



## REQUEST FOR BIDS

### Butano Creek Floodplain Restoration Project

*Sponsored by the*  
SAN MATEO COUNTY RESOURCE CONSERVATION DISTRICT

May 19, 2016

**Request for Bids**  
Butano Creek Floodplain Restoration Program

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Exhibit F: Billing Instructions for Contractors

**Published by the authority of:**

San Mateo County RCD Board of Directors  
625 Miramontes Street, Ste 103  
Half Moon Bay, CA 94019  
(650) 712-7765

# Butano Creek Floodplain Restoration Program

## REQUEST FOR BIDS

### 1. Introduction

The San Mateo County Resource Conservation District (RCD), in collaboration with the Peninsula Open Space Trust (POST), is reconnecting Butano Creek to approximately 100 acres of its historical floodplain in Pescadero, CA. The purpose of the Butano Creek Floodplain Restoration Project is to restore channel / floodplain connectivity and improve natural creek function along Butano Creek.

The project will include restoration actions at three to five sites along Butano Creek where the channel has been disconnected from the floodplain due to channel simplification (i.e., the removal of large wood) and incision. The restoration actions include construction of engineered log jams, a rock ramp, floodplain connector channels, and recruitment of living bank side alder trees, which will restore natural function to the creek, reduce further incision of the creek bed and erosion of its banks, raise the elevation of the creek bed to reconnect the creek with its former floodplain, restore the floodplain's ability to store sediment, address water quality impairment for sediment, and improve habitat conditions for several rare and endangered species. Additionally, the project will reduce sediment supply to Pescadero Creek Road, where sediment build-up and resulting frequent flooding is a public safety hazard and has adverse economic impacts to the town.

Broad support and input from a multi-agency technical advisory committee has resulted in a multi-benefit project that will promote floodplain function, improve water quality conditions in a system impaired for sediment, enhance and restore aquatic and wetland habitats, promote recovery of imperiled species, and restore up to 10% of the historical floodplain area of the Butano Creek watershed that has been lost over the last 100 years. The committee is comprised of representatives of federal and state resource agencies and local governments participating in the Integrated Watershed Restoration Program (IWRP). Participating agencies include: the California Department of Fish and Wildlife (CDFW), US Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), Regional Water Quality Control Board (RWQCB), USDA Natural Resources Conservation Service (NRCS), San Mateo County, California State Parks, State Coastal Conservancy and others.

The purpose of this request for bids is to select a contractor to implement designs developed with input from this technical advisory committee and the concepts developed through the Solutions to Flooding at Pescadero Creek Road project (cbec eco-engineering, inc. and Stillwater Sciences 2014). Implementation of this project is funded through a generous grant from the California Department of Water Resources.

Contracting Entity: The RCD is the contracting entity and project manager on behalf of the landowner, Peninsula Open Space Trust (POST). The RCD is a non-regulatory public benefit district to help people protect, conserve, and restore natural resources through information, education, and technical assistance programs. The RCD is a division of state government under Division 9 of the Public Resources Code.

Notice of Grant Funding: Bidders are notified that this project is a grant-funded project [California Department of Water Resources (DWR) Urban Streams Restoration Program.] The RCD will pay the contractor once grant funds are received from the funding agency, which is normally between 30 and 60 days from the approved pay request.

## **2. Location**

The project site is in Pescadero, California. The ranch access gate to the project site does not have an address. The closest address is 2310 Pescadero Creek Road, Pescadero, CA. Latitude: 37.253016, Longitude: -122.376800.

Directions: The ranch access gate is on Pescadero Creek Road, 0.35 miles east from the intersection of Pescadero Creek Rd with Stage Rd in downtown Pescadero.

## **3. Plans and Work Sites**

The submission of a bid shall constitute certification by the bidder that they have:

- A. Visited the project site to familiarize themselves with local conditions that in any manner affect cost, progress, or performance of the work;
- B. Familiarized themselves with all federal, state and local laws, ordinances, rules, and regulations that in any manner affect the cost, progress, or performance of the work;
- C. Thoroughly examined and understand the bid documents, exhibits, plans, specifications, and reports

## **4. Scope of Work**

Bids shall include costs for furnishing all labor, equipment, and materials necessary to perform all work as described in Exhibit A.

Labor and equipment: Bids shall include costs for furnishing necessary labor and equipment to carry out all tasks detailed in Exhibit A.

- Subcontracts are allowable for specialized work. Subcontractors are subject to approval by the RCD, and should be identified on the Cost Proposal form.
- Labor costs (including subcontractor labor costs) shall be based on current prevailing wage rates (see section 7 below).
- Equipment costs shall include all fuel costs. Added fuel surcharges not included in the bid will not be paid.

Materials: All required materials and any associated delivery costs shall be included in the bid.

- Please note that contractor will supply the logs and rocks required and described in the project specifications. The contractor may use logs they have obtained from other projects or that they have purchased (if needed, contact the RCD for a list of sources known to the RCD). Logs must meet specifications included in designs approved by the Project Engineer prior to installation.
- Biological exclusion fencing and installation is required for this project, however, the exact requirements are not yet known. The RCD will provide funding for installation and materials. Please provide a cost per linear foot for biological exclusionary fencing and installation, which will be required for the staging areas at a minimum.

## **5. Project Cost and Funding**

Funding for the project is through a grant from the Urban Streams Restoration Program of the Department of Water Resources.

The engineer's cost estimate for the project is \$604,000 (not including optional items) -\$641,000 (with optional items).

Please note that the bid includes optional elements, which will only be contracted based on the discretion of the RCD. These elements include implementation of actions at sites 3 and 4, and the SWPPP preparation by the contractor. Action at sites 3 and 4 will be determined by available funding, and the SWPPP preparation will be determined by cost comparison with another estimate.

## 6. Documentation

Attached to this request for bids are copies of project and contract documents, including the following:

Exhibit A: Project plans, specifications and relevant reports

Exhibit B: Cost Proposal Form

Exhibit C: Contract Template

Exhibit D: Insurance Requirements

Exhibit E: Labor Compliance Program

Exhibit F: Billing Instructions for Contractors

Additional project specifications and information may be provided at the mandatory bid tour. Bidders are expected to thoroughly examine and understand the contents of each of these documents, which contain pertinent and specific information regarding all aspects of project construction and administration.

## 7. Proposal and Work Schedule

Date of announcement	May 19, 2016
RSVP Bid Tour	June 1, 2016 by 5:00pm
<b>Mandatory Bid Tour</b> -Questions will ONLY be taken at the bid tour. Only those present will receive responses. -We will be walking in a riparian area. Please dress accordingly.	June 3, 2016 from 8:45-1:00
Deadline for proposal submissions	Proposals must be received by June 24, 2016 at 5:00PM.  bids should be sent to: San Mateo County RCD Attn: Adria Arko 625 Miramontes Street, Suite 103 Half Moon Bay, CA 94019  or <a href="mailto:adria@sanmateorcd.org">adria@sanmateorcd.org</a>
Notification of Award	July 21 <sup>st</sup> after June Board of Directors meeting
Work Commencement Date with the following conditions: -Permitting is complete -All work is dependent on favorable weather	Work can commence on August 1, 2016

conditions -Contractor shall coordinate commencement with RCD -No work shall begin until authorized by RCD	
Work Completion Date	October 15, 2016

## **7. Prevailing Wage Laws**

This project is considered a public work or public improvement, and is therefore subject to Labor Compliance Program pursuant to Part 7 of Division 2 of the California Labor Code (commencing with Section 1720.) Exhibit E outlines requirements of the Labor Compliance Program.

## **8. Registration Pursuant to Labor Code Section 1725.5**

All contractors and subcontractors who will perform any portion of the work must be currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5. Bids submitted by contractors, or including subcontractors, who are not registered will be rejected.

## **9. Permits and Plans**

The RCD will be responsible for obtaining all necessary permits. Copies of all permits will be provided to the Contractor, and one copy of each permit must be kept at the job site at all times.

Plans will be provided by the Contractor, including a safety plan and waste management plan. The Stormwater Pollution Prevention Plan is an optional project element, and the creation of the plan will be determined by cost, as explained in section 5.

## **10. Inspections**

All work performed on this project shall be subject to regular inspections. The Contractor shall not cover up any work subsurface work prior to these inspections. It is the Contractor's responsibility to contact the Project Engineer and RCD Project Manager to conduct required inspections. Inspections shall occur during construction and at job completion.

## **11. Sensitive Areas**

The project site is an environmentally sensitive area. Contractor shall take all precautions and measures necessary to protect the environmental integrity of the site, including but not limited to the protection of all plants, animals, and aquatic life.

Of particular concern are the highly erodible soils at the access and staging areas. In addition to following the BMPs listed, we ask that bids include any additional plans for protecting soils at the existing dirt road, access roads and project staging areas. Please attach a separate sheet describing any additional plans (if any) to the Cost Proposal.

## **12. Licenses**

To submit a bid on this contract, a valid Contractor's License issued by the Contractor's State License Board is required.

## **13. Safety Plan**

A written safety plan shall be submitted to RCD by the successful bidder prior to the start of construction activities.

#### **14. Bid Security**

No bid bonds are required for this project, however, we expect that the contractor who is awarded the project will commit to providing the services included in their bid. Submit Exhibit B Section 2, which contains a statement obligating the bidding firm to perform the services included if awarded the project.

#### **15. Evaluation of Bids**

The RCD will accept the proposal which is of the greatest advantage to the project and the RCD. RCD has the right to reject any and all proposals and add alternates. Bids will be evaluated in several categories: contractor experience with similar projects, cost considerations, experience working with Resource Conservation Districts, knowledge of and experience with central California coastal environments, and references. **RCD is not required to accept the low bid.**

#### **16. Contract and Payment**

A lump sum contract will be awarded to the successful bidder for all work described in Exhibit A and the Scope of Work. The optional components will be determined prior to contract execution. Submission of invoice for lump sum payment to the Contractor may be made following completion of work and final inspection, or progress invoices may be submitted for payment in accordance with the provisions described the attached sample contract (Exhibit C). Payment policy and instructions for vendors are attached hereto as Exhibit F.

#### **17. Bonds**

Contractor shall provide a performance bond in favor of the RCD in the amount of one hundred percent (100%) of the contract price and a payment bond in favor of the RCD in the amount of one hundred percent (100%) of the contract price. Contractor will provide signed copies of the bonds before commencement of the work.

**EXHIBIT A**  
**Project Plans and Specifications**  
Butano Creek Floodplain Restoration Project



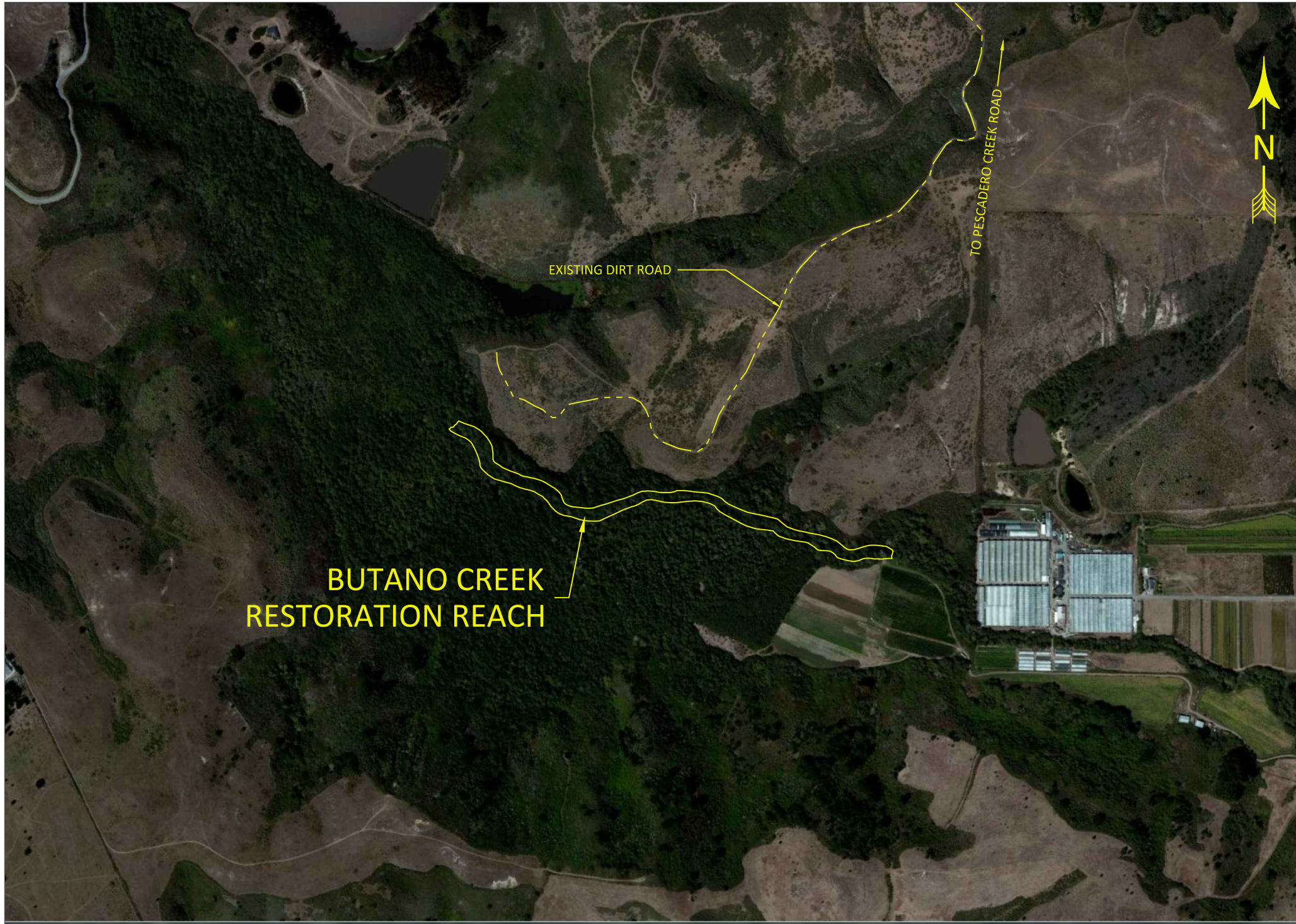
# BUTANO CREEK FLOODPLAIN RESTORATION PROJECT

PESCADERO, CA

(LAT: 37.2382, LONG: -122.3813)

THE RESOURCE CONSERVATION DISTRICT OF SAN MATEO COUNTY &  
PENINSULA OPEN SPACE TRUST

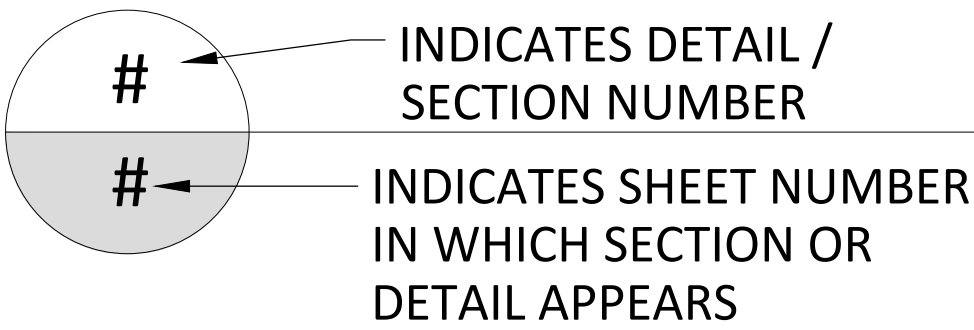
MAY 2016



LOCATION MAP



VICINITY MAP



## CONTACTS

SMCRCD	IRINA KOGAN , PROJECT MANAGER	(650) 712-7765
POST	LAURA O'LEARY, SENIOR STEWARDSHIP PROJECT MANAGER	(650) 854-7696
cbec, Inc.	CHRIS HAMMERSMARK, PROJECT ENGINEER	(916) 668-5236

CONTOURS AND ELEVATIONS SHOWN ON PLANS PROVIDED BY LIMITED SITE SURVEY TIED INTO NATIONAL GEODETIC SURVEY FIRST ORDER, CLASS 1, VERTICAL CONTROL POINT HT1506 LOCATED AT LAT:37°15'34.4", LONG:122°24'46.9" WITH A PUBLISHED ELEVATION OF 50.31 FT (NAVD88, GEOID 09). SURROUNDING TOPOGRAPHY IS FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION 2009-2011 LIDAR DATASET.

## DRAWING LIST

- 1 - COVER SHEET
- 2 - PROJECT OVERVIEW
- 3 - SITES 1 & 2 -- SECTIONS AND DETAILS
- 4 - SITE 5 -- LAYOUT AND PROFILE
- 5 - SITE 5 -- SECTIONS AND DETAILS
- 6 - GENERAL NOTES

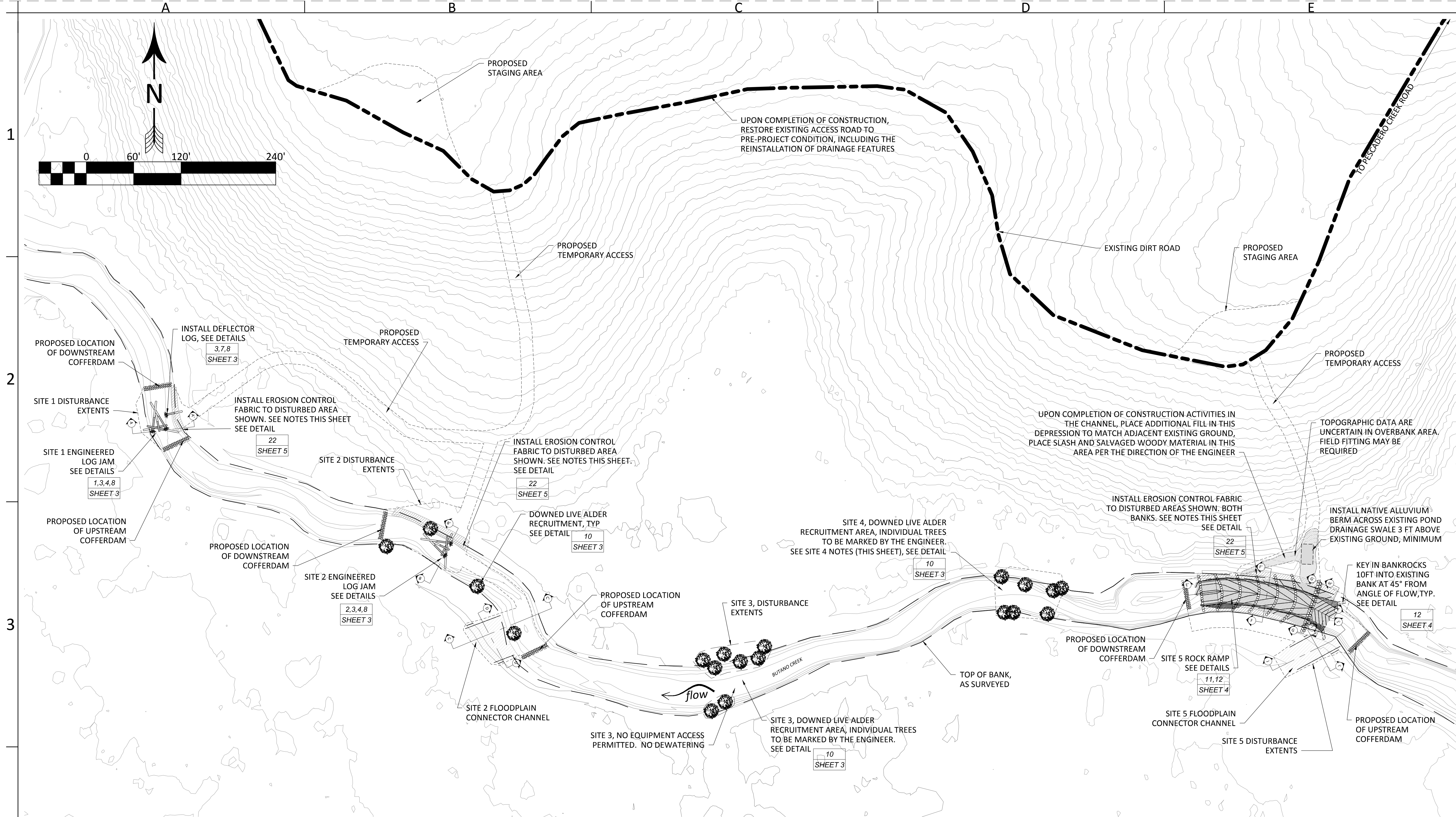
USE OF DOCUMENTS  
THIS DOCUMENT, INCLUDING  
THESE PLANS, IS TO BE USED  
FOR THE PROJECT ONLY.  
THIS DOCUMENT IS NOT TO BE  
USED FOR ANY OTHER PROJECT  
WITHOUT THE WRITTEN  
AUTHORIZATION OF  
CBEC OR GEC, INC.

DESIGNED	DRAWN	REVIEWED	APPROVED
CTH/BST	BST	SJD	CTH
100% PLANS	REVISION NOTES		



CALIFORNIA	BUTANO CREEK FLOODPLAIN RESTORATION PROJECT COVER SHEET
PESCADERO	
FILE NAME	01-Butano_Cover
JOB NUMBER	15-1013
DATE	MAY 2016
SHEET NO.	1 OF 6





**SITE 4 NOTES:**

1. NO DEWATERING PERMITTED ON SITE 4.
2. EQUIPMENT ACCESS TO SITE 4 WILL BE LIMITED TO A SINGLE PASS BY A LOW GROUND IMPACT (RUBBER TIRED) MACHINE. MINIMIZE DISTURBANCE TO HILLSIDE AND RIPARIAN AREA
3. ALL WORK FOR SITE 4 LIVE ALDER RECRUITMENT TO BE PERFORMED FROM THE RIGHT BANK ONLY, NO EQUIPMENT ACCESS PERMITTED IN THE CHANNEL

**EROSION CONTROL FABRIC INSTALLATION NOTES:**

1. EROSION CONTROL FABRIC IS REQUIRED ON ANY AREA OF THE BANK THAT HAS BEEN DISTURBED BY CONSTRUCTION ACTIVITIES.
2. EROSION CONTROL FABRIC INSTALLATION AREAS SHOWN ON THIS SHEET ARE APPROXIMATE.
3. PROTECT BANK FROM DAMAGE DURING ACCESS AND CONSTRUCTION, METHOD TO BE APPROVED BY THE ENGINEER.
4. UPON COMPLETION OF WORK RESTORE BANKS TO ORIGINAL GRADE AND TOPOGRAPHY.
5. SEE DETAIL 22, SHEET 5 FOR INSTALLATION INSTRUCTIONS.

