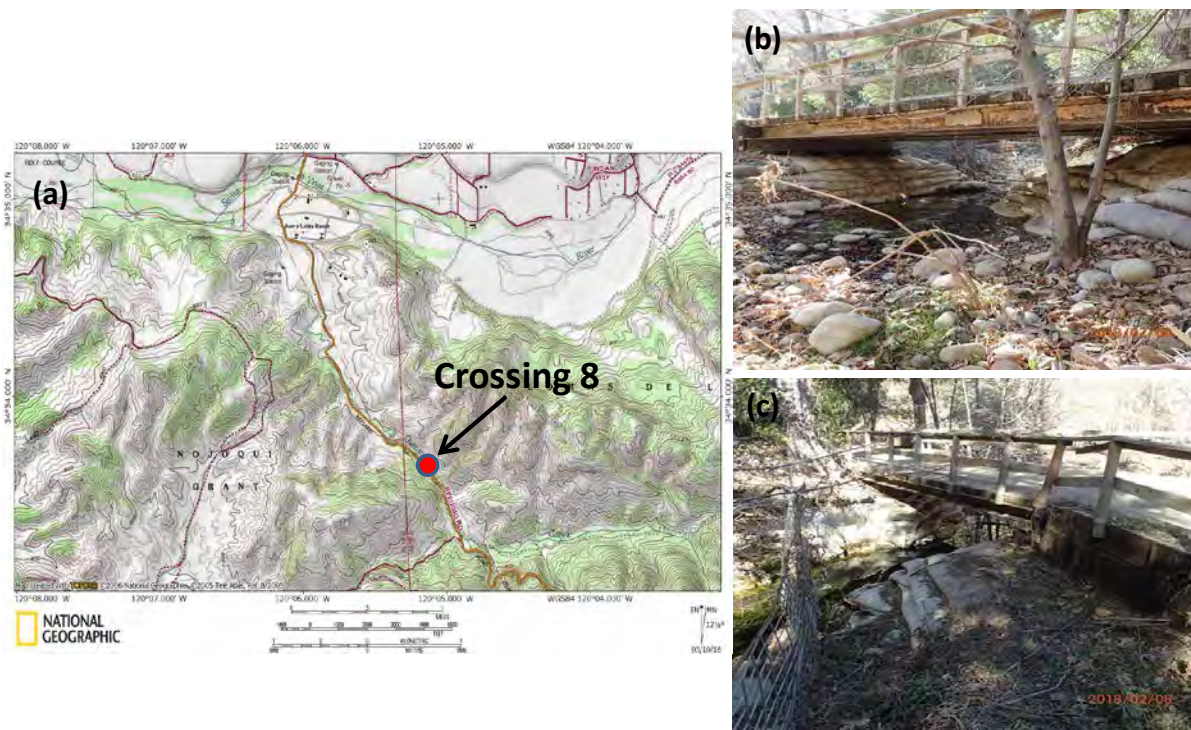


Figure 1: Quiota Creek Crossing 8 (a) project location, (b) view looking upstream under the temporary bridge and (c) view looking north across the temporary bridge on Refugio Road at the impediment.

Erosion control and sediment retention measures will be used during project construction and are temporary in nature following standard best management practices and Regional Water Quality Control Board 401 Permit guidelines for this project. All erosion control and sediment retention measures will be installed prior to any disturbance within the project area. The main sediment control components to be used on Quiota Creek Crossing 8 Project will include: hay bales or circular straw bales, silt fencing, careful construction and operation of the project site dewatering system (see Construction Site Dewatering Plan), and a staging area at least 100 feet away from the riparian corridor. All hay and straw used in the project will be weed-free certified. The project proponent has ample experience with stream restoration projects within the Lower Santa Ynez River basin and has successfully applied these erosion control measures in all previous projects.

The following Erosion Control Plan details the measures to be taken to minimize disturbance within and outside of the project area during construction activities and are shown in Figure 2.

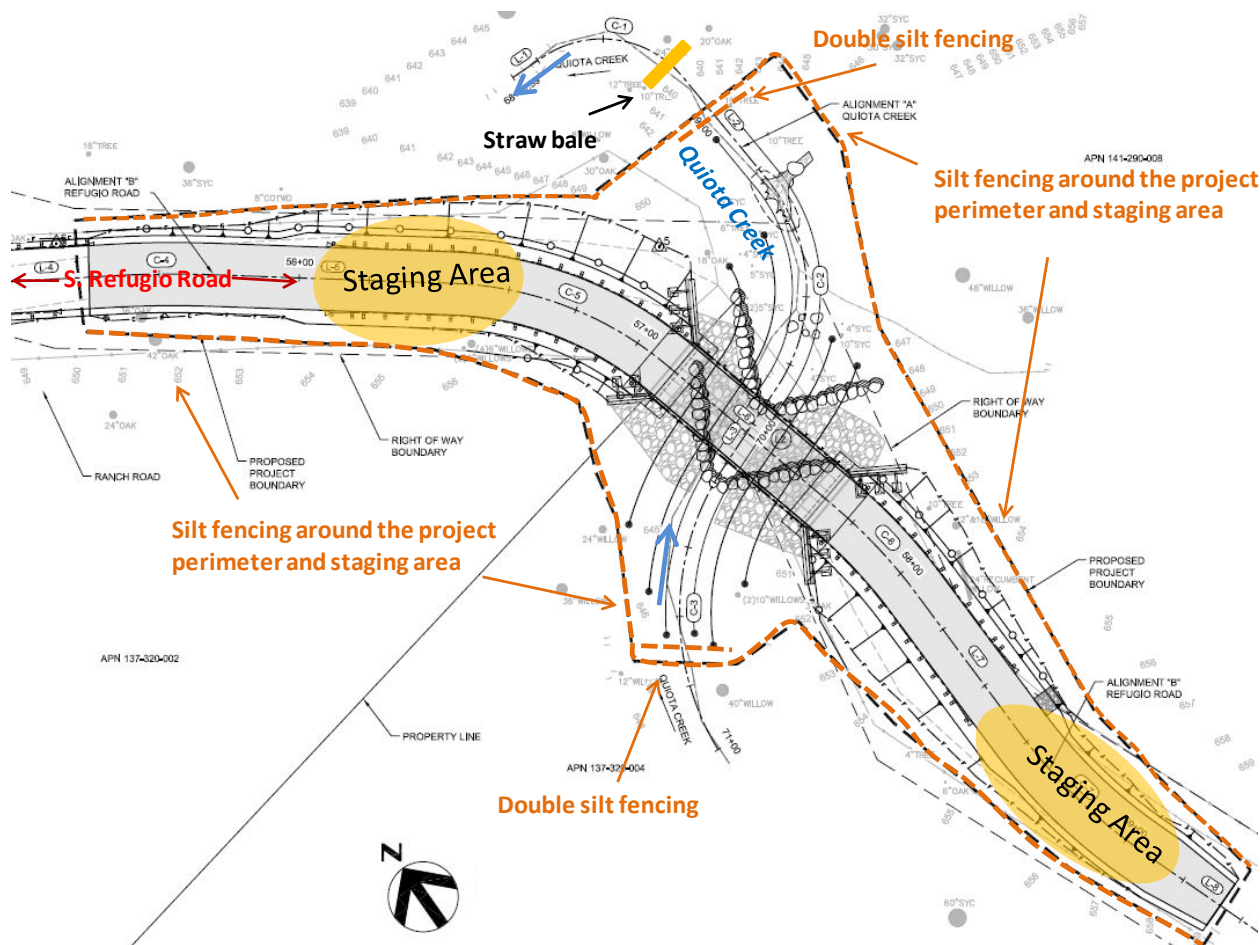


Figure 2: Project area showing erosion control actions such as the staging area, perimeter silt fencing and instream hay bales at lower extent of the project.

Erosion Control Measures

The following erosion control and sediment retention measures will be followed throughout the proposed project at the Quiota Creek Crossing 8 Fish Passage site even though the creek may be dry throughout project construction.

- Staging and storage areas will be located on S. Refugio Road on the north and south of the bridge location at a minimum of 100 feet away from the riparian corridor of Quiota Creek and. Both areas are highly disturbed road surfaces or pull out road shoulders that are adjacent to the road and will not need any tree or shrub removal to facilitate their use.
- Hay bales and/or circular straw bales (weed-free certified) in several longitudinal layers will be placed on the downstream edge of the stream by-pass system in the channel before construction starts to prevent offsite sediment migration in the event of rainfall or break in the stream by-pass system.
- Silt fencing will be placed around the perimeter of the entire project area including the staging area. A second line of silt fencing will be installed perpendicular to the flow-line within the creek bottom at the upstream and downstream end of the project site to reduce the potential for any siltation caused by construction activities to move downstream, as well as to prevent animals from entering the project site from below.
- The stream by-pass and shallow groundwater dewatering systems will be carefully installed during the first phase of the construction project to assure full dewatering of the site and minimize any excavation in saturated soils (see the Construction Site Dewatering Plan). The outlet pipe of the by-pass system will discharge at a low velocity on creek cobbles that will not induce any erosion or turbidity issues. It is anticipated that the stream will be dry.
- All spoil piles from excavation and preparation of materials for riffle and rock slope protection construction will be situated near the staging area and down in the dewatered streambed off of the thalweg. In the event of an out of season storm event where rain is forecasted or when high wind is expected, spoil piles will be covered with plastic sheeting (visqueen) to prevent sediment inputs to the creek and surrounding area.
- Erosion control measures will be inspected daily by the biological monitors on site to insure the measures are functioning properly. A check-sheet will be used to validate and document monitoring.
- Water containing mud, silt, or pollutants from equipment washing or other activities, shall not be allowed to enter the stream or placed in locations that may be subject to high storm flows. Any washing or refueling will be done in the staging area off of Refugio Road away from the riparian corridor. Equipment will arrive clean at the beginning of the project prior to starting the job. The equipment will be inspected daily for leaks prior to entering the riparian corridor. If a leak is found, the mechanical problem will be dealt with prior to that equipment reentering the riparian corridor.
- The site will be re-vegetated as outlined in the project's Revegetation Plan for planting, seeding, and mulching that will use only native species and natural materials (see attached plan).
- All erosion control materials will be removed at the end of the project.

Quiota Creek Crossing 8 Fish Passage Enhancement Project

Fish Removal/Relocation Plan

The project proponent, Cachuma Operations and Maintenance Board (COMB), intends to remove an existing low flow concrete road crossing (Crossing 8) of Refugio Road on Quiota Creek and replace it with a 54-foot bottomless arched culvert to enable passage for all age classes of steelhead/rainbow trout (*Oncorhynchus mykiss*, *O. mykiss*) under the crossing. The project will improve riparian cover, functionality, and connectivity within the stream corridor by removing the road and concrete from the stream. The bottomless arched culvert is designed to convey the 50-year flood with one foot of freeboard and withstand the 100-year flood over the top, while providing a roughened stream channel, improve fish passage for juvenile and adult *O. mykiss*, and a safe road crossing. The design of the project is being reviewed by CDFW/NMFS as required under a Term and Condition of the 2019 Biological Opinion for the California Department of Fish and Wildlife Fisheries Restoration Grant Program (Regional General Permit 78). The project is located on Refugio Road, 3.01 miles upstream of the Santa Ynez River near the City of Santa Ynez (Lat 34.55858000 N, Long 120.08358000 W) (Figure 1). The project extent is the area around the existing passage impediment and the adjacent 200 foot long stream reach. Bank restoration will include some grading of the stream bank and then planting of native trees. The project will be constructed during the dry time of the year (late summer, early fall); hence any erosion issues resulting from project activities are expected to be minimal.

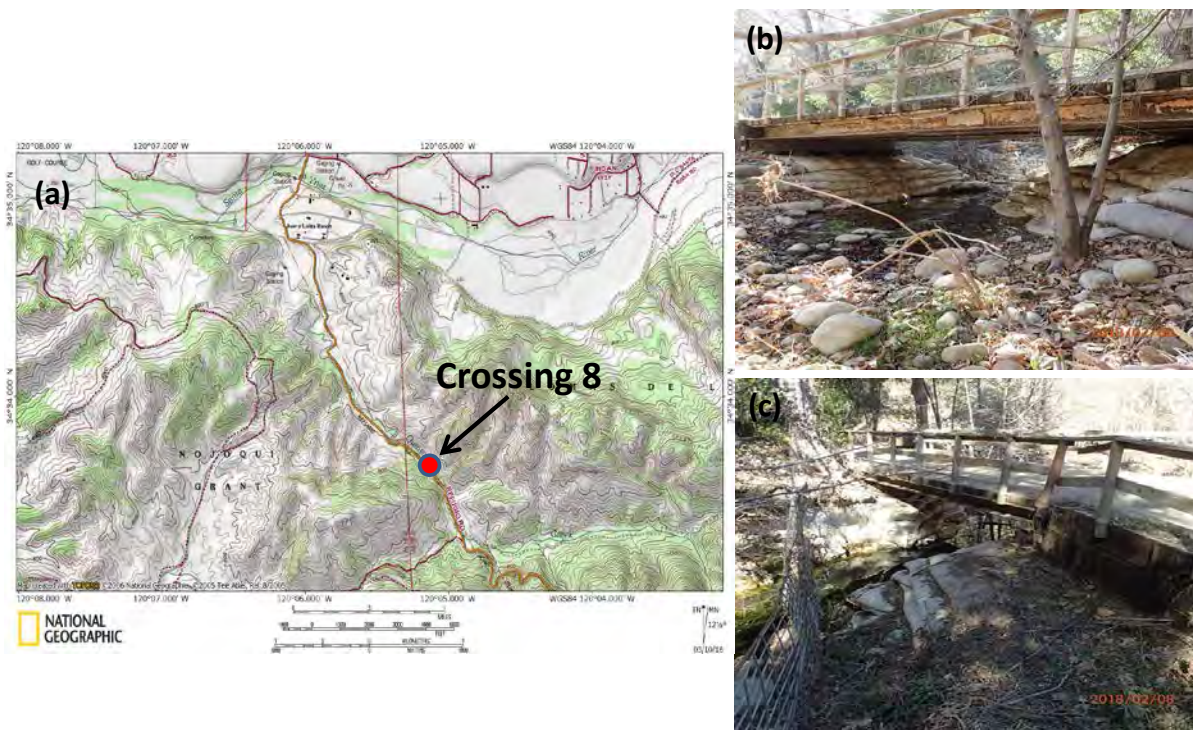


Figure 1: Quiota Creek Crossing 8 (a) project location, (b) view looking upstream under the temporary bridge and (c) view looking north across the temporary bridge on Refugio Road at the impediment.

