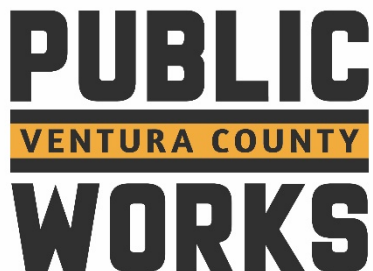


PLANS AND SPECIFICATIONS
FOR

**FERRO DITCH CHANNEL
IMPROVEMENTS**

SPECIFICATION NO. WP21-05

PROJECT NO. 85301



county of ventura
WATERSHED PROTECTION
DISTRICT ZONE 3

**VENTURA COUNTY WATERSHED PROTECTION DISTRICT
PUBLIC WORKS AGENCY**

NOTICE INVITING BIDS, PROPOSAL FORM, & SPECIFICATIONS

FOR


PROJECT NAME: FERRO DITCH CHANNEL IMPROVEMENTS

LOCATION: SOMIS, CA

SPECIFICATION NO. WP21-05

PROJECT NO. 85301

DESIGNED BY:


John Mueller

CHECKED BY:


Krassimir Roussev



SUBMITTED BY:



Kirk Norman
Project Manager, Watershed Protection District

RECOMMENDED BY:



Peter Sheydayi
Deputy Director, Watershed Protection District

APPROVED BY:



Glenn Shephard
Director of Watershed Protection District

APPROVED BY:



Jeff Pratt
Director of Public Works Agency

3/11/21

**BIDS WILL BE RECEIVED ON:
APRIL 15, 2021
AND OPENED AT 2:00PM
at County Surveyor's Public Counter
Third floor, Hall of Administration,
800 South Victoria Avenue,
Ventura, California 93009-1670**

Construction bidding documents, including plans, specifications, addenda and any supplementary documents are only available on the Ventura County Public Works Agency Web Site.

NOTICE TO BIDDERS, SUBCONTRACTORS AND SUPPLIERS **SOURCES OF INFORMATION**

DURING BIDDING PERIOD

PLAN HOLDERS LIST & OTHER INFORMATION IS AVAILABLE ON THE INTERNET AT:

<http://vcpublicworks.org/es/>

PROJECT DOCUMENTS ON EBIDBOARD AT:

<http://www.ebidboard.com/public/projects/index.asp?mbrguid=2B485702-FFAE-4327-A8B7-F1C22BE001D2>

TECHNICAL QUESTIONS on plans and specifications

Please **EMAIL** questions early in the bidding period as an addendum may be required.

FOR BID QUESTIONS, or to confirm number of Addenda issued,

EMAIL TO:

PWA.Bidquestions@ventura.org

Spec Number must be referenced on all bid questions

Please do not call other staff members or consultant.

Note that our consultants are directed to refer all calls to the Project Managers.

DIRECTIONS TO VENTURA COUNTY GOVERNMENT CENTER

Ventura County Government Center is currently closed to the public due to COVID-19

From US101 (Ventura Freeway), take Victoria Ave off ramp, north (towards mountains) about one mile to Telephone Road, then right on Telephone Road one block and turn left at Lark St. into the Government center parking lot.

From CA126 (Santa Paula Freeway), take Victoria Ave off ramp, south (away from mountains) about one mile to Telephone Road, then left on Telephone Road 1 block and turn left at Lark St. into the Government center parking lot.

ONLY AFTER BID OPENING

BID RESULTS: are available on the internet site shown above, usually within **24 hours after** bids are opened and Include abstracts of unit prices, totals of all bids & subcontractor's list for low & 2nd bidder. Click on "BIDS & SUBS".

LOW BIDDER - ONLY AFTER AWARD OF CONTRACT

ALL QUESTIONS concerning project **AFTER AWARD** should be directed to the Project Manager named in the Notice of Award

Any other information can be requested at (805) 654-2039

VENTURA COUNTY WATERSHED PROTECTION DISTRICT
FERRO DITCH CHANNEL IMPROVEMENTS

SPECIFICATION NO. WP21-05
PROJECT NO. 85301

TABLE OF CONTENTS

Notice Inviting Bid.....	1 page
Proposal	9 pages
Standard Specifications.....	85 pages
Special Provisions	67 pages

Page No.

Section 1000	General Responsibilities of the Contractor	78
Section 1001	Clearing and Grubbing.....	93
Section 1002	Traffic Control	94
Section 1003	Diversion, Control, and Removal of Water.....	96
Section 1004	Water Pollution Control.....	98
Section 1005	Excavation Safety	100
Section 1006	Tree Stump and Rootball Removal.....	101
Section 1007	Existing Facilities	102
Section 1008	Temporary Orange Silt Fence.....	105
Section 1009	Excavation	109
Section 1010	Fill and Backfill.....	111
Section 1011	Rock Riprap	113
Section 1012	Chain Link Fence and Gate	117
Section 1013	Concrete for Major Structures.....	120

Section 1014	Reinforcing Steel for Major Structures	125
Section 1015	Subdrain Pipe	127
Section 1016	CMB Access Road.....	129
Section 1017	Filter Material	130
Section 1018	RC Pipe, Junction Structures, and Appurtenances....	133
Section 1019	Drainage Gates and 12" Thimble.....	135
Section 1020	PVC Pipe Installation	139
Section 1021	Corrugated HDPE Irrigation Drainage Line.....	141
Section 1022	Potholing.....	143
Section 1023	RC Flood Control Wall	144
Best Management Practices (BMPs).....		21 Pages
CDFW Streambed Alteration Agreement No. 1600-2019-0120-R5.....		19 Pages
RWQCB File No. 19-037		38 Pages
RWQCB Waste Discharge Requirements CI-10555.....		27 Pages
USACE Permit SPL-2013-00592-AJS.....		38 Pages
Caltrans Encroachment Permit 07-20-N-DD-1053.....		47 Pages
Water Diversion Guide		23 Pages
Prevailing Rates of Wages		1 Page
Federal Wage Requirements		1 Pages
Davis-Bacon Act Wage Determination#CA20200015		28 Pages
Excerpts from the California Labor Code.....		13 Pages
Excerpts from PCC 9204 January 1, 2017		4 Pages
Plans		20 Sheets

VENTURA COUNTY WATERSHED PROTECTION DISTRICT
NOTICE INVITING BIDS

Sealed bids will be received by mail at the County Surveyor's Public Counter, 3rd Floor, Administration Building, 800 South Victoria Avenue, Ventura, California 93009-1670, on **April 15, 2021**, and afterwards opened at 2:00 PM, for **Specification No. WP21-05, FERRO DITCH CHANNEL IMPROVEMENTS**, which consists of the replacement of approximately 1,687 linear feet of earthen and intermittent concreted rock lined sections of trapezoidal channel with 10' of concrete box culvert, 35' of RC open rectangular channel, 30' of concrete transition between the rectangular channel and trapezoidal channel sections, 1507 feet of rock lined trapezoidal channel with approximately 3400 linear feet of CMB road, a 40' reinforced concrete flood control wall with floodgates, traffic control, agricultural drainage line relocation, agricultural waterline relocation, removal and reinstallation of rock in a stilling basin, contour grading and appurtenant work.

The estimated cost of construction is **\$ 3,000,000.00**

The plans, specifications and proposal forms for this project are filed in the office of the Ventura County Surveyor and are, by reference, made a part of this Notice. Construction bidding documents, including plans, specifications, addenda and any supplementary documents are now available on the Ventura County Web Site at :

<https://www.vcpbublicworks.org/es/contracting/>

click on "Contract Bidding Opportunities" and then "eBidBoard Website" where the documents may be viewed, downloaded and printed.

Printed copies of the document can be purchased at most commercial printing companies that have internet access.

A **List of Plan Holders** is available on the **Website** shown above.

An abstract of bids received will be available at the same web site under **Bids & Subs**.

Bids must be submitted **by mail** on the proposal form furnished with said documents. Each bid must be accompanied by a bid guarantee in the amount of not less than 10% of the amount bid, **PAYABLE TO THE VENTURA COUNTY WATERSHED PROTECTION DISTRICT** and guaranteeing that the bidder will enter into a contract in accordance with the terms of the bidding documents if award is made. The bid guarantee shall be in one of the following forms: a bid bond written by an admitted surety insurer on the form included with the Proposal form, a cashier's check drawn by a National bank, a check certified by a National bank or cash. An electronically transmitted copy of the bid bond form included in the Proposal form may be used, but the form must have the original signatures of the principal and surety. A copy of the completed bond will not be accepted.

Bidders must have a Class **A** California Contractors license, and will be required to furnish a Performance Bond and a Payment Bond, each in the amount of 100% of the contract price.

In accordance with Section 22300 of the Public Contract Code, securities may be substituted for funds withheld.

The contractor must post copies of the prevailing wage schedule at each job site.

Federal Wage Rates: <https://beta.sam.gov/wage-determination/CA20200015/22>

California general prevailing wage rates for construction can be obtained from the following Web site: <http://www.dir.ca.gov/DLSR/PWD/index.htm>.

This public works project is subject to compliance monitoring and enforcement by the Agency, in addition to the Department of Industrial Relations (DIR).

Please Note: This contract requires an electronic Labor Compliance Monitoring Program. (LCP Tracker) For questions or assistance with regards to using the LCP Tracker Program, or any other Labor questions, please contact the LCP Officer at 805-654-2086. The limited exemption from prevailing wages pursuant to Labor Code Section 1771.5(a) does not apply.

Contractors and subcontractors shall keep accurate payroll records in accordance with Labor Code Section 1776. Contractors shall furnish weekly certified payrolls for the workers of the contractor and all subcontractors to the LCP Officer within 7 days following the end of the preceding week through LCP Tracker (See Special Specification 1000-24).

NOTE: This requirement is in addition to the State requirement to upload payrolls into the State DIR electronic system, but LCP Tracker has a function to submit payrolls entered into that program to DIR.

The successful bidder shall comply with all other requirements of Division 2, Part 7, Chapter 1 of the California Labor Code. Bidder and all subcontractors shall hold a valid California Contractor's License and be registered with the Department of Industrial Relations prior to bid time and will be confirmed during bid verification processes.

In bidding on the project, it shall be bidder's responsibility to evaluate the cost of complying with the above-referenced LCP oversight and Labor Code requirements. The bidder shall include all costs of this compliance in the contract amount as no additional compensation shall be provided.

Bidders, contractors, and other interested parties requiring current wage rates pertaining to Ventura County projects, please refer to the DIR link provided above.

**LOCATED IN
VENTURA COUNTY, CALIFORNIA**

THE NUMBER OF PAGES IN THIS PROPOSAL IS **9**

EXHIBIT 3

PROPOSAL
Instruction to Bidders

1. **LICENSING OF BIDDER.** Before contract will be awarded, bidders shall be licensed in accordance with the provisions of Sections 7000 through 7145 of the Business and Professions Code of the State of California in the classification required for the work bid on. The bidder's license number, classification, and expiration date shall be inserted on page 8 of the proposal form. The bidder's name shall correspond in all respects with the name shown on the license. License numbers and names are checked with the State.
2. **SITE INSPECTION.** Personally visit the worksite before submitting your bid to ascertain the existence of any surface or subsurface conditions affecting the cost of the work.
3. **INTERPRETATION AND QUESTIONS.** Carefully review the plans and specifications for any errors, omissions, or ambiguities. If you discover any or have specific questions, notify the Agency far enough in advance of the bid opening to allow time for the issuance of appropriate written addenda, if necessary. Send the notification about any errors, omissions, ambiguities or questions to PWA.Bidquestions@ventura.org. Written addenda shall be the sole means for modifying the plans and/or specifications prior to the bid opening. The Agency shall not be bound by oral communications purportedly modifying or interpreting the plans and/or specifications regardless of when or by whom such oral communications are made and you should not rely upon such oral communications in preparing your bid.
4. **BID ITEMS.** State in figures the unit prices, lump sum prices and extensions as indicated which shall be the prices for which you propose to supply all materials and services and perform all work required by the plans and specifications. All items described are to be construed as complete and in place. Include in the bid amount for items listed on the proposal form the cost of performing all work shown on the plans or required by the specifications for which a specific bid item is not provided. Bid on all items listed under Schedule of Work and Prices unless otherwise indicated in the proposal form.
5. **SIGNING OF BID.** Fill in all indicated blanks in this proposal using typewriter or ink and sign with ink. Proposals signed by an agent other than an owner, partner or corporate officer shall be accompanied by a power-of-attorney. Proposal form must be dated.
6. **NON-COLLUSION AFFIDAVIT.** The non-collusion affidavit required by Public Contract Code 7106 is included on page 5 of this Proposal. The non-collusion affidavit required for federally funded projects is included on page 5 of this Proposal.
7. **BID FORM NOT TO BE ALTERED.** Do not change the wording of this proposal. Any additions, deletions, conditions, limitations or provisions by the bidder will render the proposal irregular and may cause its rejection.
8. **CORRECTING BID.** Explain over your signature any erasures or deletions of information entered by the bidder in this proposal. Modifications submitted separately from this form will not be accepted

9. **BID GUARANTEE.** Each bid must be accompanied by a bid guarantee in the amount of not less than 10% of the amount bid and guaranteeing that the bidder will enter into a contract in accordance with the terms of the bidding documents if award is made to him. The bid guarantee shall be in one of the following forms: A bid bond written by an admitted surety insurer on the form included with the proposal form, a cashier's check drawn by a national bank, a check certified by a national bank or cash. An electronically transmitted copy (FAX) of the bid bond form included in the proposal form may be used, but the form must have the original signatures of the principal and surety. A FAX of the completed bond will not be accepted. Note: Performance and Payment Bonds are required from the bidder to whom a contract is awarded. See specifications Subsection 2-4 for contract bond requirements including limitations on the sureties that may issue the bonds.

10. **SUBMITTING BID.** Submit your bid **by mail** on one copy only of this proposal form, with addenda acknowledged by inserting the addenda numbers on page 8 of this proposal and with bid guarantee attached, in a sealed envelope addressed to:

Public Works Agency, County of Ventura, County Surveyor's Public Counter,
3rd Floor - Hall of Administration, 800 South Victoria Ave., Ventura, California 93009-1670.
For proper handling, mark outside of envelope as "SEALED BID", and show the project title and the bidder's name and address. Do not enclose other documents in the bid envelope.

IMPORTANT: Proposals received that are not signed will not be considered.

Late bids will not be opened or considered.

Bids must be on this form. Electronically transmitted bids, bid modifications or bid withdrawals will not be considered.

Notwithstanding anything stated, directed or indicated in the other bidding documents, the only items to be included with this proposal are:

1. This proposal form, signed and dated with addenda acknowledged.
2. The bid bond with original signatures of surety representative and contractor, or other bid guarantee as specified in 9 above.
3. Subcontractors and off-job fabricators list completed in accordance with Public Contract Code Section 4104.

11. **TIME OF BID CLOSURE.** The bid box will be closed promptly at the time specified on the first sheet of the proposal form. Time can be obtained from <http://www.time.gov/timezone.cgi?Pacific/d/-8> (local standard time).

12. **DELIVERY OF BID.**

Due to the COVID-19 crisis, **in-person delivery** of bids has been suspended. In person delivery will **not** be accepted; only **bids received by mail** shall be accepted.

13. MAILED BIDS (Including Express Delivery). Bids received in the County's Mail Room **by 8 a.m. on, or before**, the bid opening date will be considered to have been placed in the bid box on time, whether or not actually delivered to the bid box on time. U. S. Postal Service Special delivery, Registered and Certified mail may slow actual receipt of bids. **Bidder is solely responsible for sending bid early enough to insure delivery to the County on time.**

For mailed bids, mark "**SEALED BID**" in large letters on the **outside of the delivery envelope and clearly show the Spec No.**

Electronically transmitted bids or modifications will **not** be considered.

14. WITHDRAWAL OF PROPOSAL. Proposals may be withdrawn by the bidder prior to the time stated for opening bids upon written request, signed by the bidder or his authorized agent and submitted in the same manner as a bid. To retrieve a bid from the bid box may take 10 or more minutes as it requires a written request to withdraw the bid, the positive identification of the person requesting the withdrawal, and the opening of the bid box.

15. ERRORS. Bidder will not be released on account of errors. Where a discrepancy occurs between unit prices and totals, the unit price shall govern in computing the total. If a unit price is omitted, it will be determined from the item total, if entered. If both the unit price and line total for any item are omitted, the bid will be considered non-responsive in accordance with Paragraph 4 above. If the total Bid Price is not equal to the sum of the Item Totals (as corrected) the Total Bid Price will be corrected. If no monetary symbol (\$ or ¢) is entered with a unit price, lump sum or extension, a dollar sign will be assumed to be the bidder's intent.

16. SUBCONTRACTOR LICENSE NUMBERS. License numbers for subcontractors must be provided at the time the bid is received.

17. PUBLIC WORKS CONTRACTOR REGISTRATION PROGRAM. No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)]

No contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5

18. LABOR COMPLIANCE MONITORING. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The Prime Contractor shall post job site notices prescribed by regulation.

(See Chapter 8, California Code Regulation section 16451(d) for notice that previously was required for projects monitored by the Compliance Monitoring Unit.)

PROPOSAL

I, the person whose signature is affixed to page 8 of this proposal, submit this proposal to the **VENTURA COUNTY WATERSHED PROTECTION DISTRICT** and hereby declare:

1. That the bidder has read this proposal and has abided by and agrees to the conditions herein and has carefully examined the project plans and read the specifications and does hereby propose to furnish all materials and do all the work required to complete the work in accordance with the plans and specifications for the unit prices or lump sums named in the Schedule of Work and Prices.

2. That the addenda indicated on page 8 of this proposal are acknowledged.

3. That the bidder, as Principal, acknowledges himself as being bound by the attached bond or other acceptable bid guarantee.

4. **NONCOLLUSION DECLARATION**

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

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

Signature of Officer _____

Printed Name of officer: _____

PROPOSAL

Contractor's Name _____

List of Subcontractors

Listing shall comply with the provisions of California Public Contract Code, Section 4104.

Name of Subcontractor	Contractor's License Number	Business Address	Items of Work

If more space is needed, attach additional sheets.










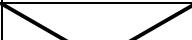
Public Contract Code Section 4104 provides that bidders must list:

(a)(1) The name, the location of the place of business, and the California contractor license number of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater.

(b) The portion of the work that will be done by each subcontractor under this act. The prime contractor shall list only one subcontractor for each portion as is defined by the prime contractor in his or her bid.

PROPOSAL

Schedule of work and prices for: FERRO DITCH CHANNEL IMPROVEMENTS

Item No.	Units	Approx Quantity	Item Description	Payment Reference	Unit-Prices (In Figures)	Item Total (In Figures)
1	LS	1	Mobilization	9-3.4.2		
2	LS	1	Clearing and Grubbing	1001-2		
3	LS	1	Traffic Control	1002-6		
4	LS	1	Diversion, Control, and Removal of Water	1003-3		
5	LS	1	Water Pollution Control	1004-3		
6	LS	1	Excavation Safety	1005-2		
7	EA	78	Tree Stump and Rootball Remover	1006-3		
8	LS	1	Existing Facilities	1007-3		
9	LF	3,920	Temporary Orange Silt Fence	1008-3		
10	CY	13,300	Excavation	1009-3		
11	CY	8,200	Fill and Backfill	1010-4		
12	CY	3,401	Facing Class Rock Riprap	1011-4		
13	CY	1,597	Facing Class Rock Concreted Riprap	1011-4		
14	CY	170	¼ Ton Class Riprap	1011-4		
15	LF	297	5' High Chain Link Fence	1012-5		
16	EA	2	20' Wide x 5' High Double Leaf Gate	1012-5		
17	CY	121	Concrete for Major Structures	1013-4		
18	LBS	34,200	Reinforcing Steel for Major Structures	1014-4		
19	LF	175	Subdrain Pipe	1015-4		
20	SY	4,432	CMB Access Road	1016-4		
21	CY	169	Filter Material A	1017-4		
22	CY	17	Filter Material B	1017-4		
23	LS	1	36" Concrete Flared-End Section	1018-4		
24	LF	34	36" RC Pipe	1018-4		
25	LS	1	36" Diameter Automatic Drainage Flap Gate	1019-4		
26	LS	1	36" Junction Structure	1018-4		
27	EA	1	36"H X 48"W Automatic Drainage Flap Gate	1019-4		
28	LS	1	12" Diameter Automatic Drainage Flap Gate and Wall Thimble	1019-4		

29	LS	1	RC Flood Control Wall	1023-4		
30	LF	18	6" PVC Irrigation Drainage Line	1020-4		
31	LF	143	8" HDPE Irrigation Drainage Pipe	1021-4		
32	LS	1	8" Collar HDPE To CMP Sump Well	1021-4		
33	LS	1	Potholing	1022-3		
34	CY	8	No. 2 Class Rock Lining	1011-4		
35	LF	85	12" PVC Irrigation Sleeve	1020-4		
36	LS	1	Release on Contract	9-4		\$1.00
			Total Amount Bid			

The following addenda are acknowledged:

(Bidder must fill in number and date of each addenda or may enter the word "None " if appropriate)

Call (805) 654-2068 to determine addenda that have been issued.

I make the above proposal and certify or declare under penalty of perjury under the laws of the State of California that the statements made on Page 5 of this Proposal, and below my signature, are true and correct.

Number	Dated

Dated _____

Signature: _____

At _____

Printed Name: _____

Position: _____

(City and State)

(Sole Owner, Partner, President, etc.)

License No. _____

Company Name _____

License Classification _____

Type of Organization _____
(Individual, Partnership, Corp.)

License Expiration Date _____

Enter }
Name & }
Address }
of Bonding }
Company }

BID BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____

_____, Principal,

and _____

_____, Surety, are held and firmly bound
unto

VENTURA COUNTY WATERSHED PROTECTION DISTRICT Oblige, in the sum of Ten Percent of the total amount of the Bid for the payment of which we bind ourselves, our legal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has submitted or is about to submit a bid or proposal to Oblige on a contract for

FERRO DITCH CHANNEL IMPROVEMENTS

NOW, THEREFORE, if that contract be awarded to principal and principal shall, within such time as specified, duly execute the contract in the prescribed form and deliver the same to obligee with all required bonds/performance securities, certificates of insurance and such other items as required in the bidding or contract documents then this obligation shall be null and void; otherwise to remain in full force and effect, and if the contract is awarded to principal and principal fails, within the time specified, to duly execute the contract in the prescribed form and deliver the same to obligee with all said required items, then surety shall pay obligee the full sum of this bond.

Surety, for value received, hereby agrees that no extension of time, change, alteration, modification, or addition to the bidding or contract documents, or of the work required thereunder, shall release or exonerate surety on this bond or in any way affect the obligation of this bond; and surety does hereby waive notice of same.

Signed, sealed and dated

(Principal)

by _____ (Seal)

(Surety)

by _____
Attorney-in-Fact

INDICATE COMPLETE ADDRESS OF SURETY TO WHICH
CORRESPONDENCE CONCERNING THIS BOND SHOULD BE
DIRECTED.

Telephone No. _____

Form PW-B-1



VENTURA COUNTY STANDARD SPECIFICATIONS

PART 1 - GENERAL PROVISION

SECTION 0 - SSPWC ADOPTION AND MODIFICATION

0-1	STANDARD SPECIFICATIONS	1
0-2	DELETIONS.....	1
0-3	NUMBERING OF SECTIONS.....	1
0-4	ADDITIONS.....	1

SECTION 1 - TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE AND SYMBOL

1-1	GENERAL	2
1-2	TERMS AND DEFINITIONS	2
1-3	ABBREVIATIONS	4
1-3.1	General.	4
1-3.2	Common Usage	4
1-3.3	Institutions.	7
1-3.4	Building Codes.	7
1-3.5	Reference Documents.	7
1-4	UNITS OF MEASURE.....	8
1-4.1	General.	8
1-4.1.1	Units for Work.....	8
1-4.2	Units of Measure and Their Abbreviations	8
1-5	SYMBOLS	8

SECTION 2 - SCOPE AND CONTROL OF WORK

2-1	AWARD AND EXECUTION OF CONTRACT	9
2-1.1	Award of Contract	9
2-1.2	Notice of Award.....	9
2-1.3	Execution of Contract Documents.	9
2-1.4	Failure to Execute Documents.	9
2-1.5	Return of Proposal Guarantees.	9
2-2	ASSIGNMENT.....	9
2-3	SUBCONTRACTS.	10
2-3.1	General.	10
2-3.1.1	Use of Debarred Subcontractors Prohibited.....	10
2-3.2	Additional Responsibilities.....	10
2-3.3	Status of Subcontractors.....	10
2-3.3.1	Subcontracts.....	10
2-3.3.2	Contractor Responsible.....	10
2-3.3.3	Specialty Contractors.....	11
2-4	CONTRACT BONDS.	11
2-4.1	Bond Forms.....	11
2-5	PLANS AND SPECIFICATIONS	11
2-5.1	General.	11
2-5.1.1	Specifications Captions.	11
2-5.2	Precedence of Contract Documents.	12
2-5.3	Shop Drawings, Working Drawings, and Submittals.....	12
2-5.3.1	General.	12
2-5.3.2	Working Drawings.	12
2-5.3.3	Shop Drawings.	13
2-5.3.4	Supporting Information	13
2-5.4	Record Drawings.....	13
2-6	WORK TO BE DONE.....	13
2-6.1	Manufacturer's Recommendations.	13
2-6.2	Testing of Installed Components.....	13
2-6.3	Training of Agency Personnel	13
2-7	SUBSURFACE DATA.....	14
2-8	RIGHTS-OF-WAY.....	14

2-9	SURVEYING	14
2-9.1	Permanent Survey Markers.	14
2-9.2	Survey Service.	14
2-9.2.1	Open Areas.	14
2-9.2.2	Utilities.	14
2-9.3	Contractor's Surveys.	14
2-9.3.1	Errors in Surveys.	14
2-9.4	Line and Grade.....	14
2-9.5	Quantity Surveys.	14
2-9.6	Payment for Surveys.	15
2-10	AUTHORITY OF BOARD AND ENGINEER.....	15
2-10.1	Decisions in Writing.....	15
2-11	INSPECTION.....	15
2-11.1	Permit Inspections.....	15
2-11.2	Structural Observation.....	15
2-12	SPECIAL NOTICES.....	15
2-13	AGENCY PERSONNEL AND AUTHORITY	15
2-13.1	General.....	15
2-13.2	Engineer.....	16
2-13.3	Department Directors (Public Works Agency).	16
2-13.4	Project manager.....	17
2-13.5	Inspector.	17
2-13.6	Other Agency Personnel and Consultants.	17
2-13.6.1	Materials Engineer.....	17
2-13.6.2	Surveyors & Technicians.....	17
2-13.6.3	Other Persons.....	17
2-13.6.4	Consultants.....	17
<u>SECTION 3 - CHANGES IN WORK</u>		
3-1	CHANGES REQUESTED BY THE CONTRACTOR	18
3-1.1	General.....	18
3-1.2	Payment for Changes Requested by the Contractor.	18
3-2	CHANGES INITIATED BY THE AGENCY	18
3-2.1	General.....	18
3-2.2	Payment for Changes Initiated by the Agency.	18
3-2.2.1	Contract Unit Prices.....	18
3-2.2.2	Stipulated Unit Prices.	18
3-2.2.3	Pricing.....	18
3-2.2.4	Non-Agreed Prices	18
3-3	EXTRA WORK.....	18
3-3.1	General.....	18
3-3.2	Payment.....	18
3-3.2.1	General.....	18
3-3.2.2	Basis for Establishing Costs.....	19
3-3.2.3	Markup.....	20
3-3.3	Daily Extra Work Reports by Contractor.	20
3-4	CHANGED CONDITIONS.....	21
3-5	DISPUTED WORK	21