**GENERAL NOTES:**

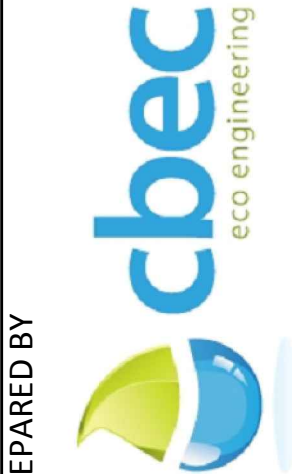
1. COFFER DAM AND OTHER TEMPORARY DEWATERING FACILITIES SHALL BE INSTALLED TO MINIMIZE DISTURBANCE.
2. RESHAPING OF THE CHANNEL IF NECESSARY, WILL ONLY BE ALLOWED WITH THE APPROVAL OF THE ENGINEER.
3. CHANNEL BED AND BANKS SHALL BE RESTORED TO PRE PROJECT SHAPE AND SUBSTRATE OF NATIVE BED/BANK MATERIAL, UNLESS OTHERWISE INDICATED.
4. CONTRACTOR MAY PROPOSE ALTERNATIVE DEWATERING PLAN. ALTERNATIVE DEWATERING PLANS MUST BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION.
5. CONTRACTOR IS ADVISED THAT BUTANO CREEK HAS PERENNIAL FLOWS. THE EXPECTED FLOW DURING CONSTRUCTION MAY BE BETWEEN 0.1 AND 5 CFS, THIS MAY BE EXCEEDED IN THE EVENT OF A STORM.
6. DEWATERING SHALL COMPLY WITH NRCS CONSTRUCTION SPECIFICATION - CONTROL OF WATER (909).

	GRADING SURFACE
	EXISTING CONTOURS
	PROPOSED CONTOURS
	ROCK RAMP
	RE-CONTOUR AREA
	EROSION CONTROL AREA
	DISTURBANCE LIMITS
	EXISTING TOP OF BANK
	EXISTING ROAD
	DOWNED LIVE ALDER
	ENGINEERED LOG JAM
	PROPOSED COFFER DAM

USE OF DOCUMENTS  
THIS DOCUMENT, INCLUDING  
THIS IS AN INSTRUMENT OF  
SERVICE FOR THIS PROJECT  
AND SHALL NOT BE USED FOR  
ANY OTHER PROJECT  
WITHOUT THE WRITTEN  
AUTHORIZATION OF  
SIGNED ON GEC, INC.

DOCUMENT RELEASE  
100% PLANS  
REVISION NOTES

DESIGNED  
CTH/BST  
DRAWN  
BST  
REVIEWED  
SJD  
APPROVED  
CTH



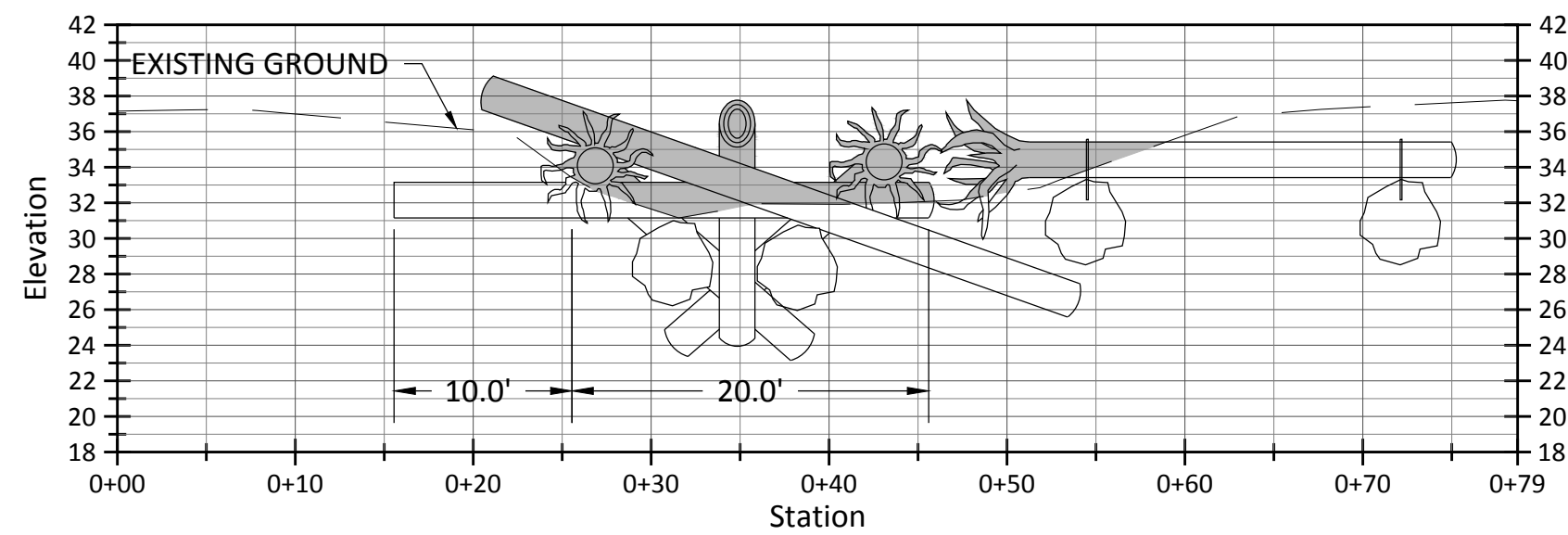
CALIFORNIA  
BUTANO CREEK  
FLOODPLAIN  
RESTORATION PROJECT  
PROJECT OVERVIEW

FILE NAME  
02-Overview  
JOB NUMBER  
15-1013  
DATE  
MAY 2016  
SHEET NO.

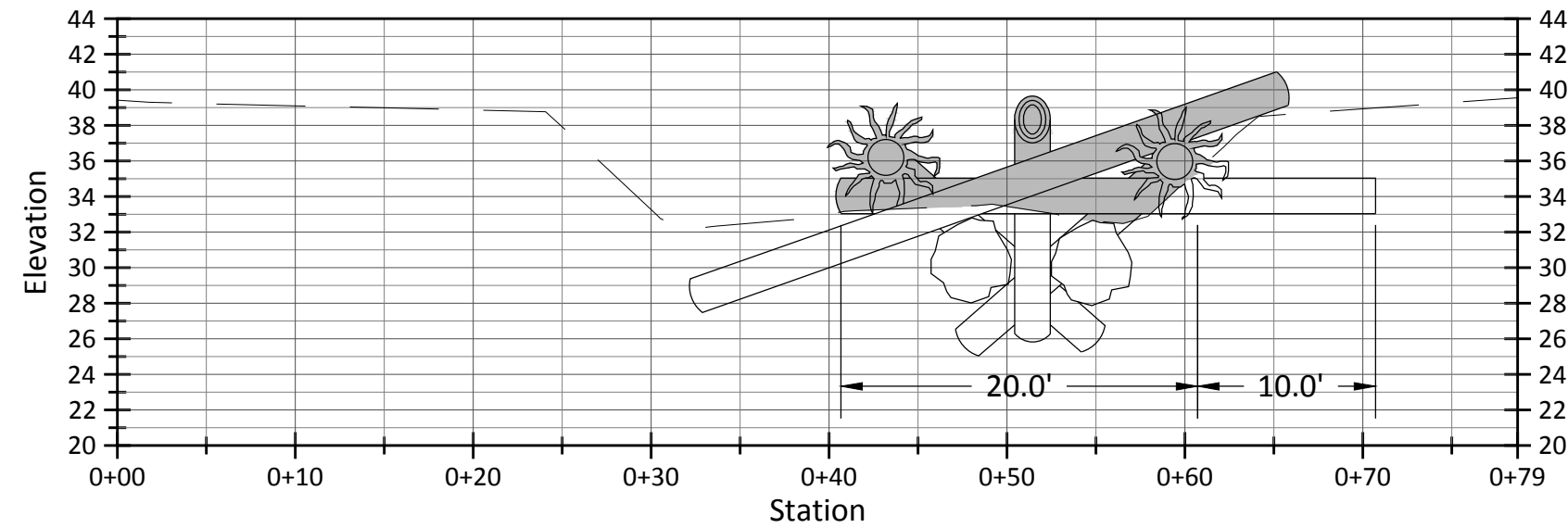
2 OF 6



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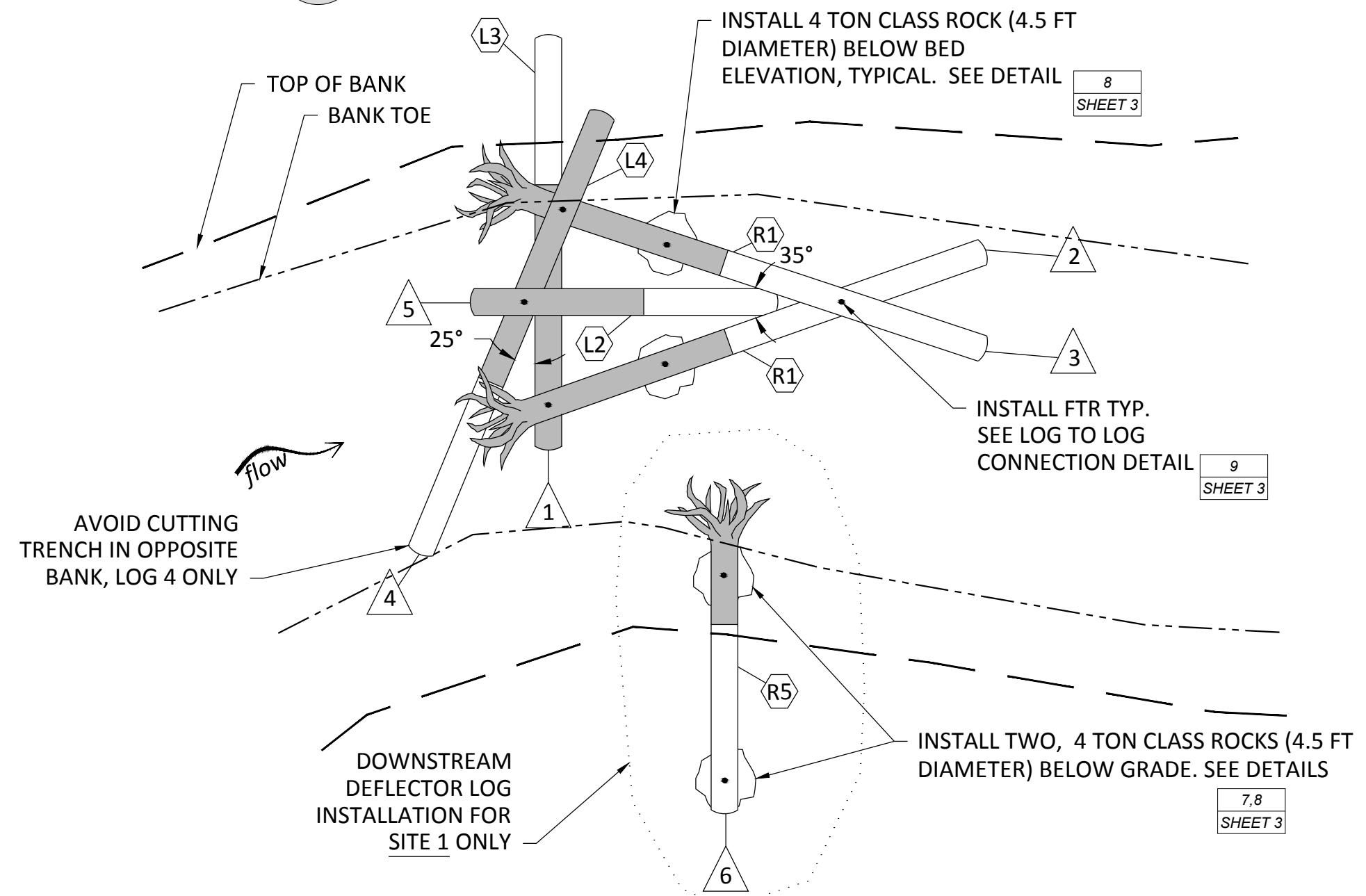


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2  
ELJ SITE 1 - SECTION A-A'  
1"=10'



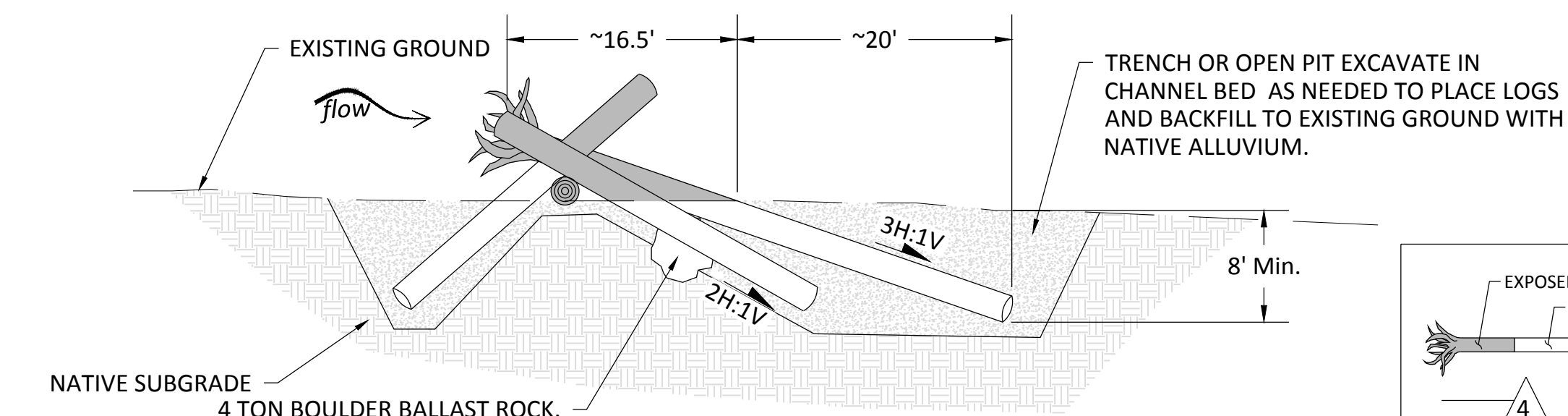
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2  
ELJ SITE 2 - SECTION B-B'  
1"=10'

2



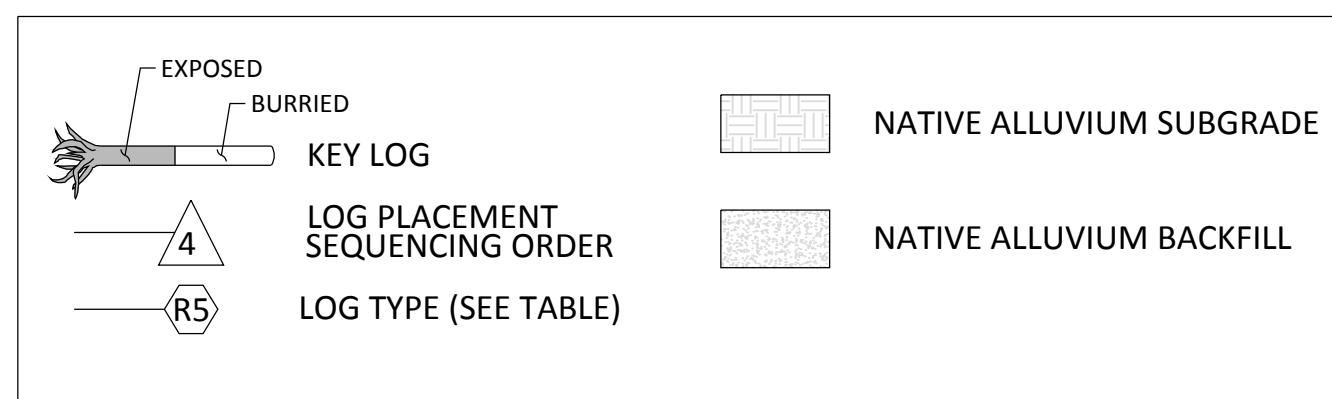
3  
2  
ELJ SITE 1 & 2 - PLAN VIEW, INSTALLATION DETAILS  
1"=10' (NOTE: ELJ 1 SHOWN ABOVE, INSTALLATION OF ELJ 2 WILL BE MIRRORED)

3

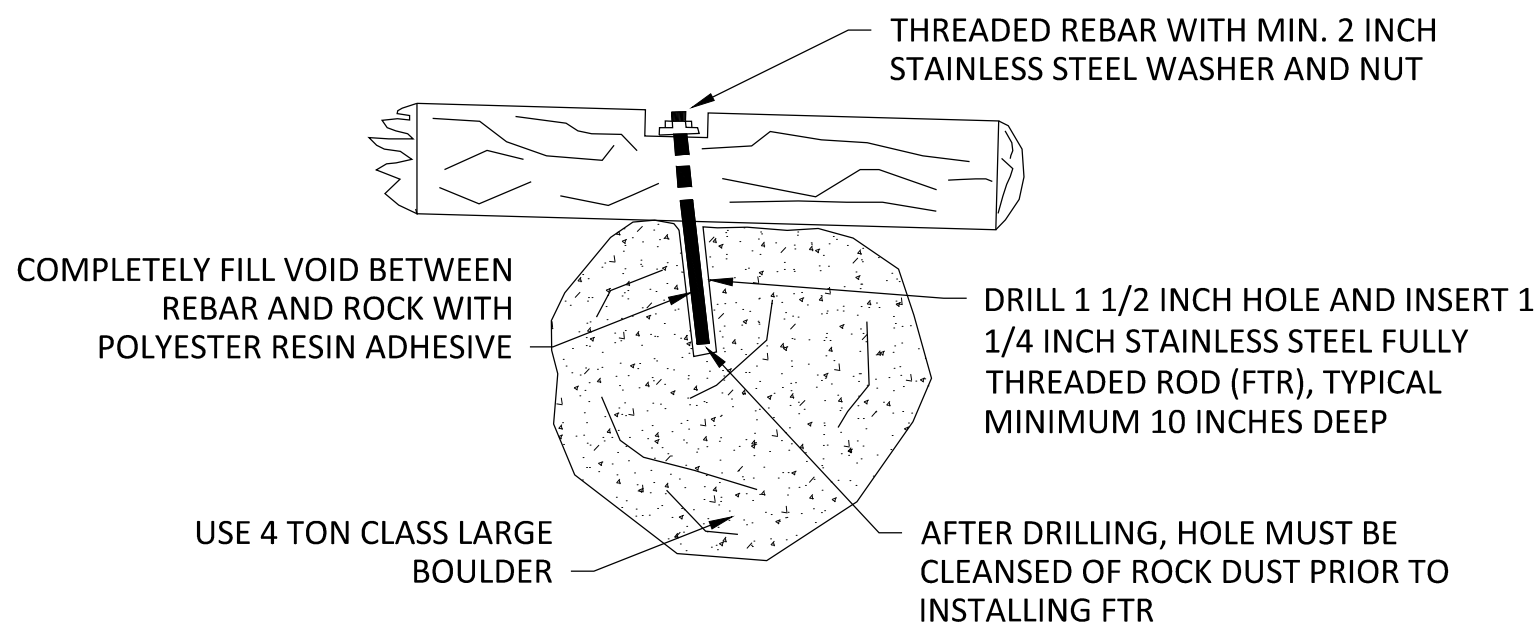


4  
2  
ELJ SITE 1 & 2 - PROFILE VIEW, INSTALLATION DETAILS  
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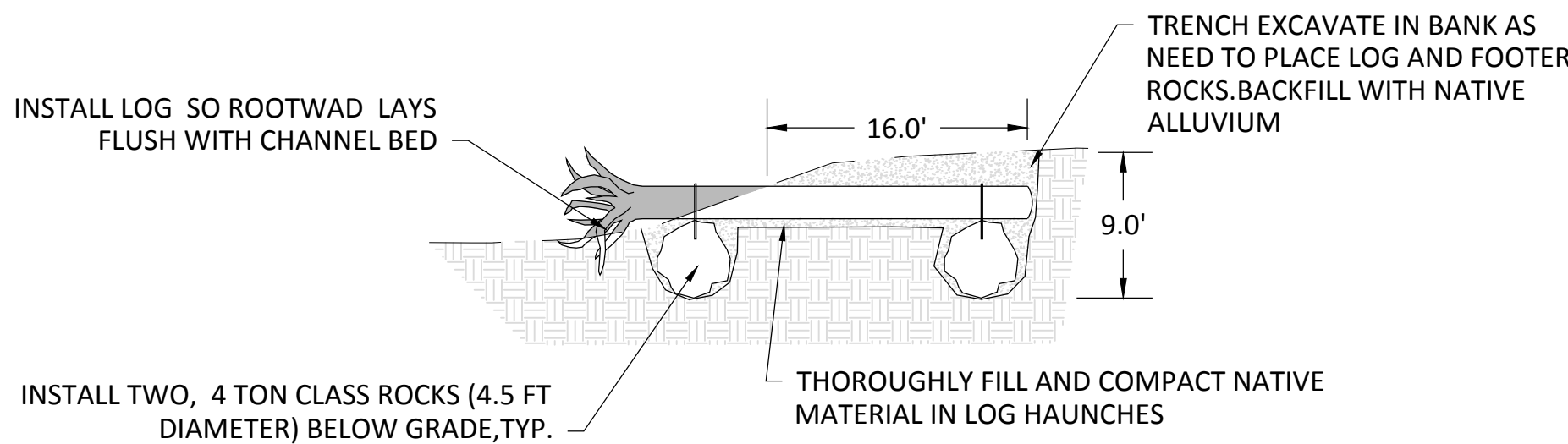
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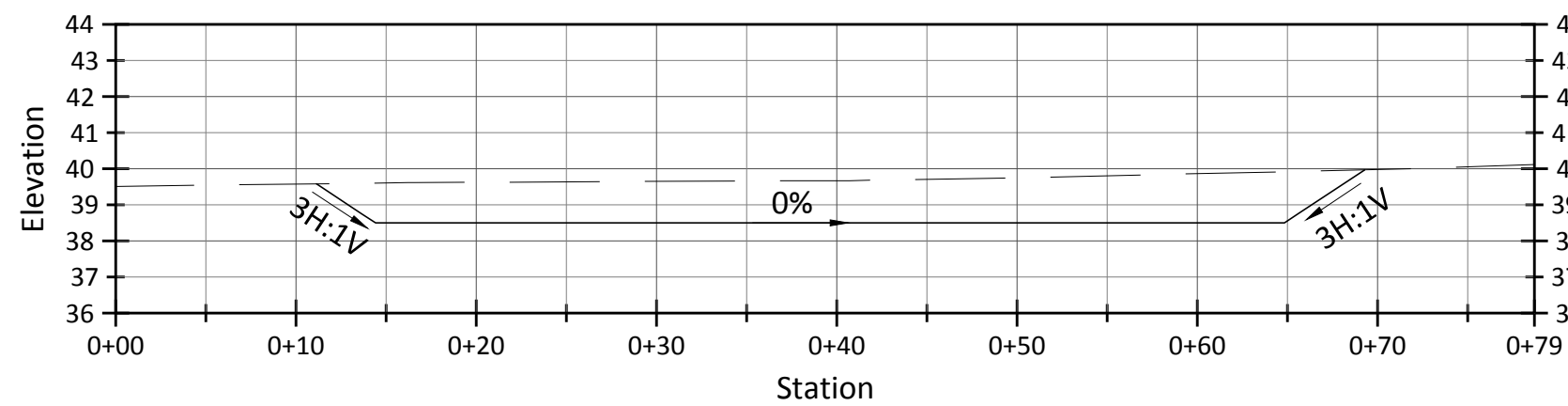
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LOG TO BOULDER CONNECTION DETAIL  
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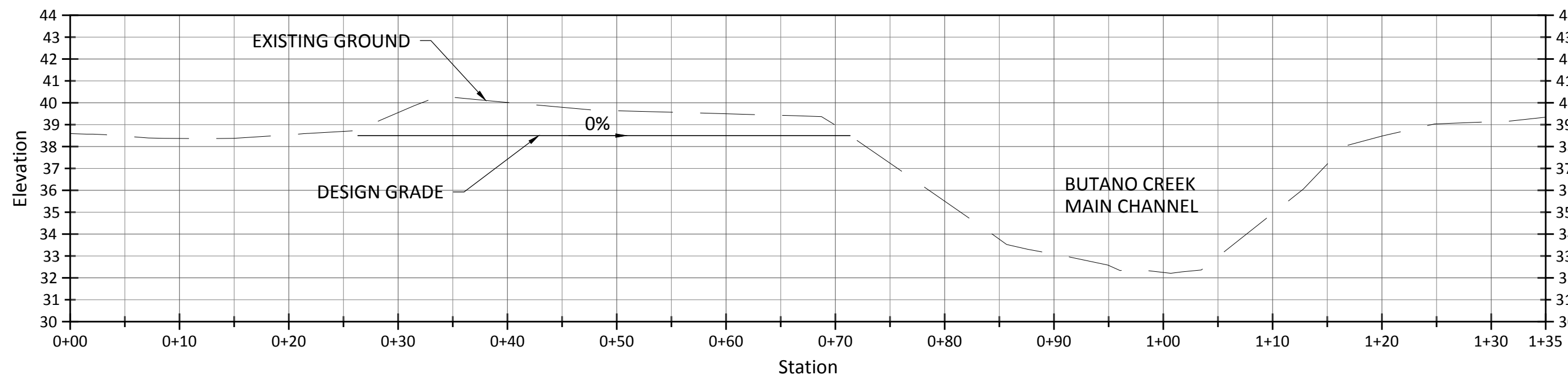
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DEFLECTOR LOG INSTALLATION DETAIL  
1"=10'