During construction of the project, approximately 200 feet of stream habitat will be impacted. It is anticipated that the creek will contain very low flow conditions (or will be dry) at this location during the proposed project based on observations by COMB biologists who have conducted monitoring activities in the area since 1995. In the event water is flowing through the project site, COMB biologists will carefully look for, capture, and relocate any aquatic species to an appropriate habitat following National Marine Fisheries Service (NMFS) approved methods as stated in the Cachuma Project Biological Opinion (BO), Reasonable and Prudent Measure (RPM) 8.12 (2000). A fish relocation monitoring datasheet will be kept and submitted to NMFS and California Department of Fish and Wildlife (CDFW). Although unlikely, if steelhead/rainbow trout are hurt or parish during the fish relocation effort, NMFS will be notified immediately as stipulated in the BO (RPM 8.13). The project will use the CDFW-FRGP Programmatic Biological Opinion from U.S. Fish and Wildlife Service (USFWS) for California red legged frogs. COMB biologists are certified by USFWS and will carry out the Reasonable and Prudent Measures as presented in the USFWS BO for the project.

One or two days before fish relocation activities begin if necessary, the contractor would install a water diversion pipeline and construct the coffer dam to the point where the coffer dam is nearly finished (see the Construction Site Dewatering Plan). COMB biologists during that time will survey upstream and downstream of the project site to locate the most suitable habitats to relocate fish within Quiota Creek. The relocation site(s) will have the same or better habitat quality/complexity as the removal site and not be inhabited by any exotic predatory species. The relocation site(s) will also be in close proximity to the removal site to reduce transport stress to captured fish and maintain similar water quality conditions. Different release locations will be selected for different life-stages of captured fish and biologists will be careful not to over populate any one specific habitat. There are several large pools upstream of the project site with enough instream complexity, depth, and cover that will be considered as a potential release point for relocated aquatic species. Again, relocation site selection will be investigated just prior to construction to assure the best possible relocation sites.

The methods used for capturing fish will include seining and dip netting. All removal/relocation activities will occur in the early morning hours (7:00 AM to 10:00 AM) of the day to take advantage of cooler conditions when moving fish. The biologists will minimize handling of steelhead/rainbow trout and when handling is necessary, the biologists will always wet hands or nets prior to touching fish.

Biologists will begin capturing fish as dewatering is initiated and habitat area shrinks. If the site is too deep or habitat complexity too great to seine/net, biologists will begin capturing fish as the water level is reduced. If pumping is required to reduce water depths for the removal of fish, the biologists will place a mesh net around any electrical sump pump (maximum 3 mm, approximately 1/8 inch, mesh) to prevent sensitive species from being entrained by the pump. Captured fish will be held in 5-gallon buckets with a lid that contains cool, shaded water that will be continuously aerated with a battery powered external aerator. Captured fish will not be overcrowded and water quality in the containers will be constantly monitored and not allowed to exceed levels allowed by NMFS, for example 20°C (68°F), as stated in the Monitoring Program of the revised Biological Assessment (USBR, 2000). If site water quality conditions exceed 20°C, removal/relocation activities will be postponed until the following day. Large fish will not be placed together with

small fish in order to avoid predation. Prior to releasing fish into receiving waters, biologists will ensure that the temperature of the holding water is similar to receiving waters by equalizing temperatures as necessary. This will be done by pouring small amounts of creek water into the buckets and then checking the temperature. When relocating any aquatic species, the equilibration process will occur slowly to avoid any temperature shock to captured specimens. When the temperature between the holding bucket and the receiving water is equal, the fish will be released into the habitat. Once all the fish and other aquatic species have been removed from the site, the stream will be completely diverted through the by-pass pipeline system. A blocking seine will be set immediately downstream of the coffer dam to prevent fish from re-entering the construction site in case the coffer dam leaks or fails.

Pursuant to the Cachuma Project BO (2000) RPM 8, qualified fisheries biologists will be employed to do all fish removal and relocation, will be empowered to halt any construction activity if a concern arises, will report immediately to NMFS any steelhead found dead or injured in the project area, and will provide to NMFS information on the location, cause, and time of the injury or death if known.

Quiota Creek Crossing 8 Fish Passage Enhancement Project

Maintenance and Monitoring Plan (post-construction) (Implementation, Effectiveness and Performance)

The project proponent, Cachuma Operations and Maintenance Board (COMB), intends to remove an existing low flow concrete road crossing (Crossing 8) of Refugio Road on Quiota Creek and replace it with a 54-foot bottomless arched culvert to enable passage for all age classes of steelhead/rainbow trout (*Oncorhynchus mykiss*, *O. mykiss*) under the crossing. The project will improve riparian cover, functionality, and connectivity within the stream corridor by removing the road and concrete from the stream. The bottomless arched culvert is designed to convey the 50-year flood with one foot of freeboard and withstand the 100-year flood over the top, while providing a roughened stream channel, improve fish passage for juvenile and adult *O. mykiss*, and a safe road crossing. The design of the project is being reviewed by CDFW/NMFS as required under a Term and Condition of the 2019 Biological Opinion for the California Department of Fish and Wildlife Fisheries Restoration Grant Program (Regional General Permit 78). The project is located on Refugio Road, 3.01 miles upstream of the Santa Ynez River near the City of Santa Ynez (Lat 34.55858000 N, Long 120.08358000 W) (Figure 1). The project extent is the area around the existing passage impediment and the adjacent 200 foot long stream reach. Bank restoration will include some grading of the stream bank and then planting of native trees. The project will be constructed during the dry time of the year (late summer, early fall); hence any erosion issues resulting from project activities are expected to be minimal.

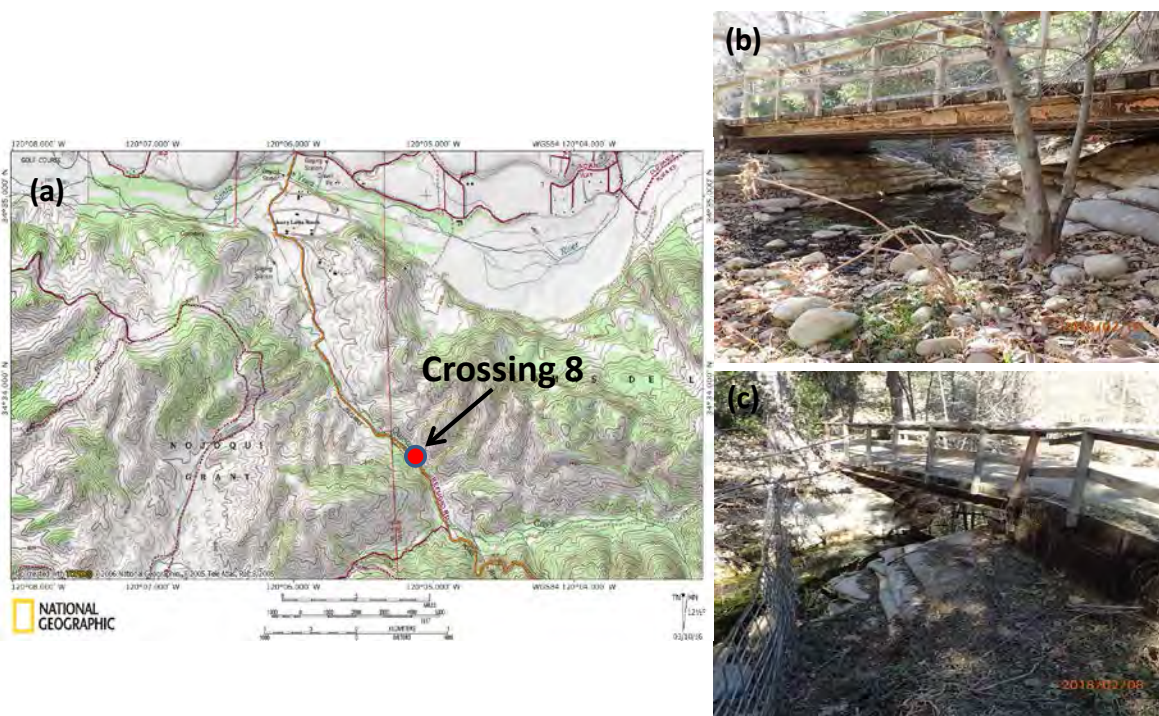


Figure 1: Quiota Creek Crossing 8 (a) project location, (b) view looking upstream under the temporary bridge and (c) view looking north across the temporary bridge on Refugio Road at the impediment.

The purpose of post-construction maintenance and monitoring activities at the Quiota Creek Crossing 8 site is to validate that the constructed project was done to design specifications both in structural integrity and fish passage potential. Activities include:

1. **Implementation Monitoring:** Biological monitoring will be conducted throughout the project to assure compliance with all project permits.
2. **Effectiveness Monitoring:** Monitoring of the stream channel will be conducted to record if design specifications over time are met and ensure that the instream elements freely convey flow and maintain the integrity of the creek channel.
3. **Performance Monitoring:** Further monitoring will be conducted to ensure a) physical design elements are maintained over time (configuration and function), b) biological objectives for *O. mykiss* to use and migrate through the project area through redd surveys, juvenile and adult abundance snorkel surveys, and use of developed habitat at the project site for rearing through bank observations, and c) verify that short- and long-term revegetation is successful in and around the project site in accordance with the Revegetation Plan.
4. **Maintenance:** At the end of each rainy season, COMB will evaluate the constructed facility to determine if it is still meeting design specifications. If it has been compromised, COMB will then look for funding to bring it back to design standards. COMB will visit the site after every large storm flow event to clear debris to assure no blockage of the facility due to debris build up. Also, there will be a review of the success of the revegetation in the fall.
5. **Reporting:** An end of project report will be submitted to NMFS, CDFW, and the Central Coast Water Board with the as-built drawings within 30-days of finishing the project. Every subsequent year at the end of the fall, an annual report will be submitted to NMFS, CDFW and the Central Coast Water Board that will document the effectiveness, performance and maintenance of the facility and revegetation effort.

The maintenance and monitoring activities during the course of the water year (October through September) are shown in Table 1 and described below.

Table 1: Quiota Creek Crossing 8 Project – maintenance and monitoring activities during the water year starting in 2019; watering will be as needed depending on antecedent soil moisture conditions and maturing of the trees.

Tasks	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Debris Clearing												
Snorkel Surveys												
Spawning Surveys												
Bi-monthly Tree Watering												
Watering As Needed												
Maintenance review												
Revegetation review												
Reporting												

Conveyance of flow through the Quiota Creek Crossing 8 Project Site: The Quiota Creek drainage can be described as a flashy system capable of producing large flows and moderate debris loads. The ultimate goal of the project is to allow adult and juvenile steelhead/rainbow trout passage upstream and downstream of the project site. It is possible that large woody debris may be entrained within the project site, restricting steelhead/rainbow trout access to upstream locations.

COMB biologists will be monitoring the culvert/bridge to evaluate potential passage impediments and to clear debris, as appropriate, after every significant stormflow event, specifically to maintain the pool habitat and passage ability of the bottomless arched culvert. Routine inspection and maintenance will be incorporated into COMB's annual migrant trapping efforts that are conducted during the wet season of the year when there is the highest probability of elevated stream flow. Any debris that appears likely to impede migration will be removed from the site and placed downstream. Small woody debris, sediment, and detritus found within any section of pool that is not impeding migration will be left for cover and deemed a positive instream element unless there is the potential for causing a future impediment within the project site.

Monitoring steelhead/rainbow trout use and passage through the Quiota Creek Crossing 8

Project Site: Beginning in the fall of 2019, COMB biologists will incorporate monitoring of the project site into their regular snorkel surveying activities. Snorkel surveys include documenting all observed species of fish into 3-inch size classes that is broken out by habitat type. It is hoped that upon completion of the project in the fall of 2019, steelhead/rainbow trout will re-populate the area from upstream seed populations and begin using the project site as passage habitat. The 2020 spring and summer snorkel surveys will help verify this expected result with the fall 2019 survey setting the baseline condition.

In order to verify fish passage upstream of the project site, COMB biologists will conduct spawning surveys upstream of the project site in the winter and spring if flowing conditions are present. Several reaches within Quiota Creek (located upstream and downstream of the Crossing 8 Project site) are already part of COMB's regular spawning survey monitoring program. If any large spawning sites are observed upstream of the site, this would be an indication of successful upstream passage by large anadromous steelhead through the project area. Smaller spawning sites could come from resident steelhead/rainbow trout residing in the upper portion of the watershed, and not necessarily indicative of successful upstream passage through the project site. If the number of redds observed increases significantly from years past in the areas of routine monitoring, this will also be an indication of successful passage through the project site. Several consecutive years of spawning surveys may be necessary to verify successful upstream passage by anadromous steelhead, and any confirmed observations of adult steelhead or large spawning sites will be included in an annual report to NMFS at the end of each calendar year.

Monitoring short- and long-term revegetation within the Quiota Creek Crossing 8 Project

Site: The growth and survival of individual trees planted within the project site will be tracked following the Revegetation Plan. Trees planted in the revegetation area will be watered on a bi-monthly (once every two weeks) basis during the dry season following project completion. Trees will be watered by COMB depending on ambient soil moisture conditions after winter rains. Required plant survival rates are described in the Revegetation Plan. In order for revegetation to be determined a success, trees will need to be entirely without supplemental water for a minimum of 2 years. Any trees that perish will be replaced as soon as practical following the protocols in the Revegetation Plan.

Watering will be done by hand using low pressure hoses attached to a 1000 gallon water tank which will be transported on a trailer. Between 5 to 10-gallons of water will be used per tree during each watering. Irrigation water will be obtained from the Lake Cachuma, not Quiota Creek.