SECTION 4 - CONTROL OF MATERIALS

4-1	MATERIALS AND WORKMANSHIP	22
4-1.1	General.	22
4-1.1.1	Materials Furnished by Agency.	22
4-1.2	Protection of Work and Materials.	22
4-1.3	Inspection Requirements	22
4-1.3.1	General.	22
4-1.3.2	Inspection of Materials Not Locally Produced.	22
4-1.3.3	Inspection by the Agency.	23
4-1.3.4	Certificates of Compliance.	23
4-1.4	Tests of Materials.	23
4-1.5	Certification.	23
4-1.6	Trade Names or Equals	23
4-1.6.1	Compatibility with Design.	23
4-1.6.2	Trade Names Listed.	24
4-1.7	Weighing Equipment.	24
4-1.8	Calibration of Testing Equipment.	24

SECTION 5 - UTILITIES

5-1	LOCATION.....	25
5-2	PROTECTION.....	25
5-3	REMOVAL.....	25
5-4	RELOCATION.....	26
5-5	DELAYS.....	26
5-5.1	Cooperation During Utility Relocation.	26
5-6	COOPERATION.....	26

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK

6-1	CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK.	27
6-1.1	Beginning of Work.....	28
6-1.2	Starting Work.	28
6-1.3	Work Sequence.	28
6-1.4	Resources Required.	28
6-2	PROSECUTION OF WORK.....	28
6-3	SUSPENSION OF WORK	28
6-3.1	General.	28
6-3.2	Archaeological and Paleontological Discoveries.....	29
6-3.3	Temporary Suspension of Work.	29
6-4	TERMINATION OF CONTRACT FOR DEFAULT.....	29
6-4.1	General	29
6-4.2	Notice to Cure.....	29
6-4.3	Notice of Termination for Default.....	29
6-4.4	Responsibilities of the Surety	29
6-4.5	Payment.....	30
6-5	TERMINATION OF CONTRACT.	30
6-6	DELAYS AND EXTENSIONS OF TIME	30
6-6.1	General.	30
6-6.2	Extensions of Time.	30
6-6.3	Payment for Delays to Contractor.	30
6-6.4	Written Notice and Report.....	31
6-6.4.1	Documentation of Delays.	31
6-7	TIME OF COMPLETION.....	31
6-7.1	General.	31
6-7.2	Working Day.....	31
6-7.2.1	Holidays.....	31
6-7.2.2	Landscape Maintenance Period.	32
6-7.3	Contract Time Accounting.....	32
6-7.4	Starting Date for Contract Time and Notice to Proceed.....	32

6-8	COMPLETION, ACCEPTANCE AND WARRANTY.....	32
6-8.1	Completion and Acceptance.....	32
6-8.2	Warranty and Correction.....	32
6-8.3	No Waiver of Legal Rights.....	33
6-8.4	Landscape Maintenance Period.....	33
6-8.5	Non-complying Work.....	33
6-8.6	Written Warranties.....	33
6-9	LIQUIDATED DAMAGES.....	33
6-10	USE OF IMPROVEMENT DURING CONSTRUCTION.....	33
6-10.1	Use of Improvements - Exceptions.....	33
6-11	NOTICE OF POTENTIAL CLAIM FOR ADDITIONAL COMPENSATION.....	34
6-12	DISPUTES AND CLAIMS; PROCEDURE.....	34
6-12.1	GENERAL.....	34
6-12.2	ADMINISTRATIVE REVIEW.....	35
6-12.3	MEDIATION.....	35
6-12.4	ARBITRATION.....	36
6-13	CONTRACTOR'S WORK HOURS.....	36
6-13.1	Working Hours Limitations.....	36
6-13.2	Regular Work Schedule.....	36
6-13.3	Exceptions.....	36

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

7-1	CONTRACTOR'S EQUIPMENT AND FACILITIES.....	37
7-1.1	General.....	37
7-1.2	Temporary Utility Services.....	37
7-1.3	Crushing and Screening Operations.....	37
7-2	LABOR.....	37
7-2.1	General.....	37
7-2.1.1	Special Qualifications.....	37
7-2.2	Laws.....	37
7-2.2.1	Apprentices.....	37
7-2.2.2	Contractors' Duties Concerning Labor Code Compliance.....	37
7-2.3	Payroll Records.....	38
7-2.4	Hours of Labor.....	38
7-3	INDEPENDENCE OF CONTRACTOR, INDEMNIFICATION AND POLLUTION.....	39
7-3.1	Independence of Contractor.....	39
7-3.2	Indemnification and Hold Harmless Clause.....	39
7-3.3	Contamination and Pollution.....	39
7-4	INSURANCE REQUIREMENTS.....	39
7-4.1	Workers' Compensation Insurance.....	39
7-4.1.1	Coverage.....	39
7-4.1.2	Certification.....	39
7-4.2	Commercial General Liability Insurance.....	40
7-4.2.1	Insurance Classes.....	40
7-4.2.2	Coverage Exceptions.....	40
7-4.2.3	Excess Liability Policies.....	40
7-4.3	Commercial Automobile Liability Insurance.....	40
7-4.4	Property Insurance.....	40
7-4.5	Other Insurance Provisions.....	40
7-4.5.1	Insurance Company Qualifications.....	40
7-4.5.2	Primary Coverage.....	40
7-4.5.3	Aggregate Limits Exceeded.....	40
7-4.5.4	Liability in Excess of Limits.....	40
7-4.5.5	Additional Insured Endorsements.....	40
7-4.5.6	Waiver of Subrogation Rights.....	40
7-4.5.7	Cancellation Notice Required.....	41
7-4.5.8	Documentation Required.....	41

7-5 PERMITS.	41
7-5.1 Highway and Railroad Permits.	41
7-5.2 Grading Ordinance.	41
7-5.2.1 General.	41
7-5.2.2 Permits Required.	41
7-5.2.3 Imported and Exported Material.	41
7-5.2.4 Exemptions from Permit.	41
7-5.3 Building Permit.	42
7-5.3.1 Agency Furnished Permits.	42
7-5.3.2 Contractor Furnished Permits.	42
7-5.4 Coastal Zone Permits.	42
7-5.4.1 Agency Furnished Permits.	42
7-5.4.2 Contractor Furnished Permits.	42
7-6 THE CONTRACTOR'S REPRESENTATIVE.	42
7-7 COOPERATION AND COLLATERAL WORK.	42
7-8 WORK SITE MAINTENANCE.	42
7-8.1 General.	42
7-8.2 Air Pollution Control.	42
7-8.3 Noise Control.	42
7-8.4 Storage of Equipment and Materials.	42
7-8.4.1 General.	42
7-8.4.2 Storage in Public Streets.	42
7-8.5 Sanitary Sewers.	43
7-8.5.1 General.	43
7-8.5.2 Sewage Bypass and Pumping Plan.	43
7-8.5.3 Spill Prevention and Emergency Response Plan.	43
7-8.6 Water Pollution Control.	43
7-8.6.1 Compliance with NPDES General Construction Permit.	44
7-8.6.2 Compliance with NPDES MS4 Permit.	44
7-8.6.3 Plan.	45
7-8.6.4 Measures.	45
7-8.6.5 Monitoring and Reporting.	45
7-8.6.6 Dewatering Activities.	45
7-8.6.7 Payment.	46
7-8.7 Drainage Control.	46
7-8.8 Final Cleaning.	46
7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS.	47
7-10 PUBLIC CONVENIENCE AND SAFETY.	47
7-10.1 Access.	47
7-10.2 Traffic Control.	47
7-10.3 Haul Roads.	48
7-10.4 Safety.	48
7-10.4.1 Work Site Safety.	48
7-10.4.2 Safety Orders.	48
7-10.4.3 Use of Explosives.	48
7-10.4.4 Hazardous Substances.	49
7-10.4.5 Confined Spaces.	49
7-10.4.5.1 Confined Space Entry Program (CSEP).	49
7-10.4.5.2 Permit-Required Confined Spaces.	49
7-10.5 Security and Protective Devices.	49
7-10.5.1 General.	49
7-10.5.2 Security Fencing.	49
7-10.5.3 Steel Plate Covers.	50
7-11 PATENT FEES OR ROYALTIES.	50
7-12 ADVERTISING.	50
7-13 LAWS TO BE OBSERVED.	50
7-13.1 Mined Material.	50
7-14 ANTITRUST CLAIMS.	50
7-15 RECYCLABLE CONSTRUCTION & DEMOLITION WASTES.	50
7-16 EQUAL EMPLOYMENT OPPORTUNITY.	50
7-17 LOSS OR DAMAGE TO THE WORK.	50
7-18 ACTS OF GOD.	50

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

8-1	GENERAL	51
8-2	EQUIPMENT FOR FIELD OFFICES.	51

SECTION 9 - MEASUREMENT AND PAYMENT

9-1	MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK.....	52
9-1.1	General.....	53
9-1.2	Methods of Measurement.	53
9-1.3	Certified Weights.....	53
9-1.4	Units of Measurement.	53
9-2	LUMP SUM BID ITEMS.....	53
9-3	PAYMENT	53
9-3.1	General.....	53
9-3.2	Partial and Final Payment.	53
9-3.2.1	Release of Withheld Contract Funds.....	53
9-3.2.2	Timely Progress Payments.....	54
9-3.3	Delivered Materials.....	55
9-3.4	Mobilization	55
9-3.4.1	Scope.....	55
9-3.4.2	Payment.....	56
9-4	TERMINATION OF AGENCY LIABILITY.....	56

SECTION 10 - DIVERSION, CONTROL AND REMOVAL OF WATER

10-1	DESCRIPTION.....	57
10-2	REQUIREMENTS.	57
10-3	DIVERSION AND CONTROL WORKS.	57
10-4	PAYMENT.....	57

PART 2 CONSTRUCTION MATERIALS

SECTION 200 - ROCK MATERIALS

200-1	ROCK PRODUCTS.....	58
200-1.6	Stone for Riprap	58
200-1.6.1A	Alternate Stone for Riprap.	58
200-1.6.2	Riprap Size	58

SECTION 206 - MISCELLANEOUS METAL ITEMS

206-3	GRAY IRON AND DUCTILE CASTINGS.....	59
206-3.3.2A	Manhole Frame and Cover Sets.....	59
206-5	METAL RAILINGS.	59
206-5.2	Flexible Metal Guard Rail Materials.	59
206-5.2A	Flexible Metal Guard Rail Materials; Modification.....	59

SECTION 210 - PAINT AND PROTECTIVE COATINGS

210-6	STORM DRAIN HARDWARE.	59
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SECTION 211 - SOIL AND AGGREGATE TESTS

211-6	SIEVE ANALYSIS.	60
211-7	Sand Equivalent Test.	60
211-8	R-VALUE.....	60
211-9	SPECIFIC GRAVITY AND ABSORPTION.....	60
211-10	LOS ANGELES RATTLER TEST.	60
211-11	SOUNDNESS.	60
211-12	WET AND DRY LOSS.....	60
211-13	SOLUBILITY.	60
211-14	Permeability Test.....	60

PART 3 CONSTRUCTION METHODS

SECTION 301 - TREATED SOILS, SUBGRADE PREPARATION AND PLACEMENT OF BASE MATERIALS

301-1 SUBGRADE PREPARATION	61
301-1.3 Relative Compaction	61
301-1.3.1 Firm, Hard and Unyielding.....	61
301-1.4 Subgrade Tolerances.....	61
301-2 UNTREATED BASE.....	61
301-2.3 Compacting.....	61
301-2.3.1 Tolerances.....	61

SECTION 302 - ROADWAY SURFACING

302-5 ASPHALT CONCRETE PAVEMENT	61
302-5.1 General	61
302-5.1.1 Asphalt Concrete Berms.	61
302-5.4 Tack Coat.....	61
302-5.4.1 Fog Seal.	61
302-5.9 Measurement and Payment	61
302-5.9.1 Measurement and Payment for Asphalt Berm.	61
302-5.9.2 Measurement and Payment for Fog Seal, Tack Coat, and Prime Coat.....	61

SECTION 303 - CONCRETE AND MASONRY CONSTRUCTION

303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS,	62
303-5.1 Requirements.....	62
303-5.1.4 Concrete Substitution.	62

SECTION 306 - UNDERGROUND CONDUIT CONSTRUCTION

306-1 OPEN TRENCH OPERATIONS.....	62
306-1.2 Installation of Pipe	62
306-1.2.1 Bedding	62
306-1.2.1.1 Bedding Material.	62
306-1.2.1.2 Sewer Pipe Bedding.	62
306-1.2.1.3 Flexible Pipe Bedding.....	62
306-9 DISINFECTION.	63
306-10 WATERWORKS APPURTENANCES.....	63
306-10.1 Valves.....	63
306-10.2 Valve Boxes.	63
306-10.3 Thrust Devices.	63
306-10.4 Fire Hydrants.....	63
306-10.5 Fire Hydrant Barricades.	63

SECTION 310 - PAINTING

310-5 Painting Various Surfaces	64
310-5.6 Painting Traffic Striping, Pavement Markings, and Curb Markings.....	64
310-5.6.8A Application of Paint - Two Coats.....	64

PART 4

SECTION 400 - ALTERNATE ROCK PRODUCTS.

ASPHALT CONCRETE, PORTLAND CEMENT CONCRETE AND UNTREATED BASE MATERIAL

400-1. Rock Products.....	65
400-1.1 Requirements.....	65
400-1.1.1 General.....	65
400-3 Portland Cement Concrete.....	65
400-4 Asphalt Concrete.....	65

APPENDICES

APPENDIX A	ACCORD CERTIFICATE OF LIABILITY INSURANCE	66
APPENDIX B-1	CONSTRUCTION ELEMENT VS. TIME CHART FORM	67
APPENDIX B-2	WORK COMPLETE VS. TIME CHART FORM	68
APPENDIX C-1	CONSTRUCTION ELEMENT VS. TIME CHART SAMPLE	69
APPENDIX C-2	WORK COMPLETE VS. TIME CHART SAMPLE.....	70
APPENDIX D	ESCROW AGREEMENT FORM SAMPLE	71
APPENDIX E	BLANK	75
APPENDIX F	RELEASE ON CONTRACT FORM	76
APPENDIX G	PERFORMANCE AND PAYMENT BOND - SAMPLE SHOWING WORDING ..	77

**COUNTY OF VENTURA
PUBLIC WORKS AGENCY
STANDARD SPECIFICATIONS
PART 1 - GENERAL PROVISIONS**

SECTION 0 - SSPWC ADOPTION AND MODIFICATIONS

0-1 STANDARD SPECIFICATIONS

Except as hereinafter provided or as modified by the Special Provisions, the provisions of Parts 2 through 5 of the 2015 edition of the Standard Specifications for Public Works Construction (referred to as SSPWC), published by BNi Building News, Los Angeles, are part of these Standard Specifications.

0-2 DELETIONS

The following portions of SSPWC are hereby deleted: Part 1 and Sections 200-1.6.2, and 301-1.4.

0-3 NUMBERING OF SECTIONS

The numbering in these modifications is compatible with the numbering in SSPWC. References to whole sections of SSPWC and these modifications are preceded by the word "Section", references to parts of sections show numbers only, such as "211-5", except at the beginning of a sentence, the word "Section" precedes the number. Standard Special Provisions, if included, are numbered as Sections 901 through 999. The Special Provisions are numbered starting with Section 1000 or higher.

Cross-references contained in SSPWC to sections deleted by 0-2 hereof shall be references to the sections of like number contained herein.

0-4 ADDITIONS

The sections that follow, either, replace sections of like number in SSPWC which were deleted in 0-2 above, modify sections of SSPWC, or add material not in SSPWC.

SECTION 1 - TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE AND SYMBOLS

1-1 GENERAL Unless otherwise stated, the words directed, required, permitted, ordered, instructed, designated, considered necessary, prescribed, approved, acceptable, satisfactory, or words of like meaning, refer to actions, expressions, and prerogatives of the Engineer.

1-2 TERMS AND DEFINITIONS

Acceptance--The formal written acceptance by the Agency of the Work which has been completed in all respects in accordance with the Plans and Specifications and any Modifications thereof.

Addendum--Written or graphic instrument issued prior to the opening of Bids which clarifies, corrects or changes the bidding or Contract Documents. The term "Addendum" shall include bulletins and all other types of written notices issued to potential bidders prior to opening of Bids.

Agency--The legal entity for which the Work is being performed.

Agreement--See Contract.

Base--A layer of specified material of planned thickness placed immediately below the pavement or surfacing.

Bid--The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work.

Bidder--Any individual, firm, partnership, corporation, or combination thereof, submitting a Bid for the Work, acting directly or through a duly authorized representative.

Board--The officer or body constituting the awarding authority of the Agency.

Bond--Bid, performance and payment bond or other instrument of security.

Cash Contract--A contract financed by means other than special assessments.

Certificate of Compliance--A written document signed and submitted by a supplier or manufacturer that certifies that the material or assembled material supplied to the Work site conforms to the requirements of the Contract Documents.

Change Order--A written order to the Contractor signed by the Agency directing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract time issued after the effective date of the Contract. A Change Order may or may not also be signed by the Contractor.

Code--The terms Government Code, Labor Code, etc. refer to codes of the State of California.

Consultant--A professional engineer, architect, landscape architect or other professional who designed the project or performed other services for the Agency on the project.

Contract--The written agreement between the Agency and the Contractor covering the Work.

Contract Documents--The Contract, Addenda, notice inviting bids, instruction to bidders; Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Contract, the Bonds, permits from jurisdictional regulatory agencies, Special Provisions, Plans, Standard Plans, Standard Specifications, Reference Specifications, Change Orders and Supplemental Agreements.

Contractor--The individual, partnership, corporation, joint venture, or other legal entity having a Contract with the Agency to perform the Work. In the case of work being done under permit issued by the Agency, the Permittee shall be construed to be the Contractor. The term "prime contractor" shall mean Contractor.

Contract Price--The total amount of money for which the Contract is awarded.

Contract Unit Price--The amount shown in the Bid for a single unit of an item of work.

County Sealer--The Sealer of Weights and Measures of the county in which the Contract is let.

Days--Days shall mean consecutive calendar days unless otherwise specified.

Daily Extra Work Reports--Reports on Agency furnished forms as required by 3-3.

Disputed Work--Work in which Agency and Contractor are in disagreement.

Due Notice--A written notification, given in due time, of a proposed action where such notification is required by the Contract to be given a specified interval of time (usually 48 hours or two Working Days) prior to the commencement of the contemplated action. Notification may be from Engineer to Contractor or from Contractor to Engineer.

Electrolier--Street light assembly complete, including foundation, standard, luminaire arm, luminaire, etc.

1-2 DEFINITIONS (Continued)

- Engineer--The Director of Public Works Agency acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties delegated to them.
- Field Directive--A written communication from the Engineer to the Contractor that does not make any Modification to the Contract Documents. It is used only to answer Contractor's questions and to provide decisions as specified in the Contract Documents.
- Geotextile--Synthetic fiber used in civil engineering applications, serving the primary function of separation and filtration.
- House Connection Sewer--A sewer, within a public street or right of way, proposed to connect any parcel, lot, or part of a lot with a main line sewer.
- House Sewer--A sewer, wholly within private property, proposed to connect any building to a house connection sewer.
- Luminaire--The lamp housing including the optical and socket assemblies (and ballast if so specified).
- Major Bid Item--A single Contract item constituting 10% or more of the original Contract Price.
- Mast Arm--The structural member or bracket, which, when mounted on a Standard, supports the luminaire.
- Modification--Includes Change Orders and Supplemental Agreements. A Modification may only be issued after the effective date of the Contract.
- Notice of Award--The written notice by the Agency to the successful Bidder stating that upon compliance by it with the required conditions, the Agency will execute the Contract.
- Notice to Proceed--A written notice given by the Agency to the Contractor fixing the date on which the Contract time will start.
- Owner--Same meaning as Agency.
- Person--Any individual, firm, association, partnership, corporation, trust, joint venture, or other legal entity.
- Plans--The drawings, profiles, cross sections, Standard Plans, working drawings, shop drawings, and supplemental drawings, or reproductions thereof, approved by the Engineer, which show the location, character, dimensions, or details of the Work.
- Private Contract--Work subject to Agency inspection, control, and approval, involving private funds, not administered by the Agency.
- Prompt--The briefest interval of time required for a considered reply, including time required for approval by a governing body.
- Proposal--See Bid.
- Reference Specifications--Those bulletins, standards, rules, methods of analysis or testing, codes, and specifications of other agencies, engineering societies, or industrial associations referred to in the Contract Documents. These refer to the latest edition, including amendments in effect and published at the time of advertising the project or issuing the permit, unless specifically referred to by edition, volume, or date.
- Roadway--The portion of a street reserved for vehicular use.
- Service Connection--All or any portion of the conduit cable or duct including meter, between a utility distribution line and an individual consumer
- Service Lateral Connection--The interface of the House Connection Sewer with the host pipe.
- Sewer--Any conduit intended for the reception and transfer of sewage and fluid industrial waste.
- Shop Drawings--Drawings showing details of manufactured or assembled products proposed to be incorporated in the Work.
- Special Provisions--Any provisions which supplement or modify the Standard Specifications.
- Specifications--Standard Specifications, Reference Specifications, Standard Special Provisions, Special Provisions, and specifications in Change Orders or Supplemental Agreements between the Contractor and the Board.
- Standard--The shaft or pole used to support street lighting luminaire, traffic signal heads, mast arms, etc.
- Standard Plans--Details of standard structures, devices, or instructions referred to on the Plans or in the Specifications by title or number.
- Standard Special Provisions-- Special Provisions prepared in standardized form numbered in the series 401 through 499.

1-2 DEFINITIONS (Continued)

Standard Specifications--Parts 1 through 6 of this document. See Section 0. References to whole sections will be preceded by the word "Section", references to parts of sections will show numbers only, such as "3-2", except at the beginning of a sentence, the word "Section" precedes the number.

State--The State of California.

State Standard Plans--Standard Plans prepared by State of California, Business and Transportation Agency, Department of Transportation.

Stipulated Unit Price--Unit prices established by Agency in the Contract Documents.

Storm Drain--Any conduit and appurtenances intended for the reception and transfer of storm water.

Street--Any road, highway, parkway, freeway, alley, walk or way.

Subbase--A layer of specified material of planned thickness between a base and the subgrade.

Subcontractor--An individual, firm or corporation having a direct contract with the Contractor or with any other Subcontractor for the performance of a part of the Work.

Subgrade--For roadways, that portion of the roadbed on which pavement, surfacing, base, subbase, or a layer of other material is placed. For structures, the soil prepared to support a structure.

Supervision--Supervision, where used to indicate supervision by the Engineer, shall mean the performance of obligations, and the exercise of rights, specifically imposed upon and granted to the Agency in becoming a party to the Contract. Except as specifically stated herein, supervision by the Agency shall not mean active and direct superintendence of details of the Work.

Supplemental Agreement--A written amendment of the Contract Documents signed by both parties.

Surety--See 2-4.

Utility--Tracks, overhead or underground wires, pipelines, conduits, ducts, or structures, sewers or storm drains owned, operated or maintained in or across a public right of way or private easement.

Work--That which is proposed to be constructed or done under the Contract or permit, including the furnishing of all labor, materials, equipment, and services.

Working Day--See 6-7.2 and 6.7.2.1.

Working Drawings--Drawings showing details not shown on the Plans which are required to designed by the Contractor

1-3 ABBREVIATIONS

1-3.1 General. The abbreviations herein, together with others in general use, are applicable to these Standard Specifications and to all other Contract Documents.

All abbreviations and symbols used on Plans for structural steel construction shall conform to those given by the "Manual of Steel Construction" published by the American Institute of Steel Construction, Inc.