6  
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CROSS SECTION D-D'  
SCALE: HORIZONTAL 1"=10', VERTICAL 1"=5'



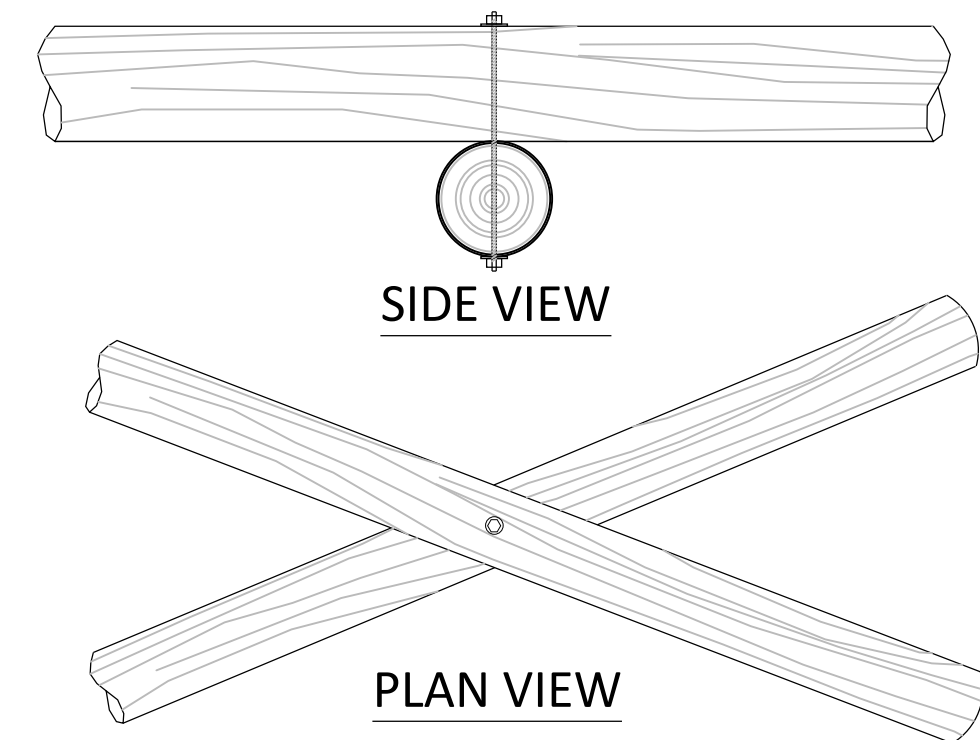
5  
2  
CROSS SECTION C-C'  
SCALE: HORIZONTAL 1"=10', VERTICAL 1"=5'



C

D

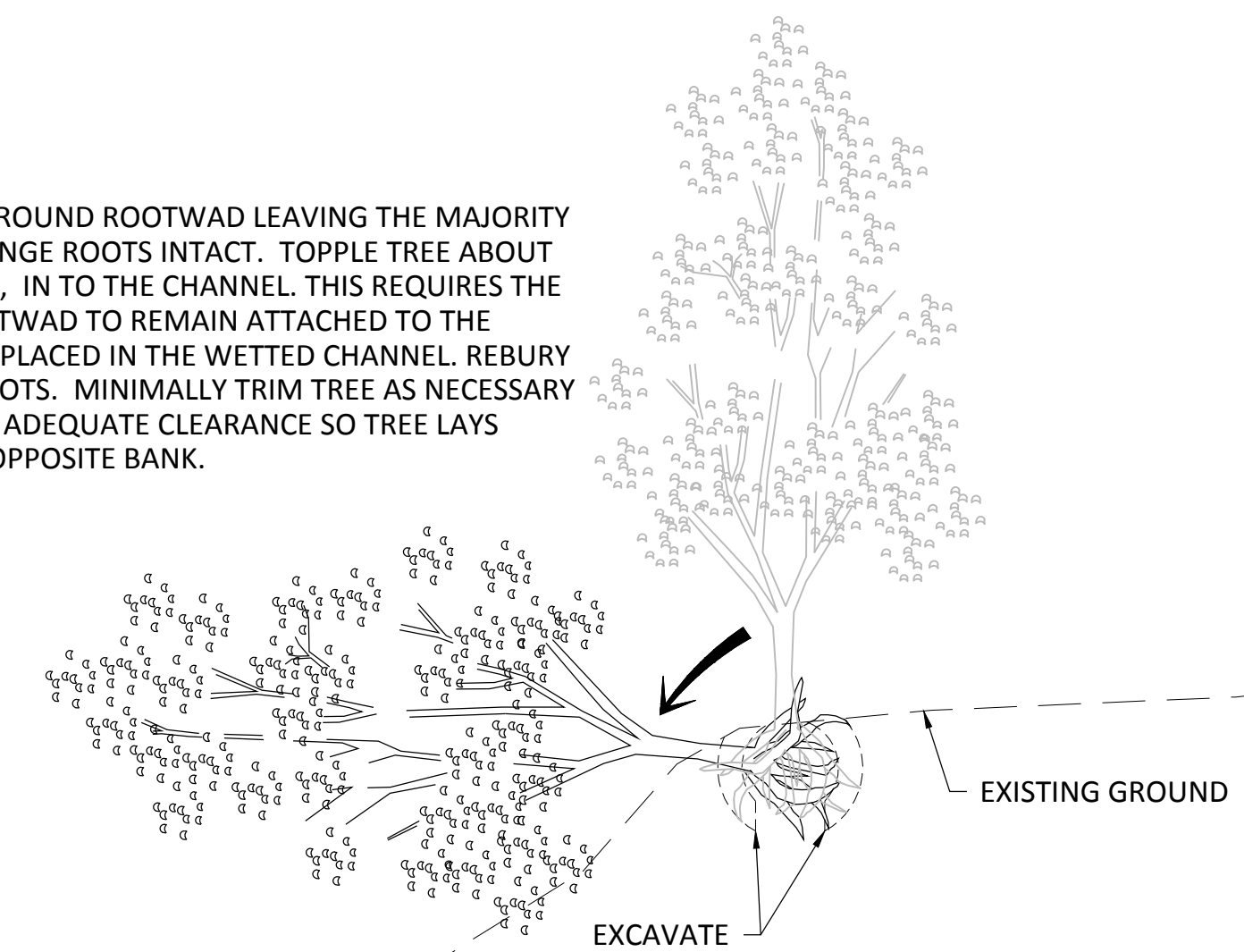
E



1. DRILL 1-3/8 IN. HOLE THROUGH BOTH LOGS
2. INSERT 1-1/4 IN. DIA, STAINLESS STEEL, FULLY THREADED ROD (FTR)
3. INSTALL STAINLESS STEEL WASHER AND NUT ON EACH END OF FTR
4. TIGHTEN NUTS ON EACH END AND CUT FTR WITH 1/2 IN. PROTRUDING FROM NUT
5. STRIKE ENDS OF FTR TO MUSHROOM ROD TO SECURE NUT
6. FILE OR GRIND OFF ANY SHARP EDGES

9  
3  
LOG TO LOG CONNECTION DETAIL  
NOT TO SCALE

EXCAVATE AROUND ROOTWAD LEAVING THE MAJORITY OF LARGE HINGE ROOTS INTACT. TOPPLE TREE ABOUT ROOT HINGE, IN TO THE CHANNEL. THIS REQUIRES THE INTACT ROOTWAD TO REMAIN ATTACHED TO THE TRUNK AND PLACED IN THE WETTED CHANNEL. REBURY EXPOSED ROOTS. MINIMALLY TRIM TREE AS NECESSARY TO PROVIDE ADEQUATE CLEARANCE SO TREE LAYS FIRMLY ON OPPOSITE BANK.

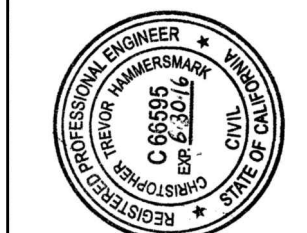


10  
2  
DOWNED LIVE ALDER RECRUITMENT  
NOT TO SCALE

USE OF DOCUMENTS  
THIS DOCUMENT, INCLUDING  
THIS INSTRUMENT OF  
SERVICE FOR THIS PROJECT  
AND SHALL NOT BE USED FOR  
ANY OTHER PROJECT  
WITHOUT THE WRITTEN  
AUTHORIZATION OF  
SIGNED ON CREC, INC.

DESIGNED	DRAWN	REVIEWED	APPROVED
CTH/BST	BST	SJD	CTH

DOCUMENT RELEASE  
100% PLANS  
REVISION NOTES



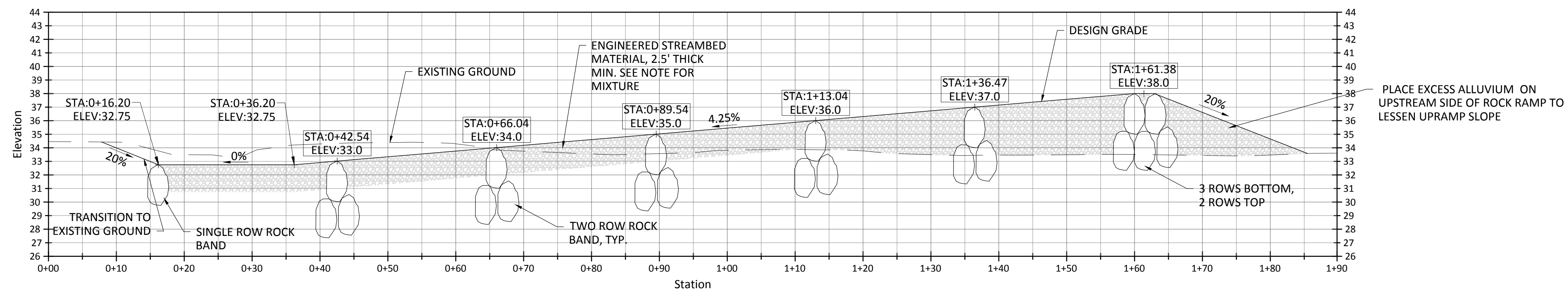
PREPARED BY  
Peninsula Open Space Trust  
Preserve Open Space Close to Home

PREPARED FOR  
San Mateo County  
Resource Conservation  
District

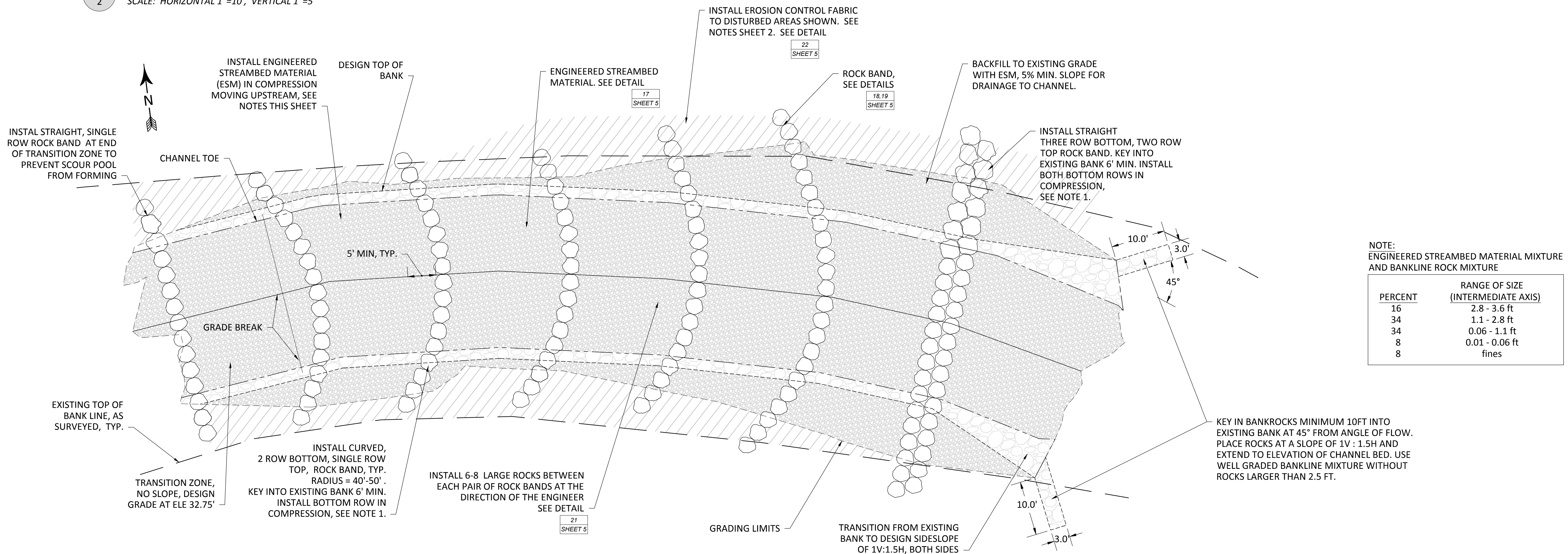
PESCADERO  
BUTANO CREEK  
FLOODPLAIN  
RESTORATION PROJECT  
SITES 1 & 2 -- SECTIONS AND DETAILS

FILE NAME  
03-Sites 1 and 2  
JOB NUMBER  
15-1013  
DATE  
MAY 2016  
SHEET NO.  
3 OF 6










**11 SITE 5 PROFILE - SECTION E-E' - ROCK BAND LAYOUT**  
**2 SCALE: HORIZONTAL 1"=10', VERTICAL 1"=5'**



## 12 SITE 5 ROCK RAMP INSTALLATION DETAILS

	NATIVE ALLUVIUM SUBGRADE
	NATIVE ALLUVIUM BACKFILL
	ENGINEERED STREAMBED MATERIAL
	BANKLINE ROCKS
	EROSION CONTROL AREA

NOTES:

1. BUILDING IN COMPRESSION MEANS THAT ROCK IS TO BE INSTALLED BY COMPACTING DOWN AND IN A DOWNSTREAM DIRECTION. WORK SHALL PROGRESS FROM DOWNSTREAM TO UPSTREAM.
2. INSTALL ESM IN 12 INCH LIFTS IN COMPRESSION.
3. ON EACH LIFT JET FINES INTO SURFACE OF ROCK RAMP TO FILL VOIDS, AND AID SETTLING AND HETEROGENEITY OF THE MATERIAL.

THIS DOCUMENT, INCLUDING  
THE INCORPORATED DESIGNS,  
IS AN INSTRUMENT OF  
SERVICE FOR THIS PROJECT  
AND SHALL NOT BE USED FOR  
ANY OTHER PROJECT  
WITHOUT THE WRITTEN  
AUTHORIZATION OF  
SMCRCD OR CBEC, INC.

CTH/BST	100% PLANS
DRAWN BST	REVISION NOTES
REVIEWED	
SLD	
APPROVED	
CTH	




**San Mateo County**  
**Resource Conservation District**

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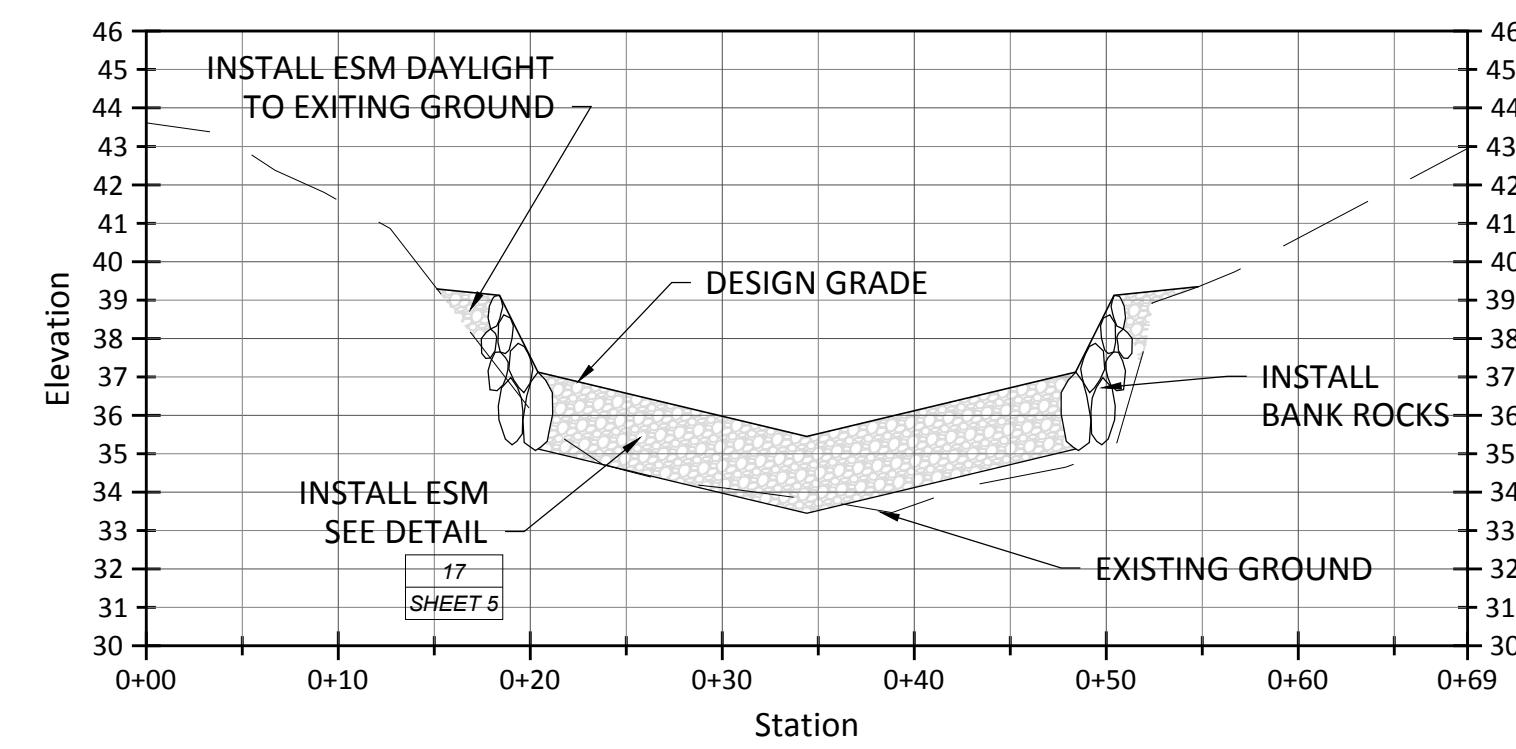
**Peninsula Open Space Trust**  
 Preserve Open Space Close to Home

BUTANO CREEK  
FLOODPLAIN  
RESTORATION PROJECT  
SITE 5 -- LAJOIT AND PROFFER

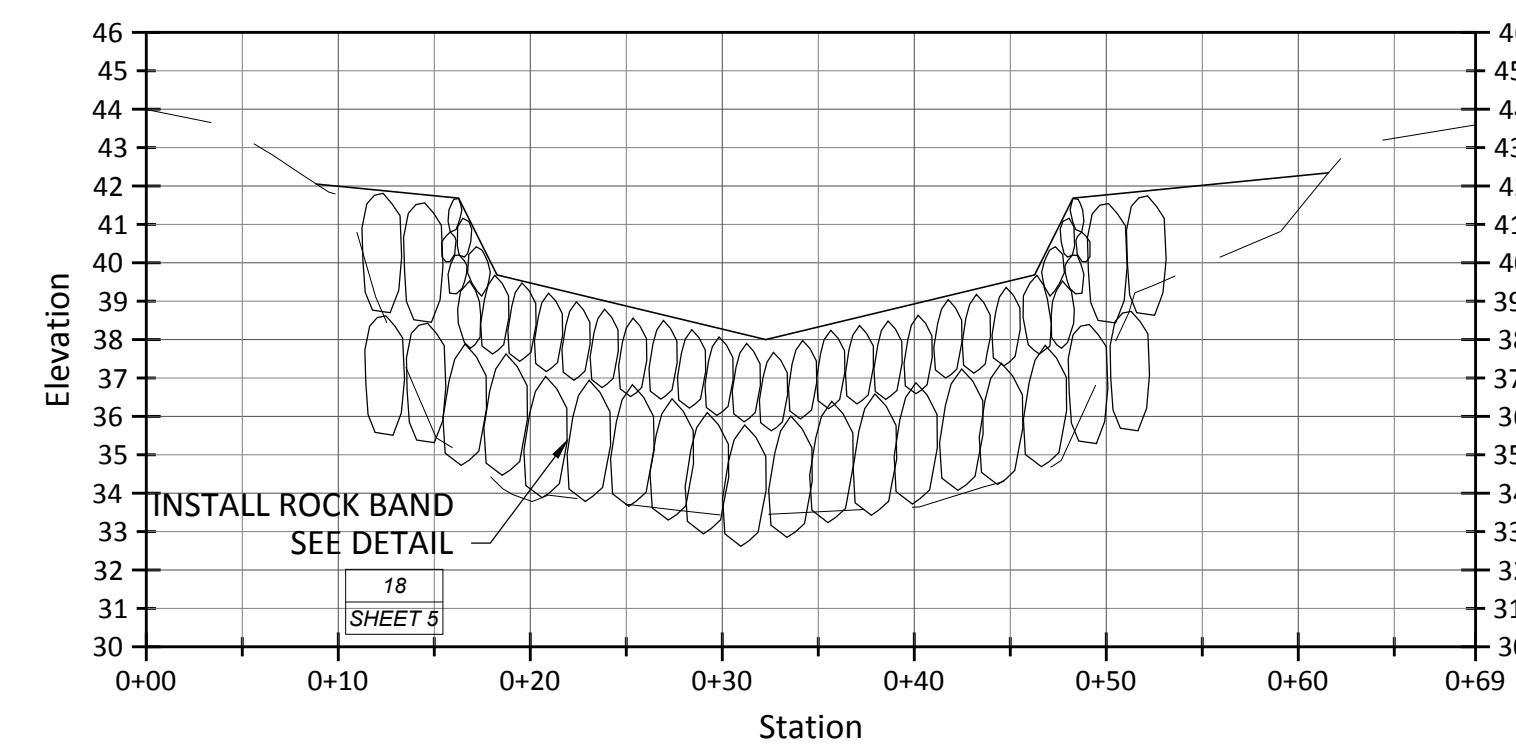
FILE NAME	04-Site 5
JOB NUMBER	15-1013
DATE	MAY 2016
SHEET NO.	