Inspection and monitoring will occur every other week through the dry months and after each significant stormflow event during the wet months for the next three years (October 2022). Following bi-monthly watering, biologists will document the monitoring and maintenance that will detail observations and any concerns regarding the health of the trees and other planted vegetation.

Performance of each maintenance task: COMB Biologists as appointed representatives of Reclamation and owner of the Cachuma Project Biological Opinion (BO) will perform each maintenance and monitoring task.

Archiving records about performance and maintenance tasks: Records will be kept both digitally and on field datasheets at the COMB office (3301 Laurel Canyon Road, Santa Barbara, CA 93105) by those performing the inspections, maintenance, and monitoring. An annual report of the status of the project will be provided to NMFS and CDFW as part of the annual reporting requirements of the BO (Reasonable and Prudent Measure [RPM] 11) and project specific reporting regarding fish relocated for the project (RPM 8.17), revegetation activities (RPM 8.18), and long-term revegetation success (RPM 8.19).

Quiota Creek Crossing 8 Fish Passage Enhancement Project Revegetation Plan

The project proponent, Cachuma Operations and Maintenance Board (COMB), intends to remove an existing low flow concrete road crossing (Crossing 8) of Refugio Road on Quiota Creek and replace it with a 54-foot bottomless arched culvert to enable passage for all age classes of steelhead/rainbow trout (*Oncorhynchus mykiss*, *O. mykiss*) under the crossing. The project will improve riparian cover, functionality, and connectivity within the stream corridor by removing the road and concrete from the stream. The bottomless arched culvert is designed to convey the 50-year flood with one foot of freeboard and withstand the 100-year flood over the top, while providing a roughened stream channel, improve fish passage for juvenile and adult *O. mykiss*, and a safe road crossing. The design of the project is being reviewed by CDFW/NMFS as required under a Term and Condition of the 2019 Biological Opinion for the California Department of Fish and Wildlife Fisheries Restoration Grant Program (Regional General Permit 78). The project is located on Refugio Road, 3.01 miles upstream of the Santa Ynez River near the City of Santa Ynez (Lat 34.55858000 N, Long 120.08358000 W) (Figure 1). The project extent is the area around the existing passage impediment and the adjacent 200 foot long stream reach. Bank restoration will include some grading of the stream bank and then planting of native trees. The project will be constructed during the dry time of the year (late summer, early fall); hence any erosion issues resulting from project activities are expected to be minimal.

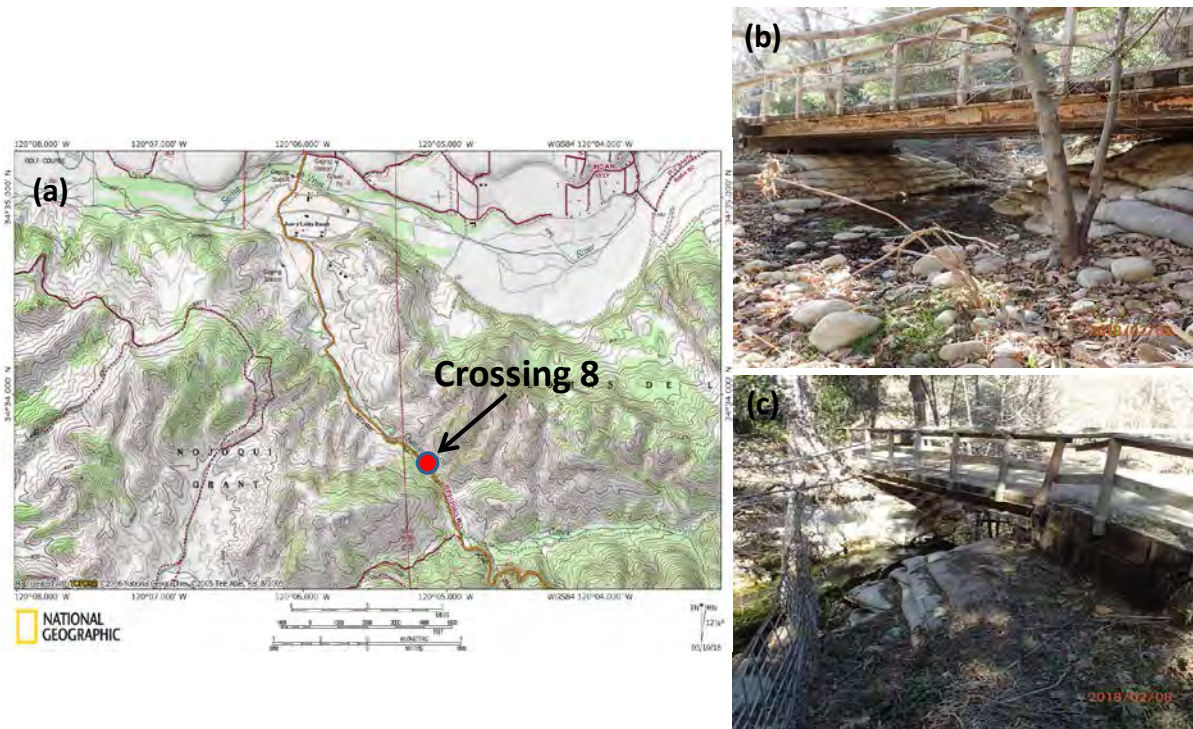


Figure 1: Quiota Creek Crossing 8 (a) project location, (b) view looking upstream under the temporary bridge and (c) view looking north across the temporary bridge on Refugio Road at the impediment.

COMB will take special precautions to flag or fence off any Hoffmann's Bitter Gooseberry (*Ribes amarum* var. *hoffmannii*) found within or in close proximity to the construction area. In addition, a Certified Arborist will be on sight during any clearing, grubbing, and excavations to safeguard as best as possible any trees (specifically oaks and sycamores) to eliminate or minimize any impacts. That Arborist should revisit the site one and five years later to assure any impacted tree have survived. If an impacted tree from the project construction does not survive, then COMB will plant like type trees at the established mitigation ratio within the project permits.

Revegetation of the project site will be conducted by COMB. Planting protocols will follow standard and accepted techniques developed by the California Conservation Core (CCC) and California Department of Fish and Wildlife (CDFW). The objective of this revegetation effort is to restore temporarily disturbed areas to pre-construction condition or better. Prior to construction activities, the COMB staff will meet with the contractor to discuss the construction footprint and project elements. COMB staff will tally the number and species of trees that will be removed. All coast live oaks, alders, and sycamores that are damaged or removed shall be replaced in kind at a 10:1 ratio. Valley oaks shall be replaced in kind at a 15:1 ratio. Elderberry, cottonwood, and willows shall be replaced at a 5:1 ratio.

The anticipated areas to be disturbed within the project boundary can be seen in Figure 2. The approximate revegetation area is 4,500 square feet. Revegetation efforts will be conducted along the stream banks and riparian corridor inside of the project area at appropriate and natural spacing. The staging areas will be located on S. Refugio Road on both sides of the bridge installation site where no trees will be disturbed.

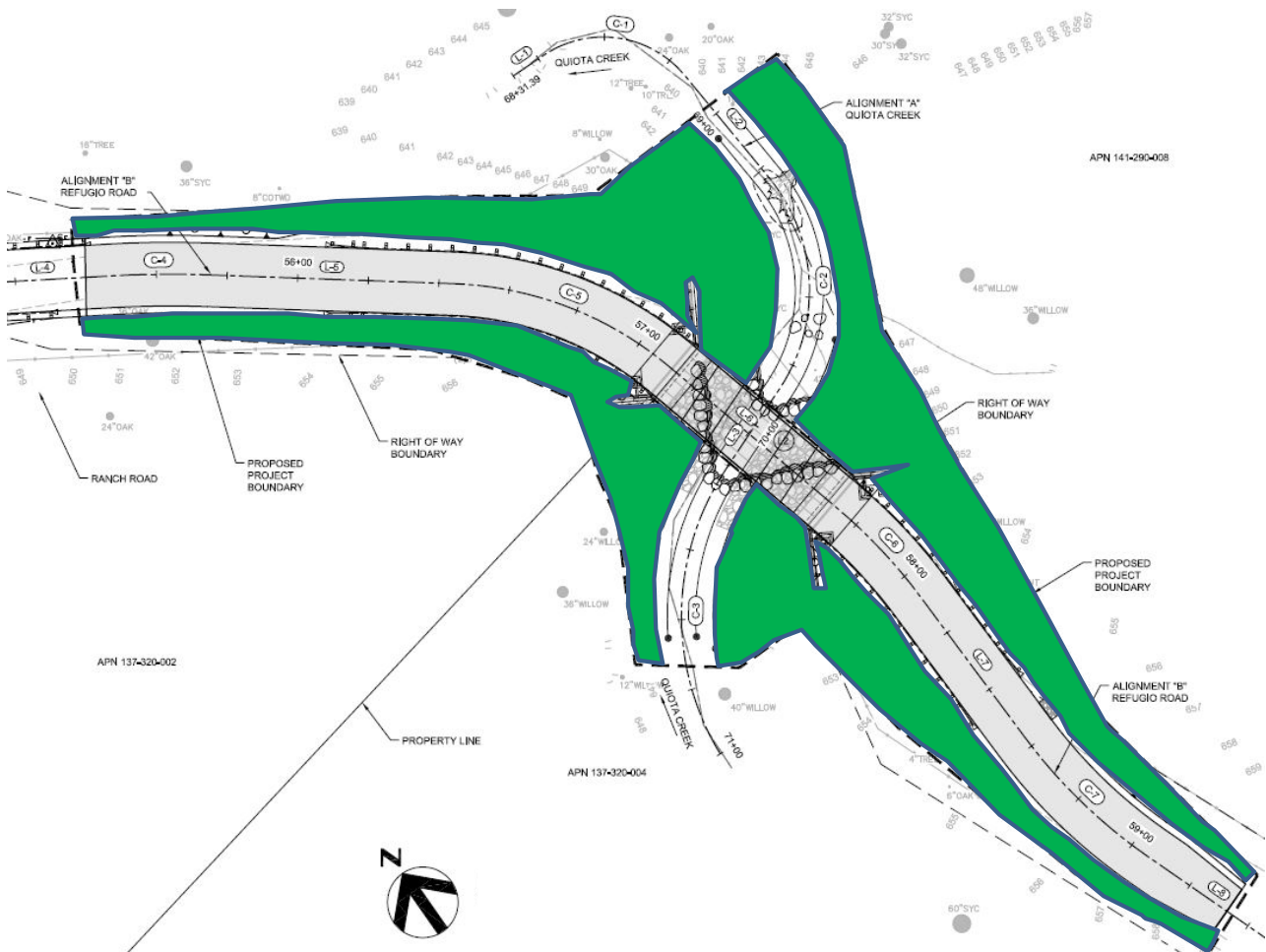


Figure 2: Revegetation (hydro-seeding and tree planting) areas within the project perimeter of Crossing 8.

Planting will follow both a passive and active approach where native local plant species shall be used for revegetation. The passive planting approach will be in the form of hydro-mulch/seed mix that will be sprayed over disturbed areas following construction activities. This will include the staging area. The seed mix will be all native local species (using the same mix that has historically been approved by CDFW) using natural mulch materials (Table 1).

The active planting approach involves planting rooted trees along the disturbed areas and following established CDFW tree survival criteria. All plantings must have a minimum of 80% survival the first year and 100% survival thereafter and/or shall attain 75% cover after 3 years. Prior to the site(s) being determined successful, the plants shall be entirely without supplemental irrigation for a minimum of two years, no single species shall constitute more than 50% of the vegetative cover, and no woody invasive species shall be present and herbaceous invasive species shall not exceed 5% of the cover. If the survival, cover, and other requirements have not been met, replacement plantings will be needed to achieve the necessary requirements. Any replacement tree stock, which cannot be grown from cuttings or seeds, shall be obtained from a native plant nursery preferably from a local business. Replacement plants shall be monitored with the same survival and growth requirements until the criteria have been met. Where suitable vegetation or hydro-mulched seed

mix cannot reasonably be expected to become established, non-erodible materials, such as coconut fiber matting, shall be used for such stabilization; this technique is not expected to be needed.

Table 1: Seed mix and hydro-mulch slurry components that will be used for the revegetation effort and previously approved by CDFW.

Species	Pure Live Seed Lbs/Acre
<i>Agrostis pallens</i>	2
<i>Distichlis spicata spicata</i>	1
<i>Eschscholzia californica</i>	1
<i>Leymus condensatus</i>	2
<i>Leymus triticoides</i>	4
<i>Melica imperfecta</i>	4
<i>Muhlenbergia rigens</i>	0.5
<i>Nassella cernua</i>	3
<i>Nassella lepida</i>	2
<i>Nassella pulchra</i>	4
<i>Poa secunda</i>	3
<i>Sisyrinchium bellum</i>	1.5
Slurry Components	Lbs/Acre
Flextara flexible growth medium/Enkamat 7010 TRM	3500
AM-120 Mycorrhizal inoculum	60
Tri C Humate	800

Immediately after construction, graded banks will be covered with hydro-mulch that contains the native seed mix. After the first rains, usually November – December, tree species will be planted in an irregular pattern at least 15 foot centers. Tree wells will be constructed around plants and loose soil will be placed into the hole to elevate the trees to the desired height. Following installation, the trees will be watered to fill the tree well. The area around trees will be mulched to maintain soil moisture and inhibit weed growth.

Watering will be done by hand using low pressure hoses attached to either a 1000 gallon water tank which will be transported on a trailer or a 2000 gallon water truck. Between 5 to 10-gallons of water will be used per tree during each watering. Irrigation water will be obtained from the Lake Cachuma, not Quiota Creek. Irrigation timing will initially begin on a cycle of once every other week and be adjusted based on monitoring and weather conditions. During wet months, watering will be phased out at the discretion of the biologist in charge of the project. All plants must survive for at least two years without supplemental water for the restoration phase of the project to be eligible for acceptance by CDFW.

Project maintenance will consist primarily of ongoing weed management and irrigation by hand only. Monthly monitoring for the first year will show areas requiring weed maintenance work and indicate soil moisture conditions. Periodic photographs will be taken throughout the revegetation area to document the growth progression over the time frame specified by CDFW and the Cachuma Project BO RPM 8.9, 8.18 and 8.19 as stated above.