1-3.2 Common Usage

<u>Abbreviation</u>	<u>Word or Words</u>	<u>Abbreviation</u>	<u>Word or Words</u>
Aban	Abandon	l	Liters
Aband	Abandoned	Lab	Laboratory
ABS	Acrylonitrile-butadiene-styrene	Lat	Lateral
AC	Asphalt Concrete	LD	Local depression
ACP	Asbestos cement pipe	LED	Light Emitting Diode
ADA	Americans with Disabilities Act of 1990 (Public Law 101-336, 104 Stat. 1990,42 USC 12101-12213 (as amended))	LH	Lamp hole
Alt	Alternate	LL	Live load
AmerStd	American Standard	LOL	Layout line
APC	Air Placed Concrete	Long	Longitudinal
ARAM	Asphalt Rubber Aggregate Membrane	LP	Lamp post
ARHM	Asphalt Rubber Hot Mix	LPS	Low pressure sodium (Light)
AWG	American Wire Gage (non-ferrous wire)	LS	Lump sum
B/W	Back of wall	LTS	Lime treated soil
BC	Beginning of curve	m	Meters
BCR	Beginning of curb return	Maint	Maintenance
Bdry	Boundary	Max	Maximum
BF	Bottom of footing	MC	Medium curing
BM	Bench mark	MCR	Middle of curb return
BMPs	Best Management Practices	Meas	Measure
BVC	Beginning of vertical curve	MH	Manhole, maintenance hole
C&G	Curb & Gutter	Mil Spec	Military specification
C&G	Curb and gutter	Min	Minimum
CAB	Crushed aggregate base	Misc	Miscellaneous

<u>Abbreviation</u>	<u>Word or Words</u>	<u>Abbreviation</u>	<u>Word or Words</u>
CALOSHA	California Occupational Safety and Health Administration	Mon	Monument
CALTRANS	California Department of Transportation	MSDS	Material Safety Data Sheet
CAP	Corrugated aluminum pipe	Mult	Multiple
CB	Catch Basin	MUTCD	Manual on Uniform Traffic Control Devices
Cb	Curb	MVL	Mercury vapor light
CBP	Catch Basin Connection Pipe	N/A	No applicable
CBR	California Bearing Ratio	NRCP	Nonreinforced concrete pipe
C-C	Center to center	Obs	Obsolete
CCFRPM	Centrifugally Cast Fiberglass Reinforced Plastic Mortar	oc	On center
CCR	California Code of Regulations	OD	Outside diameter
CCTV	Closed Circuit TV	OE	Outer edge
CF	Cubic foot	Opp	Opposite
CF	Curb face	Orig	Original
CFR	Code of Federal Regulations	PAV	Pressure Aging Vessel
CFS	Cubic feet per second	PB	Pull box
CHDPE	Corrugated High Density Polyethylene	PC	Point of curvature
CIP	Cast iron pipe	PCC	Point of compound curvature
CIPP	Cast-in-place pipe	PCC	Portland cement concrete
CIPPC	Cast-in-place Concrete Pipe	PCVC	Point of compound vertical curve
CL	Clearance, center line	PE	Polyethylene
CLF	Chain link fence	PG	Performance Graded
CLSM	Controlled Low Strength Material	PI	Point of intersection
CMB	Crushed miscellaneous base	PL	Property line
CMC	Cement mortar-coated	PLI	Pounds per linear inch
CML	Cement mortar-lined	PMB	Processed miscellaneous base
cms	Cubic meters per second	POC	Point on curve
CO	Cleanout (Sewer)	POT	Point on tangent
Col	Column	PP	Power pole
Conc	Concrete	PRC	Point of reverse curve
Conn	Connection	PRCB	Precast Reinforced Concrete Box
Const	Construct, Construction	PRVC	Point of reverse vertical curve
Coord	Coordinate	PSI	Pounds per square inch
CQS	Cationic Quick-Setting	PT	Point of tangency
CRM	Crumb Rubber Modifier	PVC	Polyvinyl chloride
CRS	Cationic Rapid-Setting	Pvmt	Pavement
CSEP	Confined Space Entry Plan	Pvt R/W	Private right of way
CSP	Corrugated steel pipe	Q	Rate of flow in cms (CFS)
CSPA	Corrugated steel pipe arch	Quad	Quadrangle, Quadrant
CSS	Cationic Slow-Setting	R	Radius or Resistance value
CT	California Test	R&O	Rock and Oil
CTB	Cement treated base	R/W	Right of way
CV	Check valve	RA	Reclaimed Asphalt or Recycling agent
CY	Cubic yard	RAC	Recycled asphalt concrete
D	Depth, Load of pipe	RAP	Reclaimed asphalt pavement
db	Decibels	RBAC	Rubberized asphalt concrete
Dbl	Double	RC	Reinforced concrete or Rapid Curing
DF	Douglas Fir	RCB	Reinforced concrete box
Dia	Diameter	RCE	Registered civil engineer
DIP	Ductile iron pipe	RCP	Reinforced concrete pipe
DL	Dead load	RCV	Remote control valve
DT	Drain tile	Ref	Reference
Dwg	Drawing	Reinf	Reinforced or reinforcement
Dwy Appr	Driveway approach	Res	Reservoir
Dwy	Driveway	RGE	Registered geotechnical engineer
Ea	Each	RPPCC	Reclaimed Plastic Portland Cement Concrete
EC	End of curve	RR	Railroad
ECR	End of curb return	RSE	Registered structural engineer
EF	Each face	RTE	Registered traffic engineer
EG	Edge of gutter	RTFO	Rolling Thin Film Oven
EGL	Energy grade line	RW	Reclaimed Water
EI	Elevation	S	Slope
ELC	Electrolier lighting conduit	S/W	Sidewalk
ELT	Extra long ton of slurry	SC	Slow curing
Eng	Engineer, Engineering	SCCP	Steel cylinder concrete pipe
EP	Edge of pavement	SCNs	Supplementary Cementitious Materials
Esmt	Easement	SD	Storm drain
ETB	Emulsion treated base	SDR	Standard dimension ratio

<u>Abbreviation</u>	<u>Word or Words</u>	<u>Abbreviation</u>	<u>Word or Words</u>
EVC	End of vertical curve	SE	Sand Equivalent
Exc	Excavation	Sec	Section
Exist or Ex	Existing	SF	Square foot
Exp Jt	Expansion joint	SG	Specific gravity
F & C	Frame and cover	SI	International System of Units (Metric)
F & I	Furnish and install	SLC	Service Lateral Connection
F/W	Face of wall	Spec	Specifications
Fab	Fabricate	SR	Standard ratio
FAS	Flashing arrow sign	SS	Sanitary sewer
FD	Floor drain	SSB	Select sub-base
Fdn	Foundation	SSP	Structural steel plate pipe
Fed Spec	Federal Specification	SSPA	Structural steel plate pipe arch
FG	Finished grade	St Hwy	State highway
FL	Flow line	Sta	Station
FS	Finished surface	Std	Standard
ft - lb	foot – pound	Str Gr	Straight grade
Ftg	footing	Str	Straight
FW	Face of wall	Struc	Structural/Structure
Ga	Gauge	SW	Sidewalk
Galv	Galvanized	SWD	Sidewalk drain
GG	Gap graded	SWPPP	Storm Water Pollution Prevention Plan
GIP	Galvanized iron pipe	SY	Square Yard
GL	Ground line or grade line	T/W	Top of wall
GM	Gas meter	Tan	Tangent
GP	Guy pole	TC	Top of curb
Gr	Grade	TCP	Traffic control plan
Grtg	Grating	Tel	Telephone
GSP	Galvanized steel pipe	TF	Top of footing
H	High or height	Topo	Topography
HB	Hose bib	Tr	Tract
HC	House connection	Trans	Transition
HDPE	High density Polyethylene	TRMAC	Tire rubber modified asphalt concrete
HDWL	Headwall	TS	Traffic signal or transition structure
HGL	Hydraulic grade line	TSC	Traffic signal conduit
Hor, Horiz	Horizontal	TSS	Traffic signal standard
Hp	Horsepower	TTC	Temporary traffic control
HPG	High pressure gas	TW	Top of wall
HPS	High pressure sodium (Light)	Typ	Typical
HRWRA	High Range Water Reducing Admixture	U.S.	United States
Hyd, Hydr	Hydraulic	U.S.C.	United States Code
ID	Inside diameter	USA	Underground Service Alert
Incl	Include, Including	Var	Varies, Variable
Insp	Inspection	VB	Valve box
Inv	Invert	VC	Vertical curve
IP	Iron pipe	VCP	Vitrified clay pipe
J	Joules	Vert	Vertical
JC	Junction chamber	Vol	Volume
Jct	Junction	VTCSH	Vehicle Traffic Controls Signal Heads
JS	Junction structure	W	Width or Wider
Jt	Joint	WATCH	Work Area Traffic Control Handbook
kg	Kilograms	WI	Wrought iron
kPa	KiloPascals	WM	Water meter
L	Length	WPJ	Weakened plane joint
		WTAT	Wet Track Abrasion Test
		X Conn	Cross connection
		x (as in 2x4)	by
		X-Sec	Cross section

1-3.3 Institutions.

<u>Abbreviation</u>	<u>Word or Words</u>
AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGC	Associated General Contractors of America
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute
API	American Petroleum Institute
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASHRAE	American Society of Heating, Refrigeration and Air-Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood Preserver's Association
AWS	American Welding Society
AWWA	American Water Works Association
CBSC	California Building Standards Commission
CRSI	Concrete Reinforcing Steel Institute
EIA	Electronic Industries Association
EPA	Environmental Protection Agency
ETL	Electrical Testing Laboratories
FCC	Federal Communications Commission
IAPMO	International Association of Plumbing and Mechanical Officials
ICC	International Code Council
IEEE	Institute of Electrical and Electronics Engineers
IMSA	International Municipal Signal Association
ITE	Institute of Traffic Engineers
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NOAA	National Oceanic and Atmospheric Administration (Department of Commerce)
RUS	Rural Utility Service
UL	Underwriters' Laboratories, Inc.
USGS	United State Geological Survey
WFCB	Western Fire Chiefs Association

1-3.4 Building Codes. The Ventura County Building Code (VCBC) and Ventura County Fire Code (VCFC) are applicable to the Work. VCBC and VCFC adopt by reference a number of uniform and national codes. Where such codes are referenced directly in the Specifications, such references shall be to the VCBC or VCFC which adopt and modify certain provisions in the referenced codes.

<u>Abbreviation</u>	<u>Code</u>	<u>Publisher</u>
CBC	California Building Code	CBSC
DBC	Uniform Code for Abatement of Dangerous Building	ICC
UBC	Uniform Building Code	ICC
UFC	Uniform Fire Code	ICC and WFCB
UHC	Uniform Housing Code	ICC
UMC	Uniform Mechanical Code	IAPMO
UPC	Uniform Plumbing Code	IAPMO
NEC	National Electrical Code	NFPA

1-3.5 Reference Documents.

<u>Abbreviation</u>	<u>Document</u>
HDM	Highway Design Manual, State of California, Department of Transportation, Latest Edition
MUTCD	Manual on Uniform Traffic Control Devices
SSP	Standard Plans, State of California, Department of Transportation, latest edition
SPPWC	Standard Plans for Public Works Construction, Latest edition, published by BNi Building News, Los Angeles,
SSPWC	Standard Specifications for Public Works Construction, (See Section 0-1)
SSS	Standard Specifications, State of California, Department of Transportation, latest edition
VCSS	Ventura County Standard Specifications (Division 1, Sections 0 through 10, of which this section is a part)

1-4 UNITS OF MEASURE

1-4.1 General.

The International System of Units, also referred to as SI or the metric system, is the principal measurement system in these Specifications and shall be used for construction, unless otherwise stated in the Contract Documents. U. S. Standard Measure, also called U. S. Customary System, are included in parenthesis. SI units and U. S. Standard Measure in parenthesis may or may not be exactly equivalent. If U. S. Standard Measures are specified for use in the Contract Documents, then all values used for construction shall be U. S. Standard Measures shown in parentheses. However, certain material Specifications and test requirements contained herein use SI units specifically and conversions to U. S. Measures have not been included in these circumstances. When U. S. Standard Measures are not included in parentheses, the SI units shall control.

Reference is also made to ASTM E 380 for definitions of various units of the SI system and a more extensive set of conversion factors.

1-4.1.1 Units for Work.

Where U. S. Standard Measure units are shown on the Plans or are specified, U. S. Standard Measure shall be used for the Work.

1-4.2 Units of Measure, Equivalents and Abbreviations

One U.S. Customary Unit	(abbreviation)	Is Equal To	#	SI Unit
mil (=0.001 in)		25.4	micrometers	(μm)
inch	(in)	25.4	millimeter	(mm)
inch	(in)	2.54	centimeter	(cm)
foot	(ft)	0.3048	meter	(m)
yard	(yd)	0.9144	meter	(m)
mile		1.6093	kilometer	(km)
square foot	(ft ²)	0.0929	square meter	(m ²)
square yard	(yd ²)	0.8361	square meter	(m ²)
cubic foot	(ft ³)	0.0283	cubic meter	(m ³)
cubic yard	(yd ³)	0.7646	cubic meter	(m ³)
acre (=43,560 ft ²)		0.4047	hectare (1ha=10,000m ²)	(ha)
gallon	(gal)	3.7854	Liter	(L)
fluid ounce	(fl. oz.)	29.5735	milliliter	(mL)
pound mass (avoirdupois)	(lbs)	0.4536	kilogram	(kg)
ounce mass	(oz)	0.02835	kilogram	(kg)
ounce mass	(oz)	28.35	grams	(g)
Ton (=2000 lb avoirdupois)		0.9072	Tonne (1 Tonne = 1000 kg)	
Poise		0.10	Pascal-second	(Pa-s)
centistoke	(cs)	1.00	square millimeter/sec.	(mm ² /s)
pound force	(lbf)	4.4482	Newton	(N)
pound per square inch	(psi)	6.8948	Kilopascal	(kPa)
pound force per foot	(lbf/ft)	14.594	Newton per meter	(N/M)
foot-pound force	(ft-lbf)	1.3558	Joules	(J)
foot-pound force per second	([ft-lbf]/s)	1.3558	Watt	(W)
part per million	(ppm)	1.00	milligram/liter	(mg/L)
Degree Fahrenheit	(°F)	0.5555	Degree Celsius	(°C)

Temperature: Celsius to Fahrenheit	Temperature: Fahrenheit to Celsius
Temperature °F = (1.8 x °C) + 32	Temperature °C = (°F - 32) / 1.8

SI Units Used in Both Systems		
Ampere (A)	second (s)	Candela (cd)
Volt (V)	decibel (db)	Lumen (lm)

Common Metric Prefixes			
kilo (k)	10 ³	milli (m)	10 ⁻³
centi (c)	10 ⁻²	micro (μ)	10 ⁻⁶
		nano (n)	10 ⁻⁹
		pico (p)	10 ⁻¹²

1-5 SYMBOLS

° Degree	ℙ Property line	% Percent
' Feet or minutes	ℚ Survey line or station line	# Number
" Inches or seconds	ℚ Center line	/ per or of (between words)
Δ Delta, the central angle or angle between tangents	∠ Angle	

SECTION 2 - SCOPE AND CONTROL OF WORK

2-1 AWARD AND EXECUTION OF CONTRACT

2-1.1 Award of Contract. The right is reserved to waive minor irregularities in the proposals and to reject any or all proposals. The award of the Contract, if it be awarded, will be to the lowest responsive, responsible Bidder, determined as provided on the Proposal Form, whose Proposal complies with all the requirements prescribed. Such award, if made, will be made within the number of Days stated in the Proposal form. If the lowest responsible Bidder refuses or fails to execute the Contract, the Agency may, within 45 additional Days, consider the next lowest Bidder to be the lowest responsive, responsible Bidder. The periods of time specified above within which the award of Contract may be made shall be subject to extension for such further period as may be agreed upon in writing by the Bidder concerned. If the Bidder's bid guarantee was in the form of a bid bond, the Bidder shall also submit a statement from the Surety that the bond has been extended for the same period.

Proposals not accompanied by a properly executed Noncollusion Affidavit required by Public Contract Code Section 7106 will be considered nonresponsive and will not be considered for award.

All bids will be compared on the basis of the quantities, amounts and unit prices, or lump sums, as shown on the Bid Proposal.

Before award, the Bidder may be required to furnish acceptable evidence of adequate capability, equipment and financial resources to adequately perform the Work. Bidders found not to be so qualified may have their bids rejected. If reasonable cause exists to believe collusion exists among Bidders, or that prices Bid are unbalanced between Bid items, any or all proposals may be rejected.

Award will not be made to a Bidder who is listed by the State Labor Commissioner as ineligible to bid, work on, or be awarded public works projects.

2-1.2 Notice of Award. Within one Day after award of Contract by the Board, the Bidder to whom Contract is awarded will be notified of award by email and telephone, or if no contact is made by telephone, then by mail. Within three business days after award of Contract, a Notice of Award will be sent, transmitting the Contract Documents to such Bidder for execution. If telephone contact is made, the Bidder may request that the Contract Documents be held in Agency's office to be picked up.

2-1.3 Execution of Contract Documents. On receipt of the Contract Documents, the Bidder shall promptly obtain the required insurance coverage, certificates of insurance, power-of-attorney and Contract bonds, execute the Contract, and transmit all required documents to the Agency.

2-1.4 Failure to Execute Documents. Should the Bidder fail to furnish Agency all required documents, properly executed, prior to the starting day of the Contract time computed as provided in 6-7.4 and stated in the Notice of Award, Agency may thereafter declare the Bidder to be in default and its Proposal guarantee forfeited.

2-1.5 Return of Proposal Guarantees. Within 10 Days after the award of the Contract, Agency will return the Proposal guarantees, other than Bidder's bonds, accompanying such of the proposals as are not to be further considered in making the award. The low and second Bidder's Proposal guarantee will be held until the Contract has been executed, after which all Proposal guarantees, except Bidders' bonds and any guarantees which have been forfeited, will be returned to the respective Bidders whose proposals they accompany.

2-2 ASSIGNMENT. No Contract or portion thereof may be assigned without consent of the Board except that the Contractor may assign money due or which will accrue to it under the Contract. If given written notice, such assignment will be recognized by the Board to the extent permitted by law, but any assignment of money shall be subject to all proper withholdings in favor of the Agency and to all deductions provided for in the Contract. All money withheld, whether assigned or not, shall be subject to being used by the Agency for completion of the Work, should the Contractor be in default.

2-3 SUBCONTRACTS.

2-3.1 General. Each Bidder shall comply with the Chapter of the Public Contract Code including Sections 4100 through 4113. The following excerpts or summaries of some of the requirements of that Chapter are included below for information.

The Bidder shall set forth in the Bid, as provided in 4104:

"(a) (1) The name, the location of the place of business, and the California contractor license number of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater.

(2) An inadvertent error in listing the California contractor license number provided pursuant to paragraph (1) shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the corrected contractor's license number is submitted to the public entity by the prime contractor within 24 hours after the bid opening and provided the corrected contractor's license number corresponds to the submitted name and location for that subcontractor."

If the Contractor fails to specify a Subcontractor, or specifies more than one Subcontractor for the same portion of the Work to be performed under the Contract (in excess of one-half of 1 percent of the Contractor's total bid), the Contractor shall be qualified to perform that portion itself, and shall perform that portion itself except as otherwise provided in the Code.

Except as provided in Section 4107, no prime contractor, whose Bid is accepted, shall substitute any person or Subcontractor in place of the Subcontractor listed in the original bid other than for causes and by procedures established in Section 4107.5 which provides procedures to correct a clerical error in the listing of a Subcontractor.

Section 4110 provides that a Contractor violating any of the provisions of the Chapter violates the Contract and the Board may exercise the option either to cancel the Contract or assess the Contractor a penalty in an amount of not more than 10 percent of the subcontract involved, after a public hearing.

2-3.1.1 Use of Debarred Subcontractors Prohibited. The Contractor is prohibited from performing work using a Subcontractor who is listed by the State Labor Commissioner as ineligible to work on public works projects.

2-3.2 Additional Responsibilities. The Contractor shall give personal attention to the fulfillment of the Contract and shall keep the Work under its control.

Except where the required Contractor's License Class is "B", the Contractor shall perform, with its own organization, Contract work amounting to at least 50 percent of the Contract Price except that any designated "Specialty Items" may be performed by subcontract and the amount of any such "Specialty Items" so performed may be deducted from the Contract Price before computing the amount required to be performed by the Contractor with its own organization. "Specialty Items" will be identified by the Agency in the Bid or Proposal with an "[S]". Where an entire item is subcontracted, the value of work subcontracted will be based on the Contract Unit Price. This will be determined from information submitted by the Contractor, and subject to approval by the Engineer.

Before the work of any Subcontractor is started, the Contractor shall submit to the Engineer for approval a written statement showing the work to be subcontracted giving the name, contractor license number, registration with the Department of Industrial Relations, and business of each Subcontractor and description and value of each portion of work to be subcontracted.

2-3.3 Status of Subcontractors. Subcontractors shall be considered employees of the Contractor, and the Contractor shall be responsible for their work.

2-3.3.1 Subcontracts. The Contractor shall incorporate into all subcontracts, and the Subcontractor shall incorporate into all lower tier subcontracts, all of the Plans and Specifications which are part of the Contract between the Contractor and the Agency.

2-3.3.2 Contractor Responsible. The Contractor is responsible for properly performing and completing all Work required by the Contract whether or not it employs subcontractors for certain portions of the Work. It shall coordinate the sequence and timing of its efforts and that of its subcontractors to insure the proper and timely completion of the Work.

2-3.3.3 Specialty Contractors. Where a specialty Contractor's license is required by law or by the Specifications in order to perform certain portions of the Work, the Contractor may perform such portion with its own forces if it holds the proper license. Otherwise, it shall employ a properly licensed subcontractor to perform that portion of the Work. Such requirement to employ a subcontractor does not modify the other requirements of 2-3.

2-4 CONTRACT BONDS. Before execution of the Contract by the Agency, the Bidder shall file surety bonds with the Agency to be approved by the Board in the amounts and for the purposes noted below. Bonds issued by a Surety who is listed in the latest version of U.S. Department of Treasury Circular 570, who is authorized to issue bonds in California, and whose bonding limitation shown in said circular is sufficient to provide bonds in the amount required by the Contract shall be deemed to be approved unless specifically rejected by the Agency. Bonds from all other sureties shall be accompanied by all of the documents enumerated in Code of Civil Procedure 995.660(a). The Bidder shall pay all bond premiums, costs, and incidentals.

Each bond shall incorporate, by reference, the Contract and be signed by both the Bidder and Surety and the signature of the authorized agent of the Surety shall be notarized.

The Bidder shall provide two good and sufficient surety bonds. The "Payment Bond" (Material and Labor Bond) shall be for not less than 100 percent of the Contract Price, to satisfy claims of material suppliers and mechanics and laborers employed by it on the Work. The bond shall be maintained by the Contractor in full force and effect until the Work is accepted by the Agency, and until all claims for materials and labor are paid, and shall otherwise comply with the Civil Code.

The "Performance Bond" shall be for 100 percent of the Contract Price to guaranty faithful performance of all Work, within the time prescribed, in a manner satisfactory to the Agency, and that all materials and workmanship will be free from original or developed defects. The bond must remain in effect until the end of the warranty period set forth in 6.8-2.

Should any bond become insufficient, the Contractor shall renew the bond within 10 Days after receiving notice from the Agency.

Should any Surety at any time be unsatisfactory to the Board, notice will be given the Contractor to that effect. No further payments shall be deemed due or will be made under the Contract until a new Surety shall qualify and be accepted by the Board.

Changes in the Work, or extensions of time, made pursuant to the Contract, shall in no way release the Contractor or Surety from its obligations. Notice of such changes or extensions shall be waived by the Surety.

2-4.1 Bond Forms. Bonds shall be on forms furnished by Agency.

2-5 PLANS AND SPECIFICATIONS

2-5.1 General. The Contractor shall keep at the work site a copy of the Plans and Specifications, to which the Engineer shall have access at all times.

The Plans, Specifications, and other Contract Documents shall govern the Work. The Contract Documents are intended to be complementary and cooperative. Anything specified in the Specifications and not shown on the Plans, or shown on the Plans and not specified in the Specifications, shall be as though shown or specified in both.

The Plans shall be supplemented by such working drawings and shop drawings as are necessary to adequately control the Work.

The Contractor shall ascertain the existence of any conditions affecting the cost of the Work through reasonable examination of the work site prior to submitting the Bid..

Existing improvements visible at the work site, for which no specific disposition is made on the Plans, but which interfere with the completion of the Work, shall be removed and disposed of by the Contractor.

The Contractor shall, upon discovering any error or omission in the Plans or Specifications, immediately call it to the attention of the Engineer.

2-5.1.1 Specifications Captions. Captions accompanying specification parts, sections and paragraphs are for convenience of reference only and do not limit the content of such part, section or paragraph.

The division of the Plans into parts and the division of the Specifications into divisions and sections are for the ease of reference only and does not imply the division of work between trades or subcontractors.

2-5.2 Precedence of Contract Documents. If there is a conflict between any of the Contract Documents, the document highest in precedence shall control. The precedence shall be as follows:

- 1) Permits issued by jurisdictional regulatory agencies.
- 2) Change Orders and Supplemental Agreements; whichever occurs last.
- 3) Contract/Agreement.
- 4) Addenda.
- 5) Bid/Proposal.
- 6) Special Provisions.
- 7) Plans.
- 8) Standard Plans.
- 9) Standard Specifications.
- 10) Reference Specifications.

Detail drawings shall take precedence over general drawings.

2-5.3 Shop Drawings, Working Drawings, and Submittals.

2-5.3.1 General. Submittals shall be provided, at the Contractor's expense, as required in 2-5.3.2, 2-5.3.3 and 2-5.3.4, when required by the Plans or Special Provisions, or when requested by the Engineer.

Materials shall neither be furnished nor fabricated, nor shall any work for which submittals are required be performed, before the required submittals have been reviewed and accepted by the Engineer. Neither review nor acceptance of submittals by the Engineer shall relieve the Contractor from responsibility for errors, omissions, or deviations from the Contract Documents, unless such deviations were specifically called to the attention of the Engineer in the letter of transmittal. The Contractor shall be responsible for the correctness of the submittals.

The Contractor shall allow a minimum of 20 working days for review of submittals unless otherwise specified in the Special Provisions. Each submittal shall be accompanied by a letter of transmittal.

2-5.3.2 Working Drawings. Working drawings shall be of a size and scale to clearly show all necessary details.

Six copies and one reproducible shall be submitted. If no revisions are required, 3 of the copies will be returned to the Contractor. If revisions are required, the Engineer will return one copy along with the reproducible for resubmission. Upon acceptance, the Engineer will return 2 of the copies to the Contractor and retain the remaining copies and the reproducible.

Working drawings are required in the following subsections:

TABLE 2-5.3.2 (A)

Item	Section Number	Title	Subject
1	7-8.5.2	Sanitary Sewers	Sewage Bypass and Pumping
2	7.8.6.3	Water Pollution Control	Storm Water Pollution Prevention Plan
3	7-8.6.6	Water Pollution Control	Dewatering Plan
4	7-10.2.2	Work Area Traffic Control	Traffic Control Plan
5	7-10.4..2.2	Safety	Trench Shoring
6	207-8.4	Joints	Vitrified Clay Pipe
7	207-10.2.1	General	Fabricated Steel Pipe
8	300-3.2	Cofferdams	Structure Excavation & Backfill
9	303-1.6.1	General	Falsework
10	303-1.7.1	General	Placing Reinforcement
11	303-3.1	General	Prestressed Concrete Construction
12	304-1.1.1	Shop Drawings	Structural Steel
13	304-1.1.2	Falsework Plans	Structural Steel
14	304-2.1	General	Metal Hand Railings
15	306-2.1	General	Jacking Operations
16	306-3.1	General	Tunneling Operations
17	306-3.4	Tunnel Supports	Tunneling Operations
18	306-6	Remodeling Existing Sewer Facilities	Polyethylene Liner Installation
19	306-8	Microtunneling	Microtunneling Operations

Working drawings listed above as Items 4, 5, 8, 9, 11, 12, 13, 15 and 18 shall be prepared by a Civil or Structural Engineer registered by the State of California.

2-5.3.3 Shop Drawings. Shop drawings are drawings showing details of manufactured or assembled products proposed to be incorporated into the Work. Shop drawings required shall be as specified in the Special Provisions.

2-5.3.4 Supporting Information. Supporting information is information required by the Specifications for the purposes of administration of the Contract, analysis for verification of conformance with the Specifications, the operation and maintenance of a manufactured product or system to be constructed as part of the Work, and other information as may be required by the Engineer. Six copies of the supporting information shall be submitted to the Engineer prior to the start of the Work unless otherwise specified in the Special Provisions or directed by the Engineer. Supporting information for systems shall be bound together and include all manufactured items for the system. If resubmittal is not required, three copies will be returned to the Contractor. Supporting information shall consist of the following and is required unless otherwise specified in the Special Provisions:

- 1) List of Subcontractors per 2-3.2.
- 2) List of Materials per 4-1.4.
- 3) Certificates of Compliance per 4-1.5.
- 4) Construction Schedule per 6-1.
- 5) Spill Prevention and Emergency Response Plan per 7-8.5.3
- 6) Confined Space Entry Program per 7-10.4.5.1
- 7) Lean concrete base mix designs per 200-4
- 8) Concrete mix designs per 201-1.1.
- 9) Asphalt concrete mix designs per 203-6.1.
- 10) Pipeline layout diagrams per 207-2.1
- 11) Equipment and materials list per 307-1
- 12) Controller cabinet wiring diagrams per 307-17.2.2
- 13) Data, including, but not limited to, catalog sheets, manufacturer's brochures, technical bulletins, specifications, diagrams, product samples, and other information necessary to describe a system, product or item. This information is required for irrigation systems, street lighting systems, and traffic signals, and may also be required for any product, manufactured item, or system.

2-5.4 Record Drawings. The Contractor shall prepare and maintain a set of prints in the Engineer's Field Office on which the locations and description of all plumbing, mechanical, and electrical facilities, which were not detailed fully on the Plans, are marked in colored pencil. Such prints shall also indicate any authorized changes from the original Plans. Such prints shall be furnished to the Engineer before final Acceptance of the Work.