4 6  
OF

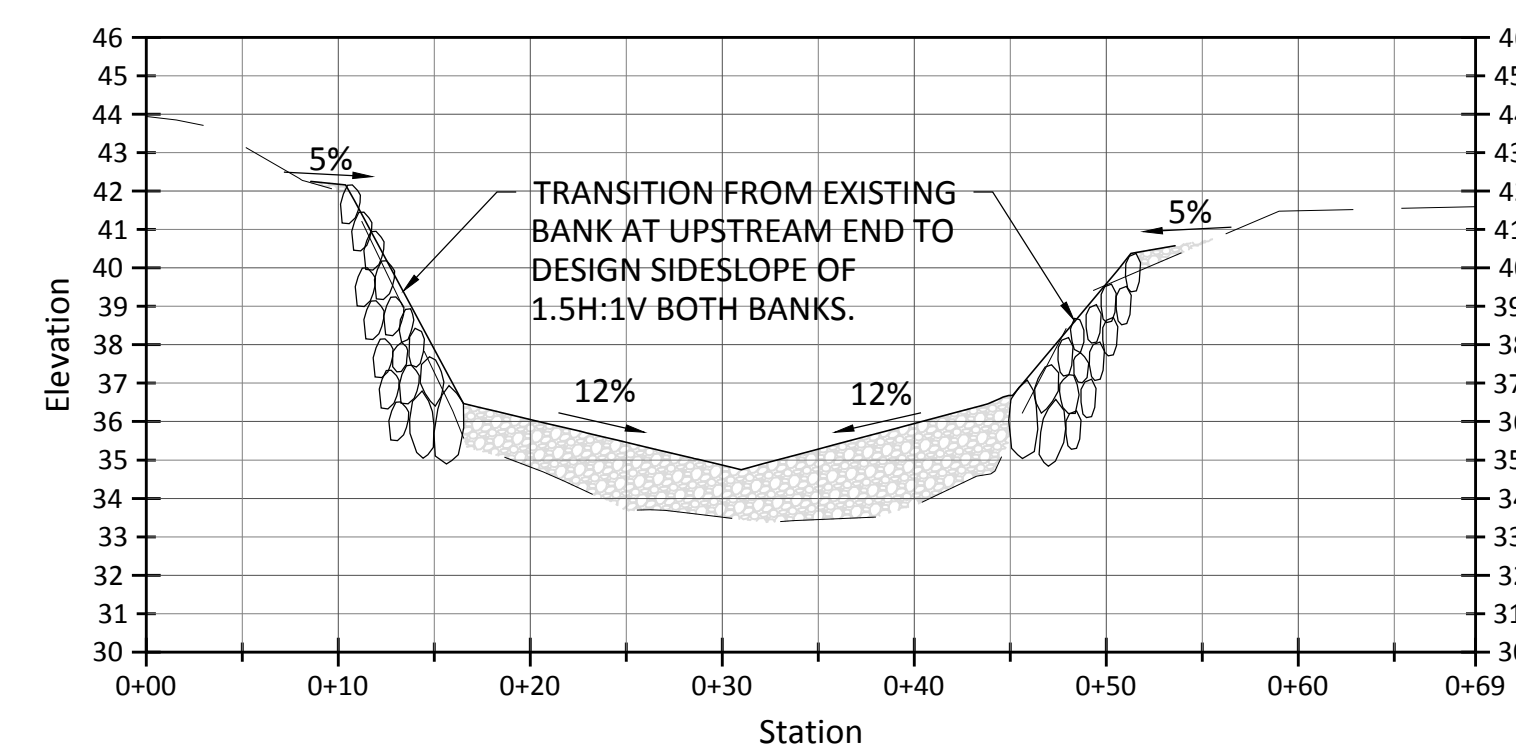




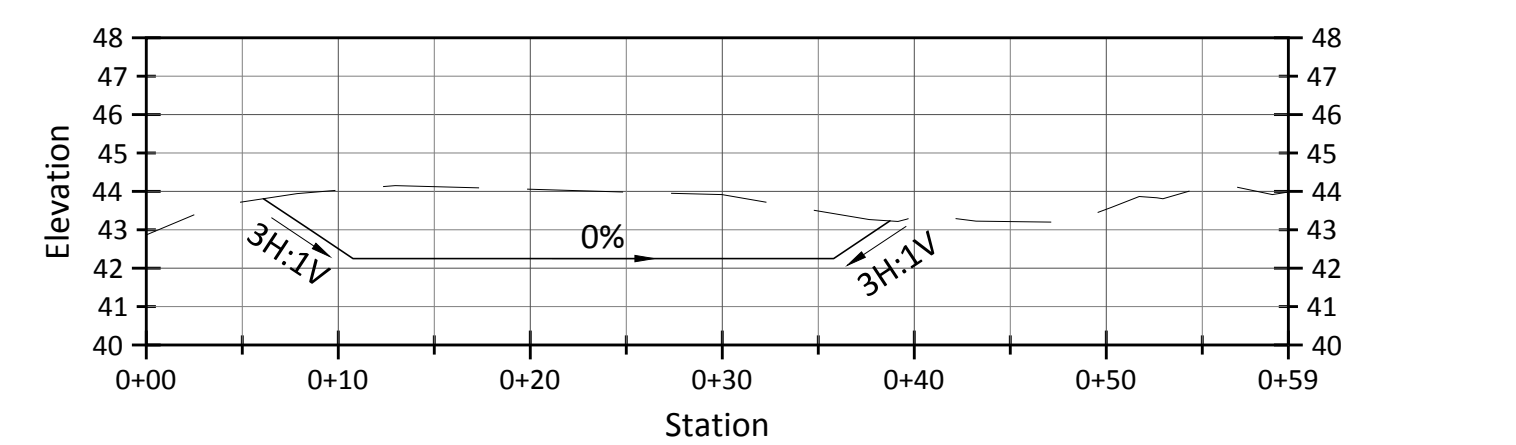
13  
2 SECTION F-F'  
SCALE: HORIZONTAL 1"=10', VERTICAL 1"=5'



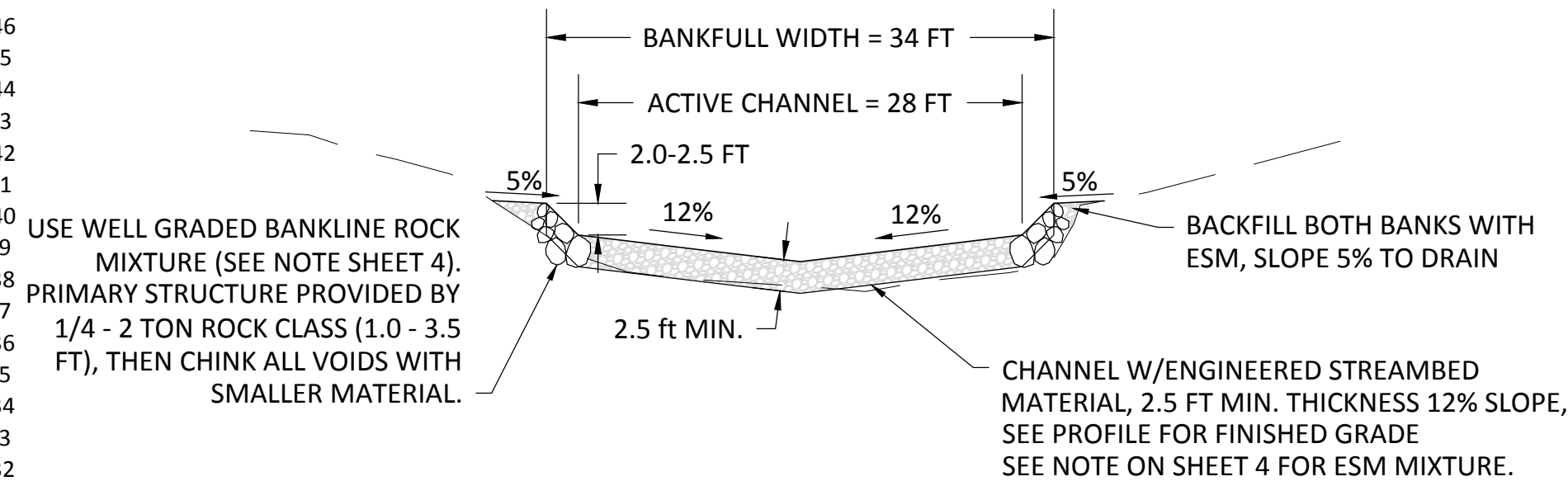
**SECTION G-G'**  
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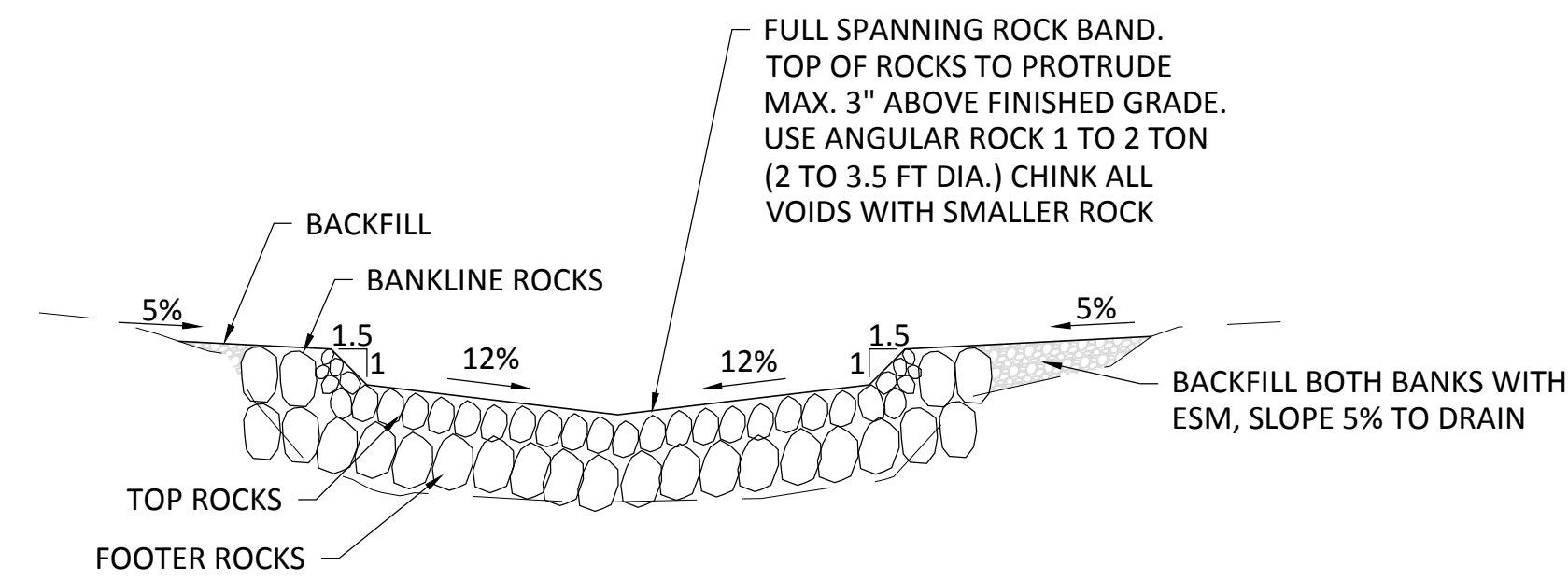
15 SECTION H-H'  
2 SCALE: HORIZONTAL 1"=10', VERTICAL 1"=5'



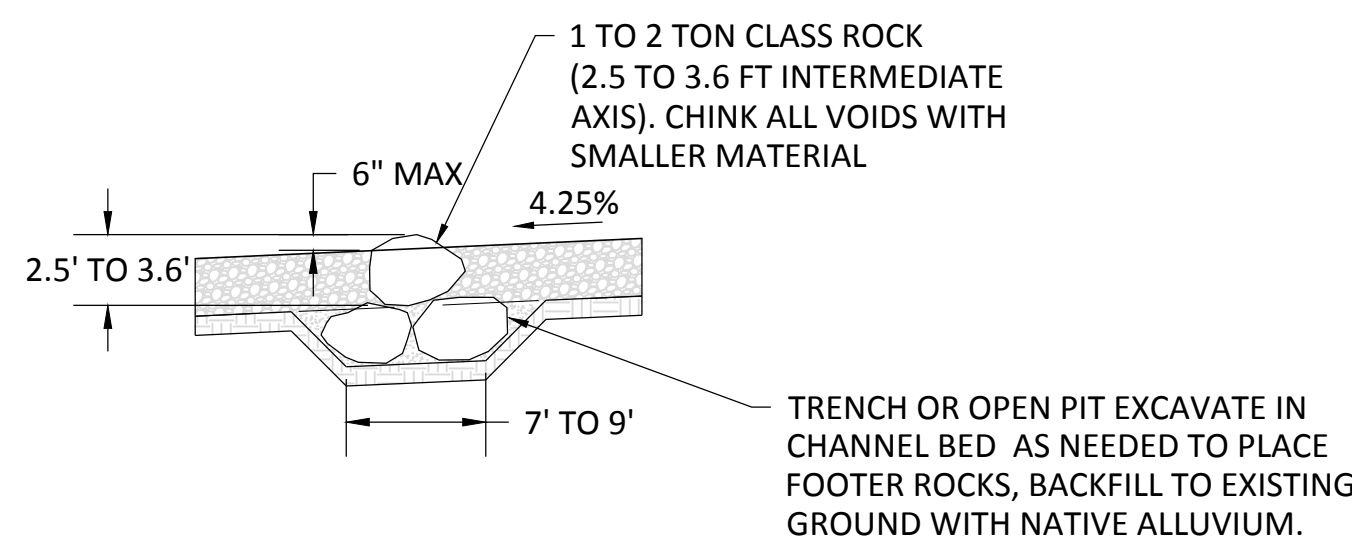
16 SECTION I-I'  
2 SCALE: HORIZONTAL 1"=10', VERTICAL 1"=5'



17 TYPICAL ENGINEERED STREAMBED MATERIAL CROSS SECTION  
2 NOT TO SCALE

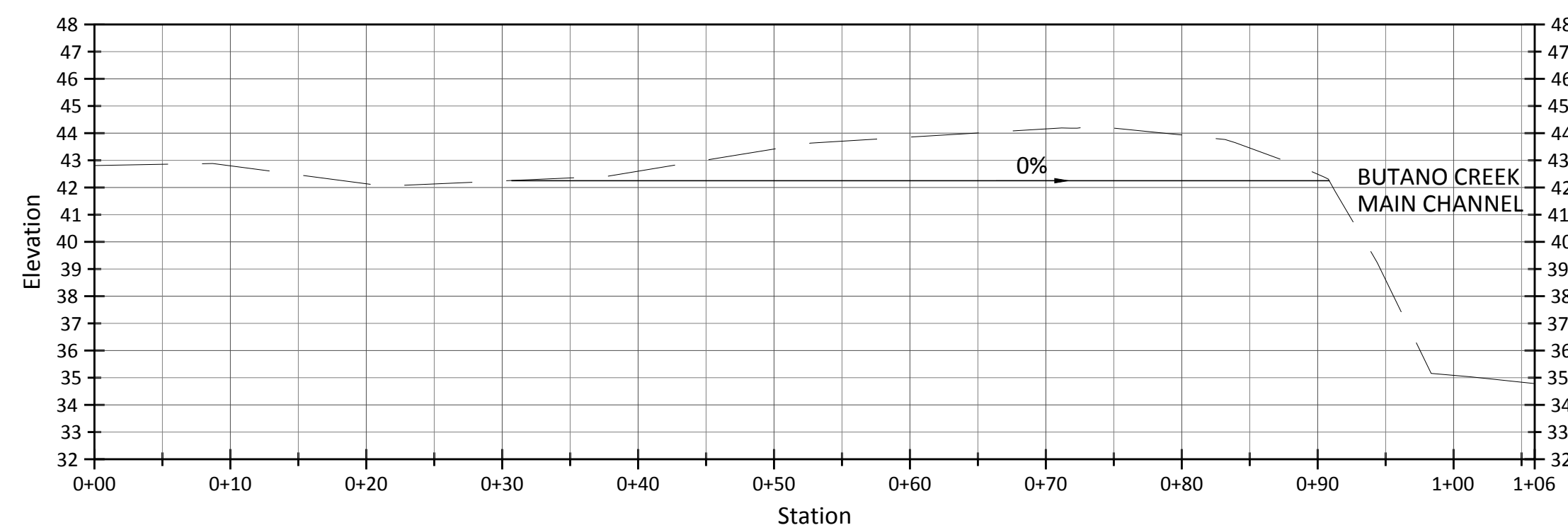


18 TYPICAL ROCK BAND CROSS SECTION  
2 NOT TO SCALE

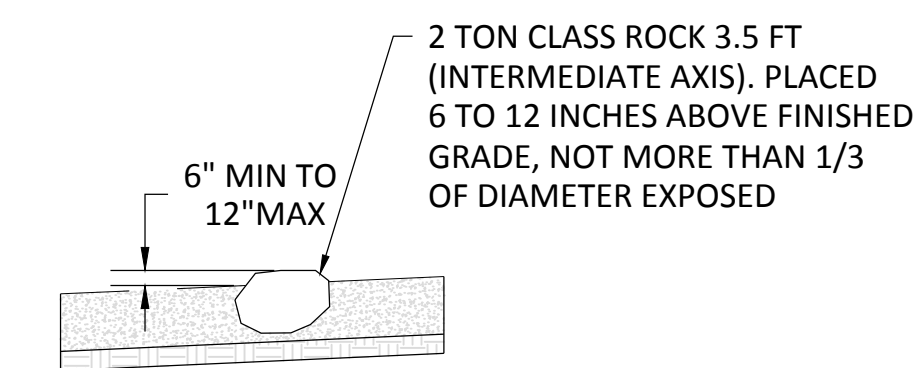
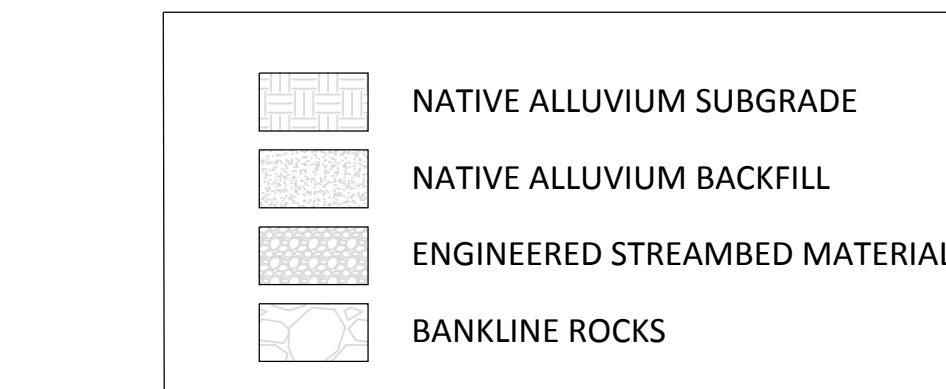