Quiota Creek Crossing 8 Fish Passage Enhancement Project

Temporary Road Access Plan

The project proponent, Cachuma Operations and Maintenance Board (COMB), intends to remove an existing low flow concrete road crossing (Crossing 8) of Refugio Road on Quiota Creek and replace it with a 54-foot bottomless arched culvert to enable passage for all age classes of steelhead/rainbow trout (*Oncorhynchus mykiss*, *O. mykiss*) under the crossing. The project will improve riparian cover, functionality, and connectivity within the stream corridor by removing the road and concrete from the stream. The bottomless arched culvert is designed to convey the 50-year flood with one foot of freeboard and withstand the 100-year flood over the top, while providing a roughened stream channel, improve fish passage for juvenile and adult *O. mykiss*, and a safe road crossing. The design of the project is being reviewed by CDFW/NMFS as required under a Term and Condition of the 2019 Biological Opinion for the California Department of Fish and Wildlife Fisheries Restoration Grant Program (Regional General Permit 78). The project is located on Refugio Road, 3.01 miles upstream of the Santa Ynez River near the City of Santa Ynez (Lat 34.55858000 N, Long 120.08358000 W) (Figure 1). The project extent is the area around the existing passage impediment and the adjacent 200 foot long stream reach. Bank restoration will include some grading of the stream bank and then planting of native trees. The project will be constructed during the dry time of the year (late summer, early fall); hence any erosion issues resulting from project activities are expected to be minimal.

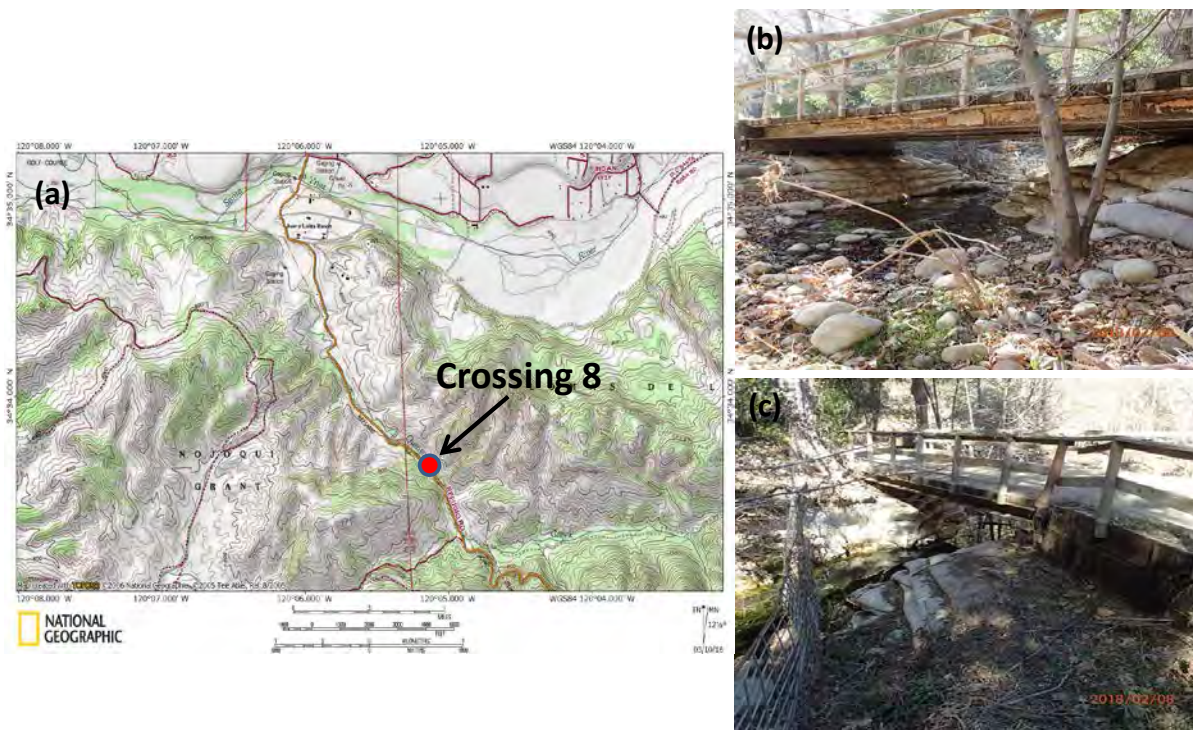


Figure 1: Quiota Creek Crossing 8 (a) project location, (b) view looking upstream under the temporary bridge and (c) view looking north across the temporary bridge on Refugio Road at the impediment.

During construction of the Quiota Creek Crossing 8 Project, S. Refugio Road will be closed to through traffic and to the public. As a result, the temporary road access to the construction site at Crossing 8 will be S. Refugio Road (Figure 2). That road is a County road that is 24 feet wide (2 lanes) with 2-4 feet of graded and County maintained shoulder on each side. Access to the creek will be along the existing paved roadway and adjacent ranch road. No imported or barrowed materials will be used to access the project site or streambed.

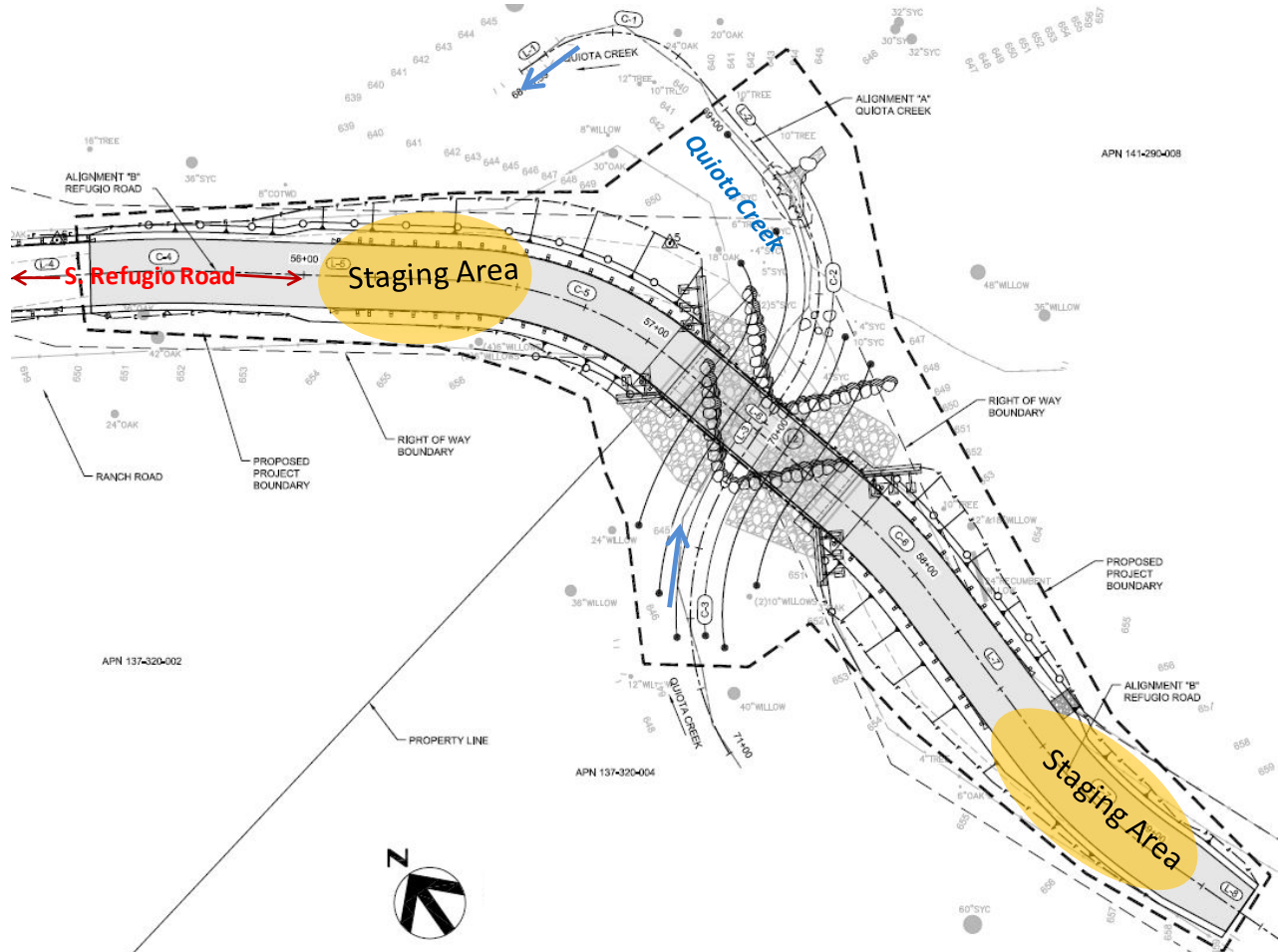


Figure 2: Project area showing Refugio Road, Quiota Creek and the approximate staging areas.

The construction staging areas will be along S. Refugio Road both to the north and south of the proposed bridge location and will not require any imported fill to access the site nor will any trees be harmed in that area. The footings for the 54-foot bottomless arched culvert will be constructed in the middle of the roadway. During construction of the footings, the existing temporary bridge will be completely removed to allow for regrading of the stream bed and installation of two rock weirs and the vegetated rock slop protection with an excavator. A Dewatering Plan and an Erosion Control Plan have been developed to assure that the project site is completely dry during construction and to prevent sediment from entering the stream and streambed.



State of California - Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
P.O. Box 944209
Sacramento, CA 94244-2090
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director



FISHERIES RESTORATION GRANT PROGRAM FISH PASSAGE IMPROVEMENT AT CROSSING 8, QUIOTA CREEK GRANT AGREEMENT NUMBER - P1850902

GRANTOR: State of California, acting by and through
The California Department of Fish and Wildlife
P.O. Box 44209
Sacramento, CA 94244-2090

GRANTEE: Cachuma Operation and Maintenance Board
3301 Laurel Canyon Road
Santa Barbara, CA 93105

SECTION 1- LEGAL BASIS OF AWARD

Pursuant to Public Resource Code section 6217.1 and Fish and Game Code section 1501.5(b), the California Department of Fish and Wildlife (CDFW or Grantor) is authorized to enter into this Grant Agreement (Agreement) for an award to Cachuma Operation and Maintenance Board (Grantee) for the purposes set forth herein. Grantee accepts the grant on the terms and conditions of this Agreement. Accordingly, Grantor and Grantee (Parties) hereby agree as follows:

SECTION 2 - GRANT AWARD

- 2.01 Grant:** In accordance with the terms and conditions of this Agreement, Grantor shall provide Grantee with a maximum of \$1,010,700 (Grant Funds) to financially support and assist Grantee's implementation of the Fish Passage Improvement at Crossing 8, Quiota Creek (Project).
- 2.02 Term:** The term of this Agreement is June 1, 2019, or upon Grantor approval, whichever is later, through March 1, 2021.
- 2.03 Notice to Proceed:** Grantee shall not perform work on any Task (as defined in Section 6.03.4 of this Agreement) in reliance on this Agreement until it has received an executed Agreement from the Grantor and a Notice to Proceed from the CDFW Grant Manager, as defined in Section 7 – Contacts, that authorizes Grantee to perform work on specific Tasks. Any expenses incurred by Grantee for work on a Task prior to receiving an executed Agreement and a Notice to Proceed from the CDFW Grant Manager authorizing Grantee to perform work on that Task will not be eligible for reimbursement from the Grant Funds.

SECTION 3 – ELIGIBLE USES OF GRANT

Only Grantee expenditures that are necessary to implement the Project, comply with

applicable federal and State of California law, and made in accordance with this Agreement are eligible for reimbursement from the Grant Funds.

SECTION 4 - GRANTEE'S REPRESENTATIONS AND WARRANTIES

Grantee represents and warrants to Grantor as follows:

- 4.01 Existence of Power:** Grantee is a public entity, validly existing, and in good standing under the laws of California. Grantee has full power and authority to transact the business in which it is engaged and full power, authority, and legal right to execute and deliver this Agreement and incur and perform its obligations hereunder.
- 4.02 Binding Obligation:** This Agreement has been duly authorized, executed and delivered on behalf of Grantee and constitutes the legal, valid, and binding obligation of Grantee, enforceable in accordance with the Agreement's terms.

SECTION 5 - GRANTEE'S AGREEMENTS

- 5.01 Purpose:** This Agreement is entered into by the Parties for the purpose of providing financial support to Grantee to complete the Project, specifically the activities identified within Section 6 - Project Statement.
- 5.02 Project:** Grantee shall complete activities as set forth in Section 6 - Project Statement.
- 5.03 Use of Project Funds:** Grantee agrees that only Grantee expenditures that are necessary to implement the Project, comply with applicable federal and State of California law, and made in accordance with Section 6 - Project Statement and Section 9 - Budget and Payment as set forth within this Agreement are eligible for reimbursement from the Grant Funds.
- 5.04 Eligibility of Funds:** In the event that the California Budget Act does not provide sufficient appropriations to allow Grantor to fund the Project at the level specified in Section 2 – Grant Award and Section 9 – Budget and Payment of this Agreement, Grantor reserves the right to modify this Agreement to reflect a reduction in available funds, as an alternative to termination.
- 5.05 Submission of Reports:** Grantee shall comply with the format, content, and timing requirements set out in Section 8 – Reports. Failure to submit timely and accurate reports shall be considered evidence of non-compliance with this Agreement and shall permit termination of the Agreement by the Grantor.
- 5.06 General Terms and Conditions:** Public Entities General Grant Provisions (Exhibit 1.a), and Federal Terms and Conditions (Exhibit 2) are attached hereto and made a part of this Agreement.