2-6 WORK TO BE DONE. The Contractor shall perform all work necessary to complete the Contract in a satisfactory manner. Unless otherwise provided, it shall furnish all materials, equipment, tools, labor and incidentals necessary to complete the Work.

All work under the Contract shall be performed in accordance with the highest standards prevailing in the trades unless otherwise specified on the Plans or in the Special Provisions. Unless otherwise specified, it is the intent that the Contractor will construct a complete facility ready for use.

2-6.1 Manufacturer's Recommendations. Where the manufacturer of any materials or equipment provides written recommendations or instructions for its use or method of installation (including labels, tags, manuals, or trade literature), such recommendations or instructions shall be complied with except where the Contract Documents specifically require deviations.

2-6.2 Testing of Installed Components. Where the specifications provide that any component of the Work is to be tested, calibrated or adjusted during or after installation, such testing shall be performed by a qualified firm, approved by the Engineer. The firm performing the testing or calibration shall be employed by and paid for by the Contractor.

2-6.3 Training of Agency Personnel. Where the specifications provide for training of Agency personnel in the use or maintenance of any component of the Work, the Contractor shall arrange for and pay for competent personnel to perform the training. Contractor shall schedule the training with the Engineer.

2-7 SUBSURFACE DATA. All soil and test hole data, groundwater elevations, and soil analyses shown on the Plans or included in the Specifications apply only at the location of the test holes and to the depths shown. Soil test reports for test holes which have been drilled are available for inspection at the office of the Engineer. Additional subsurface exploration may be performed by Bidders or the Contractor at their own expense. The indicated groundwater elevation is that existing at the date specified in the data. It is the Contractor's responsibility to determine and allow for the groundwater elevation on the date the Work is performed. A difference in groundwater elevation between what is shown in soil boring logs and what is actually encountered during construction will not be considered as a basis for Extra Work per 3-3.

Opinions, recommendations or conclusions contained in any soils report, soil boring logs, subsurface materials investigation, geological report or other similar studies, tests or reports, prepared for the Agency, are not a part of the Contract. Contractor shall be responsible for forming its own opinions and conclusions from the facts set forth in such reports.

2-8 RIGHTS-OF-WAY. Rights-of-way, easements or rights-of-entry for the Work will be provided by the Agency. Unless otherwise provided, the Contractor shall make arrangements, pay for, and assume all responsibility for acquiring, using, and disposing of additional work areas and facilities temporarily required. The Contractor shall indemnify and hold the Agency harmless from all claims for damages caused by such actions.

2-9 SURVEYING

2-9.1 Permanent Survey Markers. The Contractor shall notify the Engineer at least 7 Days before starting work to allow for the preservation of survey monuments, lot stakes (tagged), and bench marks. The Engineer, or the owner at its cost, shall file a Corner Record Form referencing survey monuments subject to disturbance in the Office of the County Surveyor prior to the start of construction and also prior to the completion of construction for the replacement of survey monuments. The Contractor shall not disturb survey monuments, lot stakes (tagged), or bench marks without the consent of the Engineer or the owner on Private Contracts. The Contractor shall bear the expense of replacing any that may be disturbed without permission. Replacement shall be done only under the direction of the Engineer by a Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the state.

When a change is made in the finished elevation of the pavement of any roadway in which a permanent survey monument is located, the Contractor shall adjust the monument cover to the new grade within 7 Days of finished paving unless otherwise specified.

2-9.2 Survey Service. The Engineer will set only the horizontal and vertical control survey points shown on the Plans. These will be set prior to the commencement of construction. The Contractor shall preserve these points as well as any other surveys established by the Engineer for use by the Contractor for the duration of their usefulness. If any survey points established by Engineer are lost or disturbed and need to be replaced, such replacement shall be by the Engineer at the expense of the Contractor. The Contractor shall employ engineers or surveyors to perform adequate surveys and staking necessary to construct the Work to the lines, elevations and grades shown on the Plans and for the Engineer's use in checking such work. Copies of the field notes or diagrams used in setting stakes shall be promptly furnished to the Engineer.

2-9.2.1 Open Areas. Where dimensions are not given on the Plans for parking lots, landscaped areas or graded areas, distances shall be scaled. Unless otherwise indicated, straight grades and smooth vertical curves shall be set between indicated elevations. Finished surfaces shall be sloped to drain in order to eliminate ponding of water.

2-9.2.2 Utilities. Section 5-5.1 requires the Contractor's cooperation during the relocation of utilities, which may require the setting of lines and grades when needed by utility owners performing relocations.

2-9.3 Contractor's Surveys. Surveying by private engineers and surveyors on the Work shall conform to the quality and practice required by the Engineer.

2-9.3.1 Errors in Surveys. The Contractor is responsible for the accuracy of all surveys except those performed by the Engineer. To assure that a survey point set by the Engineer has not been disturbed since it was set and that it was accurately set, all surveys by the Contractor shall be based on at least two survey points set by the Engineer or by other governmental surveys, in accordance with good survey practice. Should discrepancies be found between such points, the Engineer shall be notified and construction shall not proceed until the discrepancy has been resolved.

2-9.4 Line and Grade. All Work upon completion shall conform to the lines, elevations, and grades shown on the Plans.

2-9.5 Quantity Surveys. The Engineer will perform all quantity surveys for payment purposes, however, in performing such quantity surveys, it may make use of surveys performed by the Contractor.

2-9.6 Payment for Surveys. Payment for performing all of the surveying and staking as required by the Specifications and such additional surveying and staking as required by the Contractor will be made at the lump sum price set forth in the Proposal and shall be full compensation for furnishing all labor, equipment, instruments and materials necessary to perform the Work. If no bid item for surveying is included in the Proposal, the cost of surveying shall be included in the prices bid for other applicable items of work.

2-10 AUTHORITY OF BOARD AND ENGINEER. The Board has the final authority in all matters affecting the Work. Within the scope of the Contract, the Engineer has the authority to enforce compliance with the Plans and Specifications. The Contractor shall promptly comply with instructions from the Engineer or its authorized representative.

On all questions relating to quantities, the acceptability of material, equipment, or work, the execution, progress or sequence of work, and the interpretation of Specifications or drawings, the decision of the Engineer is final and binding, and shall be precedent to any payment under the Contract, unless otherwise ordered by the Board.

2-10.1 Decisions in Writing. Any and all decisions of the Engineer interpreting Specifications or drawings shall be in writing. Any purported "interpretation" which is not in writing shall not be binding upon the Agency and should not be relied upon by the Contractor.

2-11 INSPECTION

The Work is subject to inspection and approval of the Engineer. The Contractor shall notify the Engineer before noon of the working day before inspection is required. Work shall be done only in the presence of the Engineer, unless otherwise authorized. Any work done without proper inspection will be subject to rejection. The Engineer and any authorized representatives shall at all times have access to the Work during its construction at shops and yards as well as the Work site. The Contractor shall provide every reasonable facility for ascertaining that the materials and workmanship are in accordance with these specifications. Inspection of the Work shall not relieve the Contractor of the obligation to fulfill all conditions of the Contract.

2-11.1 Permit Inspections. The Contractor shall arrange for code compliance inspections by all agencies issuing permits for the Work. The Work shall not continue beyond mandatory inspection points without clearance from the controlling agency. Each agency involved shall be notified in accordance with the code they enforce or in accordance with their standard operating procedures. No extensions of time will be granted for delays occasioned by such inspections except where, through no fault of the Contractor, the inspection is delayed more than one Day beyond normal response time after proper notification has been given. It shall be the Contractor's responsibility to see that any required inspection record card is signed off before proceeding with the next phase of the Work and completely signed off on completion of the Work.

2-11.2 Structural Observation. When the plans indicate that "Structural Observation" of specific work is required prior to Permit Inspection, Contractor shall notify Engineer, in writing, at least five working days prior to the date Contractor plans to have the work ready for structural observation. If the work is not ready for structural observation on the date indicated, Contractor shall reimburse Agency the cost of structural observer's visit to the Work site. If the work to be observed is substantially complete but is found to need correction before approval by the structural observer, Contractor shall give notice of a new date, as required above.

2-12 SPECIAL NOTICES. When specified in the Specifications or as directed by the Engineer, any notice required to be given in accordance with this subsection shall be in writing, dated, and signed by the Contractor or the Engineer. Such notices shall be served by any of the following methods:

- a) Personal delivery with proof of delivery which may be made by declaration under penalty of perjury by any person over the age of 18 years. The proof of delivery shall show that delivery was performed in accordance with these provisions. Service shall be effective on the date of delivery. Notices given to the Contractor by personal delivery may be made to the Contractor's authorized representative at the Work site; or
- b) Certified mail addressed to the mailing address of the recipient postage prepaid; return receipt requested. Service shall be effective on the date of the receipt of the mailing.

Simultaneously, the Agency may send the same notice by regular mail. If a notice that is sent by certified mail is returned unsigned, then delivery shall be effective pursuant to regular mail, provided the notice that was sent by regular mail is not returned.

2-13 AGENCY PERSONNEL AND AUTHORITY

2-13.1 General. The Board has complete authority for the project within the limits prescribed by law. Pursuant to resolutions duly adopted by the Board, the authority to perform certain functions has been delegated to the Director of Public Works. Agency staff personnel and Consultants delegated thereto by the Director are authorized to perform functions limited as set forth in the following list of personnel and designated duties.

2-13.2 Engineer. The Director of the Public Works Agency of the County of Ventura is the Engineer and has general authority to administer the Contract. The Engineer has the following specific authority:

(a) To issue Contract Change Orders (CCO) and to settle claims subsequent to Acceptance as follows:

<u>Original Contract Amount</u>	<u>Maximum Amount of any Change Order or Claim Settlement</u>
\$50,000 or less.....	\$5,000
greater than \$50,000 and not over \$250,000	10% of the original Contract amount
greater than \$250,000 and not over \$3,950,000	\$25,000 plus 5% of the original Contract cost in excess of \$250,000.
greater than \$3,950,000	\$210,000

CCOs and claim settlements exceeding the amounts set forth above require Board approval.

- (b) To make final adjustments of quantities (FAQ) on unit price items.
- (c) To accept the Work when the Contractor has completed all obligations of the Contract, in accordance with the Plans, Specifications and other Contract Documents. The Engineer also has authority to make and record the Notice of Completion.
- (d) To approve progress and final payments under the Contract, including the provisions for withholding funds.
- (e) To determine whether performance on the Work is satisfactory. Satisfactory performance includes compliance with all contract requirements.
- (f) To approve the substitution of a Subcontractor, where allowed by law, if the listed Subcontractor does not object when notified.
- (g) To suspend the Work for the benefit of the Agency.
- (h) In the absence of the Agency Director, a Public Works Agency Department Director, as Deputy Director of Public Works, may exercise the Engineer's authority. Such action will be indicated by "Acting" with the Department Director's signature.

2-13.3 Department Director (Public Works Agency). The Department Director responsible for the project is designated in the Notice to Proceed. The Department Director has the following authority:

(a) To issue Contract Change Orders (CCO) as follows:

<u>Original Contract Amount</u>	<u>Maximum Amount of any Change Order</u>
Less than \$500,000.....	\$5,000
\$500,000 to \$1,000,000	1% of Bid Price
Greater than \$1,000,000	\$10,000

- (b) To issue extensions of Contract time in accordance with the Contract Documents.
- (c) To make final adjustment of quantities where the total does not exceed the amounts listed in (a) above.
- (d) To approve the substitution of subcontractors, where allowed by law, if the listed Subcontractor does not object when notified.
- (e) To determine when the Work has been completed and acknowledge in writing the completion of the Work.

2-13.4 Project manager. The Project manager responsible for the project is designated in the Notice to Proceed. This person may also be referred to as Project Engineer. The Project manager has the following authority:

- (a) To interpret the Plans and Specifications.
- (b) To make minor changes in the location or features of the Work where no change in cost is involved. Such changes in cost may not be the net of multiple changes.
- (c) To approve substitutes for material and equipment specified by proprietary names when such material and equipment meet the Contract requirements.
- (d) To approve shop drawings and submittals.
- (e) To issue stop work orders when necessary to enforce the provisions of the Contract.
- (f) To make determinations of each Working Day to be charged against the Contract time in accordance with 6-7.3.
- (g) To take over a portion of the Work for Agency's use in accordance with 6-10.
- (h) To receive all correspondence and other documents from the Contractor.
- (i) To inspect the Work and perform Final Inspection subject to review by the Department Director and the Engineer.

2-13.5 Inspector. One or more inspectors will be assigned to the project by the Project manager. Substitutes may be used during absence of the assigned inspector. The Inspector has the following authority subject to review by the Project manager, Department Director and the Engineer:

- (a) To view and inspect the Work, sample and test components (at the Work site and at offsite manufacturing locations), and to discuss the Work with the Contractor's field representative.
- (b) To determine compliance with the Plans, Specifications and other Contract Documents and to issue warnings of noncompliance.
- (c) To issue stop work notices in the following two instances only:
 - 1) Where a safety hazard exists that has an immediate potential for serious injury or death.
 - 2) Where the operation in progress, if continued for even a short period of time, could be adverse to the Agency's interests.

2-13.6 Other Agency Personnel and Consultants.

2-13.6.1 Materials Engineer. The Materials Engineer is designated in the Notice to Proceed. The Materials Engineer may assign one or more Materials Inspectors to the project.

Materials Inspectors have authority to sample and test material at the Work site and at offsite manufacturing or storage locations. They may furnish available written test results to the Contractor's field representative. At batch plants, they may issue warnings of noncompliance, but stop notices require the signature of the Materials Engineer or Project manager.

2-13.6.2 Surveyors & Technicians. Surveyors and technicians shall have free access to the site to perform their duties but have no authority related to Contract administration.

2-13.6.3 Other Persons. Other Agency personnel who are not involved in construction administration and the general public may be present at the site because it is their present place of work, as client/customers, as visitors, as future users of the facility, or as persons who will maintain the completed facility. Where the facility is to continue in use during construction, work access for Agency workers and client/customers shall be maintained as provided in the Special Provisions. Where the facility (or portion where construction is being performed) is not in use during construction, admittance to the Work site by Agency personnel not involved in construction administration and visitors may be allowed by the Contractor or by the inspector, subject to compliance with safety regulations. Such persons have no authority under the Contract and the Agency is not responsible for their comments, suggestions or directions.

2-13.6.4 Consultants. Consultants hired by the Agency shall have free access to the site to perform their duties but have no authority related to Contract administration, unless such duties are specifically identified in writing to the Contractor. When so identified, Consultant may perform the duties of certain Agency personnel described above.

SECTION 3 - CHANGES IN WORK

3-1 CHANGES REQUESTED BY THE CONTRACTOR

3-1.1 General. Changes in specified methods of construction may be made at the Contractor's request when approved in writing by the Engineer. Changes in the Plans and Specifications, requested in writing by the Contractor, which do not materially affect the Work and which are not detrimental to the Work or to the interests of the Agency, may be granted by the Board to facilitate the Work, when approved in writing by the Engineer. Nothing herein shall be construed as granting a right to the Contractor to demand acceptance of such changes.

3-1.2 Payment for Changes Requested by the Contractor. If such changes are granted, they shall be made at a reduction in cost or at no additional cost to the Agency. All costs to the Agency in reviewing the proposed change, or testing materials involved therein, shall be paid for by the Contractor, whether or not the change is approved.

3-2 CHANGES INITIATED BY THE AGENCY

3-2.1 General. The Agency may change the Plans, Specifications, character of the Work, or quantity of work, provided the total arithmetic dollar value of all such changes, both additive and deductive, does not exceed 25 percent of the Contract Price. Should it become necessary to exceed this limitation, the change shall be by written Supplemental Agreement between the Contractor and Agency, unless both parties agree to proceed with the change by Change Order.

Change orders shall be in writing and state the dollar value of the change or establish method of payment, any adjustment in Contract time, and, when negotiated prices are involved, shall provide for the Contractor's signature indicating its acceptance.

3-2.2 Payment for Changes Initiated by the Agency.

3-2.2.1 Contract Unit Prices. If a change is ordered in an item of work covered by a Contract unit price, and such change does not involve a substantial change in the character of the Work from that shown on the Plans or included in the Specifications, an adjustment in payment will be made based upon the increase or decrease in quantity and the Contract unit price. In the case of such an increase or decrease in a Major Bid Item, the use of this basis for the adjustment of payment will be limited to that portion of the change which, together with all previous changes to that item, is not in excess of 25% of the total cost of such item based on the original quantity and Contract unit price.

If a change is ordered in an item of work covered by a Contract unit price, and such change does involve a substantial change in the character of the Work from that shown on the Plans or included in the Specifications, an adjustment in payment will be made in accordance with 3-2.2.3.

Should any Contract item be deleted in its entirety, payment will be made only for actual costs incurred prior to notification of such deletion.

3-2.2.2 Stipulated Unit Prices. Stipulated unit prices are those established by the Agency in the Contract Documents, as distinguished from Contract unit prices submitted by the Contractor. Stipulated unit prices may be used for the adjustment of Contract changes.

3-2.2.3 Pricing. Adjustments in payments for changes other than those set forth in 3-2.2.1 and 3-2.2.2 will be determined by agreement between Contractor and Agency. If unable to reach agreement, the Agency may direct the Contractor to proceed on the basis of Extra Work in accordance with 3-3 or as set forth in 3-2.2.4.

3-2.2.4 Non-Agreed Prices. Agency may issue a change order directing the Contractor to proceed at a price set by the Agency or on the basis of Extra Work. If the Agency sets a price for the work covered by the change order, Contractor is entitled to payment for such work in accordance with 3-3 to the extent payment in accordance with 3-3 exceeds the price set by the Agency.

3-3 EXTRA WORK

3-3.1 General. New or unforeseen work will be classed as "Extra Work" when the Engineer determines that it is not covered by Contract Unit Prices or Stipulated Unit Prices.

3-3.2 Payment.

3-3.2.1 General. When the price for the Extra Work cannot be agreed upon, the Agency will pay for the Extra Work based on the accumulation of costs as provided herein.

3-3.2.2 Basis for Establishing Costs

(a) Labor. The cost of labor will be the current cost for wages prevailing for each craft or type of workers performing the Extra Work at the time the Extra Work is done, plus payment of health and welfare, pension, vacation, apprenticeship funds, and other direct costs included in the prevailing rates applicable to the project, as well as assessments or benefits required by lawful collective bargaining agreements. To the total of these labor costs, the labor surcharge set forth in the current CALTRANS Labor Surcharge and Equipment Rental Rates publication shall be applied.

The use of a labor classification which would increase the Extra Work cost will not be permitted unless the Contractor establishes the necessity for such additional costs.

Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for the equipment rental. The labor cost for foremen shall be proportioned to all of their assigned work and only that applicable to Extra Work shall be paid. A foreman is defined as a lead working journeyman.

Nondirect labor costs including superintendence, payroll taxes, all types of insurance, and all other labor costs, not specifically provided for, shall be considered to be paid for as part of the markup of 3-3.2.3(a)(1).

(b) Materials. The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available and delivered to the Work site in the quantities involved, plus sales tax, freight and delivery.

The Agency reserves the right to approve materials and sources of supply, or to supply materials to the Contractor if necessary for the progress of the Work. No markup shall be applied to any material provided by the Agency.

(c) Tool and Equipment Rental. No payment will be made for the use of tools which have a replacement value of \$200 or less.

Regardless of ownership, the rates to be used for determining equipment rental costs shall not exceed the following:

- (1) For equipment that is listed in the current CALTRANS Labor Surcharge and Equipment Rental Rates publication, the rates shown therein. The right of way delay and overtime/multiple shift factors contained therein shall be used as applicable.
- (2) For equipment not listed in said CALTRANS publication, the listed rates prevailing locally at equipment rental agencies, or distributors, at the time the work is performed.
- (3) For equipment rental that includes operators and helpers, the applicable cost from (1) or (2) above, plus the applicable labor costs as determined in accordance with (a) above.

The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.

Necessary loading and transportation costs for equipment used on the Extra Work shall be added to the other costs.

If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the Agency than holding it at the work site, it shall be returned, unless the Contractor elects to keep it at the work site at no expense to the Agency.

All equipment shall be acceptable to the Engineer, in good working condition, and suitable for the purpose for which it is to be used. Manufacturer's ratings and manufacturer's approved modifications shall be used to classify equipment and it shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

The reported rental rates for equipment already at the work site shall be for the duration of its use on the Extra Work, commencing at the time it is first put into actual operation on the Extra Work, plus the time required to move it from its previous site, and move it back to its previous site or to a closer site of next use.

3-3.2.2 Basis for Establishing Costs (Continued)

(d) Other Items. The Agency may authorize other items which may be required on the Extra Work. Such items include labor, service, material and equipment which are different in their nature from those required for the Work specified in the Contract and which are of a type not ordinarily available from the Contractor or any of its subcontractors.

Invoices covering all such items in detail shall be submitted with the request for payment.

(e) Invoices. Vendors' invoices for material, equipment rental, and other expenditures, shall be submitted with the request for payment. If the request for payment is not substantiated by invoices or other documentation, the Agency may establish the cost of the item involved at the lowest price which was current at the time of the report.

3-3.2.3 Markup

(a) Work by Contractor. The following percentage shall be added to the Contractor's costs and shall constitute the markup for all overhead and profits, and all other cost not specifically provided for:

- (1) Labor 33%
- (2) Materials..... 15%
- (3) Equipment Rental 15%
- (4) Other Items and Expenditures ... 15%

To the sum of the cost and markups provided for in this section, 1 percent shall be added as compensation for bonding.

(b) Work by Subcontractor. When all or any part of the Extra Work is performed by a Subcontractor, the markup established in 3-3.2.3(a) shall be applied to the Subcontractor's actual cost of such work. A markup of 10% on the first \$5,000 of the subcontracted portion of the Extra Work and a markup of 5% on work in excess of \$5,000 of the subcontracted portion of the Extra Work may be added by the Contractor.

3-3.3 Daily Extra Work Reports by Contractor. When the price for the Extra Work cannot be agreed upon, the Contractor shall submit a Daily Extra Work Report to the Engineer on forms furnished by the Agency, together with applicable delivery tickets, listing all labor, materials, and equipment involved for that day, and for other services and expenditures when authorized. Failure to submit the Daily Extra Work Report, showing the labor and equipment hours and the quantity of materials used, by the close of the next Working Day may waive any rights for that day. Failure to submit fully completed Daily Extra Work Reports, with the required supporting documentation, within ten calendar days after the Engineer makes a written request for the such reports shall waive all rights for the work covered by the requested reports. An attempt shall be made to reconcile the Daily Extra Work Report daily, and it shall be signed by the Engineer and the Contractor. In the event of disagreement, pertinent notes shall be entered by each party to explain points which cannot be resolved immediately. Each party shall retain a signed copy of the Daily Extra Work Report. Daily Extra Work Reports by Subcontractors or others shall be submitted through the Contractor.

The Daily Extra Work Report shall:

- 1) Show names of workers, classifications, and hours worked.
- 2) Describe and list quantities of materials used.
- 3) Show type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable.
- 4) Describe other services and expenditures in such detail as the Agency may require.

In addition to the Daily Extra Work Reports, the Contractor shall furnish Certified Payroll Records for the labor included in the reports before payment will be made.

3-4 CHANGED CONDITIONS. The Contractor shall notify the Engineer in writing of the following work site conditions, hereinafter called changed conditions, promptly upon their discovery and before they are disturbed:

- 1) Subsurface or latent physical conditions differing materially from those represented in the Contract;
- 2) Unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character being performed; and
- 3) Material differing from that represented in the Contract which the Contractor believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code that is required to be removed to a Class I, Class II or Class III disposal site in accordance with provisions of existing law.

The Engineer will promptly investigate conditions which appear to be changed conditions. If the Engineer determines that the conditions are changed conditions and that they will materially increase or decrease the costs of any portion of the Work, a Change Order will be issued adjusting the compensation for such portion of the Work in accordance with 3-2.2. If the Engineer determines that conditions are changed conditions and that they will materially affect the performance time, the Contractor, upon submitting a written request, will be granted an extension of time subject to the provisions of 6-6.

If the Engineer determines that the conditions of which it has been notified by the Contractor do not justify an adjustment in compensation, the Contractor will be so notified in writing. This notice will also advise the Contractor of its obligation to notify the Engineer, in writing, if the Contractor disagrees.

Should the Contractor disagree with such determination, it may submit a written notice of potential claim to the Engineer before commencing the disputed work. In the event of such a disagreement, the Contractor shall not be excused on account of that disagreement from any scheduled completion date provided for by the Contract, but shall proceed with all Work to be performed under the Contract. However, the Contractor shall retain any and all rights provided either by Contract or by law which pertain to the resolution of disputes and protests between the contracting parties. The Contractor shall proceed as provided in 3-5.

The Contractor's failure to give notice of changed conditions promptly upon their discovery and before they are disturbed shall constitute a waiver of all claims in connection therewith.

3-5 DISPUTED WORK. If the Contractor and the Agency are unable to reach agreement on disputed work, the Agency may direct the Contractor to proceed with the Work. Payment shall be as later determined by mediation or arbitration, if the Agency and the Contractor agree thereto, or as fixed in a court of law.

Although not to be construed as proceeding under Extra Work provisions, the Contractor shall keep and furnish records of disputed work in accordance with 3-3.

SECTION 4 - CONTROL OF MATERIALS

4-1 MATERIALS AND WORKMANSHIP

4-1.1 General. All materials, parts, and equipment furnished by the Contractor in the Work shall be new, high grade, and free from defects. Quality of work shall be in accordance with the generally accepted standards. Material and work quality shall be subject to the Engineer's approval.

Materials and work quality not conforming to the requirements of the Specifications shall be considered defective and will be subject to rejection. Defective work or material, whether in place or not, shall be removed immediately from the site by the Contractor, at its expense, when so directed by the Engineer.

If the Contractor fails to replace any defective or damaged work or material after reasonable notice, the Engineer may cause such work or materials to be replaced. The replacement expense will be deducted from the amount to be paid to the Contractor.

Used or secondhand materials, parts, and equipment may be used only if permitted by the Specifications.

4-1.1.1 Materials Furnished by Agency. Materials furnished by the Agency will be available at locations designated in the Special Provisions or if not designated in the Special Provisions, they will be delivered to a single location of Agency's choice within the project area. They shall be hauled to the site of installation by the Contractor at its expense, including any necessary loading and unloading that may be involved. The cost of handling and placing materials furnished by the Agency shall be considered as included in the price paid for the Contract item involving such furnished materials.

The Contractor will be held responsible for all materials furnished to it, and it shall pay all demurrage and storage charges. Furnished materials, after delivery to Contractor, lost or damaged from any cause whatsoever shall be replaced by the Contractor. The Contractor will be liable to the Agency for the cost of replacing lost or damaged furnished material and such costs may be deducted from any monies due or to become due the Contractor.

4-1.2 Protection of Work and Materials. The Contractor shall provide and maintain storage facilities and employ such measures as will preserve the specified quality and fitness of materials to be used in the Work. Stored materials shall be reasonably accessible for inspection. The Contractor shall also adequately protect new and existing work and all items of equipment for the duration of the Contract.

The Contractor shall not, without the Agency's consent, assign, sell, mortgage, hypothecate, or remove equipment or materials which have been installed or delivered and which may be necessary for the completion of the Contract.