19  
2

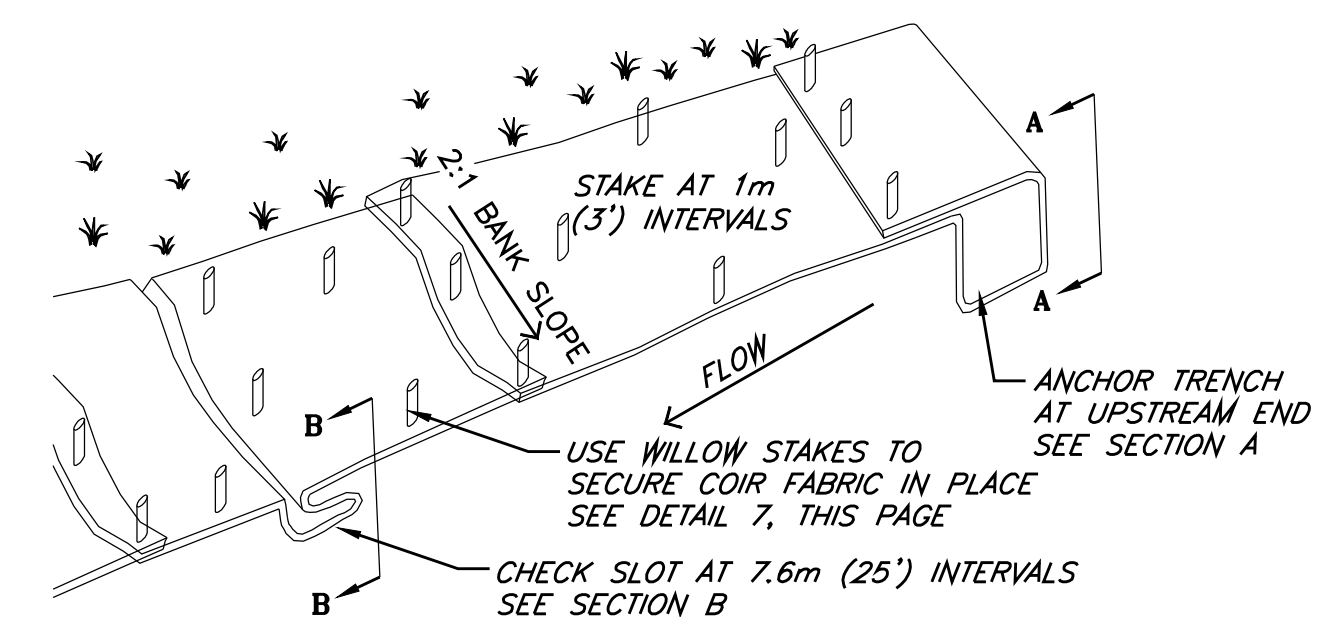
ROCK BAND PROFILE DETAIL  
NOT TO SCALE



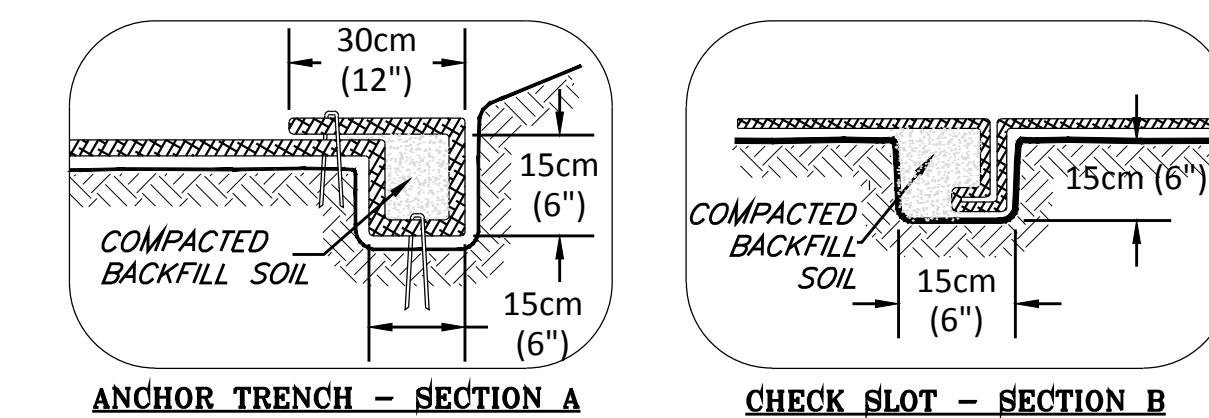
20 SECTION J-J'  
2 SCALE: HORIZONTAL 1"=10', VERTICAL 1"=5'



21  
4 INDIVIDUAL ROCK PLACEMENT  
NOT TO SCALE







ISOMETRIC VIEW





NOTES:

1. CHECK SLOTS TO BE CONSTRUCTED PER MANUFACTURERS SPECIFICATIONS.
2. STAKING OR STAPLING LAYOUT PER MANUFACTURERS SPECIFICATIONS.
3. USE ROLANKA BIO D-MAT 70, OR EQUIVALENT,

22 EROSION CONTROL FABRIC INSTALLATION DETAILS  
2 NOT TO SCALE

5 OF 6	FILE NAME 05-Site 5 Details	JOB NUMBER 15-1013	DATE MAY 2016	SHEET NO.	PESADERO	CALIFORNIA	 San Mateo County Resource Conservation District	 Peninsula Open Space Trust POST Preserve Open Space Close to Home		 cbec eco engineering	DESIGNED CTH/BST	DOCUMENT RELEASE 100% PLANS	USE OF DOCUMENTS THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND NOT VALID FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF SWKCD OR CBEC, INC.
											DRAWN BST	REVISION NOTES	REVIEWED SLD



	A	B	C	D	E
1	GENERAL CONSTRUCTION NOTES:			GENERAL STRUCTURE CONSTRUCTION SEQUENCING:	
2	<div><div>1.</div><div>THE WORK INCLUDES CONSTRUCTING ENGINEERED LOG JAM (ELJ) STRUCTURES, A ROUGHENED CHANNEL ROCK RAMP, TEMPORARY ACCESS ROADS, TEMPORARY WATER MANAGEMENT FACILITIES, PLACING FILL, EROSION AND SEDIMENT CONTROL (ESC) WORK AS DESCRIBED IN THESE PLANS AND IN THE PROJECT SPECIFICATIONS AND AS NEEDED TO COMPLETE CONSTRUCTION.</div></div> <div><div>2.</div><div>THIS PROJECT IS LOCATED IN AN ENVIRONMENTALLY SENSITIVE AREA AND WORK SHALL COMPLY WITH ALL PERMIT REQUIREMENTS INCLUDING, BUT NOT LIMITED TO, DEWATERING OF THE WORK AREA, AVOIDANCE OF SENSITIVE HABITAT AREAS, BIOLOGICAL EXCLUSION FENCING AND COORDINATION WITH BIOLOGICAL MONITORING CONSULTANTS.</div></div> <div><div>3.</div><div>CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES. SPECIAL SAFETY PRECAUTIONS TO BE TAKEN WHEN WORKING IN THE VICINITY OF GAS, OIL AND ELECTRICAL LINES. CONTACT THE STATE'S ONE CALL SYSTEM, "CALL BEFORE YOU DIG - UNDERGROUND SERVICE ALERT (USA)" AT (800) 227-2600.</div></div> <div><div>4.</div><div>THE PROJECT ENGINEER IS DEFINED AS CHRIS HAMMERSMARK, CBEC ECOENGINEERING (916) 668-5236.</div></div> <div><div>5.</div><div>THE CONTRACTOR SHALL STAKE FOR APPROVAL BY THE ENGINEER PRIOR TO INITIATING CONSTRUCTION ACTIVITIES, THE LOCATIONS OF EACH OF THE FLOODPLAIN CONNECTOR CHANNELS, ELJ AND ROCK RAMP STRUCTURES INCLUDING LENGTHS, WIDTHS, ORIENTATION AND ELEVATIONS, TEMPORARY ACCESS ROADS, TEMPORARY DEWATERING COFFER DAMS, AND ALL GRADING/EXCAVATION EXTENTS.</div></div> <div><div>6.</div><div>THE CONTRACTOR SHALL STAKE CLEARING LIMITS FOR APPROVAL BY THE ENGINEER AT LEAST 5 WORKING DAYS PRIOR TO COMMENCING CLEARING ACTIVITIES. CLEARING LIMITS FOR CONSTRUCTION SHALL BE LIMITED TO THE AREA REQUIRED FOR SAFE EQUIPMENT OPERATION AND SHALL MINIMIZE THE AREA OF DISTURBANCE. CLEARING LIMITS SHALL NOT BE ALTERED OR EXPANDED WITHOUT THE APPROVAL FROM THE ENGINEER.</div></div> <div><div>7.</div><div>TREES AND BRUSH NOT SHOWN ON THESE PLANS WILL BE ENCOUNTERED DURING CONSTRUCTION. THE ENGINEER OR BIOLOGICAL MONITORS SHALL IDENTIFY AND FLAG ALL TREES TO BE PROTECTED FROM DAMAGE PRIOR TO CONSTRUCTION. AFTER CLEARING ALL ALLOWED VEGETATION, THE CONTRACTOR SHALL STOCKPILE ALL TREES AND BRUSH AS DIRECTED BY THE ENGINEER FOR USE AS RACKING FOR THE ELJ STRUCTURES.</div></div> <div><div>8.</div><div>ALTERATION OR DISTURBANCE OF THE CHANNEL, FLOODPLAIN AND ANY BANK AND FLOODPLAIN VEGETATION SHALL BE MINIMIZED TO THAT NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL KEEP DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS SHOWN IN THESE PLANS UNLESS APPROVED BY THE ENGINEER.</div></div> <div><div>9.</div><div>THE CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCE NOTICE TO THE ENGINEER PRIOR TO ANY REQUIRED INSPECTION.</div></div> <div><div>10.</div><div>CONSTRUCTION MATERIAL AND EQUIPMENT STAGING AREAS SHALL BE LOCATED AS SHOWN IN THESE PLANS. CONSTRUCTION EQUIPMENT SHALL NOT BE STORED OUTSIDE OF IDENTIFIED STORAGE AREAS, UNLESS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL PROTECT ALL CONSTRUCTION MATERIALS FROM DAMAGE AT ALL TIMES. EQUIPMENT TO BE STORED OVERNIGHT SHALL BE STORED IN THE INDICATED STAGING AREAS.</div></div> <div><div>11.</div><div>TO PREVENT THE INTRODUCTION OF PLANT PATHOGENS, PRIOR TO MOBILIZATION ON-SITE, CONTRACTOR SHALL DECONTAMINATE THEIR EQUIPMENT:<div><div>A.</div><div>VEHICLES, HEAVY MACHINERY, AND LARGE TOOLS (SUCH AS EXCAVATORS, TRENCHERS, GRADERS, INCLUDING TIRES, TRACKS, UNDERCARRIAGE OF ON-SITE VEHICLES, AND THEIR TOOLS AND IMPLEMENTS) SHALL BE CLEANED FREE OF DEBRIS AND SOIL WITH HIGH PRESSURE WASHER AND/OR COMPRESSED AIR FROM ANY PRIOR WORK SITE PRIOR TO ARRIVING AT THE PROJECT SITE.</div></div><div><div>B.</div><div>FOOTWEAR AND SMALL TOOLS (SUCH AS HAND TOOLS, SHOVELS, TROWELS, HOES, AND PERSONNEL BOOTS) SHALL BE THOROUGHLY CLEANED OF DEBRIS AND SOIL THEN WIPED WITH SEVENTY PERCENT (70%) ETHANOL OR ISOPROPANOL PRIOR TO USE WITHIN THE PROJECT SITE.</div></div><div><div>C.</div><div>EQUIPMENT AND TOOLS MOVED OFF-SITE AND RETURNED FOR LATER USE WILL AGAIN REQUIRE DECONTAMINATION BY THE CONTRACTOR.</div></div></div></div> <div><div>12.</div><div>EQUIPMENT SHALL BE CHECKED AT THE BEGINNING AND END OF EACH WORK DAY FOR LEAKS.</div></div> <div><div>13.</div><div>THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT NO PETROLEUM PRODUCTS, HYDRAULIC FLUID, SEDIMENTS, CHEMICALS OR ANY OTHER TOXIC MATERIALS ARE ALLOWED TO ENTER OR LEACH INTO THE CREEK OR WETLANDS.</div></div> <div><div>14.</div><div>IF AT ANY TIME DURING CONSTRUCTION, FISH ARE OBSERVED IN DISTRESS, A FISH KILL IS OBSERVED OR WATER QUALITY PROBLEMS DEVELOP, OPERATIONS SHALL CEASE AND THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER IMMEDIATELY. WORK SHALL NOT RESUME UNTIL FURTHER APPROVAL BY THE PROJECT MANAGER.</div></div> <div><div>15.</div><div>EROSION AND SEDIMENT CONTROL METHODS SHALL BE USED TO PREVENT SILT FROM ENTERING THE CREEK DUE TO CONSTRUCTION. ALL ACCESS POINTS TO THE CHANNEL WILL BE RE-CONTOURED BACK TO PRE-PROJECT CONDITIONS AND FINISHED WITH EROSION CONTROL FABRIC AND RIPARIAN PLANTINGS UPON COMPLETION OF THE CONSTRUCTION. REVEGETATION WILL BE COMPLETED BY OTHERS.</div></div> <div><div>16.</div><div>IF HIGH FLOW CONDITIONS THAT MAY CAUSE SILTATION, EROSION OR A DANGEROUS WORK ENVIRONMENT ARE ENCOUNTERED DURING CONSTRUCTION, WORK SHALL STOP UNTIL HIGH FLOWS SUBSIDE.</div></div> <div><div>17.</div><div>LOGS SHALL BE DECKED IN THE CONTRACTORS STAGING AREA FOR INSPECTION BY THE ENGINEER AND ORGANIZED BY LOG TYPE, DIAMETER AND LENGTH. LOG TYPE SHALL BE PAINTED ON EACH LOG AND APPROVED PRIOR TO PLACEMENT.</div></div> <div><div>18.</div><div>CHANNEL BED SHALL BE RESTORED TO PRE PROJECT SHAPE AND SUBSTRATE OF NATIVE BED MATERIAL.</div></div> <div><div>19.</div><div>IN GENERAL THE WORK SHALL BE SEQUENCED AND PERFORMED IN A MANNER THAT MINIMIZES IMPACTS TO THE CREEK, EXISTING VEGETATION, AQUATIC AND RIPARIAN ECOSYSTEM, THE PROJECT SITE, ADJACENT PRIVATE PROPERTY AND INFRASTRUCTURE.</div></div> <div><div>20.</div><div>THE SPECIFIC CONSTRUCTION SEQUENCES SHOWN IN THESE PLANS SHALL NOT BE ALTERED BY THE CONTRACTOR UNLESS APPROVED BY THE ENGINEER.</div></div> <div><div>21.</div><div>THE CONTRACTOR SHALL SUBMIT A DETAILED WORK SEQUENCE AND PHASING PLAN FOR APPROVAL BY THE ENGINEER 5 WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. THE PLAN SHALL INCLUDE: MOBILIZATION, CLEARING, CONSTRUCTION OF TEMPORARY FACILITIES, INSTREAM STRUCTURES, FLOW DIVERSIONS/DEWATERING, PLANT AND ORGANIC MATERIAL SALVAGE, SITE STABILIZATION, AND INSTREAM ACCESS AND RESTORATION PLAN.</div></div> <div><div>22.</div><div>ALL CONSTRUCTION ACTIVITIES WILL COMPLY WITH CONTRACT SPECIFICATIONS, THESE CONTRACT DRAWINGS, AND THE FOLLOWING NATURAL RESOURCES CONSERVATION SERVICE (NRCS) CONSERVATION PRACTICE STANDARDS AND SPECIFICATIONS:<div><div><div>•</div><div>CRITICAL AREA PLANTING (342) STANDARD AND SPECIFICATION;</div></div><div><div>•</div><div>RIPARIAN FOREST BUFFER (391) STANDARD AND SPECIFICATION;</div></div><div><div>•</div><div>STREAM HABITAT IMPROVEMENT (395) STANDARD;</div></div><div><div>•</div><div>STREAMBANK AND SHORELINE PROTECTION (580) STANDARD AND SPECIFICATION;</div></div><div><div>•</div><div>EARTHFILL (903) SPECIFICATION;</div></div><div><div>•</div><div>CONTROL OF WATER (909) SPECIFICATION; AND</div></div><div><div>•</div><div>ROCK RIPRAP (907) SPECIFICATION.</div></div></div></div></div> <td><div>USE OF DOCUMENTS THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF SIGNED OR CEC, INC.</div><div>DOCUMENT RELEASE</div><div>DESIGNED CTH/BST DRAWN BST REVIEWED SLD APPROVED CTH</div><div>100% PLANS REVISION NOTES</div><div>PREPARED BY</div><div></div><div></div><div><div>PREPARED FOR</div><div>CALIFORNIA</div><div>BUTANO CREEK FLOODPLAIN RESTORATION PROJECT GENERAL NOTES</div></div><div><div>FILE NAME</div><div>06-GeneralNotes</div></div><div><div>JOB NUMBER</div><div>15-1013</div></div><div><div>DATE</div><div>MAY 2016</div></div><div><div>SHEET NO.</div><div>6</div><div>OF</div><div>6</div></div></td>			<div>USE OF DOCUMENTS THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF SIGNED OR CEC, INC.</div> <div>DOCUMENT RELEASE</div> <div>DESIGNED CTH/BST DRAWN BST REVIEWED SLD APPROVED CTH</div> <div>100% PLANS REVISION NOTES</div> <div>PREPARED BY</div> <div></div> <div></div> <div><div>PREPARED FOR</div><div>CALIFORNIA</div><div>BUTANO CREEK FLOODPLAIN RESTORATION PROJECT GENERAL NOTES</div></div> <div><div>FILE NAME</div><div>06-GeneralNotes</div></div> <div><div>JOB NUMBER</div><div>15-1013</div></div> <div><div>DATE</div><div>MAY 2016</div></div> <div><div>SHEET NO.</div><div>6</div><div>OF</div><div>6</div></div>	
3					
4					

# **CONSTRUCTION SPECIFICATIONS**

**for the**

## **BUTANO CREEK FLOODPLAIN RESTORATION PROJECT**

**San Mateo County, California**

**Prepared for**

**San Mateo County**

**Resource Conservation District**



**Prepared by**

**cbec, inc.**



**May 17, 2016**

*These documents are intended solely for the use and benefit of the San Mateo County Resource Conservation District. No other person or entity shall be entitled to rely on the details contained herein without the express written consent of cbec, inc., eco engineering, 2544 Industrial Boulevard, West Sacramento, CA 95691.*



## **SECTION 01 00 00**

### **GENERAL REQUIREMENTS**

#### **PART 1 – GENERAL**

##### **1.1 DESCRIPTION OF WORK**

- A. Furnish all labor, equipment, materials, and supplies needed to implement the construction of the Butano Creek Floodplain Restoration Project on Butano Creek in San Mateo County, California. Work includes, but is not limited to, excavation, fill placement within a creek, large wood placement within a creek, rock placement within a creek, stream diversion, dewatering, live alder recruitment and implementing erosion and sediment control best management practices (BMP's).
- B. Provide all materials and components necessary to result in 100 percent complete and usable systems and facilities.

##### **1.2 LOCATION OF THE WORK**

- A. Physical location of the work is identified as Butano Creek, off Pescadero Creek Road near Pescadero, California (see map on title page of Contract Drawings).
- B. The work site shall be accessed from the existing access road located at Latitude: 37.253016, Longitude:-122. The access gate to the project site does not have an address. The closest address is 2310 Pescadero Creek Rd, Pescadero, CA, as shown in the Contract Drawings.
- C. Access gate is on Pescadero Creek Road, 0.35 miles East from the intersection of Pescadero Creek Rd with Stage Rd in Pescadero.

##### **1.3 TIMING OF THE WORK**

- A. Construction work and demobilization shall be restricted to the period between August 1 and October 15. Work before or beyond that date shall only be performed with explicit clearance from the Project Manager.

##### **1.4 POINTS OF CONTACT**

- A. Questions should be directed to:  
cbec, Inc., 519 Seabright Ave, Ste 102, Santa Cruz, CA 95062;  
Chris Hammersmark; (916) 668-5236  
Or to  
SMCRCD, 625 Miramontes Street Suite 103, Half Moon Bay, California 94019;  
Irina Kogan; (650) 712-7765  
Or to

## 1.5 DEFINITIONS

- A. Observer means the designer or other qualified person assigned by cbec, Inc. to observe the work.
- B. Engineer means the registered engineer assigned by cbec, Inc.
- C. Project Manager and Project Lead means Irina Kogan, San Mateo County Resource Conservation District.
- D. Land Owner means Laura O'Leary, Peninsula Open Space Trust.

## 1.6 SPECIAL NOTICES

- A. Necessary permits will be provided by the Project Lead.
- B. Construction work shall comply with all applicable federal, state, and local environmental and biological laws, regulations and permits. This condition applies to, but is not limited to, laws and regulations governing noise levels, air and water quality standards, and cultural and biological resources.
- C. The Project Lead and Engineer or Observer shall be given seven days notice prior to start of on-site work.
- D. Contractor will provide a project schedule to Engineer or Observer and Project Lead. Engineer or Observer will identify key points during construction which require inspection and approval, including but not limited to: design and installation of dewatering system; preparation of access routes (including flagging trees to be removed); staging of logs prior to instream installation used for engineered log jam (ELJ) structures; proposed alignment of project features; placement of ELJ structures in-channel prior to backfill; assembly and placement of rock bands prior to installation of engineered streambed material (ESM), identifying trees to be used for the live alder recruitment (LAR), and final grading and demobilization.
- E. Work may not begin until a Notice to Proceed has been issued by the San Mateo County Resource Conservation District.
- F. The Contractor or the Contractor's Designated Representative (who will oversee the actual construction work) shall attend a pre-work conference with the Engineer or Observer and Project Lead at the project site prior to commencement of activity at the site. All workers must attend a pre-construction meeting regarding sensitive species and water quality protection measures.
- G. Hazardous Materials: This project entails no known contaminated soils.

## 1.7 CONTRACT DRAWINGS

- A. The plans for this project consist of contract drawings with the following sheets:

<u>Sheet No.</u>	<u>Title</u>
1	Cover Sheet
2	Project Overview
3	Sites 1 and 2 Sections and Details
4	Site 5 Layout and Profile
5	Site 5 Sections and Details
6	General Notes

## 1.8 COORDINATION OF DOCUMENTS

- A. The Specifications and associated Contract Drawings are intended to be mutually supplementary to describe and provide for a complete work product.