- 5.07 Amendments:** This Agreement may only be amended in accordance with Section 5.06 - General Terms and Conditions. Grantee shall submit any request to amend any term of this Agreement in writing to CDFW Grant Manager no later than 120 days prior to the end of the term of this Agreement. Grantee must include an explanation of and justification for any such request.
- 5.08 Acknowledgement of Credit:** Grantee will acknowledge the participation of the California Department of Fish and Wildlife, Fisheries Restoration Grant Program funds and NOAA fisheries funds on any signs, flyers, or other types of written communication or notice to advertise or explain the Project.
- 5.09 Labor Code Requirements; Prevailing Wage:** State grants may be subject to California Labor Code requirements, which include prevailing wage provisions. Certain State grants administered by the CDFW are not subject to Chapter 1 (commencing with Section 1720) of Part 7 of Division 2 of the Labor Code. For more details, please refer to California Fish and Game Code Section 1501.5 and the Department of Industrial Relations (DIR) website at <http://www.dir.ca.gov>. The Grantee shall pay prevailing wage to all persons employed in the performance of any part of the Project if required by law to do so.
- 5.10 Environmental Compliance:** Grantee shall comply with all applicable federal, State of California, and local environmental laws, regulations, and ordinances for the Project. CDFW Grant Manager may require Grantee to provide verification of such compliance before CDFW Grant Manager authorizes Grantee to perform work on a Task or Tasks through a Notice to Proceed pursuant to Section 2.03 of this Agreement.
- 5.11 California Business and Professions Code Compliance:** As may be necessary, Grantee shall be responsible for obtaining the services of appropriately licensed professionals to comply with the applicable requirements of the California Business and Professions Code, including but not limited to section 6700 et seq. (Professional Engineers Act) and section 7800 et seq. (Geologists and Geophysicists Act).
- 5.12 Project Site Access Permission:** Grantee shall provide written permission to Grantor for its employees and agents to inspect and monitor the Project site(s). CDFW Grant Manager may require Grantee to provide such permission before CDFW Grant Manager authorizes Grantee to perform work on a Task or Tasks through a Notice to Proceed pursuant to Section 2.03 of this Agreement.
- 5.13 Additional Requirements:** Work in flowing streams is restricted per the United States Army Corp of Engineers (USACE) Regional General Permit. Actual Project start and end dates, within this timeframe, are at the discretion of Grantor.

Grantee will follow the appropriate Regional General Permit and 401 Water Quality Certification for the Project and all its conditions including but not limited to the following: Staging/storage areas for equipment, materials, fuels, lubricants, and solvents will be located outside of the stream's high-water channel and associated riparian area where it cannot enter the stream channel. Stationary equipment such as motors, pumps, generators, compressors, and welders located within the dry portion of the stream channel or adjacent to the stream will be positioned over drip-pans. Vehicles will be moved out of the normal high-water area of the stream prior to refueling and lubricating. Grantee shall ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, Grantee shall provide to Grantor a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

All equipment and gear will be brushed with a stiff brush prior to leaving each stretch of stream to avoid the transport of aquatic invasive species (AIS). All crew members will decontaminate equipment and shoes for AIS according to the standards detailed in the California Department of Fish & Wildlife's Aquatic Invasive Species Decontamination Protocol.

During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.

Grantee shall notify CDFW Grant Manager a minimum of 10 working days before the project site is de-watered and the stream flow diverted. The notification will provide a reasonable time for Grantor personnel to oversee the implementation of the water diversion plan and the safe removal and relocation of salmonids and other native aquatic species from the project area. If the project requires dewatering of the site and the relocation of listed aquatic species, Grantee will implement the following measures to minimize harm and mortality to listed species as well as other native aquatic species:

- Fish relocation and dewatering activities shall only occur between June 15 and November 1 of each year.
- Grantee shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible as approved by CDFW Grant Manager and pursuant to conditions in the USACE Regional General Permit, Clean Water Act Section 401 Water Quality Certification, National Marine Fisheries Service (NMFS) Biological Opinion, and Project's Lake and Streambed Alteration Agreement (1600 permit).
- Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Volume II, Part IX, pages 52 and 53 of the *California Salmonid Stream Habitat Restoration Manual*.

- Only qualified fisheries biologist that are approved by United States Fish and Wildlife Service (USFWS) and permitted by CDFW under a California Endangered Species Act (CESA) Memorandum of Understanding (MOU) shall handle and relocate CESA listed species.
- All electrofishing shall be performed by a qualified fisheries biologist under the supervision of CDFW and conducted according to the NMFS, Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act, June 2000 and the *California Salmonid Stream Habitat Restoration, Volumes I & II*.
- NMFS Approved fisheries biologists will provide fish relocation data via Grantee to CDFW Grant Manager on a form provided by Grantor.

The bridge (culvert) design and installation will meet flow carrying capacity required for a 100-year flood event as identified by specifications determined by National Oceanic and Atmospheric Administration (NOAA) Fisheries and Grantor, for adult and juvenile salmonid fish passage. The project will follow the National Marine Fisheries Service (NMFS 2001) Guidelines for Salmonid Passage at Stream Crossings and criteria for fish passage as described in Volume II, Part IX, of the *California Salmonid Stream Habitat Restoration Manual*. The engineered plans for the bridge (culvert) installation shall be visually reviewed and authorized by NOAA Fisheries or Grantor engineers prior to commencement of work.

All habitat improvements will follow techniques described in the *California Salmonid Stream Habitat Restoration Manual*, Volume I, and Volume II, Part XI and Part XII. Grantee/landowner will maintain the new crossing, inspect the crossing in a timely manner and remove debris as necessary during the storm season.

Final structure design and placement will be determined by field consultation between Grantee and CDFW Grant Manager. All habitat improvements will follow techniques described in the *California Salmonid Stream Habitat Restoration Manual*.

Fisheries Design Center will be required to provide weekly Quality Assurance/Quality Control (QA/QC) reports to the Grantor's engineer using the Grantor's QA/QC reporting template. Grantor will provide the CDFW Engineer's name and contact information and the QA/QC Template with the Notice to Proceed Letter.

Any modification to the design that occurs during construction must be approved by the Grantor's Project Manager and the CDFW Engineer in writing prior to the change being implemented. Grantor's Grant Manager will also be notified by telephone (562) 342-7186. Failure to do so will result in cancellation of the grant.

The Project Manager/landowner will maintain the livestock exclusion fence(s) for a period of 10 years and totally exclude livestock from the riparian zone.

Maintenance will include repair of fences to a level that will effectively exclude livestock from the livestock exclusion project area. Maintenance will not include damage that exceeds 50% of the fence due to natural disaster.

Planting of tree seedlings will take place after December 1 or when sufficient rainfall has occurred to insure the best chance of survival of the seedlings but in no case after April 1.

- 5.14 Public Records Access:** Grantee agrees that the National Oceanic and Atmospheric Administration, the United States Department of Commerce, the Comptroller General of the United States, and their duly authorized representatives shall have the same rights to review and copy records and supporting documentation pertaining to the performance of this Agreement as Grantor, the Department of General Services, the Bureau of State Audits, and their designated representatives have pursuant to Section 5.06 - General Terms and Conditions of this Agreement.

SECTION 6 - PROJECT STATEMENT

- 6.01 Introduction:** The purpose of the project is to provide access to over three miles of spawning and rearing habitat for southern California steelhead (*Oncorhynchus mykiss*) in Quiota Creek by removing the existing dilapidated wood and concrete crossing, which acts as a temporal barrier. This project is necessary because steelhead are extremely endangered in southern California and this project will allow steelhead to move upstream to the perennial portions of Quiota Creek as spring and summer flows diminish. In its current state, the crossing strands any adult and juvenile steelhead below the crossing, making them susceptible to desiccation in the summer months, particularly in years with below average rainfall (such as 2012-2016). Improving conditions and installing the proposed bottomless arched culvert will allow fish passage for juvenile and adult steelhead/rainbow trout during all flows, which is even more critical during drought years when steelhead need to seek refuge in perennial habitat further upstream.

This effort addresses recovery actions identified in the Southern California steelhead Recovery Plan (NMFS, 2012) and the Steelhead Restoration and Management Plan for California (CDFW 1996) and will continue the long-term effort and sequence of projects that will remove all remaining man-made migration barriers within Quiota Creek and throughout the Santa Ynez River basin in Santa Barbara County.

Grantee will not proceed with on the ground implementation until all necessary permits and consultations are secured. Work in flowing streams is restricted per the USACE Regional General Permit. Actual project start and end dates, within this timeframe, are at the discretion of the CDFW.

All habitat improvements will follow techniques described in the *California Salmonid Stream Habitat Restoration Manual*, Volume I, and Volume II Part XI and

Part XII. Grantee/landowner will maintain the new crossing, inspect the crossing in a timely manner and remove debris as necessary during the storm season.

- 6.02 Objective(s):** The specific objective of this project is to provide access to 3.03 miles of spawning and rearing habitat for steelhead by removing the passage migration barrier at Crossing 8 on Quiota Creek and replacing it with a 54-foot span concrete bottomless bridge. This objective relates to the NMFS Southern California Steelhead Recovery Plan task SYR-SCS-3.1 Develop and implement plan to remove or modify fish passage barriers within the watershed (NMFS 2012).

The goals are to provide hydrologic connectivity through the new crossing, allowing sufficient flow depths for salmonid passage during minimal flows as well as allowing access to good spawning and rearing habitat in Quiota Creek. This effort will help to facilitate the development of a self-sustaining population of Southern California steelhead within the Santa Ynez River Watershed below Bradbury Dam.

6.03 Project Description:

- 6.03.1 Location:** The project site is located in the lower half of the Santa Ynez River watershed, 8.4 stream miles below Bradbury Dam (Lake Cachuma) and 39.6 miles upstream from the Pacific Ocean and east of the cities of Lompoc and Buellton. Quiota Creek enters the Santa Ynez River near the town of Santa Ynez, Santa Barbara County. Crossing 5 is located 2.6 miles upstream of the confluence of Quiota Creek with Santa Ynez River. The project is located at Latitude 34.55865, Longitude -120.08364 of the Santa Ynez 7.5 Minute U.S.G.S. Quadrangle, as depicted in the Project Location Map, Attachment 1, which is attached hereto and made a part of this agreement by this reference.

The proposed work in the creek will extend approximately 80 feet upstream and 120 feet downstream of the South Refugio Road crossing. The proposed road work extends approximately 220 feet east and 200 feet west of the stream crossing. The project extends from the upstream county right-of-way to downstream of the county fight-of- say and is bounded by privately owned parcels. Grantee has actively collaborated with the landowners and will continue to work with each landowner with regard to temporary construction easements and impacts during the implementation of this project.

- 6.03.2 Materials and Equipment:** Property acquisitions and equipment purchases must be consistent with Section 5.06 – General Terms and Conditions. The project materials will consist of a new bridge system (bridge components, abutments, rails) as well as a single 18-foot wide lane road surface to the existing county road surfaces. The materials include concrete, gravel, sand, rock, railings, asphalt, fill material, signage, anti-graffiti paint, dewatering system, erosion control material, plants and planting material, tree stakes and fencing as detailed below.

Stream Bypass: A combination of sandbags, straw bales, visqueen, and piping/culverts will be installed to allow water to pass through the project area without any interruption in stream flow downstream of the project area if water is present.

Dewatering System: If water is present, a dewatering system will be installed to keep the project site dry. Sump pumps, screens, and piping material will be used to keep water out of the project area.

Erosion Control: Silt fencing will be placed around the entire project (as a sediment trap and as a movement barrier for sensitive and non-sensitive species). Straw wattles will be strategically placed in areas to prevent rainfall runoff through the construction site, although unlikely during the proposed construction window.

Bridge Footing Preparation: Foundation (float) rock will be imported to the project site to serve as the base for the bridge CIP footings. The foundation rock specification is 3-inch minus and will be delivered via a 10-ton haul truck. Geotextile fabric will be placed below the foundation rock below and around the footings as required by the engineering design.

CIP Footings: Cast-in-place (CIP) concrete forms will be built on top of foundation rock and concrete poured into the footings for the new bridge. Concrete will be delivered via truck and a concrete pump truck with an 80-foot boom to reach both footings.

Bottomless-Arched Culvert (Bridge): The 14 pieces of the 54-foot prefabricated bridge will be constructed at an off-site facility and brought via large semi-trucks to the project site. A large crane and boom system will be used at the project site to pick from the semi-trucks and place each bridge segment.

Two Rock Weirs and a Rootwad: Two rock weirs and one rootwad will be installed for grade and profile control. The rock weirs will be constructed with rock with a minimum diameter of 44-inches. The rootwad will be salvaged from a large coast live oak that needs to be removed for the new bridge.

Road Embankment Fill, Compaction, and Grading: Compactable soil (fill) will be delivered via haul truck to the project site. Suitable native material from the site excavations will also be used. This material will be used to backfill both road approaches to the new bridge, as well as any areas behind the wing-walls of the bridge that are in need of additional material. An excavator, skid steer loader, and vibratory compactors will

be used to place and compact the imported soil.

Road Base: Crushed road base will be imported and installed to form the road approaches and across the new bridge. Road base will be delivered via haul truck. A skid steer loader and vibratory compactor will be used to transfer, grade and compact the new road base material.

Site Drainage: Geotextile fabric will be placed to line road drainage areas. Quarry spalls (cobble sized rock) will be imported via haul truck and placed on top of the geotextile to armor the drainages.

Asphalt Pavement: Once the road base is installed, graded, and compacted, asphalt will be spread on the bridge approach roads and over the new bridge.

Guard and Bridge Rails: Approximately 475 linear feet of guard and bridge rail will be fabricated off-site and then imported to the project site. The rails will be installed by hand and using a post driver.

Bridge Coating Systems: An anti-graffiti coating will be applied to the new bridge. Approximately 22 gallons of concrete sealer (and masonry stain) and 22 gallons of anti-graffiti coating will be used on the new bridge. A power washer, airless sprayer, and 12 feet of scaffolding will be used to clean the bridge and apply the coating.

Engineered Streambed Material (ESM): 120 tons of ESM will be delivered to the project site or obtained from site excavations. ESM will be placed and spread with a large excavator and watered in with gravels, sands and fines.

Rock Slope Protection (RSP): 600 tons of RSP will be delivered and placed around the bridge foundations and in front of all wingwalls. Geotextile fabric will be placed under the RSP. Soil will be placed (within the interstitial spaces of the RSP) to facilitate willow stakes and hydraulic roughness. RSP will be imported to the project site and placed with a large excavator.