4-1.3 Inspection Requirements

4-1.3.1 General. Unless otherwise specified, inspection is required at the source for asphalt concrete pavement mixtures, structural concrete, metal fabrication, metal casting, welding, concrete pipe manufacture, protective coating application, and similar shop or plant operations. Steel pipe in sizes less than 450 mm (18 inches), vitrified clay and cast iron pipe in all sizes are acceptable upon certification as to compliance with the Specifications, subject to sampling and testing by the Agency. Standard items of equipment such as electric motors, conveyors, elevators, plumbing fixtures, etc., are subject to inspection at the Work site only. Special items of equipment such as designed electrical panel boards, large pumps, sewage plant equipment, etc., are subject to inspection at the source, normally only for performance testing. The Specifications may require inspection at the source for other items not typical of those listed in this section.

4-1.3.2 Inspection of Materials Not Locally Produced. When the Contractor intends to purchase materials, fabricated products, or equipment from sources located more than 80 km (50 miles) outside the geographical limits of the Agency, an inspector or accredited testing laboratory (approved by the Engineer), shall be engaged by the Contractor at its expense, to inspect the materials, equipment or process. This approval shall be obtained before producing any material or equipment. The inspector or representative of the testing laboratory shall evaluate the materials for conformance with the Plans and Specifications. The Contractor shall forward reports required by the Engineer. No materials or equipment shall be shipped nor shall any processing, fabrication or treatment of such materials be done without proper inspection by the approved agent. Approval by said agent shall not relieve the Contractor of responsibility for complying with the Contract requirements.

4-1.3.3 Inspection by the Agency. The Agency will provide all inspection and testing laboratory services within 80 km (50 miles) of the geographical limits of the Agency.

4-1.3.4 Certificates of Compliance. The Engineer may require certificates of compliance with the Specifications for materials or manufactured items produced outside of the Work site. Such certificates will not relieve the Contractor from the requirements of providing material and manufactured items complying with the Specifications even though they have been incorporated into the Work.

4-1.4 Tests of Materials. Before incorporation in the Work, the Contractor shall submit samples of materials, as the Engineer may require, at no cost to the Agency. The Contractor, at its own expense, shall deliver the materials for testing to the place and at the time designated by the Engineer. Unless otherwise provided, all initial testing and a reasonable amount of retesting shall be performed under the direction of the Engineer, and at no expense to the Contractor. If the Contractor is to provide and pay for testing, the Specifications will so state.

The Contractor shall notify the Engineer in writing, at least 15 Days in advance, of its intention to use materials for which tests are specified, to allow sufficient time to perform the tests. The notice shall name the proposed supplier and source of material.

If the notice of intent to use is sent before the materials are available for testing or inspection, or is sent so far in advance that the materials on hand at the time will not last but will be replaced by a new lot prior to use on the Work, it will be the Contractor's responsibility to re-notify the Engineer when samples which are representative may be obtained.

4-1.5 Certification. The Engineer may waive materials testing requirements of the Specifications and accept the manufacturer's written certification that the materials to be supplied meet those requirements. Materials test data may be required as part of the certification.

4-1.6 Trade Names or Equals. The Contractor may supply any of the materials specified or offer an equivalent. The Engineer shall determine whether the material offered is equivalent to that specified. Adequate time shall be allowed for the Engineer to make this determination.

Whenever any particular material, process, or equipment is indicated by patent, proprietary or brand name, or by name of manufacturer, such wording is used for the purpose of facilitating its description and shall be deemed to be followed by the words **or equal**. A listing of materials is not intended to be comprehensive, or in order of preference. The Contractor may offer any material, process, or equipment considered to be equivalent to that indicated. The substantiation of offers shall be submitted as provided in the Contract Documents.

The Contractor shall, at its expense, furnish data concerning items offered by it as equivalent to those specified. The Contractor shall have the material tested as required by the Engineer to determine that the quality, strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, service, and suitability are such that the item will fulfill its intended function.

Test methods shall be subject to the approval of the Engineer. Test results shall be reported promptly to the Engineer, who will evaluate the results and determine if the substitute item is equivalent. The Engineer's findings shall be final. Installation and use of a substitute item shall not be made until approved by the Engineer.

If a substitute offered by the Contractor is not found to be equal to the specified material, the Contractor shall furnish and install the specified material.

The specified Contract completion time shall not be affected by any circumstance developing from the provisions of this section.

4-1.6.1 Compatibility with Design. Where the size, configuration, weight, fastening locations, fastening strength, utility rough-in locations, and utility capacities of equipment or devices offered by the Contractor as equivalents do not conform to those provided for in the Contract Documents or those which are necessary for equipment or devices indicated by brand names, the Contractor shall bear all costs of redesign and changes in construction necessary to adapt the offered equipment or device to the Work.

Equipment or devices will not be considered "equal" where the life cycle cost of operation, utilities and maintenance of the offered alternate is greater than those listed by brand names. Life cycle costs shall mean utility charges (demand and usage charges), maintenance, operating personnel and replacement (equipment, installation and down time expenses) all reduced to an average annual rate using the current interest rate earned on funds invested by the County Treasurer.

4-1.6.2 Trade Names Listed. Where the Agency has listed products by brand or trade name on the Plans or in the Specifications, or both, this shall not be construed as meaning every product may be used without furnishing shop drawings, without redesign of the facility or without a change in utility rough-in requirements.

Where use of products listed on the Plans or in the Specifications, or both, or where use of a substitute proposed as an "equal" product requires shop drawings, redesign of the facility, or revisions in the size and location of rough-in utility connections, or in connecting work, the Contractor shall provide any necessary shop drawings, or shall cause the preparation of any necessary redesign or revisions to the Plans at its own expense and shall bear the full cost of any necessary additional construction or reconstruction work. No work described in shop drawings, a redesign, or a revision to the Plans shall be undertaken until such shop drawings, redesign, or revisions have been approved by the Engineer. Any proposed redesign or revision to the Plans shall be accompanied by complete computations and details prepared by an appropriate licensed design professional.

4-1.7 Weighing Equipment. All scales used for proportioning materials shall be inspected for accuracy and certified within the past 12 months by the State of California Bureau of Weights and Measures, by the County Director or Sealer of Weights and Measures, or by a scale mechanic registered with or licensed by the County.

The accuracy of the work of a scale service agency, except as stated herein, shall meet the standards of the California Business and Professions Code and the California Code of Regulations pertaining to weighing devices. A certificate of compliance shall be presented, prior to operation, to the Engineer for approval and shall be renewed whenever required by the Engineer at no cost to the Agency.

All scales shall be arranged so they may be read easily from the operator's platform or area. They shall indicate the true net weight without the application of any factor. The figures of the scales shall be clearly legible. Scales shall be accurate to within 1 percent when tested with the plant shut down. Weighing equipment shall be so insulated against vibration or moving of other operating equipment in the plant area that the error in weighing with the entire plant running will not exceed 2 percent for any setting nor 1.5 percent for any batch.

4-1.8 Calibration of Testing Equipment. Testing equipment, such as, but not limited to, pressure gages, metering devices, hydraulic systems, force (load) measuring instruments, and strain-measuring devices shall be calibrated by a testing agency acceptable to the Engineer at intervals not to exceed 12 months and following repairs, modification, or relocation of the equipment. Calibration certificates shall be provided when requested by the Engineer.

SECTION 5 - UTILITIES

5-1 LOCATION. The Permittee (in the case of Private Contracts) and the Agency (in the case of Cash or Assessment Act Contracts), will search known substructure records and furnish the Contractor with copies of documents which describe the location of utility substructures, or will indicate on the Plans for the project those substructures (except for service connections) which may affect the Work. Information regarding removal, relocation, abandonment, or installation of new utilities will be furnished to prospective bidders.

Where underground main distribution conduits such as water, gas, sewer, electric power, telephone, or cable television are shown on the Plans, the Contractor shall assume that every property parcel will be served by a service connection for each type of utility.

As provided in Section 4216 of the California Government Code, at least 2 working days prior to commencing any excavation, the Contractor shall contact the regional notification center (Underground Service Alert of Southern California) and obtain an inquiry identification number.

The California Department of Transportation is not required by Section 4216 to become a member of the regional notification center. The Contractor shall contact it for location of its subsurface installations.

The Contractor shall determine the location and depth of all utilities, including service connections, which have been marked by the respective owners and which may affect or be affected by its operations. If no pay item is provided in the Contract for this work, full compensation for such work shall be considered as included in the prices bid for other items of work.

5-2 PROTECTION. The Contractor shall not interrupt the service function or disturb the support of any utility without authority from the owner or order from the Agency. All valves, switches, vaults, and meters shall be maintained readily accessible for emergency shutoff.

Where protection is required to ensure support of utilities located as shown on the Plans or in accordance with 5-1, the Contractor shall, unless otherwise provided, furnish and place the necessary protection at its expense.

Upon learning of the existence and location of any utility omitted from or shown incorrectly on the Plans, the Contractor shall immediately notify the Engineer in writing. When authorized by the Engineer, support or protection of the utility will be paid for as provided in 3-2.2.3 or 3-3.

The Contractor shall immediately notify the Engineer and the utility owner if any utility is disturbed or damaged. The Contractor shall bear the costs of repair or replacement of any utility damaged if located as noted in 5-1.

When placing concrete around or contiguous to any non-metallic utility installation, the Contractor shall at its expense:

1. Furnish and install a 50 mm (2 inch) cushion of expansion joint material or other similar resilient material; or
2. Provide a sleeve or other opening which will result in a 50 mm (2 inch) minimum-clear annular space between the concrete and the utility; or
3. Provide other acceptable means to prevent embedment in or bonding to the concrete.

Where concrete is used for backfill or for structures which would result in embedment, or partial embedment, of a metallic utility installation; or where the coating, bedding or other cathodic protection system is exposed or damaged by the Contractor's operations, the Contractor shall notify the Engineer and arrange to secure the advice of the affected utility owner regarding the procedures required to maintain or restore the integrity of the system.

5-3 REMOVAL. Unless otherwise specified, the Contractor shall remove all interfering portions of utilities shown on the Plans or indicated in the Bid documents as "abandoned" or "to be abandoned in place". Before starting removal operations, the Contractor shall ascertain from the Agency whether the abandonment is complete, and the costs involved in the removal and disposal shall be included in the Bid for the items of work necessitating such removals.

5-4 RELOCATION. When feasible, the owners responsible for utilities within the area affected by the Work will complete their necessary installations, relocations, repairs, or replacements before commencement of work by the Contractor. When the Plans or Specifications indicate that a utility installation is to be relocated, altered, or constructed by others, the Agency will conduct all negotiations with the owners and work will be done at no cost to the Contractor, except as provided in 301-1.6. Utilities which are relocated in order to avoid interference shall be protected in their position and the cost of such protection shall be included in the Bid for the items of work necessitating such relocation.

After award of the Contract, portions of utilities which are found to interfere with the Work will be relocated, altered or reconstructed by the owners, or the Engineer may order changes in the Work to avoid interference. Such changes will be paid for in accordance with 3-2.

When the Plans or Specifications provide for the Contractor to alter, relocate, or reconstruct a utility, all costs for such work shall be included in the Bid for the items of work necessitating such work. Temporary or permanent relocation or alteration of utilities requested by the Contractor for its convenience shall be its responsibility and it shall make all arrangements and bear all costs.

The utility owner will relocate service connections as necessary within the limits of the Work or within temporary construction or slope easements. When directed by the Engineer, the Contractor shall arrange for the relocation of service connections as necessary between the meter and property line, or between a meter and the limits of temporary construction or slope easements. The relocation of such service connections will be paid for in accordance with provisions of 3-3. Payment will include the restoration of all existing improvements which may be affected thereby. The Contractor may agree with the owner of any utility to disconnect and reconnect interfering service connections. The Agency will not be involved in any such agreement.

5-5 DELAYS. The Contractor shall notify the Engineer of its construction schedule insofar as it affects the protection, removal, or relocation of utilities. Said notification shall be included as a part of the construction schedule required in 6-1. The Contractor shall notify the Engineer in writing of any subsequent changes in the construction schedule which will affect the time available for protection, removal, or relocation of utilities.

The Contractor will not be entitled to damages or additional payment for delays attributable to utility relocations or alterations if correctly located, noted, and completed in accordance with 5-1.

The Contractor may be given an extension of time for unforeseen delays attributable to unreasonably protracted interference by utilities in performing work correctly shown on the Plans.

The Agency will assume responsibility for the timely removal, relocation, or protection of existing main or trunkline utility facilities within the area affected by the Work if such utilities are not identified in the Contract Documents. The Contractor will not be assessed liquidated damages for any delay caused by failure of Agency to provide for the timely removal, relocation, or protection of such existing facilities.

If the Contractor sustains loss due to delays attributable to interferences, relocations, or alterations not covered by 5-1, which could not have been avoided by the judicious handling of forces, equipment, or plant, there shall be paid to the Contractor such amount as the Engineer may find to be fair and reasonable compensation for such part of the Contractor's actual loss as was unavoidable and the Contractor may be granted an extension of time.

5-5.1 Cooperation During Utility Relocation. When utilities are to be relocated during construction, the Contractor shall cooperate and coordinate with the respective utility owners so they may relocate their facilities to clear the Work. Delays in relocation of utilities which result from failure to cooperate and coordinate will not be a cause for an extension of time or Non-Working Days.

5-6 COOPERATION. When necessary, the Contractor shall so conduct its operations as to permit access to the Work site and provide time for utility work to be accomplished during the progress of the Work.

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK.

The requirements of this section concerning submission of construction schedules shall not apply to projects where the time allowed to complete the Work is less than 25 Working Days or the total Contract Price bid is less than \$75,000 unless required by the special provisions.

The Contractor shall submit a construction schedule concurrently with the submittal of signed Contract, Contract bonds, and certificate of insurance. The Notice to Proceed will be delayed until the schedule is received. See 6-7.4, Starting of Contract Time.

When required by the Special Provisions, a revised schedule shall be submitted monthly prior to each progress payment closure date. Processing of the progress payment will be delayed until such revised schedule complying with this section is received.

The construction schedule shall be in the form of a Construction Element vs. Time Chart as shown in Appendix B-1 and a Work Complete vs. Time Chart as shown in Appendix B-2.

The B-1 Chart shall be in sufficient detail to show the chronological relationship of all activities of the project including, but not limited to, estimated starting and completion dates of various activities, submittal of shop drawings to the Engineer for approval, procurement of materials, and scheduling of equipment. The B-1 Chart shall recognize the requirements of 5-5. The B-1 Chart shall reflect obtaining all materials and completing all Work under the Contract within the specified time and in accordance with these Specifications. If the Contractor intends to complete the Work prior to the time for completion, the intended date of completion shall be set forth in the B-1 Chart and the Contractor shall execute a Contract Change Order that changes the number of Working Days allowed for completion to conform with such intended completion date. The Change Order shall not change the Contract Price.

The Contractor may submit a computer generated schedule in lieu of the form in Appendix B-1 and B-2, provided all of the elements shown on that form or specified herein are included.

An updated construction schedule shall be submitted prior to the next progress payment closure date whenever the actual percent Work complete versus percent time elapsed curve falls below and to the right of the dotted line shown on Appendix B-2.

If the Contractor desires to make a major change in its method of operations after commencing construction, or if its schedule fails to reflect the actual progress, it shall submit to the Agency a revised construction schedule in advance of beginning revised operations.

Revised and updated schedules shall show actual completion to the date of the revision in the lower segmented bar for each item.

The construction schedule shall be prepared as follows (see examples in Appendices C-1 and C-2):

1. On the B-1 Chart:

- a. Enter the project name and Specification No. as shown on the notice inviting bids and the Contractors name.
- b. List the items of Work either individually or combined where items are part of the same element of the Work.
- c. Assign a value for each horizontal space plotting interval in Working Days as follows: 1 working day for total Contract time of less than 100 working days, 2 for 100 to 200 working days and 5 for longer projects. Enter the value used in the space provided in the lower part of the form.
- d. At the end of performance time and draw a vertical line and label it "End Performance Time". Enter numbers at 10 times the plotting interval at the top of intermediate vertical lines.
- e. Shade in a bar in the upper segmented section for each work item to indicate the period during which Work will be performed. Move-in time and delivery time for materials shall be shown if significant to the schedule.

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK. (Continued)

2. On the B-2 Chart:

- a. Enter the project name and Specification No. as shown on the notice inviting bids.
- b. At time intervals of 10 or 20 working days:
 - (1) Compute the cumulative dollar value of Work which is expected to be completed for each item of Work, including the value of the completed portion of lump-sum items.
 - (2) Divide the values computed in "b(1)" by the Total Contract Price to determine the percentage of the entire Contract planned for completion at the end of each time interval.
 - (3) Divide the days of performance time at the end of each time interval by the total Contract performance time to obtain the percentage of elapsed performance time.
- c. Plot each percentage of completion value figure computed in "b(2)" against the corresponding percentage of completion time computed in "b(3)" using scales on the bottom and left side of chart.
- d. Connect points plotted in "c" with a line which will show the planned progress for the entire job.

If the proposed percent Work complete versus percent time elapsed line falls below and to the right of the dotted line drawn on the B-2 Chart, the Contractor shall provide sufficient information and backup to show that the Work can be completed on time.

6-1.1 Beginning of Work. The issuance of Notice to Proceed by Agency shall constitute the Contractor's authority to enter upon the site of the Work and to begin operations provided it has also notified Engineer at least 24 hours in advance. Entry upon the site without authority will be treated as trespassing.

6-1.2 Starting Work. The Contractor may start work at any time after the Notice to Proceed is issued but work shall begin within 15 Days after the starting date for the Contract, or at such other time as may be indicated in the Special Provisions. The actual date on which the Contractor starts work will not affect the required time for completion as provided for in 6-7 and 6-7.1.

6-1.3 Work Sequence. If required by the Special Provisions, the Contractor shall start construction operations on that part of the Work designated by the Engineer.

6-1.4 Resources Required. The Work shall be conducted in such a manner and with sufficient materials, equipment, and labor to insure its completion in accordance with the Plans and Specifications within the time set forth in the Contract.

6-2 PROSECUTION OF WORK. To minimize public inconvenience and possible hazard and to restore streets and other Work areas to their original condition and former state of usefulness as soon as practicable, the Contractor shall diligently prosecute the Work to completion. If, in the Engineer's opinion, the Contractor fails to prosecute the Work to the extent that the above purposes are not being accomplished, the Contractor shall, upon orders from the Engineer, immediately take the steps necessary to fully accomplish said purposes. All costs of prosecuting the Work as described herein shall be absorbed in the Contractor's bid. Should the Contractor fail to take the necessary steps to fully accomplish said purposes, after orders of the Engineer to do so, the Engineer may suspend the Work in whole or in part, until the Contractor takes said steps.

As soon as possible under the provisions of these Specifications, the Contractor shall backfill all excavations and restore to usefulness all improvements existing prior to the start of the Work.

If Work is suspended through no fault of the Agency, all expenses and losses incurred by the Contractor during such suspensions shall be borne by the Contractor. If the Contractor fails to properly provide for public safety, traffic, and protection of the Work during periods of suspension, the Agency may elect to do so, and deduct the cost thereof from monies due the Contractor. Such action will not relieve the Contractor from liability.

6-3 SUSPENSION OF WORK

6-3.1 General. The Work may be suspended in whole or in part when determined by the Engineer that the suspension is necessary in the interest of the Agency. The Contractor shall comply immediately with any written order of the Engineer. Such suspension shall be without liability to the Contractor on the part of the Agency except as otherwise specified in 6-6.3.

6-3.2 Archaeological and Paleontological Discoveries. If discovery is made of items of archaeological or paleontological interest, the Contractor shall immediately cease excavation in the area of discovery and shall not continue until ordered by the Engineer. When resumed, excavation operations within the area of discovery shall be as directed by the Engineer.

Discoveries which may be encountered may include, but not be limited to, dwelling sites, stone implements or other artifacts, animal bones, human bones and fossils.

The Contractor shall be entitled to an extension of time and compensation in accordance with the provisions of 6-6.

6-3.3 Temporary Suspension of Work. Should suspension of Work be ordered by reason of the failure of the Contractor to carry out orders or to perform any provisions of the Contract; or by reason of weather conditions being unsuitable for performing any item or items of Work; the Contractor, at its expense, shall do all the work necessary to provide a safe, smooth, and unobstructed passageway through construction for use by public traffic during the period of such suspension. In the event that the Contractor fails to perform the work above specified, the Agency may perform such work and the cost thereof will be deducted from monies due or to become due the Contractor.

If the Engineer orders a suspension of all of the Work, or a portion of the Work which is the current controlling operation or operations, due to unsuitable weather or to such other conditions as are considered unfavorable to the suitable prosecution of the Work, the days on which the suspension is in effect shall not be considered Working Days.

If a portion of Work at the time of such suspension is not a current controlling operation or operations, but subsequently does become the current controlling operation or operations, the determination of Working Days will be made on the basis of the then current controlling operation or operations.

If a suspension of Work is ordered by the Engineer due to the failure on the part of the Contractor to carry out orders given or to perform any provision of the Contract, the Days on which the suspension order is in effect shall be considered Working Days if such days are Working Days as defined.

6-4 TERMINATION OF THE CONTRACT FOR DEFAULT..

6.4.1 General. If, prior to the acceptance of the Work, the Contractor:

- a) becomes insolvent, assigns its assets for the benefit of its creditors, is unable to pay its debts as they become due, or is otherwise financially unable to complete the Work,
- b) abandons the Work by failing to report to the Work site and diligently prosecute the Work to completion,
- c) disregards written instructions from the Agency or materially violates provisions of the Contract Documents,
- d) fails to prosecute the Work according to the schedule approved by the Engineer,
- e) disregards laws or regulations of any public body having jurisdiction, or
- f) commits continuous or repeated violations of regulatory or statutory safety requirements, then the Agency will consider the Contractor in default of the Contract.

Notices, and other written communications regarding default between the Contractor, the Agency, and the Surety shall be transmitted in accordance with 2-12.

6-4.2 Notice to Cure. The Agency will issue a written notice to cure the default to the Contractor and its Surety. The Contractor shall commence satisfactory corrective actions within 5 Working Days after receipt.

6-4.3 Notice of Termination for Default. If the Contractor fails to commence satisfactory corrective action within 5 Working Days after receipt of the notice to cure, or to diligently continue satisfactory and timely correction of the default thereafter, then the Agency will consider the Contractor in default of the Contract and:

- a) will terminate the Contractor's right to perform under the Contract by issuing a written notice of termination for default to the Contractor and its Surety,
- b) may use any materials, equipment, tools or other facilities furnished by the Contractor to secure and maintain the Work site, and
- c) may furnish labor, equipment, and materials the Agency deems necessary to secure and maintain the Work site. The provisions of this subsection shall be in addition to all other legal rights and remedies available to the Agency.

6-4.4 Responsibilities of the Surety. Upon receipt of the written notice of termination for default, the Surety shall immediately assume all rights, obligations and liabilities of the Contractor under the Contract. If the Surety fails to protect and maintain the Work site, the Agency may do so, and may recover all costs incurred. The Surety shall notify the Agency that it is assuming all rights, obligations and liabilities of the Contractor under the Contract and all money that is due, or would become due, to the Contractor shall be payable to the Surety as the Work progresses, subject to the terms of the Contract.

Within 15 Working Days of receipt of the written notice of termination for default, the Surety shall submit to the Agency a written plan detailing the course of action it intends to take to remedy the default. The Agency will review the plan and notify the Surety if the plan is satisfactory. If the Surety fails to submit a satisfactory plan, or if the Surety fails to maintain progress according to the plan accepted by the Agency, the Agency may, upon 48 hours written notice, exclude the Surety from the premises, take possession of all material and equipment, and complete the Work in any way the Agency deems to be expedient. The cost of completing the Work by the Agency shall be charged against the Surety and may be deducted from any monies due, or which would become due, the Surety. If the amounts due under the Contract are insufficient for completion, the Surety shall pay to the Agency, within 30 days after the Agency submits an invoice, all costs in excess of the remaining Contract Price.

6-4.5 Payment. The Surety will be paid for completion of the Work in accordance with 9-3 less the value of damages caused to the Agency by acts of the Contractor.

6-5 TERMINATION OF CONTRACT. The Board may terminate the Contract at its own discretion or when conditions encountered during the Work make it impossible or impracticable to proceed, or when the Agency is prevented from proceeding with the Contract by act of God, by law, or by official action of a public authority.

The Agency will issue a written notice of termination for convenience in accordance with 2-12. Upon receipt, the Contractor shall immediately cease work, except work the Contractor is directed to complete by the Engineer or required to complete for public safety and convenience. The Contractor shall immediately notify Subcontractors and suppliers to immediately cease their work.

The Contractor will be paid without duplication for:

- a) work completed in accordance with the Contract Documents prior to the effective date of termination for convenience;
- b) reasonable costs incurred in settlement of terminated contracts with Subcontractors, suppliers and others; and
- c) reasonable expenses directly attributable to termination.

The Contractor shall submit a final termination settlement proposal to the Agency no later than 90 days from the effective date of termination, unless extended, in writing, by the Agency upon written request by the Contractor.

If the Contractor fails to submit a proposal, the Agency may determine the amount, if any, due the Contractor as a result of the termination. The Agency will pay the Contractor the amount it determines to be reasonable. If the Contractor disagrees with the amount determined by the Agency as being reasonable, the Contractor shall provide notice to the Agency within 30 days of receipt of payment. Any amount due shall be as later determined by arbitration, if the Agency and the Contractor agree thereto, or as fixed in a court of law.

6-6 DELAYS AND EXTENSIONS OF TIME

6-6.1 General. If delays are caused by unforeseen events beyond the control of the Contractor, such delays will entitle the Contractor to an extension of time as provided herein, but the Contractor will not be entitled to damages or additional payment due to such delays, except as provided in 6-6.3. Such unforeseen events may include war, government regulations, labor disputes, strikes, fires, floods, adverse weather necessitating cessation of work, other similar action of the elements, inability to obtain materials, equipment or labor, required Extra Work, or other specific events as may be further described in the Specifications.

No extension of time will be granted for a delay caused by the Contractor's inability to obtain materials unless the Contractor furnishes to the Engineer documentary proof of the inability to obtain such materials in a timely manner in accordance with the sequence of the Contractor's operations and the approved construction schedule.

If delays beyond the Contractor's control are caused by events other than those mentioned above, but substantially equal in gravity to those enumerated, and an extension of time is deemed by the Engineer to be in the best interests of the Agency, an extension of time may be granted, but the Contractor will not be entitled to damages or additional payment due to such delays, except as provided in 6-6.3.

If delays beyond the Contractor's control are caused solely by action or inaction by the Agency, such delays will entitle the Contractor to an extension of time as provided in 6-6.2.

6-6.2 Extensions of Time. Extensions of time, when granted, will be based upon the effect of delays to the Work as a whole and will not be granted for noncontrolling delays to minor included portions of Work unless it can be shown that such delays did, in fact, delay the progress of the Work as a whole.

6-6.3 Payment for Delays to Contractor. The Contractor will be compensated for damages incurred due to delays for which the Agency is responsible if such delays are unreasonable in the circumstances involved and were not within the contemplation of the parties when the Contract was awarded to the Contractor and delay the Work as a whole. Such actual costs will be determined by the Engineer. The Agency will not be liable for, and in making this determination the Engineer will exclude, all damages which the Engineer determines the Contractor could have avoided by any reasonable means including, without limitation, the judicious handling of forces, equipment, or plant.