## 1.9 CONTRACT ADMINISTRATION

- A. Authority of the Engineer or Observer is limited to the following functions:
1. Observe and accept or reject work and materials including approval or disapproval of materials submittals.
  2. Clarify Specifications and Contract Drawings.
  3. Provide input on elements of the design which require field-fitting due to conditions unknown at the time of design.
- B. The Engineer or Observer is not authorized to take the following actions, all of which remain the sole responsibility of the Project Lead:
1. Make changes to the contract provisions, period of performance, or change any contract terms and conditions.
  2. Make decisions concerning any claims and disputes.
- C. Close liaison will be maintained by the Engineer, Observer, Project Lead, and the Contractor. The Engineer or Observer shall notify the Project Lead immediately of any problems encountered, including but not restricted to maintaining completion schedules.
- D. Construction Observation:
1. The Engineer and/or Observer shall have free access to the jobsite at all times while work is in progress, and the Contractor shall furnish such information and assistance as necessary.

2. The Engineer and/or Observer shall monitor construction for conformance with the Contract Drawings and Specifications.
3. The Engineer and/or Observer must inspect and approve all materials prior to installation and may reject unsuitable materials or work that does not conform to the Contract Drawings and Specifications.

E. Performance of Work by the Contractor:

1. The Contractor shall furnish the Engineer or the Observer all reasonable facilities for obtaining information respecting the character of the materials and progress of the work.

## **1.10 GENERAL TECHNICAL REQUIREMENTS**

- A. Perform the work in accordance with the Specifications and other provisions of this contract.
- B. In any instances where the Contract Drawings and Specifications are unclear, the contractor shall contact the Engineer or Observer.
- C. Field-verify all dimensions and conditions. Notify the Engineer or the Observer of any conflicts.

## **1.11 CONSTRUCTION SUPPORT**

- A. The Contractor shall furnish any temporary facilities and utilities needed including light, power, water, telephone, sanitary facilities, job offices, storage enclosures, safety devices, construction aids, and support equipment.

## **1.12 EQUIPMENT DECONTAMINATION**

- A. To prevent the introduction of plant pathogens, prior to mobilization on-site, Contractor shall decontaminate their equipment:
  1. Vehicles, heavy machinery, and large tools (such as excavators, trenchers, graders, including tires, tracks, undercarriage of on-site vehicles, and their tools and implements) shall be cleaned free of debris and soil with high pressure washer and/or compressed air from any prior work site prior to arriving to the Project site.
  2. Footwear and small tools (such as hand tools, shovels, trowels, hoes, and personnel boots) shall be thoroughly cleaned of debris and soil then wiped with seventy (70) percent ethanol or isopropanol prior to use within the planting areas.
- B. Equipment and tools moved off-site and returned later for use will again require decontamination by Contractor.
- C. Decontamination of equipment, tools, etc. by the Contractor shall be included in the lump sum price bid for MOBILIZATION, no separate payment will be made.

### **1.13 PROTECTION**

- A. Protect adjacent trees, vegetation, property, structures, access roads, ground surfaces, and improvements from damage. Contractor shall be responsible for replacing all damaged trees, unless previously authorized, at the Contractor's expense.
- B. Contain work within the grading limit lines shown on the Contract Drawings or as instructed in the field by the Engineer, Observer, Land Owner or the Project Lead.

### **1.14 PUBLIC ACCESS**

- A. Install signage as directed by the Project Lead or Land Owner to direct pedestrians around the project site for the duration of construction. Signs shall state that pedestrians may not enter the staging areas, access paths, and project site for the duration of construction.

### **1.15 CLEAN UP**

- A. Dispose of debris legally at licensed disposal facilities.
- B. Upon completion of the work and immediately prior to the final inspection, clean the construction area and remove any temporary facilities and utilities that were brought on to the project site.
- C. Restore or replace fences, gates, vegetation, trees, downed trees, ground surfaces, and disturbed areas to original condition or as directed by the Project Lead and Land Owner.
- D. Restore the access roads and staging areas to pre-project conditions where staging and access are indicated on the plans.

### **1.16 FINAL INSPECTION**

- A. Notify the Project Lead and Engineer at least seven days prior to the anticipated date of completion of all work. The Project Lead will coordinate the final inspection as promptly as practicable.
- B. The Contractor representative responsible for the work shall be present at the final inspection and shall submit a preliminary list of any unfinished work.

## **SECTION 01 57 36**

### **TEMPORARY CREEK DIVERSION SYSTEM**

#### **PART 1 – GENERAL**

## **1.1 DESCRIPTION**

- A. This Section includes requirements for preventing surface water from entering excavations, from ponding on prepared subgrades, and from flooding the project site and surrounding areas and thus preventing the proper execution of the work. The Contractor shall be responsible for implementing the stream diversion works including cofferdams, pumps, and discharge facilities, as needed over the duration of the project.
- B. The systems shall be furnished and installed, maintained and removed as shown on the Contract Drawings, as specified herein, and as directed by the Engineer.

## **1.2 SUBMITTALS**

- A. Prior to implementation, submit a site specific stream diversion plan for the work based on the configuration shown in the Contract Drawings. The stream diversion plan shall indicate temporary water pollution control measures to be employed during diversion placement and temporary onsite power facilities.

## **1.3 MEASUREMENT AND PAYMENT**

- A. Temporary creek diversion system placement, operation, and removal shall be measured and paid as lump sum.

# **PART 2 – PRODUCTS**

## **2.1 PUMP**

- A. A pump and pumping apparatus shall be used for the temporary stream diversion and shall be of the submersible type with sufficient capacity to pump 2250 gallons/minute (GPM) in the location as shown on the Contract Drawings, and identified in these specifications.
- B. It shall be the Contractor's responsibility to provide back-up power and/or equipment as needed to assure that the temporary creek diversion operates 24 hours per day, every day that work within the banks of the creek channel is being performed.

## **2.2 TEMPORARY SANDBAGS**

- A. Sand bag fabric shall be woven polypropylene, polyethylene or Polyimide with a minimum unit weight of 0.25 lb/SQYD. The fabric shall have a mullen burst strength of at least 300 psi, per ASTM Designation: D3786 and an ultraviolet (UV) ability exceeding 70 percent.
- B. Sand bags shall have a length of 24 to 32 inches, width of 16 to 18 inches, thickness of 6 to 8 inches, and weight of 90 to 120 lbs. Bags containing multiple sand bags may be used if they are placed effectively and properly sealed.

- C. Sand bag fill material shall be non-cohesive sand, free from deleterious material, silt, clay or fines.

## **2.3 IMPERMEABLE PLASTIC SHEETING**

- A. The material shall be suitable for use as protective liner and shall be commercial quality polyethylene with a minimum thickness of 0.25 mm or Mirafi 700X or equal approved by the Engineer. All plastic sheeting shall be free of cracks, cleavages, or other defects adversely affecting the protective characteristic of the material.

## **2.4 FISH SCREEN**

- A. A fish screen shall be provided by the Contractor to prevent fish from entering the pump for the duration of all construction activities. The fish screen will meet the conditions outlined in the permits granted by the National Marine Fisheries Service.

## **2.5 DISCHARGE PIPING**

- A. Discharge piping and couplings will be of the size needed. The material shall be selected for flexibility and durability to allow for the occasional relocation of the diversion piping during construction activities.

# **PART 3 – EXECUTION**

## **3.1 GENERAL**

- A. Contractor shall visit the worksite and become aware of any and all existing conditions that may affect execution of the work under this contract.

## **3.2 INSTALLATION OF DIVERSION SYSTEM**

- A. The temporary creek diversion shall be installed as a first order of work to maintain a dry work area. The temporary creek diversion system will only be installed after block nets have been installed and fish have been relocated by the consulting biologist.
- B. The temporary creek diversion shall require the construction of one cofferdam at the upstream limit of the work at Sites 1, 2 and 5, as shown on the Contract Drawings. Cofferdams shall be constructed of sandbags or equivalent non-sedimenting materials, and shall have a minimum height of 1.5-feet above the channel bed. Alternative cofferdam construction materials and methods may be used only with prior approval by the Engineer.
- C. The temporary creek diversion shall require the construction of a temporary diversion pipe. Location and alignment of the temporary pipe shall be approved in the field by the Engineer, Observer or Project Lead.
- D. The temporary creek diversion shall require the installation of pumps.

- E. The temporary creek diversion shall require the installation of a fish screen.

### **3.3 REMOVAL OF DIVERSION SYSTEM**

- A. Use of the temporary creek diversion system is restricted to the period between May 1 and October 30. Any permit extensions and/or addendums required for the extended work shall be procured by Project Lead at Contractor's expense.
- B. When the work within the channel banks has been completed, the temporary creek diversion system will only be removed once an inspection by the Engineer or Observer has occurred.
- C. Following the inspection, the diversion system shall be removed with the consulting biologist present.

## **SECTION 01 71 13**

### **MOBILIZATION**

#### **PART 1 – GENERAL**

##### **1.1 SECTION INCLUDES**

- A. Mobilization shall include mobilization of all construction equipment, materials, supplies, appurtenances, facilities, and the like, staffed and ready for commencing and executing the work.

##### **1.2 MEASUREMENT AND PAYMENT**

- A. Mobilization shall be measured and paid as lump sum.

##### **1.3 TOOLS AND SUPPLIES**

- A. Contractor shall provide personnel, products, construction materials, equipment, tools, and supplies of the types and quantities necessary to facilitate the timely execution of the work and at the time they are scheduled to be installed or utilized.

##### **1.4 DEMOBILIZATION**

- A. Upon completion of the work, remove construction tools, apparatus, equipment, mobile units and buildings, unused materials, supplies, and plants, and personnel from the jobsite. Restore all areas utilized for staging, access and mobilization to their original, natural state or, when called for in the Contract Documents, complete such areas indicated. Restoration of staging, access, mobilization and other disturbed areas shall be approved by the Project Lead or the Land Owner.



## **SECTION 31 00 00**

### **EARTHWORK**

#### **PART 1 – GENERAL**

##### **1.1 DESCRIPTION**

- A. This section includes requirements for rough grading and filling, excavation, compaction, backfilling, finished grading, and field quality control for the design grading shown in the Contract Drawings.
- B. The Contractor shall be held responsible for the completion of all earthwork shown on the Contract Drawings, as specified herein, and as directed by the Engineer.

##### **1.2 RELATED SECTIONS**

- A. Section 31 23 19, Dewatering

##### **1.3 SUBMITTALS - NONE**

##### **1.4 MEASUREMENT AND PAYMENT**

- A. The contract lump sum price paid for earthwork shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in grading, including but not limited to rough grading and filling, excavation, compaction, backfilling, finished grading, field quality control, and complying with the requirements as depicted on the Contract Drawings or described in this Section, as specified in these technical Specifications, and as directed by the Engineer.

##### **1.5 REFERENCES**

- A. American Society for Testing and Materials (ASTM):
  - 1. ASTM D1557 Standard Test Methods for Laboratory Compaction

##### **1.6 DEFINITIONS**

- A. Backfill: Soil or soil-rock material used to backfill excavations and to backfill excavated spaces around foundation walls, building walls, retaining walls, head walls, and abutments.

- B. Relative Compaction: The ratio, expressed as a percentage, of the in-place dry density of material as compacted in the field to the maximum dry density of the same material as determined by laboratory test ASTM D1557.

## **1.7 CLASSIFICATION OF EARTHWORK**

- A. For specification purposes, earthwork shall be classified as follows:
  - 1. Excavation: All excavation involved in grading and construction of the creek bed and banks, floodplains, and any other excavation associated with repair of banks, access routes, or staging areas.
  - 2. Backfill: Includes furnishing, placing, and compacting backfill material to complete the grades shown on the plans.

## **1.8 QUALITY CONTROL**

- A. Quality Control: The Contractor shall provide proper quality control measures to assure compliance with specified requirements.
- B. Tolerances:
  - A. Construct finished surfaces to plus or minus 3-inches of the elevations indicated on Contract Drawings.
  - B. Complete embankment slopes to plus or minus 6-inches of the slope line indicated on the plans.
  - C. Maintain the moisture content of fill material as it is being placed within plus or minus five-percent of the recommended moisture content of the material.

## **1.9 SITE CONDITIONS**

- A. Unfavorable Weather Conditions:
  - 1. Excavating, filling, backfilling, and grading work shall not be performed during weather conditions which might damage or be detrimental to the condition or quality of existing ground or in-progress work or completed work.
  - 2. Soil material that is too wet for compaction shall be left to drain, to be aerated and dried by disking and harrowing or other approved methods until the moisture content of the area is uniform and within the specified limits.
- B. Prevention of Erosion:

1. Prevent erosion of stockpiles, ditches, embankments, filled, backfilled, and graded areas until such time as permanent drainage and erosion control measures have been installed.
2. Perform "protective grading" to provide positive drainage and to minimize ponding of surface water.

## **PART 2 – PRODUCTS**

### **2.1 FILL AND BACKFILL MATERIALS - GENERAL REQUIREMENTS**

- A. Material used for fill and backfill in the creek shall originate from the creek bed within the grading limit line shown on the Contract Drawings.
- B. Unless approved by the Project Lead, no fill or backfill material aside from the engineered streambed mixture shall be imported to the project site. If material import is approved, the material shall be approved prior to import by the Engineer, Project Lead, or Land Owner.

## **PART 3 – EXECUTION**

### **3.1 STAKING AND GRADES**

- A. Lay out the work, establish all necessary markers, bench marks, grading stakes, and other stakes as required for completion of the work.

### **3.2 EXISTING UTILITIES**

- A. Verify on site the location and depth (elevation) of all existing utilities and services before performing any excavation work. Excavation within 3 feet of an active utility line shall be performed by hand.
- B. Abandoned sewers, piping, and other utilities encountered in the progress of the excavating shall be removed and the ends plugged. Exceptions to this are shown on the Contract Drawings
- C. Active utility lines encountered, which are not indicated in the Contract Drawings, shall be reported immediately to the Project Lead and utility owners involved. The Project Lead and utility owners shall be permitted free access to determine the measures deemed necessary to repair, relocate, or remove the utility.

### **3.3 EARTHWORK GENERAL REQUIREMENTS**

- A. Erosion Protection: Prevent erosion of the site at all times. Construct temporary berms and dikes and cut temporary swales to promote natural drainage of site as necessary.

- B. Construction Traffic: Disperse travel paths of traffic and construction equipment over entire width of access and staging routes so as to avoid excess wear or damage to existing surfaces. Protect exposed soil layers having high moisture content from excessive wheel loads.
- C. On-Site Excavation: Do not excavate or remove any material from the project site which is not within the designated grading limit, as indicated by the Contract Drawings, without authorization from the Project Lead or Engineer.
- D. Stockpiling of Fill and Backfill Material: Establish excavated material stockpiles on site only in locations indicated for staging in the Contract Drawings where they will not interfere with the progress of the work.
- E. Disposal of Surplus Material:
  - 1. All surplus creek bed materials shall be placed and compacted as shown on the Contract Drawings and herein. Excess material will be hauled off site and disposed of properly.
- F. Maintenance of Excavations and Slopes:
  - 1. Excavate and remove material outside the limits of the excavation which is unstable and constitutes potential slides, and material which comes into excavations for any reason.
  - 2. Maintain slopes until substantial completion and acceptance of the work. Promptly repair slides, slipouts, washouts, settlements, and subsidences that occur for any reason, and refinish the slope or embankment to the indicated lines and grades.

### **3.4 SUBSURFACE EXTRACTION**

- A. No subsurface facilities are known within the grading limits shown on the Contract Drawings. Should the Contractor encounter subsurface facilities within the grading limits that interfere with construction, Contractor shall notify the Project Lead promptly for corrective determination.

### **3.5 ROUGH GRADING AND FILLING**

- A. Prior to commencement of earthwork, perform such soil and rock removal and filling as may be required to facilitate the progress of the work.
- B. Fill or backfill and compact as herein specified in layers not exceeding 12-inches in uncompacted thickness.

### **3.6 EXCAVATION**

A. General Excavation Requirements:

1. Perform excavations as required for equipment access to the channel, floodplain connector channels, installation of keystones, installation of buried logs, and grading in the channel.
2. Comply with applicable requirements of CCR, Title 8, Trench Construction Safety Orders and CAL-OSHA safety standards.
3. The bottoms of excavations shall be clean and free from debris and foreign matter.
4. Excavations shall be supported and maintained by providing structural support of earth walls, if required or directed by the Project Lead, so that sides are stable and will not move.
5. Limits of excavations shall allow for adequate working space and as required for safety of personnel.
6. Dewater excavations as specified in Section 31 23 19, Dewatering. Construct cofferdams or berms around excavations as specified in Section 01 57 36, Temporary Creek Diversion System, or as required to prevent surface water and runoff from entering the excavation.
7. Excavations for convenience of the Contractor shall be approved by the Project Lead.
8. Place excavated material at a sufficient distance from edge of excavation so as not to cause cave-ins or bank slides, but in no case closer than 3 feet from the edge of excavations.

### 3.7 COMPACTION

- A. Compaction Density: Compact each layer of fill and backfill material to not less than 90 percent relative compaction as determined by ASTM D1557.

### 3.8 BACKFILLING

- A. Use materials removed from site excavations for backfilling if such material meets the requirements specified herein.
- B. Backfilling is required around all substructures, such as vaults, shafts, holes, pits, and other voids.
- C. Place backfill in layers not to exceed 12-inches of loose material, and compact each layer to specified density before the next layer is placed.

- D. Do not use compaction equipment and methods that produce excessive horizontal or vertical earth pressures on structures. Excessive horizontal earth pressures are those in excess of at rest earth pressures. Excessive vertical earth pressures are those in excess of overburden pressures.

### **3.9 FINISH GRADING**

- A. Finish grading shall prepare the excavated and backfilled areas to uniform surface free of debris.
- B. Verify that grades are correct. If discrepancies occur, notify the Project Lead and do not commence finish grading work until instructed by the Project Lead.
- C. Smooth grade breaks and slope transitions and eliminate uneven areas so that they are gradual and provide positive drainage.
- D. Remove trash, debris, rubble, and other deleterious materials.

## **SECTION 31 23 19**

### **DEWATERING**

#### **PART 1 – GENERAL**

##### **1.1 DESCRIPTION**

- A. This Section includes requirements for preventing surface and ground water from entering excavations, from ponding on prepared subgrades, and from flooding the project site and surrounding areas in a manner that would present the proper execution of the work. The Contractor shall be responsible for designing and implementing the specific dewatering strategy as needed over the duration of the project.
- B. This Section also includes requirements for extracting, containing, and discharging, ground water that accumulates in excavations during the progress of work.
- C. This Section also includes designing, furnishing, installing, operating, and maintaining a temporary dewatering and dewatering control system.

##### **1.2 RELATED WORK**

- A. Section 31 00 00, Earthwork
- B. Section 01 57 36, Temporary Creek Diversion System

### **1.3 SUBMITTALS**

- A. Submit a site specific dewatering plan for the work based on the cofferdam locations shown in the Contract Drawings. The dewatering plan shall indicate temporary water pollution control measures to be employed during dewatering and temporary on-site power facilities. If the Contractor wishes to deviate from the configuration shown on the Contract Drawings, the Contractor shall only proceed with the authorization of the Engineer.
- B. Maintain on-site copies of any special permits required for performing the work of this Section, including but not limited to permits provided by the Project Lead.

### **1.4 MEASUREMENT AND PAYMENT**

- A. The contract lump sum price paid for dewatering shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in dewatering, including storage and disposal of water, permits, discharge fees, and complying with the requirements of this Section, as specified in these technical Specifications, and as directed by the Engineer.
- B. Full compensation for dewatering trenches, pits, and other excavations as specified herein shall be considered as included in the contract lump sum price paid for dewatering and no additional compensation will be allowed therefore.

### **1.5 SYSTEM DESCRIPTION**

- A. The Contractor shall remove water that accumulates in all excavations during the progress of work so that all work can be done in the dry, unless otherwise approved by the Engineer. Excavated areas shall be kept free from water while underground utilities or structures are constructed, and until backfill has been placed to a sufficient height to anchor the work against possible flotation or leakage.
- B. The Contractor shall, at all times, have on the project site sufficient pumping equipment for immediate use, including standby pumps for use in case other pumps become inoperable. Water shall be disposed of in accordance with the detailed requirements specified herein and so as to cause no injury to personnel or the public, damage to public or private property, nor menace to the public health.
- C. The Contractor's dewatering system shall be designed to prevent pumping fines from below grade or disturbing materials exposed at the excavation bottom.
- D. The Contractor's dewatering system shall capture groundwater such that it does not seep into the dewatered area.

## **PART 2 – PRODUCTS**

## **2.1 MATERIALS AND EQUIPMENT**

- A. The Contractor shall furnish all materials, tools, equipment, facilities, and services as required for providing the necessary dewatering work and facilities. Provide back-up equipment as necessary for replacement and for unanticipated emergencies.

## **PART 3 – EXECUTION**

### **3.1 DEWATERING**

- A. Except as otherwise noted herein, dewatering shall be performed only as needed to accomplish a lowering of measured static ground water level to an elevation which is suitable for construction.
- B. When pumping is required to reduce groundwater levels it shall be accomplished in a manner non-disruptive to the surrounding environment.
- C. The Contractor shall be permitted to use generators to operate the dewatering pumps. The generators shall meet all Federal, State and City requirements for allowable noise limits as per the approved Dewatering Plan. Contractor shall minimize offsite noise to the maximum extent feasible.

### **3.2 DISCHARGE OF EXTRACTED GROUNDWATER**

- A. The Contractor shall not discharge any water that exceeds the discharge requirements set forth by any permit conditions.
- B. Subject to any discharge restrictions identified in the applicable permits, effluent from dewatering shall be discharged directly to the channel downstream of the project limits. Measures shall be taken to ensure erosion and disturbance of the channel at the outfall location does not occur.

## **SECTION 45 00 00**

## **ENGINEERED LOG JAMS**

### **PART 1 – GENERAL**

#### **1.1 DESCRIPTION**

- A. This Section includes requirements for the size and grade of trees and ballast rocks used for the Engineered Log Jams (ELJ's) as well as the fastening requirements



## 1.2 MEASUREMENT AND PAYMENT

- A. The contract lump sum price paid for the installation of ELJ structures shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in log placement, including storage, and necessary earthwork as specified in these technical Specifications, Contract Drawings and as directed by the Engineer.
- B. Full compensation for log installation as specified herein shall be considered as included in the contract lump sum price paid for channel restoration and no additional compensation will be allowed therefore.