Revegetation: Native trees will be planted at the appropriate mitigation rate, commensurate with the number of trees removed or damaged as a result of the project. In addition, hydro-mulch and hydro-seed with a native seed mix approved by CDFW will be broadcast on disturbed area.

Replace Existing Fence and Cattle Exclusion Fencing: A flexible system of picket fence will be installed underneath the bridge. Lumber, wire rope, and hardware will be brought to the project site to build the needed cattle exclusionary fencing. A newly aligned cattle fence line will

also be installed.

County Bridge and Road Requirements: Required delineators, guardrail reflectors and signage will be placed on both sides of the road.

6.03.3 Project Implementation: Consistent with Grantee's proposal for the Project, Grantee will complete the following tasks in accordance with Section 6.03.4 - Schedule and Deliverables:

Task 1 - Project Management and Administration

Grantee will provide technical and administrative services associated with performing and completing the work for this Project, including managing this Agreement, including assuring all permits are finalized, delivering the final landowner access agreement, administering subcontracts, invoicing and payments, drafting and finalizing progress and final reports, and data management. Additionally, Grantee's Project Manager will provide oversight and administration (secure permits, hire subcontractors (geotechnical specialists, construction oversight engineers, materials testing, arborist), coordinate project related meetings and communication, billing, compiling of project status reports, grant management and biological monitoring) for this project. The Project Manager will hire HDR Fisheries Design Center (HDR) as their engineering subcontractor. HDR will provide engineering, inspection of work completed and record the finished designs for this project. HDR will prepare a red-line markup of the construction documents with any changes that occurred during construction and a brief As-Built Memorandum that provides a discussion of any differences between the construction documents and the as-built survey and potential concerns arising from the difference.

Prior to the bid and construction company selection process, the Project Manager will define the role of HDR Fisheries Design Center staff during construction. All subcontractors bidding on the project must understand that the design engineer(s) will be given the authority to direct the selection and placement of all rock during that phase of the project. During the selection process, the Project Manager will select the subcontractor with prior experience installing bridges and the instream components of the project since these components are critical to the success and durability of the project.

The Project Manager will also hire a construction subcontractor with the experience and expertise to remove the existing crossing, complete all in-channel work and install a new bridge. The construction subcontractor will be responsible for mobilization, demolition and excavation of the existing crossing, installation of the new bridge and all activities associated with its installation and restoration of the site following construction. The construction subcontractor will also be responsible for

subcontracting for hydro mulch/hydroseeding, guardrail and bridge railing fabrication and installation and the ranch fence installation. Roadway Paving will be a competitive bid process issued by the Grantee. Grantee is providing their personnel services as cost share.

Task 2 - Pre-Construction

The Grantee and construction subcontractor will meet with the landowners adjacent to the project site to discuss the impending project, expectations, access needs, timeline and meet the contractor.

Task 3 - Permitting

Permits include USACE, CDFW 1600 (LSA), Santa Barbara County Encroachment Permit, and State Water Resources Control Board 401 Certification. All permits will be submitted in the spring of 2019 and are expected to be complete (approved and signed) several months before the start of construction.

Task 4 - Stormwater Pollution Prevention and Traffic Control Plans

These plans will be completed by the contractor. All plans will be approved and signed by the necessary parties before the start of construction.

Task 5 - Dewatering, Erosion Control, Fish Removal, Road Access, Maintenance/Monitoring, Revegetation Plans

These will be developed by Grantee's Program Manager with input from the Engineering subcontractor as needed. The plans will be sent to CDFW and NMFS for review and approval. If changes are necessary due to unforeseen events, updated plans will be sent to the appropriate agencies in a timely manner.

Task 6- Biological Surveys

Although it is unlikely that fish and other aquatic wildlife will be present prior to and during construction due to the prolonged drought, appropriate regulatory agencies (CDFW, NMFS, and USFWS) will be notified and a rescue/relocation operation will commence as recommended by the agencies if fish are present. Grantee's biologists will also be conducting pre-project protocol surveys (and subsequent relocation if present within the footprint) for southern California steelhead and red-legged frogs and other sensitive species and will provide a report to the appropriate state and federal agencies.

Grantee is committed to the protection of sensitive species within and around the project site, the safety of the project for all personnel involved, and to minimize the environmental impact of the project. Any need for fish rescue/relocation or the careful removal of other sensitive species will occur prior to construction activities. Grantee biologists will

be on site daily to make sure all protection measures are in place prior to the commencement of work each day. Erosion control measures will be installed and maintained throughout the project area prior to construction activities to prevent sedimentation and impact to local wildlife and sensitive species, adjacent properties, land, and water.

Task 7 - Stream Bypass/Dewatering System

Prior to any on-the-ground construction within the stream channel, the construction subcontractor and Grantee's biological personnel will install the stream bypass system in the event that water is present within the project site. If a stream bypass is needed, careful consideration will be made to allow all surface water to be reconnected with the stream downstream of the project footprint.

Task 8 - Mobilization and Erosion Control

The construction subcontractor will mobilize all equipment necessary for the project. Grantee's staff will lay out all of the erosion control measures prior to on-the-ground-construction and will maintain it (with assistance from the contractor) throughout the construction.

Task 9 - Bridge Construction

The Construction subcontractor will undertake all activities necessary to remove and replace the existing crossing with a bottomless arched culvert. This will include building access into the channel, demolition of the existing crossing, excavation of bank and streambed material as well as preparation of the site for the installation of the bridge and wingwall footings, backfilling the excavation points, installation of rock slope protection at the base of the abutments and wingwalls, removal of access points and rebuilding of the stream banks within the project site. A subcontractor will fabricate the bridge off site and truck it to the project site. The construction subcontractor, with the help of a crane truck and crew, will pick each individual piece (14 total) of the 54-foot span prefabricated bridge arch system off a semi-truck and construct the bridge. Materials testing, and daily engineering oversight will be done by two different subcontractors.

Task 10 - Instream Components

The instream components of the project will be installed by the Construction subcontractor. These components include two rock weirs, at least one rootwad and engineered streambed material (ESM). The rock weirs will act as profile control that will protect the structure footings from scour and potential undermining and will maintain pool habitat that currently exists at the site. The rootwad installation is to maintain pool habitat that currently exists at the project site. The rootwad will be located directly downstream of a spring that will help maintain water in the rootwad scour pool during low flow periods. ESM will be placed in

the proposed stream channel between the two rock weirs to reduce the channel degradation beneath the proposed bridge. ESM will also be placed downstream of the downstream weir to protect the weir from undermining. ESM will fundamentally coarsen the streambed slightly when compared to its current composition and will maintain the desired channel configuration throughout a greater range of anticipated flood events.

Task 11 - Site Drainage

Site drainage is important to ensure the stability of the project site, the road approaches and bridge. Runoff from storm events must appropriately drain towards the creek without causing erosion. The subcontractor will use geotextile fabric and quarry spalls to create the appropriate drainage around the project site.

Task 12 - Rebuild Roadway and County Road Safety Requirements

Asphalt will be professionally installed by a subcontractor along both road approaches and over the bridge to provide a smooth, safe road surface for travel. The road will be carefully graded to ensure proper runoff during storm events with no standing water. Approximately 370 linear feet of guard and bridge rail will be fabricated off-site and then imported to the project site. The rails will either be installed by hand (with assistance from a skid steer loader) and using a post driver. The guard and bridge rails will help to ensure a safe road within the project area. The final elements of the project include road delineators, signs, site cleanup, and the protection of existing facilities. These essential pieces of the project will provide road safety for all users of Refugio Road including the public, landowners, and public safety personnel. The contractor will install all required signage and reflectors on the bridge and road guardrails.

Task 13 - Fencing Installation

Both sides of the project site are bound by private landowners who keep cattle in the area for winter grazing. It is necessary to prevent their livestock from passing onto neighboring properties and to keep the cattle off the road. A newly aligned fence line will be installed on both sides of the project site to secure the cattle in relation to the new bridge. Additionally, it is necessary to prevent their livestock from passing onto neighboring properties by way of the creek channel under the bridge.

The construction subcontractor will construct the roadway fencing and install a flexible system of picket fence underneath the new bridge to prevent cattle from moving into adjacent properties.

Task 14 - Revegetation

The project area will be vegetated using native plantings to accomplish

the following goals:

1. Restore, stabilize, and limit erosion from all earthen areas disturbed by construction activities. All exposed and disturbed earth will be hydro-seeded with a native seed mix approved by CDFW;
2. Stabilize banks and terraces by establishing live root networks which hold soils together and that reduce flow velocities at channel fringes. Grantee staff will harvest live willow and alder cuttings from the project site as well as from other readily accessible areas along Quiota Creek. They will be conditioned and kept alive throughout construction. Near the end of construction, Grantee will plant the cuttings on bare banks, in areas designated as vegetated rock slope protection, and in low-lying terraces appropriate for hydrophilic woody vegetation; and
3. Mitigate for permanent and temporary impacts to existing vegetation and trees associated with project implementation. Mitigation details are generally developed prior to final design and implemented into the project by Grantee staff during the final stages of project construction.

Grantee will acquire native trees at the required mitigation rate (depending on how many trees are damaged/removed) during the construction of the new bridge and plant them within or in the vicinity of the project area. A subcontractor (to be selected through competitive bid) will spray hydromulch using a CDFW-approved native seed mix on all disturbed areas of the project site.

Task 15 - Site Cleanup

The entire project site will be cleaned up with no traces of construction material, trash, and rubbish. The construction subcontractor will clean up the entire project site once all phases of construction are complete. Material will be moved offsite and disposed at an approved facility.

6.03.4 Schedule and Deliverables:

Task	Description	Deliverables	Estimated Completion Dates
1	Project Management and Administration	Invoices and Progress Reports	Quarterly, due within 30 days of each calendar quarter (September, December)
		Annual reports (if more than 1 year of construction)	July 30, 2020
		Draft Final Report	December 30, 2020
		Final Report with signed As-builds	February 1, 2021
		Final Invoice	February 1, 2021
2	Pre-Construction Meeting	Bid documents and meeting notes	September 1, 2019 to October 1, 2019
3	Permitting	Permits and agreements	March 1, 2019 to July 1, 2019
4	Stormwater Pollution Prevention and Traffic Control Plans	Draft and final plans	June 1, 2019 to October 1, 2019
5	Dewatering, Erosion Control, Fish Removal, Road Access, Maintenance/Monitoring, Revegetation Plans	Draft and final plans	June 1, 2019 to October 1, 2019
6	Biological Surveys and Fish Rescue and Relocation	Pre-construction survey sheets and daily inspection reports	October 1, 2019 to December 15, 2019
7	Stream Dewatering System	Draft and final plans	October 1, 2019 to December 15, 2019
8	Mobilization and Erosion Control	Draft and final plans	October 1, 2019 to December 15, 2019
9	Bridge Construction	Bottomless-arched culvert	October 1, 2019 to December 15, 2019
10	Instream components	Placement of two Rock Weirs, one rootwad, Engineered Streambed Material and rock slope protection.	October 1, 2019 to December 15, 2019

Task	Description	Deliverables	Estimated Completion Dates
11	Site Drainage	Installed road drainage bioswales	November 1, 2019 to December 15, 2019
12	Rebuild Roadway and installation of County Road Safety Requirements	Installed roadway, 370 linear feet of guard and bridge rail, road delineators, road signs	November 1, 2019 to December 15, 2019
13	Fencing Installation	A newly aligned fence line will be installed on both sides of the roadway as well as under the new bridge to keep cattle off the roadway and from co-mingling cattle	November 1, 2019 to December 15, 2019
14	Revegetation	Planting native trees, hydromulch and hydro-seed will be spread throughout all disturbed areas of the project site to replace vegetation lost to construction and to lessen potential erosion issues from newly disturbed soil	November 15, 2019 to December 15, 2019
15	Site Cleanup	The entire project site will be cleaned up with no traces of construction material, trash, and rubbish	November 15, 2019 to December 15, 2019

SECTION 7 - CONTACTS

The point of contact may be changed at any time by either party by providing a 10 day advance written notice to the other party. The Parties hereby designate the following points of contact during the Term of this Agreement:

CDFW Grant Manager:		Grantee Project Manager:	
Name:	Mary Larson	Name:	Timothy H Robinson
Title:	Grant Manger	Title:	Senior Resource Scientist
Address:	4665 Lampson Ave, Ste C Los Alamitos, CA 90720	Address:	3301 Laurel Canyon Road Santa Barbara, CA 93105
Phone:	(562) 342-7153	Phone:	(805) 687-4011
Email:	Mary.Larson@wildlife.ca.gov	Email:	Trobinson@cachuma-board.org

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CACHUMA OPERATION AND MAINTENANCE BOARD

Any changes or modifications to a fund source indicated below must be promptly reported to CDFW Grant Manager in writing.

Funding Sources Summary			
Source of Funds	Cash	In-Kind	Total
CDFW Fisheries Restoration Grant Program	\$1,010,700	\$0	\$1,010,700
Cachuma Operations and Maintenance Broad	\$80,483	\$93,646	\$174,129
Other(s) including partners	\$0	\$0	\$0
Total Project Cost	\$1,091,183	\$93,646	\$1,184,829

9.01.1 Budget Revisions: Subject to the prior review and approval of the CDFW Grant Manager, informal Budget adjustments between existing line items may be permitted. Any revision to the Line Item Budget Detail must comply with Section 5.07 – Amendments. Considerations for informal Budget adjustments, if granted, must include:

- 1) Revisions which are consistent with the purpose, objectives, and description of the Project as detailed in Section 6 - Project Statement;
- 2) Revisions that do not increase or decrease the total Agreement amount;
- 3) Revisions that do not substitute key personnel; and
- 4) Line item shifts **within** a budget category (e.g. Personnel Services) of up to \$25,000 or 10% of the Agreement amount, whichever is less.

A formal Budget adjustment will be considered by the Grantor, with prior approval from the CDFW Grant Manager. An amendment to the Agreement is required if a formal Budget adjustment is approved. Considerations for formal amendments, if granted, include:

1. Shifting Grant Funds between budget categories (e.g. Personnel Services to Operating Expenses);
2. Increasing or decreasing the total Agreement amount;
3. Substituting key personnel; or
4. Line item shifts **within** a budget category (e.g. Personnel Services) that exceed \$25,000 or 10% of the Agreement amount, whichever is less.