6-6.4 Written Notice and Report. If the Contractor desires payment for a delay as specified in 6-6.3 or an extension of time, it shall, within 30 Days after the beginning of the delay, file with the Agency a written request and report as to the cause and extent of the delay. The request for payment or extension must be made at least 15 Days before the specified completion date. Failure by the Contractor to file these items within the time specified will be considered grounds for refusal by the Agency to consider such request.

6-6.4.1 Documentation of Delays. When the Contractor requests an extension of time for delay due to inability to obtain materials or equipment, the documentary proof required by 6-6.1 shall include the following:

1. Date Engineer was notified of delay.
2. Date the delay began.
3. Exact description of material or equipment causing delay.
4. Documentation showing when and from whom ordered.
5. Documentation of promise to deliver.
6. Documentation of actual delivery date.
7. Description of how late delivery caused delay (include construction schedule).
8. Documentation of measures taken to get prompt delivery.
9. Documentation of attempts to get delivery from other sources.
10. Description of steps taken in project scheduling to minimize effects of late delivery.
11. Description of steps taken to get project back on schedule after actual delivery.
12. Statement of actual time lost as a result of late delivery.

6-7 TIME OF COMPLETION

6-7.1 General. The Contractor shall complete the Work within the time set forth in the Contract. The Contractor shall complete each portion of the Work within such time as set forth in the Contract for such portion. Unless otherwise specified, the time of completion of the Contract shall be expressed in Working Day

6-7.2 Working Day. A Working Day is any day within the period between the start of the Contract time as defined in 6-1 and the date provided in the Contract for completion or upon field acceptance by the Engineer of all Work provided for in the Contract, whichever occurs first, other than:

- (1) Saturday,
- (2) Sunday,
- (3) any day designated as a holiday by the Agency,
- (4) any other day designated as a holiday in a Master Labor Agreement entered into by the Contractor or on behalf of the Contractor as an eligible member of a Contractor Association,
- (5) any day the Contractor is prevented from working at the beginning of the workday for cause as defined in 6-6.1,
- (6) any day the Contractor is prevented from working during the first 5 hours of the workday with at least 60 percent of the normal work force for cause as defined in 6-6.1.

6-7.2.1 Holidays. Solely for the purposes of paragraph (3) of 6-7.2, the following days are designated as holidays by the Agency.

	A	B
<u>MONTH</u>	<u>AGENCY EMPLOYEE HOLIDAYS</u>	<u>OTHER DESIGNATED HOLIDAYS</u>
January	1st day; 3rd Monday	None
February.....	3rd Monday	12th day
March.....	None.....	31st day
March-April	None.....	One Friday between March 21 and April 23 designated as Good Friday
May	Last Monday.....	None
June	None.....	None
July.....	4th day.....	None
August.....	None.....	None
September	1st Monday.....	9th day
October	None.....	2nd Monday
November	11 th day; 4th Thursday.....	the Friday following the 4th Thursday
December	25th	23rd day, only if Thursday or Friday; 24th day; 31st day

If any day listed above falls on Saturday, the preceding Friday is the holiday. If any day listed above falls on Sunday, the succeeding Monday is the holiday.

No extra holiday shall result when such Friday or Monday is already designated as a holiday.

A copy of a Working Day calendar incorporating the above-listed holidays and used by the Agency for Contract time accounting purpose will be furnished to the Contractor upon request.

The term "holiday" as used in this section shall not be construed as being the same as "holiday" within the meaning of 7-2.2.

The Contractor may perform work on the holidays designated in Column A above provided it has obtained prior written approval of the Engineer at least two Days in advance of performing the work. The Contractor may perform work on the holidays designated in Column B above provided the Contractor notifies the Engineer two Days in advance of the holiday.

6-7.2.2 Landscape Maintenance Period. Where a landscape maintenance period is specified, the portion of the time in such period that follows the completion of all other Work required by the Contract shall not be Working Days for Contract time accounting.

6-7.3 Contract Time Accounting. The Engineer will make a daily determination of each Working Day to be charged against the Contract time. These determinations will be discussed and the Contractor will be furnished a periodic statement showing the allowable number of Working Days of Contract time, as adjusted, at the beginning of the reporting period. The statement will also indicate the number of Working Days charged during the reporting period and the number of Working Days of Contract time remaining. If the Contractor does not agree with the statement, the Contractor must file a written protest within 15 Days after receipt, setting forth the facts of the protest. Otherwise, the statement will be deemed to have been accepted.

6-7.4 Starting Date for Contract Time and Notice to Proceed. The starting date for Contract time accounting will be determined by adding the number of Days indicated on the Proposal form to the date the Contract is awarded, however the Agency may, at its option, delay the starting date by not more than 60 calendar Days if necessary to obtain permits, rights-of-way, or approval of federal or State authorities, or when prevented from starting the project due to causes beyond its control. Notice to Proceed will be issued within 7 calendar Days after the Contract, bonds, certificates of insurance and other documents have been returned, properly completed by the Contractor, unless the starting date is delayed as herein provided. If the Agency delays the Contract starting date, Notice to Proceed will be issued at least 7 calendar Days prior to the new starting date. Any delay caused by failure of the Contractor to properly complete or timely return the Contract Documents shall not change the Contract starting date and shall not be a cause for extending the Contract time. The Notice of Award will indicate a probable Contract starting date. The Notice to Proceed will indicate the actual Contract starting date, computed as herein described.

6-8 COMPLETION, ACCEPTANCE AND WARRANTY.

6-8.1 Completion and Acceptance. Acknowledgment of completion of the Work will occur prior to Acceptance by the Agency. Acceptance will only occur after all Contract requirements have been fulfilled, such as training, submission of warranties, maintenance manuals, record drawings, Release on Contract and the like. Acceptance by the Agency will occur when the Engineer signs the Notice of Completion. The Work will be inspected by the Engineer promptly upon receipt of the Contractor's written assertion that the Work has been completed. If, in the Engineer's judgment, the Work has been completed in accordance with the Plans and Specifications, the Engineer will acknowledge completion of the Work. Completion of the Work, as used above, shall include the Contractor showing evidence of having received an occupancy clearance from Building and Safety, or other permit issuing agency, when a building, plumbing electrical, grading, or other permit is required for the Work. The Engineer will, in acknowledging completion of the Work, set forth in writing the date when the Work was completed. This will be the date when the Contractor is relieved from responsibility to protect the Work. This will also be the date to which liquidated damages will be computed.

6-8.2 Warranty and Correction

6-8.2.1 Warranty The Contractor warrants to the Agency that materials and equipment furnished under the Contract will be new, unless otherwise specified in the Contract Documents, and of good quality, that the Work will be free from defects in materials and workmanship and that the Work will conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective by the Agency. This warranty excludes damage or defect caused by abuse (other than by the Contractor or those under the control of the Contractor), modifications not executed by the Contractor, or improper or insufficient maintenance. This warranty excludes normal wear and tear. Nothing in this warranty is intended to limit any manufacturer's warranty which provides the Agency with greater warranty rights.

6-8.2.2 Correction Period For a period of one (1) year from the date of acceptance of the Work by the Agency, the Contractor shall repair or replace any defective workmanship or materials or Work not in conformance with the Contract Documents after notice to do so from the Engineer, and within the time specified in the notice. If the Contractor fails to make such repair or replacement within the time specified in the notice, the Agency may perform the repair or replacement and the Contractor and the Contractor's sureties shall be liable for the cost thereof. The one (1) year period referenced in this section 6-8.2.2 applies only to the Contractor's obligation to repair or replace defective workmanship or materials or Work not in conformance with the Contract Documents and is not intended to constitute a period of limitations for any other rights or remedies the Agency may have regarding the Contractor's other obligations under the Contract Documents.

6-8.3 No Waiver of Legal Rights. The Agency shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and Acceptance of the Work and payment therefor from showing the true amount and character of the Work performed and materials furnished by the Contractor, nor from showing that any such measurement, estimate, or certificate is untrue or is incorrectly made, nor that the Work or materials do not in fact conform to the Contract.

The Agency shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor or its sureties, or both, such damages as it may sustain by reason of the Contractor's failure to comply with the terms of the Contract.

Neither the Acceptance by the Engineer or by its representative, nor any payment for or Acceptance of the whole or any part of the Work, nor any extension of time, nor any possession taken by the Engineer shall operate as a waiver of any portion of the Contract or of any power herein reserved, or of any right to damages.

A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

6-8.4 Landscape Maintenance Period. Final Acceptance of the Contract shall follow the satisfactory completion of all Contract Work, including the landscape maintenance period if one is specified.

6-8.5 Non-complying Work. Neither the final certificate of payment nor any provision in the Contract Documents, nor partial or entire occupancy of the premises by the Agency, shall constitute an Acceptance of Work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship.

6-8.6 Written Warranties. The Contractor shall obtain and deliver to the Engineer all written warranties required to be furnished by the Specifications. Each of such warranty shall be underwritten by the Contractor for the full period prescribed therein, and shall bear its endorsement to such effect.

6-9 LIQUIDATED DAMAGES. Failure of the Contractor to complete the Work within the time allowed will result in damages being sustained by the Agency. Such damages are, and will continue to be, impracticable and extremely difficult to determine. For each consecutive calendar day in excess of the time specified, as adjusted in accordance with 6-6, for completion of the Work the Contractor shall pay to the Agency, or have withheld from monies due it, the sum of \$250, unless otherwise provided in the Contract Documents.

Execution of the Contract under these Specifications shall constitute agreement by the Agency and Contractor that \$250 per day is the minimum value of the costs and actual damage caused by failure of the Contractor to complete the Work within the allotted time, that such sum is liquidated damages and shall not be construed as a penalty, and that such sum may be deducted from payments due the Contractor if such delay occurs.

6-10 USE OF IMPROVEMENT DURING CONSTRUCTION. The Agency reserves the right to take over and utilize all or part of any completed facility or appurtenance. The Contractor will be notified in writing in advance of such action. Such action by the Agency will relieve the Contractor of responsibility for injury or damage to said completed portions of the improvement resulting from use by public traffic or from the action of the elements or from any other cause, except injury or damage resulting from the Contractor's operations or negligence. The Contractor will not be required to reclean such portions of the improvement before field completion, except for cleanup made necessary by its operations. Nothing in this section shall be construed as relieving the Contractor from full responsibility for correcting defective work or materials.

In the event the Agency exercises its right to place into service and utilize all or part of any completed facility or appurtenance, the Agency shall assume the responsibility and liability for injury to persons or property arising out of or resulting from the utilization of the facility or appurtenance so placed into service, except for any willful or negligent act or omission by the Contractor, Subcontractor, their officers, employees or agents.

6-10.1 Use of Improvements - Exceptions. The provisions of 6-10 shall not apply to projects for the repair, modification, enlargement or improvement of existing facilities that are to remain in use during construction except where a portion of the project which is completely independent from the rest of the Work can be completed and put into use by the Agency.

On projects on public roads, after satisfactory completion of an isolated section of the Work involving roadway improvements or repairs, when all temporary signs and other temporary Contractor facilities have been removed, the section is not being used as a detour, the section is no longer under the Contractor's control, and the section is opened to public traffic through the end of the Contract period, that section of the Work shall be taken over by the Agency as provided in 6-10. The Contractor shall indicate to the Engineer in writing when the conditions of this paragraph have been complied with and shall specify the limits of the section involved. Any taking over of the Work by the Agency shall be effective only when formal written notification is issued by the Agency.

6-11 NOTICE OF POTENTIAL CLAIM FOR ADDITIONAL COMPENSATION. Procedures for notice of claims in specific situations and circumstances are provided in the following sections:

- 3-4 Changed Conditions
- 6-6.4 Delay and Extensions of Time
- 6-7.3 Contract Time Accounting

Compliance with this section is not prerequisite to assertion of a claim involving those sections or based on differences in measurements or errors of computation as to Contract quantities.

Compliance with the provisions of this section is required in all other situations and circumstances.

It is the intention of this section that differences arising between the parties under and by virtue of the Contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action taken to resolve such differences.

The Contractor shall give the Engineer written notice of a potential claim, setting forth: (1) the reasons for which the Contractor believes additional compensation will or may be due; (2) the nature of the costs involved; and (3) insofar as possible, the amount of the potential claim.

If the claim is based upon an act or failure to act by the Engineer, the said notice must be given to the Engineer prior to the date when the work giving rise to the potential claim is commenced; in all other cases the said notice must be given to the Engineer within 15 Days after the happening of the event, thing or occurrence giving rise to the potential claim.

The Contractor shall not be entitled to the payment of any additional compensation where the written notice of potential claim has not been given to the Engineer in the manner required by and within the time limitations of this section.

6-12 DISPUTES AND CLAIMS; PROCEDURE.

6-12.1 GENERAL. Any and all decisions made on appeal pursuant to this section shall be in writing. Any "decision" purportedly made pursuant to this section which is not in writing shall not be binding upon the Agency and should not be relied upon by the Contractor.

Filing or giving the notices required under 3-4, 6-6.4, 6-7.3 and 6-11 is prerequisite to recovery under a Contractor's claim for additional compensation; nothing in this section shall excuse the Contractor from its duty to file or give the required notices, or from performing other duties required by the Contract Documents.

6-12.2 ADMINISTRATIVE REVIEW. Prior to proceeding under 6-12.3 or filing a Complaint in Arbitration, the Contractor shall exhaust its administrative remedies by submitting its claim for review and decision by the following Agency staff in the following sequence:

Project Manager, responsible for the project
Department Director (Public Works Agency), responsible for the project.
Director of the Public Works Agency (the Engineer)

If the Contractor disputes the Project Manager's decision on its claim, the Contractor shall submit the claim to the Department Director. If the Contractor disputes the Department Director's decision on its claim, the Contractor shall submit the claim to the Engineer. Agency staff decisions shall state the portion of the claim that is undisputed if any.

The Project Manager may elect to forward a claim submitted by the Contractor directly to the Department Director. The Project Manager must give the Contractor notice of that election and the Contractor may supplement its claim within 7 Days of such notice (unless the parties agree in writing to a different time) and its claim will be deemed submitted on the earlier of the day it supplements its claim, the day it states in writing that it will not supplement its claim or the day time to supplement expires. The Department Director may forward a claim timely submitted by the Contractor directly to the Engineer instead of making a decision on the claim, in which case no notice or opportunity to supplement the claim is required, and the claim shall be deemed timely submitted to the Engineer.

The Engineer's decision on the claim shall be the Agency's final decision.

Claims submitted to the Department Director and the Engineer shall be submitted in writing and shall include:

- a. A copy of the disputed decision.
- b. A statement as to why the Contractor believes the decision is in error.
- c. All information, argument, documents and evidence (collectively, materials) that the Contractor wishes to have considered in the review. Where the request for review is made to the Engineer, in lieu of resubmitting materials which have already been submitted to the Department Director, the Contractor may include with the request a list of the materials the Contractor wants the Engineer to consider. Any additional materials and evidence not previously submitted to the Department Director shall be included with the request to the Engineer, if the Contractor wishes them to be considered. If relevant evidence is not available at the time the request is made to the Department Director or the Engineer, the Contractor shall identify such evidence and include a statement as to when such evidence will be submitted.

The Project Manager shall issue a decision on a claim within 10 Days of receipt; if the Project Manager does not do so, then the Project manager will be deemed to have decided to reject the claim in its entirety as of the conclusion of the 10th Day after receipt. The Contractor shall submit a claim to the Department Director for review and decision within 7 Days of receipt of the Project Manager's decision or of the time the Project Manager is deemed to have decided to reject the claim, whichever is applicable. The Department Director shall issue a decision on a claim within 10 Days of the timely submission of the claim; if the Department Director does not do so, then the Department Director will be deemed to have decided to reject the claim in its entirety as of the conclusion of the 10th Day after timely submission. The Contractor shall submit a claim to the Engineer for review and decision within 7 Days of receipt of the Department Director's decision or of the time the Department Director is deemed to have decided to reject the claim, whichever is applicable. If a claim is timely submitted to the Engineer and the Engineer fails to issue a decision on that claim within the time limits prescribed for issuing a written statement under Public Contract Code, section 9204, subdivision (d)(1), the Engineer shall be deemed to have decided to reject the claim in its entirety. At any time after the Project Manager receives a claim, the Agency and Contractor may agree in writing to different time limits than those set forth in this paragraph.

6-12.3 MEET AND CONFER; MEDIATION If the Contractor disputes the Agency's final decision, the Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the Agency shall schedule a meet and confer conference within 30 Days for settlement of the dispute.

Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the Agency shall provide the Contractor a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 Days after the Agency issues its written statement. Any disputed portion of the claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with the Agency and the Contractor sharing the associated costs equally. The Agency

and Contractor shall agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the Agency and Contractor cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

Failure by the Agency to meet the time requirements of this section shall result in the portion of the claim that remains in dispute being deemed rejected in its entirety.

The parties may agree to waive, in writing, mediation under this section.

6-12.4 ARBITRATION. Claims and disputes arising under or related to the performance of the Contract, for which mediation under 6-12.3 was waived or unsuccessful except for claims which have been released by execution of the "Release on Contract" as provided in 9-4, shall be resolved by arbitration unless the Agency and the Contractor agree in writing, after the claim or dispute has arisen, to waive arbitration and to have the claim or dispute litigated in a court of competent jurisdiction. Arbitration shall be pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2 of the Public Contract Code and the regulations promulgated thereto, Chapter 4 (commencing with Section 1300) of Division 2 of Title 1 of the California Code of Regulations. The arbitration decision shall be decided under and in accordance with California law, supported by substantial evidence and, in writing, contain the basis for the decision, findings of fact, and conclusions of law.

Arbitration shall be initiated by a Complaint in Arbitration made in compliance with the requirements of said Chapter 4. A Complaint in Arbitration by the Contractor shall be filed not later than 90 calendar Days after receipt of the final written decision of the Agency on the claim or dispute or within 300 Days after Acceptance of the Work by the Agency if no written decision has been issued. For the purposes of this section, "Acceptance of the Work by the Agency" shall be defined as the date the Notice of Completion is filed.

Where an election is made by either party to use the Simplified Claims Procedure provided under Sections 1340-1346 of said Chapter 4, the parties may mutually agree to waive representation by counsel.

All contracts valued at more than \$25,000 between the Contractor and its subcontractors and suppliers shall include a provision that the subcontractors and suppliers shall be bound to the Contractor to the same extent that the Contractor is bound to the Agency by all terms and provisions of the Contract, including this arbitration provision.

6-13 CONTRACTOR'S WORK HOURS

6-13.1 Working Hours Limitations. Except as otherwise specified, no work shall be performed by the Contractor at the Work site between the hours of 7:00 p.m. and 7:00 a.m. the following day, nor shall work be performed on Saturdays, Sundays or holidays listed in 6-7.2.1.

6-13.2 Regular Work Schedule. The Contractor shall furnish a work schedule with the Construction Schedule required by 6-1 and inform the Engineer at least two Days in advance of changing the schedule. The schedule shall include the times for starting and ending work on each day. Such starting and ending times shall not be more than 10 1/2 hours apart.

6-13.3 Exceptions. The limitations on working hours and days shall not apply to emergency work made necessary by unusual conditions where such work is necessary to protect the Work, to protect the property of others, to protect life, or to ensure the orderly flow of traffic.

The limitations of this section shall not apply where work at times other than allowed by 6-13.1 and 6-13.2 is necessary in order to make utility connections or is required by other provisions contained in these Specifications in order to perform the work in the manner specified. In these cases, the Contractor shall obtain prior written approval of the Engineer at least two Days in advance of performing the work.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES.

7-1.1 General. The Contractor shall furnish and maintain in good condition all equipment and facilities as required for the proper execution and inspection of the Work.

The Contractor shall provide and maintain enclosed toilets for the use of employees engaged in the Work. These accommodations shall be maintained in a neat and sanitary condition, and regularly pumped out.

7-1.2 Temporary Utility Services. The Contractor shall, at its own expense, make all arrangements necessary for the provision of temporary utility services necessary for its own use during performance of the Work.

The Contractor shall not draw water from any fire hydrant (except to extinguish a fire), without obtaining permission from the water utility owner.

7-1.3 Crushing and Screening Operations. Unless otherwise specified in the Special Provisions, the establishment and operation of portable screens and crushers will not be allowed on or adjacent to the Work site.

7-2 LABOR

7-2.1 General. The Contractor, its agents, and employees shall be bound by and comply with applicable provisions of the Labor Code and Federal, State, and local laws related to labor.

Any worker found by the Engineer to be incompetent, intemperate, troublesome, disorderly, or otherwise objectionable, or who fails to perform the Work properly and acceptably, shall be immediately removed from the Work site by the Contractor and shall not be reemployed in the performance on the Work.

7-2.1.1 Special Qualifications. Where the Engineer determines certain portions of the Work require experience, training, certification or other special qualifications that may not be possessed by the average journeyman, such portions of the Work will be specifically identified in the Special Provisions and the special qualifications identified.

When work requiring special qualifications is being performed, a person with such qualifications must be in immediate charge of the work. The person may be a lead journeyman, foreman or trade superintendent. The general superintendent or a foreman who is not specifically assigned to the area where the identified work is being performed will not be considered to be in immediate charge of the work.

Written certification of the required qualifications shall be furnished to the Engineer at least one week prior to the time work is commenced on the work requiring such qualifications. Such certification is subject to review and acceptance by the Engineer. If, during performance of work requiring special qualifications, the qualified person becomes temporarily or permanently unavailable to the Contractor, work shall not proceed until a qualified replacement has been accepted by the Engineer. The Engineer will promptly consider the certification of the replacement.

If identified work is performed without a person having the special qualifications in charge, the Engineer may, at its sole discretion, order such work removed and replaced at the Contractor's expense.

If, after certification is accepted, the Engineer finds that the certification was inaccurate, or work on the project indicates a lack of the knowledge and experience to supervise the work, the Engineer may order the work stopped until an acceptable replacement has been certified, accepted and is in charge.

7-2.2 Prevailing Wages. Pursuant to Section 1773.2 of the Labor Code, the current prevailing rate of per diem wages at the time of the Bid as determined by the Director of the Department of Industrial Relations (DIR) are on file at the office of the Engineer. The Contractor shall post a copy of these rates at the Work site. Pursuant to Section 1774 of the Labor Code, the Contractor and any Subcontractors shall pay not less than the specified prevailing rates of wages to workers employed on the Contract. If the Contract is Federally-funded, the Contractor and any Subcontractors shall not pay less than the higher of these rates or the rates determined by the United States Department of Labor. Pursuant to Section 1775 of the Labor Code, the Contractor and any Subcontractors, shall, as a penalty to the Agency, forfeit the prescribed amounts per calendar day, or portion thereof, for each worker paid less than the prevailing wage rates. The project is subject to the compliance monitoring and enforcement by the California Department of Industrial Relations (DIR). The contractor is responsible for posting job site notices as prescribed by regulation pursuant to Labor Code section 1771.4, subdivision (a)(2). The Contractor and each Subcontractor, if any, must be registered with the DIR pursuant to Labor Code section 1725.5 and section 1771.1. The Contractor and each Subcontractor, if any, must submit certified payrolls to the Labor Commissioner pursuant to Labor Code 1771.4.

7-2.2.1 Apprentices. Apprentices shall be employed on the Work in accordance with Labor Code Section 1777.5. The Contractor is responsible for compliance with Labor Code Section 1777.5 for all apprenticeable occupations whether employed directly or through subcontractors.

7-2.2.2 Contractors' Duties Concerning Labor Code Compliance. As required by Labor Code 1775(b)(1), Labor Code Sections 1771, 1775, 1776, 1777.5, 1813 and 1815 are required to be included in the contract between the Contractor and subcontractors. The Contractor agrees to comply with these sections and all remaining provisions of the Labor Code.

7-2.3 Payroll Records. Pursuant to Section 1776 of the Labor Code the Contractor and each Subcontractor, if any, shall keep, make available, and submit to the Engineer within ten (10) days of receipt of a written request,

certified payroll records. Pursuant to Labor Code section 1776, subsection (h), the Contractor and each Subcontractor, if any, shall, as a penalty to the Agency, forfeit the prescribed amount for each calendar day, or portion thereof, for each worker, the Contractor and each Subcontractor, if any, fails to comply with that subsection until strict compliance is effectuated. The Contractor and each Subcontractor, if any, waives any right to any notice or hearing on the forfeiture of such penalties pursuant to Labor Code sections 1726 or 1771.6. The contractor shall include the in its subcontracts as required to make this paragraph effective as to each Subcontractor. Upon written request, the Contractor shall withhold penalties forfeited by a Subcontractor pursuant to Labor Code section 1776, subsection (h), and this paragraph from payment due to such Subcontractor and remit such penalties withheld to the Agency.

7-2.4 Hours of Labor. Pursuant to Section 1810 of the Labor Code, 8 hours of labor shall constitute a legal day's work. Pursuant to Section 1813 of the Labor Code, the Contractor and any Subcontractors, shall, as a penalty to the Agency, forfeit the prescribed amount per calendar day for each worker required or permitted to work more than 8 hours in any 1 calendar day and 40 hours in any 1 calendar week without being compensated in accordance with Section 1815.

Pursuant to Section 1810 of the Labor Code, 8 hours of labor shall constitute a legal day's work. Pursuant to Section 1813 of the Labor Code, the Contractor and each Subcontractor, if any, shall, as a penalty to the Agency, forfeit the prescribed amount per calendar day for each worker required or permitted to work more than 8 hours in any 1 calendar day and 40 hours in any 1 calendar week without being compensated in accordance with Section 1815. Contractor and each Subcontractor, if any, waives any right to any notice or hearing on the forfeiture of such penalties pursuant to Labor Code sections 1726 and 1771.6. Contractor shall include terms in its subcontracts as required to make this paragraph effective as to each Subcontractor. Upon written request, Contractor shall withhold penalties forfeited by a Subcontractor pursuant to Labor Code section 1813 and this paragraph from payments due to such Subcontractor and remit such penalties withheld to the Agency

7-3 INDEPENDENCE OF CONTRACTOR, INDEMNIFICATION AND POLLUTION

7-3.1 Independence of Contractor. It is understood and agreed that Contractor is at all times an independent contractor and that no relationship of employer-employee exists between the parties hereto. Contractor will not be entitled to any benefits payable to employees of County, including but not limited to overtime, retirement benefits, workers' compensation benefits, injury leave or other leave benefits. County is not required to make any tax or benefit deductions from the compensation payable to Contractor under the provisions of this Agreement. As an independent contractor, Contractor hereby holds County harmless from any and all claims that may be made against County based upon any contention by any third party that an employer-employee relationship exists by reason of the Agreement.

If, in the performance of this Agreement, any third persons are employed by Contractor, such persons will be entirely and exclusively under the direction, supervision and control of Contractor. All terms of employment, including hours, wages, working conditions, discipline, hiring and discharging or any other terms of employment or requirements of law, will be determined by Contractor. County will have no right or authority over such persons or the terms of such employment, except as provided in this Agreement.