## PART 2 – PRODUCTS

### 2.1 MATERIALS AND EQUIPMENT

- A. The ELJ's will consist of large, whole trees or sections of trees containing a trunk and/or rootwad. Individual logs shall be coastal redwood (*Sequoia sempervirens*). If coastal redwood trees are unavailable, a substitute species such as Douglas fir must be approved by the Engineer.
- B. Individual logs shall be obtained from trees that have been recently uprooted. Dead trees that have dried out and have limited flexibility shall not be used because of the potential for breakage to occur during removal, handling, transport, and installation. Imported trees shall be free from insect infestation, fungus, rot and/or other signs (e.g., presence of holes) that indicate disease or other factors that may compromise the longevity and durability of the material.
- C. Trees shall have a minimum trunk diameter without bark as specified in the Contract Drawings. See ELJ Log Schedule in the Contract Drawings for individual log dimensions. If out of specification logs are delivered to site, their use must be approved by the Engineer as additional calculations must be performed to verify stability. Additional ballast rocks may be required for out of specification logs.
- D. Rootwads shall have a minimum diameter of 6 ft and a minimum length of 3 ft.
- E. Ballast rocks shall be of the minimum weight indicated in the Contract Drawings.
- F. Log to log connections shall be made in locations indicated and in accordance with the Contract Drawings.
- G. The Contractor shall furnish all materials, tools, equipment, facilities, and services as required for providing the necessary log placement work and facilities. Provide back-up equipment as necessary for replacement and for unanticipated emergencies.
- H. Log diameter and length must be accordance with ELJ Log Schedule on the Contract Drawings.

- I. Ballast rocks shall be rocks with competent surfaces capable of drilling clean holes for threaded rebar, receiving bar and epoxy, and mounting against logs. Boulder quality shall comply with NRCS Rock Riprap (907) Construction Specification.
- J. Log to log connections to be made with minimum 1-1/4" diameter stainless steel fully threaded rods (FTR). Alternative fastening methods must be approved and inspected by the Engineer.

## **PART 3 – EXECUTION**

### **3.1 ELJ PLACEMENT**

- A. Logs to be used for ELJ structures shall be marked in the staging area for inspection by the Engineer prior to any in-river installation.
- B. Logs shall be placed along the alignment and orientation indicated in the Construction Drawings, unless otherwise instructed by the Engineer based upon field conditions observed following excavation.
- C. The Engineer will inspect log layout prior to excavation, and again after placement, before any log to log connection installation or backfilling.
- D. Backfill material will be composed of native bed alluvium material and must be compacted to specification 31 00 00 making sure to thoroughly fill log haunches or voids.
- E. If water is present in excavation trench, active pumping must be performed during backfill to not saturate material.
- F. Where log excavation cuts into existing bank, the upper two feet of fill shall be compacted to 85% relative compaction as determined by ASTM D1557.
- G. The channel bed and banks must be re-contoured to match existing conditions topography.

## **SECTION 46 00 00**

### **ROCK RAMP**

## **PART 1 – GENERAL**

### **1.1 DESCRIPTION**

- A. This Section includes requirements for the size, gradation and installation of the material used for the rock ramp. The Contractor shall be responsible for procuring and installing rocks in a manner consistent with the Contract Drawings.

- B. The rock ramp consists of several channel spanning bands of large supporting boulders, bankline rock, and engineered streambed material (ESM).

## **1.2 MEASUREMENT AND PAYMENT**

- A. The contract lump sum price paid for the installation of the rock ramp structure shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in rock placement, including storage, and necessary earthwork as specified in these technical Specifications, Contract Drawings and as directed by the Engineer.
- B. Full compensation for rock ramp installation as specified herein shall be considered as included in the contract lump sum price paid for channel restoration and no additional compensation will be allowed therefore.

## **PART 2 – PRODUCTS**

### **2.1 MATERIALS AND EQUIPMENT**

- A. The Contractor shall furnish all materials, tools, equipment, facilities, and services as required for providing the necessary rock placement work and facilities. Provide back-up equipment as necessary for replacement and for unanticipated emergencies.
- B. ESM and Bankline Rock must be accordance with the Engineered Streambed Material Mixture table located on the Contract Drawings.
- C. Rock Band and individual rocks must be in accordance with the sizes and minimum weights specified in the Contract Drawings.
- D. Installed rock shall conform to the following criteria:
  - 1. Well graded mix
  - 2. Rock shall be angular, evenly proportioned in dimension; blocky as opposed to elongated. River cobble is not accepted.
  - 3. Unit weight shall not be less than 150 pcf.

## **PART 3 – EXECUTION**

### **3.1 ROCK BAND PLACEMENT**

- A. The rock bands shall be placed in the channel as indicated in the Contract Drawings, unless otherwise directed by the Engineer based upon field conditions observed.

- B. Rock bands must be placed in compression with downstream rocks placed first and upstream rocks placed against the downstream rocks in tight compression.
- C. Large rocks (D84 and larger) will be placed first to define the rock band, then smaller material will be added to chink in and fill any voids.
- D. Tamp rocks in place and then wash/jet fines into rock bands.
- E. Rock band construction will start at the downstream end and move upstream in combination with bankline rock placement and ESM placement.
- F. The each rock band shall be keyed into the banks a minimum of 6 feet.
- G. Rocks to be used for the rock bands shall be marked in the staging area for inspection from the Engineer prior to any in-river work.
- H. The Engineer will inspect rock band layout prior to excavation and again prior to the placement of any rocks.
- I. The Engineer will inspect rock band placement prior to backfilling.
- J. Backfill material will be composed of native bank material and be performed in 6" lifts in a dry state.
- K. If water is present in excavation trench, active pumping must be performed during backfill to not saturate material.
- L. The channel bed and banks must be re-contoured to match existing conditions topography.

## **3.2 BANKLINE ROCK INSTALLATION**

- A. The bankline rock shall be placed in the channel as indicated in the Contract Drawings, unless otherwise directed by the Engineer based upon field conditions observed.
- B. The Engineer will inspect bankline layout prior to the placement of any rocks.
- C. Bankline rocks must be placed in compression with downstream rocks placed first and upstream rocks placed against the downstream rocks in tight compression.
- D. Large rocks (D84 and larger) will be placed first to define the bankline, then smaller material will be added to chink in and fill any voids.

- E. Tamp rocks in place and then wash/jet fines into banklines
- F. Bankline construction will start at the downstream end and move upstream in combination with rock band placement and ESM placement.
- G. Rocks to be used for the banklines shall be marked in the staging area for inspection from the Engineer prior to any in-river work.

### **3.3 ENGINEERED STREAMBED MATERIAL INSTALLATION**

- A. ESM shall be placed in the channel as indicated in the Contract Drawings, unless otherwise directed by the Engineer based upon field conditions observed.
- B. ESM mixture will be prepared in the staging area for inspection by the Engineer prior to any installation.
- C. ESM must be placed in compression with downstream rocks placed first and upstream rocks placed against the downstream rocks in tight compression.
- D. ESM shall be placed in 1.5 ft lifts and tamped/compacted into place and then fines added and flooded or jetted into place prior to application of the next lift.
- E. ESM construction will start at the downstream end and move upstream in combination with bankline rock and rock band placement.

## **SECTION 47 00 00**

### **LIVE ALDER RECRUITMENT (LAR)**

#### **PART 1 – GENERAL**

##### **1.1 DESCRIPTION**

- A. This Section includes requirements and instructions for construction of the LAR features. The Contractor shall be responsible for implementing the live alder recruitment in a manner consistent with the Contract Drawings, with an emphasis placed on maintaining a majority of the roots intact and keeping the trees living.
- B. The LAR will consist of excavating around the rootwad of existing living alders and toppling into the active channel. This requires the intact rootwad to remain attached to the trunk and placed in the wetted channel.

## **1.2 MEASUREMENT AND PAYMENT**

- A. The contract lump sum price paid for the installation of the LAR shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in rock placement, including storage, and necessary earthwork as specified in these technical Specifications, Contract Drawings and as directed by the Engineer.
- B. Full compensation for the LAR installation as specified herein shall be considered as included in the contract lump sum price paid for channel restoration and no additional compensation will be allowed therefore.

## **PART 2 – PRODUCTS**

### **2.1 MATERIALS AND EQUIPMENT**

- A. The Contractor shall furnish all materials, tools, equipment, facilities, and services as required for providing the necessary LAR work and facilities. Provide back-up equipment as necessary for replacement and for unanticipated emergencies.
- B. Alders to be included in the LAR will be clearly flagged for toppling by the Engineer.

## **PART 3 – EXECUTION**

### **3.1 LIVE ALDER RECRUITMENT**

- A. Heavy equipment access is only permitted in areas indicated on the Contract Drawings (no heavy equipment access to Site 3). Contractor is encouraged to consider forestry techniques for the LAR application at Site 3.
- B. Excavate around rootwad leaving >50% of the large hinge roots intact.
- C. Topple tree about root hinge into the active channel in the direction specified by the Engineer. This requires the intact rootwad to remain attached to the trunk and placed in the wetted channel.
- D. Minimally trim branches as necessary to provide adequate clearance so tree lays firmly on opposite bank
- E. Rebury any exposed roots.
- F. Minimize impacts to other trees as much as possible.

## **SECTION 48 00 00**

### **ACCESS ROADS AND STAGING AREAS**

#### **PART 1 – GENERAL**

##### **1.1 DESCRIPTION**

- A. This Section includes requirements and instructions for preparation, maintenance and restoration of existing roads, temporary access roads and staging areas shown in the Contract Drawings.
- B. The Contractor shall be held responsible for the completion of all access and staging area preparation, maintenance shown on the Contract Drawings, as specified herein, and as directed by the Engineer.

##### **1.2 MEASUREMENT AND PAYMENT**

- A. The contract lump sum price paid for the installation of the LAR shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in access and staging area placement, including maintenance, duff storage, and necessary earthwork as specified in these technical Specifications, Contract Drawings and as directed by the Engineer.
- B. Full compensation for the road and staging area preparation, maintenance and restoration as specified herein shall be considered as included in the contract lump sum price paid for channel restoration and no additional compensation will be allowed therefore.

##### **1.3 SITE CONDITIONS**

- A. Unfavorable Weather Conditions:
  - 1. Preparation, or use of roads and staging areas shall not be performed during weather conditions which might damage or be detrimental to the condition or quality of existing ground or in-progress work or completed work.
- B. Prevention of Erosion:
  - 1. Prevent erosion of roads, access areas, stockpiles, ditches, embankments, filled, backfilled, and graded areas until such time as permanent drainage and erosion control measures have been installed.

2. Perform "protective grading" to provide positive drainage and to minimize ponding of surface water, without concentrating flow resulting in erosion and subsequent gully formation.

## **PART 2 – PRODUCTS**

### **2.1 MATERIALS**

- A. The Contractor shall furnish all materials, tools, equipment, facilities, and services as required for providing the necessary access preparation, maintenance and restoration work and facilities. Provide back-up equipment as necessary for replacement and for unanticipated emergencies.

## **PART 3 – EXECUTION**

### **3.1 EXISTING ACCESS ROAD**

- A. Existing access road will be modified as necessary only with approval of the engineer.
- B. At the conclusion of operation the contractor shall be responsible for restoring the existing unsurfaced access road to an equal to or better condition than when started. This may include reinstallation of any drain dips that had broken down due to truck use.

### **3.2 TEMPORARY ACCESS ROADS**

- A. Prepare temporary access roads by removing and stockpiling woody material (living or downed) and then scraping the existing top soil and depth to a depth of 4 inches.
- B. Stockpile top soil and duff, and maintain stockpiles by watering daily.
- C. If grading is required as part of road preparation, stockpile material for re-placement upon completion of construction activities
- D. Upon completion of construction activities, restore pre-project grade in road areas.
- E. Placement of stockpiled top soil and duff once road is decommissioned will be completed by an external party. Placement of erosion control measures, and revegetation will also be completed by an external party.
- F. Biological fencing may be required along temporary access roads if required by environmental permits.

### **3.3 STAGING AREAS**

- A. Prepare staging areas by removing and stockpiling woody material (living or downed) and then scraping the existing top soil and depth to a depth of 4 inches.



- B. Stockpile top soil and duff, and maintain stockpiles by watering daily.
- C. Upon completion of construction activities, restore pre-project grade in staging areas.
- D. Placement of stockpiled top soil and duff once staging area is decommissioned will be completed by an external party. Placement of erosion control measures, and revegetation will also be completed by an external party.
- E. Biological fencing will be required around staging areas.

### 3.4 GENERAL REQUIREMENTS

- A. Erosion Protection: Prevent erosion of the site at all times. Construct temporary berms and dikes and cut temporary swales to promote natural drainage of site as necessary.
- B. Construction Traffic: Disperse travel paths of traffic and construction equipment over entire width of access and staging routes so as to avoid excess wear or damage to existing surfaces. Protect exposed soil layers having high moisture content from excessive wheel loads.
- C. On-Site Excavation: Do not excavate or remove any material from the project site which is not within the designated grading limit, as indicated by the Contract Drawings, without authorization from the Project Manager or Engineer.

### 3.5 DUST CONTROL

- A. Under the terms of the project contract, the contractor must control dust at the project site and on all unsurfaced roads used to access the site.
- B. The contractor shall provide an adequate water supply and apply water uniformly across the unsurfaced dirt road and within the construction limits as necessary to control dust and as directed by the Project Engineer. A well is available on site that has a yield of 50 gallons/minute.
- C. All un-compacted exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall either be watered or covered with a dust palliative (e.g., mulch, straw) to control dust and road degradation. During periods of high road use it is anticipated that the road will need to be watered at least one a day.
- D. If watered, watering shall be done at a frequency and amount adequate to maintain a durable road tread with minimal dust.
  - 1. Uniformly apply water using pressure-type distributors, pipelines equipped with spray systems, or hoses with nozzles.
- E. All haul trucks transporting loose soil or sand shall be covered.

- F. All vehicle speeds on unpaved roads shall be limited to 10 mph.

## **SECTION 49 00 00**

### **EROSION CONTROL FABRIC**

#### **PART 1 – GENERAL**

##### **1.1 DESCRIPTION**

- A. This Section includes requirements for the installation of erosion control fabric as specified in the Contract Drawings.

##### **1.2 MEASUREMENT AND PAYMENT**

- A. The contract lump sum price paid for the installation of erosion control fabric and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in erosion control fabric installation and maintenance as specified in these technical Specifications, Contract Drawings and as directed by the Engineer.
- B. Full compensation for installation as specified herein shall be considered as included in the contract lump sum price paid for channel restoration and no additional compensation will be allowed therefore.

#### **PART 2 – PRODUCTS**

##### **2.1 MATERIALS AND EQUIPMENT**

- A. The Contractor shall furnish all materials, tools, equipment, facilities, and services as required for providing the necessary erosion control fabric installation. Provide back-up equipment as necessary for replacement and for unanticipated emergencies.
- B. Erosion control fabric shall consist of woven coir able to withstand velocities of 12 feet per second.
- C. Staking materials shall comply with materials types prescribed by the manufacturer of the erosion control fabric used.

#### **PART 3 – EXECUTION**

### 3.1 INSTALLATION

- A. Bank shall be graded to a gradient no steeper than 1V:1½H, if possible and smoothed so that it is free of any projections or depressions.
- B. Fabric Orientation: Erosion control fabric shall be rolled/oriented parallel to stream flow in the re-contoured bank area. Erosion control fabric installed in conjunction with restoration of an access ramp may be rolled/oriented perpendicular to the slope until the re-contoured bank area is reached.
- C. Blanket manufacturers normally provide recommended staking patterns and densities (stakes/unit area) which are dictated by slope gradient, soil type, and estimated hydraulic loading conditions. Contractor shall use staking materials and density as recommended by the erosion control fabric manufacturer. Live stakes can be uniformly interspersed with inert fasteners but shall be limited to no more than one-third of the total number of fastening devices used to secure a blanket.
- D. Anchor Trenching: Anchor Trenching to secure fabric edge is a fundamental element of blanket installation. It is especially critical to bury leading (upstream) edges to prevent lifting and tearing. Trenches shall be at least 6 in deep and wide, then backfilled with common fill or topsoil and compacted. Blanket edges parallel to flow may also be trenched in a variety of ways for maximum erosion protection.
- E. Check Slots: Check slots shall be oriented perpendicular to the stream flow (i.e., up and down slope) with no more than 20 ft of separation between an anchor trench and a check slot. Check slot trenching follows the specifications for anchor trenching.
- F. Fabric Overlap: Upstream and upslope edges should always be lapped, or "shingled" over downstream and downslope edges.
- G. Transitions: Transitions between adjacent bank treatments (i.e., treated and untreated areas) require special attention. Trenches in these areas should be at least 12 in deep and wide.

## SECTION 50 00 00

### ADDITIONAL STANDARDS AND SPECIFICATIONS

#### PART 1 – GENERAL

##### 1.1 ADDITIONAL SPECIFICATIONS

In addition to the specifications provided in these technical Specifications and those provide on the Contract Drawings, the following Natural Resource Conservation Service (NRCS) Conservation Practice Standards and Specifications apply:

- Critical Area Planting (342) Standard and Specification;
- Riparian Forest Buffer (391) Standard and Specification;
- Stream Habitat Improvement (395) Standard;
- Streambank and Shoreline Protection (580) Standard and Specification;
- Earthfill (903) Specification;
- Rock Riprap (907) Specification; and
- Control of Water (909) Specification.

## 2.1 SITE CONDITIONS

### A. Protection of Persons and Property:

1. Protect utilities, creek bank and bed, vegetation, trees, and facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by demolition operations.

### B. Protection of Utilities:

1. Protect active sewer, water, gas, electric, and other utilities; and drainage and irrigation lines indicated, on the Contract Drawings, found or otherwise made known to the Contractor before or during demolition work. If utility is damaged, immediately notify the utility owner for corrective action.
2. Arrange with and perform work required by utility companies and municipal departments for discontinuance or interruption of utility services due to demolition work.

### C. Noise and Dust Abatement:

1. Provide continuous noise and dust abatement as required to prevent disturbance and nuisance to the public and workers and to the occupants of adjacent premises and surrounding areas.
2. When a certain level of noise is unavoidable because of the nature of the work or equipment involved, and such noise is objectionable to the occupants of adjacent premises, make arrangements with Land Owner to perform such work or operate such equipment at the most appropriate time periods of the day.

### A. Unknown Conditions:

1. The Contract Drawings and related documents may not represent all conditions at the site and adjoining areas. The known surface conditions are as indicated, and shall be compared with actual conditions before commencement of work.

2. If existing active services or facilities encountered interfere with construction activities, notify the Project Manager and Land Owner immediately and in writing, requesting instructions on their disposition. Take immediate steps to ensure that the service provided is not interrupted, and do not proceed with the work until written instructions are received from the Project Manager.

## Quantities

Description	Quantity Units
<b>Site Preparation</b>	
Access Road Surface Preparation	165 TON
<b>Site 1</b>	
Excavation - ELJ	216 CY
Logs with Rootwad, 36"	3 EA.
Logs, 24"	3 EA.
Ballast Rock	4 EA.
Log/Log & Log/Rock Attachment	8 EA.
Coir Fabric	67 SY
<b>Site 2</b>	
Excavation - ELJ	200 CY
Excavation - Connector Channel	100 CY
Logs with Rootwad, 36"	2 EA.
Logs, 24"	3 EA.
Ballast Rock	2 EA.
Log/Log & Log/Rock Attachment	6 EA.
Coir Fabric	180 SY
<b>Site 5</b>	
Excavation - Main Channel	720 CY
Excavation - Connector Channel	150 CY
Engineered Streambed Material	1000 TON
Large Rock for Bands, Banks & Indiv	882 TON
Fill Placement	300 SY
Coir Fabric	1000 SY

**EXHIBIT B**  
**Cost Proposal**  
Butano Creek Floodplain Restoration Project

We, the undersigned, having familiarized ourselves with all project plans and local conditions affecting the cost of work to be done, along with the cost proposal and contract documents, hereby propose to provide and furnish all labor, materials, utilities, transportation, and equipment of all types and kinds and to complete the project as specified and described in Exhibit A.

We, the undersigned, agree to perform all of the above work to its completion and to the satisfaction of the RCD for the rates and prices for said work as indicated below.

We, the undersigned, understand that the contract is a not to exceed lump sum contract and the paid sum will not exceed the contract amount without a change order from the RCD. The RCD will not be responsible for any loss of anticipated profits due to reductions in the size of the contract.

**1: BID SCHEDULE**

Item #	Description	Amount
1	Mobilization and Project Set-Up (e.g. safety plan, waste management plan, etc.)	
2	SWPPP Preparation (optional element)	
3	SWPPP Filing and Implementation	
4	Construction Surveying	
5	Dewatering (Site 1, 2, and 5)	
	Site 1:	
6	Access Route Prep and Restoration	
7	Materials and Equipment	
8	Labor	
	Site 2:	
9	Access Route Prep and Restoration	
10	Materials and Equipment	
11	Labor	
	Site 3: (optional element)	
12	Materials and Equipment	
13	Labor	
	Site 4: (optional element)	
14	Materials and Equipment	
15	Labor	
16	Any Access Route Restoration	
	Site 5:	
17	Access Route Prep and Restoration	
18	Materials and Equipment	
19	Labor	
20	Demobilization	

***Total Bid (in numbers):***

\_\_\_\_\_

***Total Bid (in words):***

\_\_\_\_\_

Cost per linear foot for materials and installation of biological exclusionary fencing: \_\_\_\_\_

Attach a description of actions to protect sensitive areas, as well as any additional comments.



## **2. CERTIFICATION**

I hereby certify that:

- A. All of the statements herein made by me are made on behalf of [company name],  
[Director/CEO name]
- B. I have thoroughly examined the plans and specifications, contract documents and all other items bound herein;
- C. I have carefully prepared this Cost Proposal form and have checked the same in detail before submitting this bid;
- D. I have full authority to make such statements and to submit this bid on the Company's behalf;  
and
- E. The statements herein are true and correct.
- F. I hereby represent that submission of this bid proposal is a firm commitment obligating my firm to provide the services as proposed if my firm is selected.

Signature \_\_\_\_\_ Date \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

Calif. Contractor's License #: \_\_\_\_\_ Classification: \_\_\_\_\_

Name of Qualifier for License: \_\_\_\_\_

Federal Tax Identification #: \_\_\_\_\_

Company Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Project Representative: \_\_\_\_\_

Representative's Phone: \_\_\_\_\_ Email: \_\_\_\_\_

### **3. SUBCONTRACTORS**

List subcontractors you are planning to use on this project, if any. Provide company name and California contractor license number and classification.