Grantee must submit all budget line item revision requests, in writing, to the CDFW Grant Manager, prior to implementing any changes.

9.01.2 Indirect Costs for Federally Funded Payable Grants: Indirect costs

(administrative overhead) are those that cannot be directly assigned to a particular grant activity but are necessary to the operation of the organization and the performance of the grant project. Indirect costs include operating and maintaining facilities, accounting services, and administrative salaries that cannot be recovered in other budget categories.

In accordance with the Federal Uniform Grant Guidance 2017 ([2 CFR 200](#)) Grantees have two options for requesting indirect costs:

1. Use their federally approved Indirect Cost Rate. Federal approval documentation and a supporting budget spreadsheet must be included as supplemental information; OR
2. Use De Minimis rate, an amount up to ten percent (10%) of the Grantee's Modified Total Direct Costs (MTDC). The MTDC base cannot include any distorting costs such as equipment, rent, capital expenditures, or any sub-awards, contracts, or consultants beyond the first \$25,000.

Per 2 CFR §200.68:

Modified Total Direct Cost (MTDC) all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel, and subawards and subcontracts up to the first \$25,000 of each subaward or subcontract (regardless of the period of performance of the subawards and subcontracts under the award). MTDC excludes equipment, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and fellowships, participant support costs and the portion of each subaward and subcontract in excess of \$25,000. Other items may only be excluded when necessary to avoid a serious inequity in the distribution of indirect costs, and with the approval of the cognizant agency for indirect costs.

9.02 Payment Provisions

- 9.02.1 Disbursements:** Grantor will disburse Grant Funds to Grantee not more frequently than quarterly in arrears, upon receipt of an original itemized invoice and any required progress report or other mandatory documentation as identified within this Agreement. The invoice package must be uploaded to WebGrants, the Fisheries Restoration Grant Program's Watershed Grants website (watershedgrants.wildlife.ca.gov) and emailed to CDFW Grant Manager.

9.02.2 Invoice Documentation: Each invoice for payment must be accompanied by a written description, not to exceed two pages in length, of Grantee's performance under this Agreement since the time the previous such report was prepared. The report shall describe the types of activities and specific accomplishments during the period for which the payment is being made rather than merely listing the number of hours worked during the reporting period. If there is in-kind or cash cost share involved with the Project, the Final Invoice must include a budget summary of all cost share expenditures by fund source. CDFW Grant Manager will provide Grantee with a sample invoice template upon request. The Final invoice must be submitted to the CDFW Grant Manager by the date identified in Section 6.03.4 – Schedule and Deliverables.

Requirements: The invoice shall contain the following information:

1. The word "Invoice" should appear in a prominent location at the top of the page(s);
2. Printed name of Grantee on company letterhead;
3. Grantee's business address, including P.O. Box, City, State, and Zip Code;
4. Name of CDFW Region/Division being billed;
5. The invoice date and the time period covered; i.e., the term "from" and "to";
6. This Agreement number and the sequential number of the invoice (i.e. P18#####-Invoice #);
7. The invoice must be itemized using the categories and following the format of the Budget;
8. The total amount due. This should be in a prominent location in the lower right-hand portion of the last page and clearly distinguished from other figures or computations appearing on the invoice. The total amount due shall include all costs incurred by Grantee under the terms of this grant;
9. The original signature of Grantee; and
10. Grantee must provide supporting documentation for the invoice and actual receipts.

If the Project includes in-kind or cash cost share, the Progress Report that covers the time period listed in Grantee's final Invoice shall include a summary of all cost share expenditures by fund source.

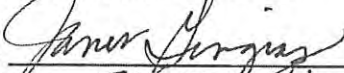
9.02.3 Invoice Submission: The invoice package must be uploaded to WebGrants, the Fisheries Restoration Grant Program's Watershed Grants website (watershedgrants.wildlife.ca.gov), if available, and emailed to CDFW Grant Manager.

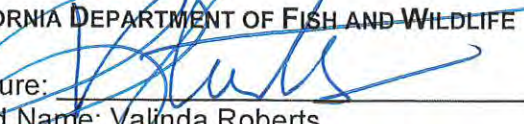
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CACHUMA OPERATION AND MAINTENANCE BOARD

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of Grantor date set forth below the signature.

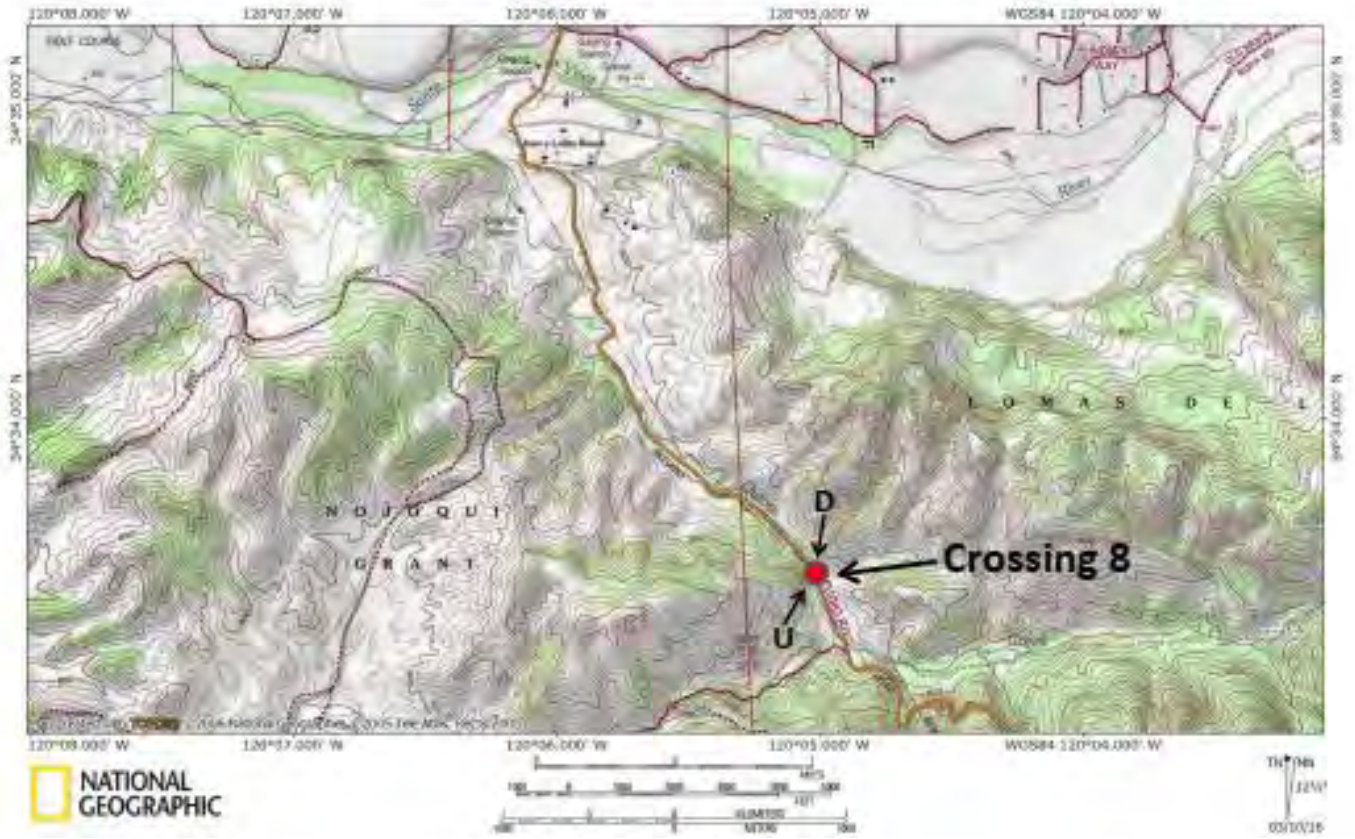
AUTHORIZED AGENT FOR GRANTEE

By: _____
Signature: 
Printed Name: JANET GINZIAS
Title: COMB General Manager
Date: 5/8/2019

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
By: _____
Signature: 
Printed Name: Valinda Roberts
Title: Chief, Business Operations
Date: 5/13/19

This Agreement is exempt for DGS-OLS approval, per SCM 4.06

Attachment 1 – Project Location Map





CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
EXHIBIT 1a – PUBLIC ENTITIES GENERAL GRANT PROVISIONS

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Cachuma Operation and Maintenance Board

1. **APPROVAL**: This Agreement is of no force or effect until signed by both Parties and approved by CDFW or Grantor. Grantee may not commence performance until such approval has been obtained.
2. **AMENDMENT**: No amendment or variation of the terms of this Agreement shall be valid unless made in writing, signed by the Parties and approved as required. No oral understanding or Agreement not incorporated in this Agreement is binding on either of the Parties.
3. **ASSIGNMENT**: This Agreement is not assignable by Grantee, either in whole or in part, without the consent of CDFW in the form of a formal written amendment.
4. **AUDIT**: Grantee agrees that CDFW, the Department of General Services (DGS), the Bureau of State Audits, or their designated representative shall have the right to review and to copy any records and supporting documentation pertaining to the performance of this Agreement. Grantee agrees to maintain such records for possible audit for a minimum of three (3) years after final payment, unless a longer period of records retention is stipulated. Grantee agrees to allow the auditor(s) access to such records during normal business hours and to allow interviews of any employees who might reasonably have information related to such records. Further, Grantee agrees to include a similar right of the State to audit records and interview staff in any subcontract related to performance of this Agreement. (Gov. Code §8546.7, Pub. Contract Code, CCR Title 2, Section 1896).
5. **INDEMNIFICATION**: Grantee agrees to indemnify, defend and save harmless the State of California, CDFW, its officers, agents and employees from any and all claims and losses accruing or resulting to any and all of Grantee's employees or agents, contractors, subcontractors, suppliers, laborers, and any other person, firm or corporation furnishing or supplying work services, materials, or supplies in connection with the performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by Grantee in the performance of this Agreement.

The State of California shall defend, indemnify and hold Grantee, its officers, employees and agents harmless from and against any and all liability, loss, expense, attorney's fees, or claims for injury or damages arising out of the performance of this Agreement but only in proportion to and to the extent such liability, loss, expense, attorney's fees, or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of the State of California, or its agencies, their respective officers, agents or employees.
6. **DISPUTES**: Grantee shall continue with the responsibilities under this Agreement during any dispute.
7. **INDEPENDENT CONTRACTOR**: Grantee, and the agents and employees of Grantee, in the performance of this Agreement, shall act in an independent capacity and not as officers or employees or agents of CDFW. Grantee acknowledges and promises that CDFW is not acting as an employer to any individuals furnishing services or work pursuant to this Agreement.



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8. **NON-DISCRIMINATION CLAUSE:** During the performance of this Agreement, Grantee and its subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (e.g., cancer), age (over 40), marital status, and denial of family care leave. Grantee and subcontractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Grantee and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 (a-f) et seq.) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full. Grantee and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

Grantee shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement.

9. **UNENFORCEABLE PROVISION:** In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby.
10. **LICENSES AND PERMITS (If Applicable):** Grantee is responsible for obtaining all licenses and permits required by law for accomplishing any work required in connection with this Agreement. Costs associated with permitting may be reimbursed under this Agreement only if approved in the budget detail and payment provisions section.
11. **RIGHTS IN DATA:** Grantee agrees that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes and other written or graphic work produced in the performance of this Agreement, are subject to the rights of the State as set forth in this section. The State shall have the right to reproduce, publish, and use all such work, or any part thereof, in any manner and for any purposes whatsoever and to authorize others to do so. If any such work is copyrightable, Grantee may copyright the same, except that, as to any work which is copyrighted by Grantee, the State reserves a royalty-free, nonexclusive and irrevocable license to reproduce, publish, and use such work, or any part thereof, and to authorize others to do so.
12. **CONTINGENT FUNDING:** It is mutually understood between the Parties that this Agreement may have been written before ascertaining the availability of State appropriation of funds for the mutual benefit of both Parties in order to avoid program and fiscal delays which would occur if the Agreement were executed after that determination was made.

This Agreement is valid and enforceable only if sufficient funds are made available pursuant to the California State Budget Act for the fiscal year(s) covered by this Agreement for the purposes



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of this program. In addition, this Agreement is subject to any additional restrictions, limitations, or conditions enacted by the Legislature of any statute enacted by the Legislature which may affect the provisions, terms or funding of this Agreement in any manner.

It is mutually agreed that if the Legislature does not appropriate sufficient funds for the Agreement, the State has the option to terminate the Agreement under the termination clause or to amend the Agreement to reflect any reduction of funds. CDFW has the option to invalidate the contract under the 30-day cancellation clause or to amend the Agreement to reflect any reduction in Grant Funds.

13. RIGHT TO TERMINATE:

- a. This agreement may be terminated by mutual consent of both parties or by any party upon thirty (30) days written notice and delivered by USPS First Class or in person.
- b. In the event of termination of this Agreement, Grantee shall immediately provide CDFW an accounting of all funds received under this Agreement and return to CDFW all Grant Funds received under this Agreement which have not been previously expended to provide the services outlined within this Agreement.
- c. Any such termination of this Agreement shall be without prejudice to any obligations or liabilities of either party already accrued prior to such termination. CDFW shall reimburse Grantee for all allowable and reasonable costs incurred by it for the Project, including foreseeable and uncancellable obligations. Upon notification of termination from CDFW, Grantee shall use its reasonable efforts to limit any outstanding financial commitments.

14. CONFIDENTIALITY OF DATA: Grantee shall protect from disclosure all information made available by CDFW. Grantee shall not be required to keep confidential any data or information which is publicly available, independently developed by Grantee, or lawfully obtained from third parties. Written consent of CDFW must be obtained prior to disclosing information under this Agreement.