7-3.2 Indemnification and Hold Harmless Clause. All activities arising out of or relating to the performance of the Work covered by this Contract shall be at the risk of Contractor. To the fullest extent permitted by law, Contractor shall defend (at Agency's request), indemnify and hold harmless Agency, and the County of Ventura if the County of Ventura is not the entity defined as Agency under this Contract, including all of their boards, agencies, departments, officers, employees, agents and volunteers (collectively, "Indemnatee"), against any and all claims, suits, actions, legal or administrative proceedings, judgments, debts, demands, damages, including injury or death to any person or persons, and damage to any property including loss of use resulting therefrom, incidental and consequential damages, liabilities, interest, costs, attorneys' fees and expenses of whatsoever kind of nature, whether arising before, during or after commencement or completion of this Contract, whether against Contractor and Indemnatee or which are in any manner, directly, indirectly, in whole or in part, arising from any act, omission, fault or negligence, whether active or passive, of Contractor, a Subcontractor or anyone directly or indirectly employed by them or anyone for whose acts they may be liable in connection with or incident to the Contract, even though the same may have resulted from the joint, concurring or contributory negligence, or from the passive negligence, of Indemnatee or any other person or persons, unless the same be caused by the sole negligence of Indemnatee, or except to the extent caused by the active negligence or willful misconduct of Indemnatee.

The Agency will notify the Contractor of the receipt of any third party claims.

7-3.3 Contamination and Pollution. Contractor, solely at its own cost and expense, will provide clean up of any premises, property or natural resources contaminated or polluted due to Contractor activities. Any fines, penalties, punitive or exemplary damages assigned due to contaminating or polluting activities of the Contractor will be borne entirely by the Contractor.

7-4 INSURANCE REQUIREMENTS

Contractor, at its sole cost and expense, shall obtain and maintain in full force during the term of this Contract the following types of insurance:

7-4.1 Workers' Compensation Insurance.

7-4.1.1 Coverage. Workers' Compensation coverage, in full compliance with Labor Code 3700, for all employees of Contractor and Employer's Liability in the minimum amount of \$1,000,000. The Agency, the County of Ventura, its officers, employees or Consultants, will not be responsible for any claims in law or equity occasioned by failure of Contractor to comply with this paragraph.

7-4.1.2 Certification. Before execution of the Contract by Agency, Contractor shall file with the Engineer the following signed certification:

"I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Contract."

7-4.2 Commercial General Liability Insurance

7-4.2.1 Minimum Limits and Scope; Insurance Classes. "Occurrence" coverage in the minimum amount of:

<u>Coverage Class</u>	<u>Coverage</u>
L-A	\$ 1,000,000 combined single limit (CSL) bodily injury and property damage each occurrence and \$1,000,000 aggregate
L-B	\$ 1,000,000 CSL bodily injury and property damage each occurrence and \$2,000,000 aggregate
L-C	\$ 5,000,000 CSL bodily injury and property damage each occurrence and \$5,000,000 aggregate
L-D	\$ 10,000,000 CSL bodily injury and property damage each occurrence and \$10,000,000 aggregate

If no coverage class is specified in "Proposal", coverage class L-B shall apply.

If Contractor maintains higher limits than the minimums shown above, the Agency requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Agency.

Coverages shall include premises/operations; products/completed operations; independent contractors; underground, explosion and collapse hazards; personal and advertising injury; broad form property damage; and broad form blanket contractual.

7-4.2.2 Coverage Exceptions. On projects where no explosives will be used and no demolition is involved, the coverage for explosion may be omitted. On projects where no excavation is involved, the coverage for underground hazard may be omitted. The omission of said coverages is at Agency's option, and shall not abrogate Contractor's responsibilities for indemnification as set forth in these Specifications.

7-4.2.3 Excess Liability Policies. All Excess Liability policies, if used, shall be on an "umbrella" or following form of the primary layer of coverage.

7-4.3 Commercial Automobile Liability Insurance

Coverage in the minimum amount of \$1,000,000 CSL bodily injury and property damage, including automobile liability, any auto.

7-4.4 Property Insurance

Contractor shall arrange for its own "Course of Construction" insurance on the project to protect its interests, as Agency does not have this coverage.

Contractor is responsible for delivering to Agency Work completed in accordance with the Contract except as provided in 7-18 (Acts of God). Should the Work being constructed be damaged by fire or other causes during construction, it shall be replaced by Contractor in accordance with the requirements of the Plans and Specifications without additional expense to Agency.

7-4.5 Other Insurance Provisions.

7-4.5.1 Insurance Company Qualifications. All insurance required shall be issued by (a) an admitted company or admitted companies authorized to transact business in the State of California which have a BEST rating of B+ or higher and a Financial Size Category (FSC) of VII or larger or (b) a California approved Surplus Line carrier or carriers which have a BEST rating of A or higher and a Financial Size Category (FSC) of VII or larger.

Workers compensation insurance not meeting the above requirements but meeting all other requirements of the specifications, will be accepted.

7-4.5.2 Primary Coverage. All insurance required shall be primary coverage as respects Agency and any insurance or self-insurance maintained by Agency or the County of Ventura shall be in excess of Contractor's insurance coverage and shall not contribute to it.

7-4.5.3 Aggregate Limits Exceeded. Agency shall not be notified immediately if any aggregate insurance limit is exceeded. Contractor shall purchase additional coverage to meet requirements.

7-4.5.4 Liability in Excess of Limits. Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve Contractor for liability in excess of such coverage, nor shall it preclude Agency or the County of Ventura from taking such other actions as is available to it under any other provisions of this Contract or otherwise in law.

7-4.5.5 Additional Insured Endorsements. The Agency, the County of Ventura (if not defined as Agency) and all special Districts governed by the County of Ventura Board of Supervisors, and their officials, employees, and volunteers shall be named as Additional Insured as respects Work done by or on behalf of Contractor under the Contract on all policies required (except workers' compensation). With respect to Contractor's commercial general Liability insurance, Additional Insured coverage shall include both ongoing and completed operations.

7-4.5.6 Waiver of Subrogation Rights. Contractor agrees to waive all rights of subrogation against the Agency, the County of Ventura, including its boards, and all special Districts governed by the Board of Supervisors, for losses arising directly or indirectly from the activities or Work performed by Contractor under the Contract (applies only to Workers' Compensation and Commercial General Liability).

7-4.5.7 Cancellation Notice Required. In the case of policy cancellation, Agency shall be notified by the insurance company or companies as provided for in the policy. Contractor shall notify Agency of any and all policy cancellations within three working days of the cancellation.

7-4.5.8 Documentation Required. Prior to execution of the Contract by Agency, Contractor shall provide Agency with Certificates of Insurance for all required coverages (see Appendix A for example), all required endorsement(s) and a copy of its course of insurance policy.

It is the responsibility of Contractor to confirm that all terms and conditions of Section 7-4 Insurance Requirements are complied with by any and all subcontractors that Contractor may use in the completion of the Contract.

7-5 PERMITS. The Agency will obtain, at no cost to the Contractor, all encroachment and building permits necessary to perform Contract Work in streets, highways, railways or other rights of way, unless the necessity for such permit(s) is created by a method of operation chosen by the Contractor. The Contractor shall obtain and pay for all costs incurred for permits necessitated by its operations such as, but not limited to, those permits required for night Work, overload, blasting and demolition.

The Contractor shall pay all business taxes or license fees that are required for the Work.

7-5.1 Highway and Railroad Permits. The Engineer will obtain the basic State highway and railroad encroachment permits which will include checking of plans. However, the Contractor must also obtain permits from these agencies. Inspection fees charged by these agencies must be paid by the Contractor.

7-5.2 Grading Ordinance

7-5.2.1 General. All excavation, filling and grading operations in Ventura County are governed by the Ventura County Grading Ordinance or City Ordinances, except within the project right of way shown on the Plans.

7-5.2.2 Permits Required. Work outside the project right of way which involves excavation or filling of soils is subject to all requirements of the applicable grading ordinance. The requirements may include, but are not limited to, submitting of a grading plan prepared by a Civil Engineer, obtaining a grading permit, paying the permit fee, posting a grading bond, hiring professionals for engineering and testing services, compacting fills, constructing drainage facilities and providing erosion protection.

7-5.2.3 Imported and Exported Material. To insure that neither the Agency nor the Contractor is a party to aiding or abetting any property owner (who is ultimately responsible) to violate the applicable grading ordinance, no material shall be imported from or exported or wasted outside the project right of way until the Contractor has furnished the Engineer a copy of the grading permit covering such operation on land where material is to be deposited or excavated, unless exempt.

7-5.2.4 Exemptions from Permit. No grading permit is required of the Contractor for Work performed within the project right of way shown on the Plans or on borrow or disposal areas shown on the Plans or described in the Special Provisions and which are specifically designated as being exempt from such permit requirements.

7-5.3 Building Permit.

7-5.3.1 Agency Furnished Permits. Except as provided in **7-5.3.2**, Agency will submit the plans for the Work to Department of Building and Safety, and other building related permit issuing agencies, for plan check and make the corrections necessary for the issuance of building and related permits. Agency will Pay plan check and permit fees for the Work. The Contractor may be required to furnish information to the permit issuing agencies, as required for the issuance of permits, and sign the permit.

7-5.3.2 Contractor Furnished Permits. Components or systems, required by the Contract, may require the preparation of plans and calculations to obtain approvals or permits from state or local building, fire prevention, public health, safety, environmental protection and other agencies in addition to the basic permits arranged for by the Agency as provided in **7-5.3.1**. Contractor shall take all actions in a timely manner to obtain such approvals or permits so as not to delay completion of the Work beyond the time provided in **6-7**. Contractor shall include all costs and consider the time required to obtain approvals or permits in the Contract price bid.

7-5.4 Coastal Zone Permits

7-5.4.1 Agency Furnished Permits. Permits required for Work on the project within rights of way furnished by the Agency within the Coastal Zone will be obtained by the Agency.

7-5.4.2 Contractor Furnished Permits. Permits required for the Contractor's operations outside of rights of way furnished by the Agency must be obtained by the Contractor. Such permits are required for brush removal, grading, dredging, disposal of material and many other operations within the Coastal Zone.

7-6 THE CONTRACTOR'S REPRESENTATIVE. Before starting work, the Contractor shall designate in writing a representative who shall have complete authority to act for it. An alternative representative may be designated as well. The representative or alternate shall be present at the Work site whenever work is in progress or whenever actions of the elements necessitate its presence to take measures necessary to protect the Work, persons, or property. Any order or communication given to this representative shall be deemed delivered to the Contractor. A joint venture shall designate only one representative and alternate. In the absence of the Contractor or its representative, instructions or directions may be given by the Engineer to the superintendent or person in charge of the specific work to which the order applies. Such order shall be complied with promptly and referred to the Contractor or its representative.

In order to communicate with the Agency, the Contractor's representative, superintendent, or person in charge of specific work shall be able to speak, read, and write the English language.

7-7 COOPERATION AND COLLATERAL WORK. The Contractor shall be responsible for ascertaining the nature and extent of any simultaneous, collateral, and essential work by others. The Agency, its workers and contractors and others, shall have the right to operate within or adjacent to the Work site during the performance of such work.

The Agency, the Contractor, and each of such workers, contractors and others, shall coordinate their operations and cooperate to minimize interference.

The Contractor shall include in its Bid all costs involved as a result of coordinating its work with others. The Contractor will not be entitled to additional compensation from the Agency for damages resulting from such simultaneous, collateral, and essential work. If necessary to avoid or minimize such damage or delay, the Contractor shall redeploy its work force to other parts of the Work.

Should the Contractor be delayed by the Agency, and such delay could not have been reasonably foreseen or prevented by the Contractor, the Engineer will determine the extent of the delay, the effect on the Work, and any extension of time.

7-8 WORK SITE MAINTENANCE

7-8.1 General Throughout all phases of construction, including suspension of the Work, and until acceptance per 6-8, the Contractor shall keep the Work site clean and free from rubbish and debris. Rubbish and debris collected on the Work site shall only be stored in roll-off, enclosed containers prior to disposal. Stockpiles of such will not be allowed.

When required by the Special Provisions, the Contractor shall provide a self-loading motorized street sweeper equipped with a functional water spray system. The sweeper shall clean all paved areas within the Work site and all paved haul routes at least once each working day.

The Contractor shall ensure there is no spillage along haul routes. Any such spillage shall be removed immediately and the area cleaned.

Should the Contractor fail to keep the Work site free from rubbish and debris, the Engineer may suspend the Work per 6-3 until the condition is corrected.

7-8.2 Air Pollution Control The Contractor shall not discharge smoke, dust, equipment exhaust, or any other air contaminants into the atmosphere in such quantity as will violate any Federal, State, or local regulations.

The Contractor shall also abate dust nuisance by cleaning, sweeping and spraying with water, or other means as necessary. The use of water shall conform to 7-8.6.

7-8.3 Noise Control. Noise generated from the Contractor's operations shall be controlled as specified in the Special Provisions.

7-8.4 Storage of Equipment and Materials.

7-8.4.1 General Materials and equipment shall be removed from the Work site as soon as they are no longer necessary. Before inspection by the Engineer for acceptance, the Work site shall be cleared of equipment, unused materials, and rubbish so as to present a satisfactory clean and neat appearance.

Excess excavated material shall be removed from the Work site immediately unless otherwise specified in the Special Provisions.

Forms and form lumber shall be removed from the Work site as soon as practicable after stripping.

7-8.4.2 Storage in Public Streets. Construction materials and equipment shall not be stored in streets, roads, or highways for more than 5 days after unloading unless otherwise specified in the Special Provisions or approved by the Engineer. All materials or equipment not installed or used in construction within 5 days after unloading shall be stored at a location approved by the Engineer.

Excavated material, except that which is to be used as backfill in the adjacent trench, shall not be stored in public streets unless otherwise specified in the Special Provisions or approved by the Engineer. Immediately after placing backfill, all excess material shall be removed from the Work site.

7-8.5 Sanitary Sewers.

7-8.5.1 General. The flow of sewage shall not be interrupted. Should the Contractor disrupt the operation of existing sanitary sewer facilities, or should disruption be necessary for performance of the Work, the Contractor shall bypass the sewage flow around the Work. Sewage shall be conveyed in closed conduits and disposed of in a sanitary sewer system. Sewage shall not be permitted to flow in trenches nor be covered by backfill.

Whenever sewage bypass and pumping is required by the Plans or Specifications, or the Contractor so elects to perform, the Contractor shall submit per 2-5.3 a working drawing conforming to 7-8.5.2 detailing its proposed plan of sewage bypass and pumping.

7-8.5.2 Sewage Bypass and Pumping Plan. The plan shall indicate the locations and capacities of all pumps, sumps, suction and discharge lines. Equipment and piping shall be sized to handle the peak flow of the section of sewer line to be bypassed and pumped. Equipment and piping shall conform to 7-10, the Plans, and the Special Provisions. Bypass piping, when crossing areas subject to traffic loads, shall be constructed in trenches with adequate cover and otherwise protected from damage due to traffic. Lay-flat hose or aluminum piping with an adequate casing and/or traffic plates may be allowed if so approved by the Engineer. Bypass pump suction and

discharge lines that extend into manholes shall be rigid hose or hard pipe. Lay flat hose will not be allowed to extend into manholes. The Contractor shall provide a backup bypass pumping system in case of malfunction. The backup bypass system shall provide 100 percent standby capability, and be in place and ready for immediate use.

Each standby pump shall be a complete unit with its own suction and discharge piping. In addition to the backup system, the Contractor shall furnish and operate vacuum trucks when required by the Plans or Special Provisions.

7-8.5.3 Spill Prevention and Emergency Response Plan. The Contractor shall prepare and submit per 2-5.3 a spill prevention and emergency response plan. The plan shall address implementation of measures to prevent sewage spills, procedures for spill control and containment, notifications, emergency response, cleanup, and spill and damage reporting.

The plan shall account for all storm drain systems and water courses within the vicinity of the Work which could be affected by a sewage spill. Catch basins that could receive spilled sewage shall be identified Unless otherwise specified in the Special Provisions, these catch basins shall be sealed prior to operating the bypass and pumping system. The Contractor shall remove all material used to seal the catch basins when the bypass and pumping system operations are complete.

The Contractor shall be fully responsible for containing any sewage spillage, preventing any sewage from reaching a watercourse, recovery and legal disposal of any spilled sewage, any fines or penalties associated with the sewage spill imposed upon by the Agency and/or the Contractor by jurisdictional regulatory agencies, and any other expenses or liabilities related to the sewage spill.

7-8.6 Water Pollution Control The Contractor shall prevent, control, and abate discharges of pollutants from the construction site in order to protect the storm drain system, which includes pipes, channels, streams, waterways, and other bodies of water, by the construction, installation or performance of water pollution control measures as shown on the Stormwater Pollution Control Plan (SWPCP) or Stormwater Pollution Prevention Plan (SWPPP) depending on the land area affected by the construction activity. The Contractor shall ensure compliance with the current State NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity (General Construction Permit), NPDES No. CAS000002 and current Ventura County NPDES Municipal Separate Storm Sewer System (MS4) Permit No. CAS004002.

7-8.6.1 Compliance with NPDES General Construction Permit

7-8.6.1.1 Construction Sites

If the Work involves construction activity that results in soil disturbance of one acre or more of total land area, or results in soil disturbances of less than one acre but is a part of a work area larger than one acre, the Contractor shall comply with the requirements of the General Construction Permit NPDES No. CAS000002. Construction activity includes clearing, grading, excavation, stockpiling, and reconstruction of existing facilities involving removal and replacement. Construction activity does not include routine maintenance such as, maintenance of original line and grade, hydraulic capacity, or original purpose of the facility.

The Contractor shall comply with requirements of the General Construction Permit (NPDES No. CAS000002), obtained by the Agency, including a site-specific Storm Water Pollution Prevention Plan (SWPPP) for the Work to be developed by Qualified SWPPP Developer (QSD) and implemented by the Qualified SWPPP Practitioner (QSP). After July 1, 2010, the Agency will electronically file all required Permit Registration Documents (PRDs) through the State Water Board's Stormwater Multi-Application and Report Tracking System (SMARTS) website, as required prior to the commencement of construction activity. PRDs consist of the Notice of Intent (NOI), Risk Assessment, Post-Construction Calculations, a Site Map, the SWPPP, a signed certification statement by the Legally Responsible Party (LRP), and the first annual fee. For the Permit application, the Contractor shall submit to Project Manager the following:

- The completed site-specific Risk Assessment
- Post-construction calculations if applicable for the project, and
- Site-specific SWPPP developed in accordance with applicable Permits.

7-8.6.1.2 Linear Utility Projects; Contractor shall comply with the requirements of the General Construction Permit NPDES No. CAS000002 for Linear Underground/Overhead projects (LUPs) one acre or greater.

7-8.6.2 Compliance with NPDES MS4 Permit

7-8.6.2.1 Construction Sites Less Than One Acre The Contractor shall ensure implementation of an effective combination of erosion and sediment control Best Management Practices (BMPs) listed in **Table 6** of the Ventura County NPDES MS4 Permit. The Contractor shall develop and implement a Storm Water Pollution Control Plan (SWPCP).

7-8.6.2.2 Construction Sites One Acre but Less Than 5 Acres The Contractor shall ensure implementation of an effective combination of appropriate erosion and sediment control BMPs from **Table 7** (BMPs at Construction sites 1 acre or greater but less than 5 acres) of the Ventura County NPDES MS4 Permit in addition to the ones identified in **Table 6** (BMPs at Construction sites less than 1 acre) to prevent erosion and sediment loss, and the discharge of construction wastes. For all construction sites one acre or greater, the Contractor shall submit the SWPPP to the Agency for review and certification as the Local SWPPP.

7-8.6.2.3 Construction Sites 5 Acres and Greater The Contractor shall ensure implementation of an effective combination of the following BMPs in **Tables 8** (BMPs at Construction sites 5 acres or greater) in addition to the ones identified in **Table 6** (BMPs at Construction sites less than 1 acre) and **Table 7** (BMPs at Construction sites 1 acre or greater but less than 5 acres) at all construction sites 5 acres and greater to prevent erosion and sediment loss, and the discharge of construction wastes. For all construction sites one acre or greater, the Contractor shall submit the SWPPP to the Agency for review and certification as the Local SWPPP.

7-8.6.2.4 Enhanced Construction BMP Implementation

Construction sites located on hillsides, adjacent or directly discharging to CWA 303(d) listed waters for siltation or sediment, and directly adjacent to Environmentally Sensitive Areas are termed "high risk sites." Contractor shall implement enhanced practices that preclude impacts to water quality posed by the high risk sites.

Contractor shall ensure that high risk sites are inspected by the Qualified SWPPP Developer, Qualified SWPPP Practitioner, or Certified Professionals in Erosion and Sediment Control (CPESC) at the time of BMP installation, at least weekly during the wet season, and at least once each 24 hour period during a storm event that generates runoff from the site, to identify BMPs that need maintenance to operate effectively, that have failed or could fail to operate as intended.

During the wet season, the area of disturbance shall be limited to the area that can be controlled with an effective combination of erosion and sediment control BMPs. Enhanced sediment controls should be used in combination with erosion controls and should target portions of the site that cannot be effectively controlled by standard erosion controls described above. Effective sediment and erosion control BMPs proposed by the Contractor shall include the BMPs listed in Table 9 (Enhanced Construction BMP Implementation) of the NPDES MS4 Permit. The Contractor shall implement the BMPs listed in Table 9 unless shown unnecessary. Also, the Contractor shall retain records of the inspection and a determination and rationale of the BMPs selected to control runoff.

7-8.6.3 Plan.

7-8.6.3.1 The SWPCP, required for construction projects less than one acre, shall be prepared in accordance with the requirements of current Ventura County NPDES MS4 Permit No. CAS004002 and County Ordinance No. 4142.

7-8.6.3.2 The SWPPP, required for construction projects one acre or greater, shall be prepared in accordance with the requirements of the state's General Construction Permit NPDES Permit CAS000002, Ventura Countywide Stormwater Quality Management Program, NPDES MS4 Permit No. CAS004002, and County Ordinance No. 4142.

7-8.6.3.3 The SWPCP/SWPPP shall identify potential pollutant sources on the construction site that may affect the quality of discharges, whether non-stormwater or stormwater, from the site and design the use and placement of water pollution control measures, BMPs, to effectively prohibit the entry of pollutants from the site into the storm drain system during construction. At a minimum, and depending on the size of the project area, the SWPCP/SWPPP will include all appropriate minimum BMPs as required by the Ventura Countywide Stormwater Quality Management Program, NPDES MS4 Permit No. CAS004002 (Tables 6 through 9). The SWPCP/SWPPP must utilize the measures recommended in the California Stormwater Quality Association (CASQA) Stormwater BMPs Handbook for Construction (January 2003 version until July 1, 2010 and 2009 version after July 1, 2010). Starting July 1, 2010 SWPPP shall be prepared by QSD as defined in the NPDES Permit CAS000002. The Contractor shall complete, sign and submit the SWPCP/SWPPP for review and final approval by the Project Engineer, prior to issuance of the Notice to Proceed as provided in 6-7.4.

7-8.6.3.4 For all construction projects one acre and greater, the Contractor shall submit the SWPPP to the Agency for review and certification as Local SWPPP in accordance with NPDES MS4 Permit No. CAS004002 prior to the Notice to Proceed as provided in 6-7.4.

7-8.6.4 Measures. All water pollution control measures shall conform to the requirements of the submitted SWPCP/SWPPP. If circumstances during the course of construction require changes to the original SWPCP/SWPPP, a revised SWPCP/SWPPP shall be promptly submitted to the Project Manager in each instance. The SWPPP shall be amended or revised by QSD. A copy of the current SWPCP/SWPPP including revisions and amendments shall be kept at the site to ensure that field personnel has access to the current document at all times. If measures being taken are inadequate to control water pollution effectively, the Project Manager may direct the Contractor to revise the operations and no further work shall be performed until adequate water pollution control measures are implemented. Effective September 2, 2011, implementation of the SWPPP shall be overseen by the Contractor's QSP as defined in the General Construction Permit NPDES No. CAS000002. All work installed by the Contractor in connection with the SWPCP/SWPPP but not specified to become a permanent part of the Work shall be removed and the site restored in so far as practical to its original condition prior to completion of the Work.

7-8.6.4.1 Post-Construction Standards; Contractor shall ensure that applicable post-construction standards are implemented to meet applicable project requirements of the Ventura County NPDES MS4 Permit and General Construction Permit NPDES No. CAS000002 (effective September 2, 2012).

7-8.6.4.2 Active Treatment Systems; Contractor shall comply with requirements of the General Construction Permit NPDES No. CAS000002 for active treatment systems as applicable.

7-8.6.5 Monitoring and Reporting

7-8.6.5.1 Monitoring; In accordance with the General Construction Permit NPDES No. CAS000002, the Contractor shall develop and implement monitoring program for Risk Level 2 and 3 sites. In addition at Risk Level 3 sites, contractor shall perform receiving water monitoring to meet Permit requirements.

7-8.6.5.2 Reporting; the Contractor shall ensure that all submittals and reports are prepared and submitted to the RWQCB in accordance with the applicable Permits. At minimum the reports will include Annual Report (for applicable projects due September 1st), Rain Event Action Plan (due 48 hrs prior to the rain event for the applicable projects), Numeric Action Levels (NAL) Exceedance Report (as required), Numeric Effluent Limitations (NELs) Violation Report (within 24 hours after NEL exceedance is identified). Contractor shall submit required reports to the Project Manager for review and approval prior to submittal to the RWQCB.

7-8.6.6 Dewatering Activities. All dewatering activities shall be performed in accordance with applicable regulatory requirements issued by the Los Angeles Regional Water Quality Control Board, including specific requirements contained in the Waste Discharge Requirements (WDR) when issued for the Work.

7-8.6.7 Payment. The Contract lump sum price for water pollution control shall include full compensation for furnishing all labor, materials, tools, equipment, services and incidentals and for doing all work involved in water pollution control as specified herein. Payment for water pollution control will be made as the Work proceeds, and is in compliance with the approved Water Pollution Control Plan, on the following basis.

Partial payment estimate (excluding mobilization & water pollution control payments) as a percentage of the original Contract price (excluding the mobilization & water pollution control Bid items).		Cumulative amount of water pollution control pay item earned is the lesser of the amounts as computed by these two columns.	
Equal to or greater than	Less than	Percentage of water pollution control pay item	Percentage of the original Contract total.
5	10	10	1
10	20	20	2
20	50	50	3
50	Completion of Work	75	5
Completion of Work		100	

Where no Bid item is provided for water pollution control, payment for water pollution control shall be considered to be included in the other Bid items.

7-8.7 Drainage Control. The Contractor shall maintain drainage within and through the Work areas. Earth dams will not be permitted in paved areas. Temporary dams of sandbags, asphaltic concrete or other acceptable material will be permitted when necessary to protect the Work, provided their use does not create a hazard or nuisance to the public. Such dams shall be removed from the site as soon as their use is no longer necessary.

7-8.8 Final Cleaning. At the completion of the Work, the Contractor shall remove all waste materials and rubbish from and about the project, as well as all tools, construction equipment, temporary facilities, machinery, and surplus materials.

At completion of construction and just prior to final inspection, the Contractor shall thoroughly clean the interior and exterior of the buildings, including hardware, floors, roofs, sills, ledges, glass, or other surfaces where debris, plaster, paint, spots, and dirt or dust may have collected. All glass shall be washed clean and polished. Remove all grease, stains, labels, fingerprints, and other foreign materials from interior and exterior surfaces. Repair, patch, and touch up marred surfaces to match adjacent finishes.