Name of Subcontractor: \_\_\_\_\_

License #: \_\_\_\_\_ Classification: \_\_\_\_\_

Name of Subcontractor: \_\_\_\_\_

License #: \_\_\_\_\_ Classification: \_\_\_\_\_

Name of Subcontractor: \_\_\_\_\_

License #: \_\_\_\_\_ Classification: \_\_\_\_\_

Name of Subcontractor: \_\_\_\_\_

License #: \_\_\_\_\_ Classification: \_\_\_\_\_

Name of Subcontractor: \_\_\_\_\_

License #: \_\_\_\_\_ Classification: \_\_\_\_\_

#### **4.REFERENCES**

List projects and contact information for use as reference, or attach reference documentation.

**PROJECT NAME** \_\_\_\_\_

Brief description of project:

Date(s) constructed:

Reference (name & phone) \_\_\_\_\_

**PROJECT NAME** \_\_\_\_\_

Brief description of project:

Date constructed:

Reference (name & phone) \_\_\_\_\_

**PROJECT NAME** \_\_\_\_\_

Brief description of project

Date constructed:

Reference (name & phone)

**EXHIBIT C  
SAMPLE CONTRACT**

**SAN MATEO COUNTY RESOURCE CONSERVATION DISTRICT  
PROFESSIONAL SERVICES AGREEMENT WITH  
[CONTRACTOR NAME]**

THIS AGREEMENT ("Agreement"), made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2015 is by and between the **SAN MATEO COUNTY RESOURCE CONSERVATION DISTRICT**, a subdivision of the State of California, hereinafter referred to as "**RCD**," and **[CONTRACTOR NAME]**, hereinafter referred to as "**CONTRACTOR**."

**WITNESSETH:**

**WHEREAS**, the RCD has received funding from the California Department of Water Resources through the Urban Streams Restoration Program (funder) to reconnect one mile of Butano Creek to its historic floodplain in collaboration with Peninsula Open Space Trust; and

**WHEREAS**, RCD desires to use the professional services of CONTRACTOR; and

**WHEREAS**, CONTRACTOR has the professional and administrative ability to implement such services; and

**WHEREAS**, RCD and CONTRACTOR desire to set forth in writing the obligations and responsibilities of each party relating to the services;

**NOW, THEREFORE**, in consideration of the promises and mutual benefits which will accrue to the parties hereto in carrying out the terms of this Agreement, the parties agree as follows:

**1. Scope of Services**

- a. CONTRACTOR will, in accordance with the terms of this Agreement, perform the services set forth in Exhibit A, *Butano Creek Floodplain Restoration Program-**CONTRACTOR** Scope of Work*, hereinafter referred to as "**PROJECT**", which is attached hereto and incorporated herein by reference.
- b. This Agreement is limited both in scope and duration, as herein specified.

**2. Term of Agreement.** The term of this Agreement shall commence on [**Start Date**] and terminate on [**End Date**], but shall not become effective until executed by the parties.

**3. Performance Responsibilities.** Contractor shall complete the herein described services by no later than [**End Date**] unless a later date is agreed upon by the parties in writing. Time is and shall be of the essence in the performance of the specified services by CONTRACTOR.

**4. Compensation.**

- a. RCD agrees to pay CONTRACTOR an amount not to exceed [amount written], (\$xxxxxx) for the successful and timely completion of the specified services.
  - b. In the event that the funding on which the above described contract services relies is materially reduced or made unavailable, despite the parties understandings and expectations that no such disruptions will occur, this Agreement will terminate immediately upon notice of such funding disruption by RCD to CONTRACTOR.
- 5. Billing and Payment Procedure.** CONTRACTOR will submit requests for payment along with documentation acceptable to the RCD no more frequently than monthly and no less frequently than quarterly. RCD will issue payment to CONTRACTOR within 30 days of payment to the RCD by the project funder.
- 6. Cooperation.** RCD and CONTRACTOR agree to cooperate in any way and every way or manner on the PROJECT. RCD will immediately transmit to CONTRACTOR any new information which becomes available or any change in plans. CONTRACTOR will likewise bring any new information, issues or concerns to the RCD's attention as soon as practicable.
- 7. Assignment.** Without the written consent of RCD, this Agreement is not assignable by CONTRACTOR in whole or in part.
- 8. Conflict of Interest.** The CONTRACTOR shall comply with all applicable State laws and rules pertaining to conflicts of interest, including but not limited to, Government Code Section 1090 and Public Contract Code 10410 and 10411.
- 9. Applicable Laws.** All work performed on behalf of the RCD, as set forth in this Agreement shall be performed in accordance with all applicable state and federal laws, regulations, policies, procedures, and standards.
- 10. Wages.** All work implemented by the RCD, a public agency, is considered a public work or public improvement project. As public projects, they are subject to prevailing wage and other requirements included in California Labor Code §1720 -1861. Contractors, and any subcontractor under them, shall pay not less than the specified prevailing rates of wages to all workers employed in the execution of the Contract. Prevailing wage determinations can be found at Department of Industrial Relations website.
- 11. No Benefit To Arise For Local Employees.** Except as provided by State law, no member, officer, or employee of RCD or its designees or agents, and no public official who exercises authority over or has responsibilities with respect to the Project during their tenure or for one (1) year thereafter, shall have any interest, direct or indirect, in any agreement or sub-agreement or the proceeds thereof, for work to be performed in connection with the services performed under this Agreement.
- 12. Independent Contractor Status.** The CONTRACTOR, and the officers, the agents and employees of the CONTRACTOR, in the performance of the Agreement, shall act in an independent capacity and not as officers, employees or agents of the RCD. Nothing in this Agreement is intended nor shall be construed to create an employer-employee relationship, a joint venture relationship.

- 13. Standard of Professionalism.** CONTRACTOR shall conduct all work consistent with professional standards for the industry and type of work being performed under this Agreement.
- 14. Ownership of Materials.** Except as otherwise expressly stated in Exhibit A, all materials and work products, including data collected for the Work produced as a result of this Agreement are the property of the RCD. Any final products distributed or produced will acknowledge the CONTRACTOR, RCD, and other Funding Agencies as reasonably requested by the RCD. The RCD shall be entitled to use and publish the work product and deliverables under this Agreement.
- 15. Indemnification.** To the fullest extent permitted by applicable law, Contractor agrees to defend, at Contractor's expense and with counsel acceptable to District, indemnify, and save and hold harmless District and all of its officers, directors, employees and agents, as well as the State, and Peninsula Open Space Trust, from and against any and all claims, suits, losses, causes of action, damages, liabilities, and expenses of any kind whatsoever arising out of the performance or nonperformance of the CONTRACTOR's work, including without limitation, all expenses of litigation and/or arbitration, court costs, and attorneys' fees, arising on account of or in connection with injuries to or the death of any person whomsoever, or any and all damages to property, regardless of possession or ownership, which injuries, death or damages arise from, or are in any manner connected with, the work performed by or for the CONTRACTOR under this Agreement, or are caused in whole or part by reason of the acts or omissions or presence of the person or property of the Contractor or any of its employees, agents, representatives and or suppliers.
- 16. Insurance.** CONTRACTOR shall obtain and maintain for the duration of this Agreement, comprehensive general liability insurance and/or other insurance necessary to protect the parties hereto, and shall provide RCD with evidence thereof. CONTRACTOR shall have RCD and Department of Water Resources, and Peninsula Open Space Trust, named as an additional insured on its insurance policy, which shall have minimum coverage limits as specified in Exhibit D of the Butano Creek Floodplain Restoration Project Request for Bids, as is incorporated herein by reference. CONTRACTOR's above described insurance shall serve as the primary insurance coverage for any claim arising from or relating to the services to be performed hereunder.
- 17. Non-discrimination.** During the performance of this Agreement, CONTRACTOR will not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex (gender), sexual orientation, race, color, ancestry, religion, creed, national origin (including language use restriction), pregnancy, physical disability (including HIV and AIDS), mental disability, medical condition (e.g., cancer), age (over 40), marital status, and denial of medial and family care leave or pregnancy disability leave. CONTRACTOR shall ensure that the evaluation and treatment of its employees and applicants for employment are free from such discrimination and harassment. CONTRACTOR will 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 12900 (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. CONTRACTOR will give written notice of its obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

- 18. Notices.** Any notice required to be given pursuant to the terms and provisions of this Agreement shall be in writing and shall be sent first-class mail. Notice shall be deemed to be effective two (2) days after mailing to the following addresses:

**To RCD:** Kellyx Nelson, Executive Director  
San Mateo County Resource Conservation District  
625 Miramontes Street, Suite 103  
Half Moon Bay, CA 94019

**To CONTRACTOR:** Contact name, Title  
Address

- 19. Amendments and Integration.** This Agreement supercedes all previous agreements or understandings, and constitutes the entire understanding between the parties with respect to the above referenced services, terms of compensation, and otherwise. This Agreement shall not be amended, except in a writing that is executed by authorized representatives of both parties.

- 20. Drug Free Workplace Certification:** By signing this Agreement, CONTRACTOR hereby certifies, under penalty of perjury under the laws of State of California, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Government Code 8350 et seq.) and will provide, as required by Government Code Sections 8355(a)(3), that every employee, contractor, or subcontractor who works under this Grant Agreement will receive a copy of Grantee's drug-free policy statement (Supplied with final contract), and will abide by terms of the policy.

- 21. Labor Code Compliance:** The CONTRACTOR will take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, but not limited to Section 1720 *et seq.* of the California Labor Code regarding public works, labor compliance programs (California Labor Code Section 1771.5), and payment of prevailing wages for work done and funded pursuant to these Guidelines, including any payments to the Department of Industrial Relations under Labor Code Section 1771.3.

As a condition of receiving payments for this Project, the CONTRACTOR agrees to present to the RCD, or its designee, all applicable and necessary documentation required to show compliance with a Labor Compliance Program, as required by the California Labor Code.

The RCD shall withhold any portion of a payment until all required forms and documentation of compliance of the Labor Compliance Program are properly submitted. In the event that certified payroll forms do not comply with the requirements of Labor Code Section 1720 et

seq., the RCD may continue to hold sufficient funds to cover estimated wages and penalties under the contract.

**22. Standards for Financial Management System:** CONTRACTOR shall maintain fiscal control and accounting procedures which are sufficient to:

- a. Permit preparation of reports required by Title 48 CFR Part 31 (including those required by Title 48 CFR Part 31.40 and 31.41) and statutes authorizing the grant to the RCD;
- 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;
- c. A requirement to this effect shall be placed in all subcontractors' contracts related to performance of work under this Agreement.

**23. Inspections:** The Funder shall have the right to inspect the work being performed at any and all reasonable times during the term of this Agreement.

**24. Termination.** This Agreement may be terminated for any of the following reasons:

- a. If CONTRACTOR fails to perform the services hereunder agreed to the satisfaction of RCD, or otherwise fails to fulfill its obligations under this Agreement, immediately upon written notice from RCD; and
- b. Upon notice from RCD to CONTRACTOR that the funding on which this Agreement is based has been materially disrupted or discontinued.

**IN WITNESS WHEREFORE,** the parties agree to the foregoing terms and conditions and hereby enter into this Agreement.

Date: \_\_\_\_\_ By: \_\_\_\_\_  
**Contractor signatory name, title**

Date: \_\_\_\_\_ By: \_\_\_\_\_  
**Kellyx Nelson, Executive Director**  
**San Mateo County Resource Conservation District**



## **EXHIBIT D**

### **Insurance Requirements**

#### **1: Insurance Requirements**

CONTRACTOR shall procure and maintain for the duration of this Agreement insurance against claims and injuries to persons or damages to property which may arise from or in connection with the work hereunder by CONTRACTOR, its agents, representatives, employees or subcontractors. The cost of such insurance shall be the sole responsibility of CONTRACTOR.

1. Minimum Scope of Coverage and Limits of Insurance:
  - a. Comprehensive General Liability: \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage.
  - b. Automobile Liability: \$500,000 combined single limit per accident for bodily injury and property damage.
  - c. Worker's Compensation: Limits as set forth in the Labor Code of the State of California.
2. Contractors Liability Insurance Policy shall contain the following clauses:
  - a. RCD, Department of Water Resources, and Peninsula Open Space Trust are added as an additional insured as respects operation of the named insured formed under contract with RCD.
  - b. It is agreed that any insurance maintained by RCD shall apply in excess of, and not contribute with, insurance provided by this policy.
  - c. The insurer agrees to waive all rights of subrogation against RCD, its officers and employees for losses arising from work performed by CONTRACTOR for RCD.
3. Each insurance policy required herein shall be endorsed to state that coverage shall not be cancelled, limited, or non-renewed except after thirty (30) days written notice has been given to RCD. Certificates of insurance evidencing the coverage required by the clauses set forth above shall be filed with RCD within 10 working days to the effective date of this Agreement.

## **2: CERTIFICATE OF COMPLIANCE**

TO: SAN MATEO COUNTY RESOURCE CONSERVATION DISTRICT

PROJECT: *Butano Creek Floodplain Restoration Project*

This is to certify that all requirements for insurance of subcontractors as specified have been met.

\_\_\_\_\_  
[Contractor]

\_\_\_\_\_  
By

\_\_\_\_\_  
Dated

Please return this completed form with your Bonds and Certificates of Insurance within 7 days of notice of award.

## **EXHIBIT E**

### **Labor Compliance Program**

The state labor law requirements applicable to the contract are composed of, but not limited to, the following:

#### **1. Payment of Prevailing Wage Rates**

The award of a public works contract requires that all workers employed on the project be paid not less than the specified general prevailing wage rates by the contractor and its subcontractors. Prevailing wage determinations for this project can be obtained at: **www.dir.ca.gov**. This includes a total package including fringe benefits and training contributions which are paid to the employee or for the benefit of the employee to a bona fide ERISA approved or otherwise unconditionally paid for the benefit of the employee Trust Fund.

The contractor is responsible for obtaining and complying with all applicable general prevailing wage rates for trades workers and any rate changes, which may occur during the term of the contract. Prevailing wage rates and rate changes are to be posted at the job site for workers to view. Or the contractor may post a notice stating where the prevailing wage determinations are available on the jobsite and the contractor shall provide access to such information upon reasonable notice.

2. All individuals or companies performing prevailing wage work on this project must be registered as a public works contractor and pay an annual fee of \$300 to the Department of Industrial Relations (DIR). This includes all work covered by prevailing wage such as trucking, surveying, building inspection and so on.

#### **3. Apprentices**

It is the duty of the contractor and subcontractors to employ registered apprentices on public works projects per Labor Code Section 1777.5; Contractors and subcontractors must submit proof of Public Works Contract Award Information (DAS140) or other documentation for Division of Apprenticeship Standards approved apprenticeship programs. Apprentices are to be employed in all crafts and in all trades with approved training programs. Contractors are to employ apprentices on a ratio of 1 apprentice hour for every 5 journeymen hours or as otherwise approved by the DAS approved Apprenticeship Training Committee. Contractors and subcontractors who do not meet this ratio must submit documentation that apprentices were requested and were not provided and/or not available in sufficient number to meet this ratio. The submission of an accurate DAS142(s) meets this requirement. Additional documentation may be required to verify the apprenticeship status of employees.

#### **4. Penalties**

Penalties, including forfeitures and debarment, shall be imposed for contractor/subcontractor failure to pay prevailing wages, failure to maintain and submit accurate certified payroll records upon request, failure to employ apprentices, and for failure to pay employees for all hours worked at the correct prevailing wage rate, in accordance with Labor Code Sections 1775, 1776, 1777.7, and 1813. Monetary penalties of \$200 per day per worker shall be imposed for failure to pay correct prevailing wage; \$25 per day per worker shall be imposed for overtime violated; \$100 per day per worker for failure to provide certified payroll information; \$100-\$300 per calendar day for noncompliance of Apprenticeship issues.

#### **5. Certified Payroll Records**

Per Labor Code Section 1776, contractors and subcontractors are required to keep accurate payroll records which reflect the name, address, social security number, and work classification of each employee; the straight time and overtime hours worked each day and each week; the fringe benefits; and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee hired in

connection with a public works project. A listing of all current prevailing wage determinations can be obtained from the Agency's main office or by accessing the Department of Industrial Relation's website at: [www.dir.ca.gov](http://www.dir.ca.gov)

Employee payroll records shall be certified (signed under penalty of perjury by someone in authority at the company) and shall be made available for inspection at all reasonable hours at the principal office of the contractor/subcontractor, or shall be furnished to any employee, or to his or her authorized representative on request. Disclosure of certified payroll information to anyone other than the Awarding Body, its agent, or the Department of Industrial Relations requires that personal information about the employees (name, address and social security number) listed on the forms be redacted (omitted) to protect employee privacy.

Contractors and subcontractors shall maintain their certified payrolls on a weekly basis and shall submit said payrolls on a monthly basis (at end of month for previous month's records) to RCD in conjunction with contractor's requests progress or final payment. In the event that there has been no work performed during a given week, the Certified Payroll Record shall be annotated "No Work" for that week. The Agency or its authorized representative is also authorized to request and review all related payroll records such as time cards, cancelled checks, etc. For all projects awarded after April 1, 2015, certified payrolls must also be submitted to the DIR electronically through their eCPR system.

While the DIR accepts electronic versions of your certified payroll, the DIR and this agency may also request copies of the original certified payroll and supporting documentation at any time.

#### 6. Nondiscrimination in Employment

Prohibitions against employment discrimination are contained in Labor Code Sections 1735 and 1777.6; the Government Code; the Public Contracts Code; and Title VII of the Civil Rights Act of 1964, as amended. All contractors and subcontractors are required to implement equal employment opportunities as delineated below:

##### a. Equal Employment Poster

The equal employment poster shall be posted at the job site in a conspicuous place visible to employees and employment applicants for the duration of the project. All other labor and employment related posters are also to be properly displayed on the jobsite.

#### 7. Kickback Prohibited

Per Labor Code Section 1778, contractors and subcontractors are prohibited from accepting, taking wages illegally, or extracting "kickback" from employee wages;

#### 8. Acceptance of Fees Prohibited

Contractors and subcontractors are prohibited from exacting any type of fee for registering individuals for public work (Labor Code Section 1779); or for filling work orders on public works contracts (Labor Code Section 1780);

#### 9. Listing of Subcontractors

Contractors are required to list all subcontractors hired to perform work on a public works project when that work is equivalent to more than one-half of one percent of the total contract amount or \$10,000 whichever is greater. (Public Contract Code Section 4100, et seq.);

#### 10. Proper Licensing

Contractors and subcontractors are required to be properly licensed. Penalties will be imposed for employing workers while unlicensed (Labor Code Section 1021 and Business and Professions Code Section 7000, et seq. under California Contractors License Law);

11. Unfair Competition Prohibited

Contractors and subcontractors are prohibited from engaging in unfair competition (Business and Professions Code Sections 17200-17208);

12. Workers' Compensation Insurance

All contractors and subcontractors are required to be insured against liability for workers' compensation, or to undertake self-insurance in accordance with the provisions of Labor Code Section 3700 (Labor Code Section 1861);

13. OSHA

Contractors and subcontractors are required to comply with the Occupational, Safety and Health laws and regulations applicable to the particular public works project.

14. Prompt Payment of Subcontractors and Suppliers

Contractors are required by law to promptly pay their subcontractors and suppliers within seven (7) days of receipt of any progress or final payment from the Public Agency. Likewise the subcontractor and supplier are required to pay their respective subcontractors and suppliers within seven (7) days of receipt of payment from the general contractor. When the payment to the contractor is a release of final retention on the project, those funds must be paid within seven (7) days of receipt.

15. IRCA

Pursuant to the Immigration Reform and Control Act of 1986, employers are required to verify that all employees working on public works contracts are legally able to work in the United States. Employers shall keep on file appropriate I-9 forms and documentation for all workers employed on the jobsite and make such forms available to inspection and review by the LCO upon request.

16. Jobsite Interviews

Jobsite interviews are required on a regular basis on this project, CCMI may conduct random jobsite interviews as necessary to meet labor compliance obligations. Please contact Field Representative Christina Sanchez once project has a confirmed start date. Her phone number is (650) 759-9891.

17. Certification of Electricians

Those employing electricians must comply with employment testing and certification requirements for electricians. Additional information may be required to verify the certification status of those employed.

18. Employee Wage Statements - It is required to provide itemized wage statements (pay stubs) to Employees under Labor Code Section 226.

19. Posting of Labor Compliance – Notice of Labor Compliance Approval is required to be posted at the job site in accordance with section 16429, listing a telephone number to call for inquiries, questions, or assistance with regard to the Labor Compliance Program. (Sample attached in handout).

20. Confirmation of Payroll Records – Confirmation of payment to employees for each contractor and subcontractor shall be undertaken randomly for at least one worker for at least one weekly period within that month. This will entail a monthly request of the front and back of a canceled check and employee

pay stub for each contractor/subcontractor. Per Title 8 of the California Code Regulations section 16432(c).

21. Public Works Contractor Registration – Only those businesses who have registered and paid the applicable fee to the Department of Industrial Relations as a Public Works Contractor will be allowed to work on the project.

I acknowledge that I have been informed and am aware of the foregoing requirements and that I am

authorized to make this certification on behalf of \_\_\_\_\_.

(Name of Contractor)

---

**Signature**

---

**Name**

---

**Title of Contractor Authorized Representative**

**EXHIBIT F**  
**Billing Instructions for Contractors**

**Process and timing**

Invoices will be reviewed by the RCD staff before submittal to grant funders. Invoices will be paid upon receipt of funds from the grantor, a process that may take up to 60 days from the time of submittal to the grantor by the District.

**Format**

In order to be paid promptly, you should use the attached invoice template, or include all elements in the template on your invoice.

**Description:** Provide a thorough but concise description of all work included on the invoice. Include a breakdown of equipment and labor rates, hours and dates worked, materials, subcontractors and other costs. Attach receipts for all subcontractors and expenses included on invoice.

**Please submit your invoice to:**

San Mateo County Resource Conservation District  
625 Miramontes Street, STE 103  
Half Moon Bay, CA 94019

Bill To:
Irina Kogan
San Mateo County RCD
625 Miramontes Street, #105
Half Moon Bay, CA 94019

Date	Invoice #

		Project	Period
		Butano Creek Floodplain Restoration	
Quantity	Description	Rate	Amount
	<u>Personnel</u>		
	Name	\$ -	\$ -
	Subtotal Personnel		\$ -
	<u>Expenses</u>		
	Item	\$ -	\$ -
	Subtotal Expenses		\$ -
	<u>Subcontractors</u>		
	Company	\$ -	\$ -
	Subtotal Subcontractors		\$ -
		<b>Total</b>	\$ -