15. DISCLOSURE REQUIREMENTS: Any document or written report prepared in whole or in part pursuant to this Agreement shall contain a disclosure statement indicating that the document or written report was prepared through an Agreement with CDFW. The disclosure statement shall include this Agreement number and dollar amount of all Agreements and subcontracts relating to the preparation of such documents or written reports. The disclosure statement shall be contained in a separate section of the document or written report.

If Grantee or any subcontractor(s) are required to prepare multiple documents or written reports, the disclosure statement may also contain a statement indicating that the total Agreement amount represents compensation for multiple documents or written reports. Grantee shall include in each of its subcontracts for work under this Agreement, a provision which incorporates the requirements stated within this section.



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16. USE OF SUBCONTRACTOR(S): If Grantee desires to accomplish part of the services through the use of one (1) or more subcontractors, the following conditions must be met:

- a. Grantee shall submit any subcontracts to CDFW for inclusion in the grant file;
- b. The Agreement between the primary Grantee and the subcontractor must be in writing;
- c. The subcontract must include specific language which establishes the rights of the auditors of the State to examine the records of the subcontractor relative to the services and materials provided under the Agreement; and
- d. Upon termination of any subcontract, CDFW Grant Manager shall be notified immediately, in writing.

Grantee shall ensure that any subcontract in excess of \$100,000 entered into as a result of this Agreement contains all applicable provisions stipulated in this Agreement.

17. POTENTIAL SUBCONTRACTOR(S): Nothing contained in this Agreement or otherwise shall create any contractual relation between CDFW, and any subcontractor(s) and no subcontract shall relieve Grantee of its responsibilities and obligations hereunder. Grantee agrees to be as fully responsible to CDFW for the acts and omissions of its subcontractor(s) and of persons directly employed or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by Grantee. Grantee's obligation to pay its subcontractor(s) is an independent obligation from CDFW's obligation to make payments to Grantee. As a result, CDFW shall have no obligation to pay or to enforce the payment of any monies to any subcontractor.

18. TRAVEL AND PER DIEM (if applicable): Grantee agrees to pay reasonable travel and per diem to its employees under this Agreement. The reimbursement rates shall not exceed those amounts identified in the California Department of Human Resources travel reimbursement guidelines. No travel outside the State of California shall be reimbursed unless prior written authorization is obtained from CDFW.

19. LIABILITY INSURANCE (as applicable): Unless otherwise specified in the Agreement, when Grantee submits a signed Agreement to the State, Grantee shall also furnish to the State either proof of self-insurance or a certificate of insurance stating that there is liability insurance presently in effect for Grantee of not less than \$1,000,000 per occurrence for bodily injury and property damage liability combined. Grantee agrees to make the entire insurance policy available to the State upon request.

The certificate of insurance will include provisions a, b, and c, in their entirety:

- a. The insurer will not cancel the insured's coverage without thirty (30) days prior written notice to the State;
- b. The State of California, its officers, agents, employees, and servants are included as additional insured, by insofar as the operations under this Agreement are concerned; and
- c. The State will not be responsible for any premiums or assessments on the policy.



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Grantee agrees that the bodily injury liability insurance herein provided for, shall be in effect at all times during the term of this Agreement. In the event said insurance coverage expires at any time or times during the term of this Agreement, Grantee agrees to provide, prior to said expiration date, a new certificate of insurance evidencing insurance coverage as provided for herein for not less than the remainder of the term of this Agreement, or for a period of not less than one (1) year. New certificates of insurance are subject to the approval of the (DGS), and Grantee agrees that no work or services shall be performed prior to giving of such approval. In the event Grantee fails to keep in effect, at all times, insurance coverage as herein provided, the State may, in addition to any other remedies it may have, terminate this Agreement upon occurrence of such event.

CDFW will not provide for, nor compensate Grantee for any insurance premiums or costs for any type or amount of insurance. The insurance required above, shall cover all Grantee supplied personnel and equipment used in the performance of this Agreement. When applicable, if subcontractors performing work under this Agreement do not have insurance equivalent to the above, Grantee's liability shall provide such coverage for the subcontractor, except for coverage for error, mistake, omissions, or malpractice, which shall be provided by the subcontractor if such insurance is required by the State.

- 20. GRANTEE STAFF REQUIREMENTS:** Grantee represents that it has or shall secure at its own expense, all staff required to perform the services described in this Agreement. Such personnel shall not be employees of or have any contractual relationship with CDFW.
- 21. PROPERTY ACQUISITIONS AND EQUIPMENT PURCHASES:** Property, exclusive of real property, as used in this exhibit shall include the following:
 - a.** Equipment – Tangible property (including furniture and electronics) with a unit cost of \$5,000 or more and a useful life of four (4) years or more. Actual cost includes the purchase price plus all costs to acquire, install, and prepare the equipment for its intended use.
 - b.** Furniture, including standard office furnishings including desks, chairs, bookcases, credenzas, tables, etc.
 - c.** Portable Assets, including items considered 'highly desirable' because of their portability and value, e.g., calculators, computers, printers, scanners, shredders, cameras, etc.
 - d.** Electronic Data Processing (EDP) Equipment, including all computerized and auxiliary automated information handling, including system design and analysis; conversion of data; computer programming; information storage and retrieval; voice, video and data communications; requisite system controls; simulation and all related interactions between people and machines.

Grantee may purchase property under this Agreement only if specified in the Budget section. All property purchased by Grantee is owned by Grantee. CDFW does not claim title or ownership to



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EXHIBIT 1a – PUBLIC ENTITIES GENERAL GRANT PROVISIONS

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the property but, requires Grantee to maintain accountability for all property purchased with grant funds.

Title or ownership to property with a unit cost of \$5,000 or more may be retained by Grantee or Grantor upon end of the grant cycle; final disposition will be coordinated by CDFW's Grant Manager.

Before property purchases made by Grantee are reimbursed by CDFW, Grantee shall submit paid Grantee receipts identifying the Grant Agreement Number, purchase price, description of the item(s), serial number(s), model number(s), and location, including street address where property will be used during the term of this Agreement. Said paid receipts shall be attached to Grantee's invoice(s).

Grantee shall keep, and make available to Grantor, adequate and appropriate records of all property purchased with the Grant Funds.

Prior written authorization by the CDFW Grant Manager shall be required before Grantee will be reimbursed for any property purchases not specified in the budget. Grantee shall provide to CDFW Grant Manager, all particulars regarding the necessity for such property and the reasonableness of the cost.

Property will only be considered for purchase approval if no other equipment owned by the applicant is available and suitable for the project.

Grant Funds cannot be used to reimburse the project for equipment obtained prior to the beginning of the grant term.

Grant Funds cannot be used for property if specifically prohibited in the authorizing Legislation or restricted in the terms of the program.

Should this Agreement be cancelled for any reason, any property purchased with Grant Funds shall be returned to Grantor.

State policies and procedures applicable to procurement with nonfederal funds, shall apply to procurement by Grantee under this Agreement, provided that procurements conform to applicable State law and the standards identified in this exhibit. These include but are not limited to: statutes applicable to State agencies; statutes applicable to State colleges and universities; public works projects; the California Constitution governing University of California contracting, the State Administrative Manual; statutes applicable to specific local agencies; applicable city and county charters and implementing ordinances including policies and procedures incorporated in local government manuals or operating memoranda.

Exhibit 2 – Federal

GRANT PROVISIONS

Agreement Number: P1850902

**Grantee Name: CACHUMA OPERATION
AND MAINTENANCE BOARD**

Page 1 of 3

1. **UTILIZATION OF SMALL, MINORITY AND WOMEN’S BUSINESSES:** The Grantee agrees that affirmative steps will be taken to assure that qualified small, minority and women-owned businesses are used when possible as sources of supplies, construction, and services in the performance of grant-assisted Agreements and subcontracts. Affirmative steps taken shall include the following:
 - a. Include qualified small, minority and women-owned businesses on solicitation lists;
 - b. Assuring that small, minority and women-owned businesses are solicited whenever they are potential sources;
 - c. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation of small, minority and women-owned businesses;
 - d. Establishing delivery schedules, where the requirements of the work permit, which will encourage participation by small, minority and women-owned businesses;
 - e. Using the services and assistance of the Small Business Administration, the Minority business Development Agency of the U.S. Department of Commerce, and the State Office of Small Business and Disabled Veteran Business Enterprise Certification; and
 - f. If the Grantee awards subcontracts, requiring the subcontractor to take the affirmative steps in paragraphs A through E of this section.

2. **DISCLOSURE REQUIREMENTS:** Any document or written report prepared in whole or in part pursuant to this Agreement shall contain a disclosure statement indicating that the document or written report was prepared through Agreement with the State. The disclosure statement shall include the Agreement number and dollar amount of all Agreements and subcontracts relating to the preparation of such documents or written reports. The disclosure statement shall be contained in a separate section of the document or written report.

3. **COMPLIANCE WITH FEDERAL REGULATIONS:** The Grantee understands that the State is obligated, in accordance with its assistance Agreement with the Federal Government, to comply with the provisions of federal regulations contained in the Uniform Guidance 2 Code of Federal Regulations (CFR) 200 and any conditions in the grant Agreement and any amendments thereto. In order to ensure that the State can meet these obligations, the Grantee warrants, represents, and agrees that it and its subcontractors, employees, and representatives will comply with: 1) all applicable provisions of 2 CFR 200; and 2) all general and special conditions contained in the Agreement.

4. **COPYRIGHTS:** The Grantee agrees to and does hereby grant to the Federal Government, a royalty-free nonexclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, for Federal Government purposes:
 - a. The copyright in any work developed under this Agreement; and
 - b. Any rights of copyright which the Grantee purchases, in whole or in part, with funds provided by this Agreement.

**Exhibit 2 – Federal
Grant Provisions**

Agreement Number: P1850902

**Grantee Name: CACHUMA OPERATION
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5. **STANDARDS FOR FINANCIAL MANAGEMENT SYSTEM:** The Grantee and all subcontractors shall maintain fiscal control and accounting procedures which are sufficient to:
- a. Permit preparation of reports required by 2 CFR 200 and statutes authorizing the grant.
 - b. Permit tracing of funds to a level of expenditures adequate to establish that such funds have not been used in violation of the restrictions and prohibitions of applicable statutes.

A requirement to this effect shall be placed in all subcontracts related to performance of work under this Agreement.

6. **APPLICABLE COST PRINCIPLES:** The cost principles for this Agreement are applicable as set forth below (Office of Management and Budget (OMB)):
- a. OMB Circular A-21 – Education Institutions;
 - b. OMB Circular A-87 – State, Local or Indian Tribe Governments;
 - c. OMB Circular A-122 – Cost Principals for Non-Profit Organizations;
 - d. OMB Circular A-133 – Audits of States, Local Governments and Non-Profit Organizations; or
 - e. 48 CFR Part 31 – For-Profit Organizations

Funds provided under this Agreement shall not be used for payment of salaries to individual consultants retained by the Grantee or any subcontractors in excess of the rate for Level 4, of the Federal Executive Schedule. The limit expressed herein does not include transportation and subsistence costs for necessary travel for work required under this Agreement.

7. **CONTINGENT FUNDING:** It is mutually understood between the parties that this Agreement may have been written before ascertaining the availability of congressional appropriation of funds for the mutual benefit of both parties in order to avoid program and fiscal delays which would occur if the Agreement were executed after that determination was made.

This Agreement is valid and enforceable only if sufficient funds are made available to the State by the US Government for the fiscal year(s) covered by this Agreement for the purposes of this program. In addition, this Agreement is subject to any additional restrictions, limitations, or conditions enacted by the Congress of any statute enacted by the Congress which may affect the provisions, terms or funding of this Agreement in any manner.

It is mutually agreed that if the Congress does not appropriate sufficient funds for the Agreement, the State has the option to terminate the Agreement under the termination clause or to amend the Agreement to reflect any reduction of funds.

The California Department of Fish and Wildlife (CDFW) has the option to invalidate the Agreement under the 30-day cancellation clause or to amend the Agreement to reflect any reduction in funds.

**Exhibit 2 – Federal
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8. **ENVIRONMENTAL QUALITY:** The Grantee and subcontractors shall comply with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act, Title 42 U.S.C. 1857(h), Section 508 of the Clean Air Act, Title 33 U.S.C. 1368 Executive Order 11738 and, Title 40 CFR part 15.
- The Grantee shall comply with mandatory standards and policies related to energy efficiency which are contained in the State Energy Conservation Plan issued in compliance with the Conservation Act (Publ. L. 94-163).
9. **RECYCLED PAPER:** The Grantee agrees to use recycled paper for all reports which are prepared as a part of this Agreement and delivered to the State. This requirement does not apply to reports which are prepared on form supplied by the Federal Government. This requirement applies even when the cost of recycled paper is higher than that of virgin paper.
10. **SINGLE AUDIT ACT:** To the extent applicable, the Grantee shall be subject to and shall comply with the provisions and requirements of the Single Audit Act of 1984 (Pub. L 98-502) and implementing policies, procedures and guidelines, including applicable circulars issued by the Federal OMB.
11. **FEDERAL ASSURANCES:** It is further agreed that by signing this Agreement, the Grantee is subject to Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972, and offers all persons the opportunity to participate in programs or activities regardless of race, color, national origin, age, sex, or disability. Further, it is agreed that no individual will be turned away from or otherwise denied access to or benefit from any program or activity that is directly associated with a program of CDFW on the basis of race, color, national origin, age, sex (in education activities) or disability.
12. **COMPLIANCE WITH FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT 2006 (FFATA):** As a recipient of a federal contract, grant or other federal funds, the State is required under the Federal Funding Accountability and Transparency Act of 2006 (FFATA) to report certain information about the State's contractors, grantees and sub-recipients of that federal funding. The Grantee, as a sub-recipient of federal funds, agrees to provide the State with data required under the FFATA unless exempted under that act. Grantee shall complete the FFATA Certification form (DFW 868) and submit it as instructed, on or before execution of the agreement. If not exempt, the Grantee shall create a registration, or update its data if already registered, on the federal System for Award Management (SAM) at www.sam.gov. A DUNS number is required for the SAM registration and must be included on the FFATA Certification form unless exempted per the certification. Grantee agrees to update its SAM registration and notify the State if there is a material change to its SAM data, or its exemption status changes.