The Contractor shall use only experienced workmen or professional cleaners for final cleaning. It shall use only cleaning materials recommended by the manufacturer of the surface to be cleaned, and use cleaning materials only on surfaces recommended by the cleaning material manufacturer.

It shall broom-clean all paved surfaces and rake-clean other surfaces of grounds.

The Contractor shall replace air conditioning filters if units were operated during construction, and clean all ducts, blowers, and coils if air conditioning units were operated without filters during construction.

After cleaning, the Contractor shall maintain the building in a clean condition until it is accepted by the Agency.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS. The Contractor shall be responsible for the protection of public and private property adjacent to the Work and shall exercise due caution to avoid damage to such property.

The Contractor shall repair or replace all existing improvements within the right-of-way which are not designated for removal (e.g., curbs, sidewalks, driveways, fences, walls, signs, utility installations, pavement, structures, etc.) which are damaged or removed as a result of its operations. When a portion of a sprinkler system within the right-of-way must be removed, the remaining lines shall be capped. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.

Maintenance of street and traffic signal systems that are damaged, temporarily removed or relocated shall be done in conformance with 307-1.5.

Trees, lawns, and shrubbery that are not designated to be removed shall be protected from damage or injury. If damaged or removed because of the Contractor's operations, they shall be restored or replaced in as nearly the original condition and location as is reasonably possible. Lawns shall be reseeded and covered with suitable mulch.

The Contractor shall give reasonable notice to occupants or owners of adjacent property to permit them to salvage or relocate plants, trees, fences, sprinklers and other improvements which are designated for removal and would be destroyed because of the Work.

All costs to the Contractor for protecting, removing, and restoring existing improvements shall be absorbed in its bid.

In existing buildings, all surfaces, equipment, furniture and other property shall be protected from loss or damage by or as result of the Contractor's operations. The Contractor shall replace damaged property or shall repair and restore it to its previous condition. Patching, painting, replacement of wall, ceiling and floor covering and similar Work shall be done in such a manner that the repaired Work will not be readily noticeable.

7-10 PUBLIC CONVENIENCE AND SAFETY

7-10.1 Access.

7-10.1.1 General. The Contractor's operations shall cause no unnecessary inconvenience to the public or businesses in the vicinity of the Work. The Contractor shall have no greater length or quantity of Work under construction than can be properly prosecuted with a minimum of inconvenience to the public and other contractors engaged in adjacent or related work.

The Contractor shall provide continuous and unobstructed access to the adjacent properties unless otherwise specified in the Special Provisions or approved by Engineer. Work requiring traffic lane closures shall only be performed between the hours specified in the Special Provisions or shown on the TCP. Traffic shall be permitted to pass through the Work site, unless otherwise specified in the Special Provisions or shown on the TCP.

7-10.1.1.1 Vehicular Access. Vehicular access to residential driveways shall be maintained to the property line except when necessary construction precludes such access. If backfill has been completed to the extent that safe access may be provided and the street is opened to local traffic, the Contractor shall immediately clear the street and driveways and provide and maintain access.

7-10.1.1.2 Pedestrian Access. Safe, adequate, and ADA compliant pedestrian access shall be maintained unless otherwise approved by the Engineer. 7-10.2 Work Area Traffic Control.

7-10.2 Traffic Control

7-10.2.1 General. Work area traffic control shall conform to the California MUTCD, WATCH, or as specified in the Special Provisions. The total length of the traffic control zone shall include a buffer space, advance signing, striping transitions in advance of the Work site, existing striping, signing, and raised medians.

7-10.2.2 Traffic Control Plan.

7-10.2.2.1 General. If so specified in the Special Provisions or on the permit, the Contractor shall submit a TCP in accordance with 2-5.3. The sheets of the TCP shall display the title, phase identification, name of the firm preparing the TCP, name and stamp of the Registered Traffic or Civil Engineer, approval block for each jurisdictional agency, north arrow, sheet number, and number of sheets comprising the TCP. General notes and symbol definitions shall be included when required. Adequate dimensioning shall be provided to allow for proper field installation. The TCP shall be drawn to a 1 inch = 40 feet scale on common size sheets, either 8-1/2 inches x 11 inches, 8-1/2 inches x 14 inches, 11 inches x 17 inches, or 2-foot x 3-foot plan sheets as dictated by the length of the Work.

The requirements in the Special Provisions shall govern the design of the proposed TCP.

7-10.2.2.2 Payment. Payment for preparation of the TCP shall be included in the appropriate lump sum Bid items. If no Bid items have been provided, payment shall be included in the various Bid items unless otherwise specified in the Special Provisions.

7-10.3 Haul Routes. Unless otherwise specified in the Special Provisions, the haul route(s) shall be determined by the Contractor.

7-10.4 Safety.

7-10.4.1 Work Site Safety.

7-10.4.1.1 General. The Contractor shall provide safety measures as necessary to protect the public and workers within, or in the vicinity of, the Work site. The Contractor shall ensure that its operations will not create safety hazards. The Contractor shall provide safety equipment, material, and assistance to Agency personnel so that they may properly inspect all phases of the Work. When asbestos is being removed, the requirements of the CCR Title 8, Div. 1, Chapter 4, Subchapter 4 and Subchapter 7 shall be implemented.

7-10.4.1.2 Work Site Safety Official. The Contractor shall designate in writing a "Project Safety Official" who shall be at the Work site at all times, and who shall be thoroughly familiar with the Contractor's Injury and Illness Prevention Program (IIPP) and Code of Safe Practices (CSP). The Project Safety Official shall be available at all times to abate any potential safety hazards and shall have the authority and responsibility to shut down an unsafe operation, if necessary.

7-10.4.2 Safety Orders.

7-10.4.2.1 General. The Contractor shall have at the Work site, copies or suitable extracts of Construction Safety Orders, Tunnel Safety Orders, and General Industry Safety Orders issued by the State Division of Industrial Safety. Prior to beginning any excavation 5 feet in depth or greater, the Contractor shall submit to the Engineer, the name of the "Competent Person" as defined in CCR, Title 8, Section 1504, in accordance with 2-5.3. The "Competent Person" shall be present at the Work site as required by Cal-OSHA.

7-10.4.2.2 Shoring Plan. Before excavating any trench 5 feet (105m) or more in depth, the Contractor shall submit in accordance with 2-5.3 a detailed working drawing (shoring plan) showing the design of the shoring, bracing, sloping, or other provisions used for the workers' protection. If the shoring plan varies from the shoring system standards, the shoring plan shall be prepared by a registered Structural or Civil Engineer. The shoring plan shall accommodate existing underground utilities. No excavation shall start until the Engineer has accepted the shoring plan and the Contractor has obtained a permit from the State Division of Industrial Safety. A copy of the permit shall be submitted to the Engineer in accordance with 2-5.3. If the Contractor fails to submit a shoring plan or fails to comply with an accepted shoring plan, the Contractor shall suspend work at the affected location(s) when directed to do so by the Engineer. Such a directive shall not be the basis of a claim for Extra Work and the Contractor shall not receive additional compensation or Contract time due to the suspension.

7-10.4.2.3 Payment. Payment for shoring shall be included in the Bid item provided therefor. Payment for compliance with the provisions of the safety orders and all other laws, ordinances, and regulations shall be included in the various Bid items.

7-10.4.3 Use of Explosives. Explosives may be used only when authorized in writing by the Engineer, or as otherwise specified in the Special Provisions.

Explosives shall be handled, used, and stored in accordance with all applicable regulations.

Prior to blasting, the Contractor shall comply with the following requirements:

- a) The jurisdictional law enforcement agency shall be notified 24 hours in advance of blasting.
- b) The jurisdictional fire department shall be notified 24 hours in advance of blasting.
- c) Blasting activities and schedule milestones shall be included in the Contractor's construction schedule per 6-1.

For a Private Contract, specific permission shall be obtained from the Agency in writing, prior to any blasting operations in addition to the above requirements.

The Engineer's approval of the use of explosives shall not relieve the Contractor from liability for claims caused by blasting operations.

7-10.4.4 Hazardous Substances. An MSDS as described in CCR, Title 8, Section 5194, shall be maintained at the Work site for all hazardous material used by the Contractor. Material usage shall be accomplished with strict adherence to California Division of Industrial Safety requirements and all manufacturer warnings and application instructions listed on the MSDS and on the product container label. The Contractor shall notify the Engineer if a specified product cannot be used under safe conditions. **7-10.4.5 Confined Spaces.** **7-10.4.5.1 Confined Space Entry Program (CSEP).** The Contractor shall be responsible for implementing, administering and maintaining a CSEP in accordance with CCR, Title 8, Sections 5156, 5157 and 5158.

Prior to the start of the Work, the Contractor shall prepare and submit a CSEP in accordance with 2-5.3. The CSEP shall address all potential physical and environmental hazards and contain procedures for safe entry into confined spaces such as the following:

- a) Training of personnel
- b) Purging and cleaning the space of materials and residue
- c) Potential isolation and control of energy and material inflow
- d) Controlled access to the space
- e) Atmospheric testing of the space
- f) Ventilation of the space
- g) Special hazards consideration
- h) Personal protective equipment
- i) Rescue plan provisions

The submittal shall include the names of the Contractor's personnel, including each Subcontractor's personnel, assigned to the Work that will have CSEP responsibilities, their CSEP training, and their specific assignment and responsibility in carrying out the CSEP.

7-10.4.5 Confined Spaces.

7-10.4.5.1 Confined Space Entry Program (CSEP). The Contractor shall be responsible for implementing, administering and maintaining a CSEP in accordance with CCR, Title 8, Sections 5156, 5157 and 5158.

Prior to the start of the Work, the Contractor shall prepare and submit a CSEP in accordance with 2-5.3. The CSEP shall address all potential physical and environmental hazards and contain procedures for safe entry into confined spaces such as the following:

- a) Training of personnel.
- b) Purging and cleaning the space of materials and residue.
- c) Potential isolation and control of energy and material inflow.
- d) Controlled access to the space.
- e) Atmospheric testing of the space.
- f) Ventilation of the space.
- g) Special hazards consideration.
- h) Personal protective equipment.
- i) Rescue plan provisions.

The submittal shall include the names of the Contractor's personnel, including each Subcontractor's personnel, assigned to the Work that will have CSEP responsibilities, their CSEP training, and their specific assignment and responsibility in carrying out the CSEP.

7-10.4.5.2 Permit-Required Confined Spaces. Entry into permit-required confined spaces as defined in CCR, Title 8, Section 5157 may be required as a part of the Work. Manholes, tanks, vaults, pipelines, excavations, or other enclosed or partially enclosed spaces shall be considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise. The Contractor shall implement a permit-required CSEP prior to performing any work in a permit-required confined space. A copy of the permit shall be available at all times for review by the Contractor and the Engineer at the Work site.

7-10.4.5.3 Payment. Payment for the CSEP shall be included in the Bid items for which the CSEP is required.

7-10.5 Security and Protective Devices.

7-10.5.1 General. Security and protective devices shall consist of fencing, steel plates, or other devices as specified in the Special Provisions to protect open excavations

7-10.5.2 Security Fencing. The Contractor shall completely fence open excavations. Security fencing shall conform to 304-3.5. Security fencing shall remain in place unless workers are present and construction operations are in progress during which time the Contractor shall provide equivalent security..

7-10.5.3 Steel Plate Covers. The Contractor shall provide steel plate covers as necessary to protect from accidental entry into openings, trenches, and excavations.

7-11 PATENT FEES OR ROYALTIES. The Contractor shall absorb in its Bid, the patent fees or royalties on any patented article or process which may be furnished or used in the Work. The Contractor shall indemnify and hold the Agency harmless from any legal action that may be brought for infringement of patents.

7-12 ADVERTISING. The names of contractors, subcontractors, architects, or engineers, with their addresses and the designation of their particular specialties, may be displayed on removable signs. The size and location of such signs shall be subject to the Engineer's approval.

Commercial advertising matter shall not be attached or painted on the surfaces of buildings, fences, canopies, or barricades.

7-13 LAWS TO BE OBSERVED. The Contractor shall keep fully informed of State and National laws and County and Municipal ordinances and regulations which in any manner affect those employed in the Work or the materials used in the Work or in any way affect the conduct of the Work. It shall at all times observe and comply with all such laws, ordinances and regulations.

7-13.1 Mined Materials. Mined material from California surface mines, used on the Work, shall be from a mine identified in the list published by the California Department of Conservation (referred to as 3098 List), as required by Public Contract Code 20676. This list is available on the Internet at www.conservation.ca.gov/OMR/ab_3098_list/index.htm.

7-14 ANTITRUST CLAIMS. Section 7103.5 of the Public Contract Code provides:

"In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgement by the parties."

7-15 RECYCLABLE CONSTRUCTION & DEMOLITION WASTES. Ventura County Ordinance Code Section, 4421 et seq, requires that if any recyclable solid wastes or marketable reusable materials will be generated on the site of the Work within the unincorporated areas of Ventura County, the Contractor shall prepare a Construction & Demolition Debris Waste Diversion Plan and submit it to the Ventura County Public Works Agency, Water & Sanitation Department - Integrated Waste Management Division (IWMD). The Contractor shall prepare and file Construction & Demolition Debris Waste Diversion Reporting Forms as required by the IWMD.

For projects within the unincorporated areas of Ventura County, the Contractor shall submit an IWMD Form B-Recycling Plan approved by IWMD prior to issuance of the Notice to Proceed as provided in 6-7.4.

For projects within the unincorporated areas of Ventura County, the Contractor shall submit an IWMD Form C-Reporting Form approved by IWMD prior to the Engineer preparing the final estimate as provided in 9-3.2.

If the site of the Work is within an incorporated city, the Contractor shall comply with all the recycling, solid waste diversion, and hauling requirements of that incorporated city.

7-16 BLANK

7-17 LOSS OR DAMAGE TO THE WORK. The Contractor is responsible for delivering to the Agency Work completed in accordance with the Contract except as provided in 7-18. Should the Work being constructed be damaged by fire or other causes before Acceptance by the Agency, it shall be replaced in accordance with the requirements of the Plans and Specifications without additional expense to the Agency. The Agency does not carry "Course of Construction" insurance on the Work. Contractor should arrange for its own insurance to protect its interests.

7-18 ACTS OF GOD. As provided in Section 7105 of the California Public Contract Code, the Contractor shall not be responsible for the cost of repairing or restoring damaged portions of the Work determined to have been proximately caused by an act of God in excess of 5 percent of the contracted amount, provided that the Work damaged was built in accordance with accepted and applicable building standards and the Specifications and Drawings. The Contractor shall obtain insurance to indemnify the Agency for any damage to the Work caused by an act of God if the premium of said insurance coverage is called for as a separate bid item in the bidding schedule for the Work. For purposes of this section, the term "acts of God" shall include only the following occurrences or conditions and effects: earthquakes in excess of a magnitude of 3.5 on the Richter Scale, and tidal waves.

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

8-1 GENERAL. A field office shall be provided when required by the Plans or Special Provisions. The field office shall be at a suitable location approved by the Engineer.

A field office shall be a weather-tight building of suitable proportions with 16 m² (120 sq. ft.) of floor area, at least one door, and a window area of 2 m² (22 Sq. Ft.). A field office may be a building or a separate room in a building the Contractor may be required to provide or that it may desire to provide for its own use. In either case, the room shall have a separate exterior door. All doors shall be provided with hasps for padlocks.

The office shall be convenient to the Work. It shall be adequately heated, ventilated, electrically lighted, and provided with telephone service, all at the expense of the Contractor or plant owner. Offices are for the exclusive use of Agency personnel, unless otherwise provided herein.

Field offices at the worksite shall be removed upon completion of the Work.

All costs incurred in furnishing, maintaining, servicing, and removing a field office required at the Work site shall be included in the price bid for such item. If such item is required by the Plans or Specifications and no bid item is provided in the Proposal, the costs shall be absorbed in the other items for which bids are entered. Buildings and equipment furnished by the Contractor at the Work site under the provisions of this section are the property of the Contractor.

The first progress payment will not be approved until all facilities are in place and fully comply with the Specifications.

8-2 EQUIPMENT FOR FIELD OFFICES. Unless otherwise specified, a field office shall be equipped with:

- Plan table, 0.75 m x 1.5 m (2 1/2 ft. x 5 ft.) or larger
- Plan rack, capacity to hold two sets of project Plans plus all shop drawings
- Desk and chair
- Two lockers with hasps for padlocks

SECTION 9 - MEASUREMENT AND PAYMENT

9-1 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK

9-1.1 General. Unless otherwise specified, quantities of work shall be determined from measurements or dimensions in horizontal planes. However, linear quantities of pipe, piling, fencing, and timber shall be considered as being the true length measured along longitudinal axis.

Unless otherwise provided in Specifications, volumetric quantities shall be the product of the mean area of vertical or horizontal sections and the intervening horizontal or vertical dimension. The planimeter shall be considered an instrument of precision adapted to measurement of all areas.

9-1.2 Methods of Measurement. Materials and items of Work which are to be paid for on the basis of measurement shall be measured in accordance with the methods stipulated in the particular sections involved.

9-1.3 Certified Weights. When payment is to be made on the basis of weight, the weighing shall be done on certified platform scales or, when approved by the Engineer, on a completely automated weighing and recording system. The Contractor shall furnish the Engineer with duplicate licensed weighmaster's certificates showing actual net weights. The Agency will accept the certificate as evidence of weights delivered.

9-1.4 Units of Measurement. Measurements shall be in accordance with 1-4.1 and 1-4.2. A metric ton or "tonne" is equal to 1000 kilograms and the unit of liquid measure is a Liter (in U.S. Standard Measures, a pound is an avoirdupois pound; a ton is 2000 pounds avoirdupois; and the unit of liquid measure is a gallon).

9-2 LUMP SUM BID ITEMS. Items for which quantities are indicated as "Lump Sum", "L.S." or "Job" shall be paid for at the price indicated in the Proposal. Such payment shall be full compensation for the items of Work and all Work appurtenant thereto.

When required by the Specifications or requested by the Engineer, the Contractor shall submit to the Engineer within 15 Days after award of Contract, a detailed schedule in triplicate, to be used only as a basis for determining progress payments on a lump sum contract or any designated lump sum bid item. This schedule should equal in total the lump sum bid and shall be in such form and sufficiently detailed as to satisfy the Engineer that it correctly represents a reasonable apportionment of the lump sum. If Mobilization or Water Pollution Control are included in the detailed schedule, those items will be paid for as provided in 9-3.4.2 and 7-8.6.4, receptively.

9-3 PAYMENT

9-3.1 General. The quantities listed in the Bid schedule will not govern final payment unless identified by Agency on the Proposal as [F]. The symbol "[F]" indicates that the quantities shown on the Proposal form are the final pay quantities. Payment to the Contractor (except those items identified as [F]) will be made only for the actual quantities of Contract items constructed in accordance with the Plans and Specifications. Upon completion of construction, if the actual quantities show either an increase or decrease from the quantities given in the Bid schedule, the Contract Unit Prices will prevail subject to the provisions of 3-2.2.1. Payment for those items identified as [F] will be based on the quantities shown on the Proposal unless changed as provided in 3-2.2.1.

The unit and lump sum prices to be paid shall be full compensation for the items of work and all appurtenant work, including furnishing all materials, labor, equipment, tools and incidentals.

Payment for items shown on the Plans or required by the Specifications, for which no pay item is provided, shall be considered included in the prices named for the other items shown on the Proposal.

Payment will not be made for materials wasted or disposed of in a manner not called for under the Contract. This includes rejected material not unloaded from vehicles, material rejected after it has been placed and material placed outside of the Plan lines. No compensation will be allowed for disposing of rejected or excess material.

Whenever any portion of the Work is performed by the Agency at the Contractor's request, the cost thereof shall be charged against the Contractor, and may be deducted from any amount due or becoming due from the Agency.

Whenever immediate action is required to prevent injury, death, or property damage, and precautions which are the Contractor's responsibility have not been taken and are not reasonably expected to be taken, the Agency may, after reasonable attempt to notify the Contractor, cause such precautions to be taken and shall charge the cost thereof against the Contractor, or may deduct such cost from any amount due or becoming due from the Agency. Agency action or inaction under such circumstances shall not be construed as relieving the Contractor or its Surety from liability.

9-3.1 General. (Continued)

Payment shall not relieve the Contractor from its obligations under the Contract; nor shall such payment be construed to be Acceptance of any of the Work. Payment shall not be construed as the transfer of ownership of any equipment or materials to the Agency. Responsibility of ownership shall remain with the Contractor who shall be obligated to store, protect, repair, replace, rebuild, or otherwise restore any fully or partially completed work or structure for which payment has been made; or replace any materials or equipment required to be provided under the Contract which may be damaged, lost, stolen or otherwise degraded in any way prior to completion of the Work under the Contract, except as provided in 6-10.

Warranty periods shall not be affected by any payment but shall commence on the date equipment or material is placed into service at the written direction of the Engineer. In the event such items are not placed into service prior to partial or final completion of the Work, the warranty periods will commence on the date set forth as the date of field completion in the Engineer's acknowledgement of completion.

If, within the time fixed by law, a properly executed notice to stop payment is filed with the Agency, due to the Contractor's failure to pay for labor or materials used in the Work, all money due for such labor or materials will be withheld from payment to the Contractor in accordance with applicable laws.

At the expiration of 35 Days from the date of recording of the Notice of Completion, or as prescribed by law, the amount deducted from the final estimate and retained by the Agency will be paid to the Contractor except such amounts as are required by law to be withheld by properly executed and filed notices to stop payment, or as may be authorized by the Contract to be further retained.

9-3.2 Partial and Final Payment. The Engineer will, after award of Contract, establish a closure date for the purpose of making monthly progress payments. The Contractor may request in writing that such monthly closure date be changed. The Engineer may approve such request when it is compatible with the Agency's payment procedure.

Each month, the Engineer will make an approximate measurement of the Work performed to the closure date and, as a basis for making monthly payments, estimate its value based on the Contract Unit Prices or as provided for in 9-2. When the Work has been satisfactorily completed, the Engineer will determine the quantity of Work performed and prepare the final estimate.

Work not conforming to the Contract Documents shall not be measured for payment.

Conformance with the Contract Documents shall be, in addition to constructing the Work in accordance with the Contract Documents, the Contractor's compliance with those portions of the Contract Documents not directly related to the completed Work, including but not limited to: construction and maintenance of detours; diversion and control of water; protection and repair of existing facilities of the Agency and adjacent owners; site maintenance; coordination with utilities and other contractors on the site; proper survey procedures and records; obtaining required permits and inspections; complying with working hour limitations; providing a Contractor's representative while Work is being performed; complying with environmental requirements; maintaining access and safety for users of facilities that are to remain in service during construction; and obeying all laws affecting the Work.

Payment for Extra Work will be made only on approved Daily Extra Work Reports with supporting documentation as required in 3-3.

From each progress estimate, 5 percent will be deducted and retained by the Agency, and the remainder less the amount of all previous payment will be paid to the Contractor.

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

9-3.2 Partial and Final Payment. (Continued)

As provided for in Sections 22300 of the California Public Contract Code, the Contractor may substitute securities for any monies withheld by the Agency to ensure performance under the Contract. In substituting securities, the Contractor may either:

- a. Deposit qualifying securities already owned by the Contractor with the Escrow prior to the Contract payment date, or
- b. Direct the Agency to send retained funds to the Escrow to be invested by the Escrow in qualifying securities as directed by the Contractor.

9-3.2.1 Release of Withheld Contract Funds. Pursuant to Public Contract Code Section 22300, Contractor has the option to deposit securities with an Escrow Agent as a substitute for retention earnings required to be withheld by Agency pursuant to the construction Contract between the Agency and the Contractor. A form of Escrow Agreement for Security Deposits in Lieu of Retention has been adopted by the Agency as one of the Contract Documents; procedures for implementing the provisions of the Escrow Agreement are contained in Escrow Instructions which shall become effective upon exercise of the option by the Contractor.

The Contractor shall take the following steps if it desires to substitute securities:

- a. Execute the Escrow Agreement for Security Deposits in Lieu of Retention.
- b. Furnish to the Escrow Agent a power of attorney and other forms necessary to empower the Escrow Agent to convert the securities to cash.
- c. Furnish to the Escrow Agent the securities described.
- d. Pay the Escrow Agent's fees and costs.

When the Contractor deposits with the Escrow Agent securities in lieu of money required to be withheld from progress payments, a sum of money equivalent to the current cash value of the securities as determined by the Escrow Agent shall be released to the Contractor by, or upon the direction of, the Agency.

If the total of the money plus the current cash conversion value of securities on deposit should fall below the aggregate amount of the sums required to be withheld from progress payments pursuant to 9-3.1 and 9-3.2, an amount equal to the difference shall be withheld from the next regular progress payment in addition to the amount which would ordinarily be withheld pursuant to 9-3.1 and 9-3.2. If the next regular progress payment is less than the total of the amounts to be withheld therefrom, the Contractor shall immediately either deposit with the Agency cash in the amount of the difference or deposit with the Escrow Agent additional securities having a current cash conversion value equal to or greater than the difference.

The Contractor shall be the beneficial owner of any such securities on deposit with the Escrow Agency and shall be entitled to any interest earned thereon prior to conversion. The Agency may direct the Escrow Agency to convert securities with the Escrow Agency into cash, and to deliver the cash to the Agency, in any case where the Contractor is in default, including the following:

- a. where the Agency would be entitled to use funds withheld pursuant to 9-3.1 and 9-3.2 to satisfy claims of workers, materials suppliers or subcontractors, or to complete or correct work which the Contractor has failed or refused to complete or correct, or
- b. where the Contractor has failed to comply with the requirements of this section respecting the deposit of additional cash or securities to make up for a fall in the value of securities already on deposit with the Escrow Agency.

The Agency may hold and use cash resulting from such a conversion of securities in the same manner as it would be entitled to hold and use funds withheld pursuant to 9-3.1 and 9-3.2.

9-3.2.2 Timely Progress Payments. As required by Public Contract Code Section 20104.50, the Contractor is informed that should a progress payment not be made within 30 Days after receipt of an undisputed and properly submitted payment request from the Contractor, the Agency shall pay interest to the Contractor on the unpaid amount at the rate set forth in the Code of Civil Procedures, Section 685.010(a). Agency shall promptly review payment requests, and if not determined to be proper, document to the Contractor, within 7 Days, the reasons why the request is not proper.

Contractor should refer to the code sections cited for further information.

9-3.3 Delivered Materials. Payment for the cost of materials and equipment delivered to the Work site but not incorporated in the Work will be included in the progress estimate if, prior to the closure date for the monthly progress payment, the material or equipment is listed by the Contractor on the Agency's form together with date of delivery, vendor's or Subcontractor's name and cost; is accompanied by a copy of an invoice showing the cost thereof; has an aggregate cost in excess of \$5,000 for each progress payment; is currently on the Work site at an approved location and in good condition; and is one of the following:

1. Precast concrete units weighing more than 100 kilograms (200 pounds) each.
2. Structural steel members weighing more than 100 kilograms (200 pounds) each.
3. Individual pieces of electrical equipment costing over \$1,000 each.
4. Individual pieces of mechanical equipment costing over \$1,000 each.
5. Reinforced concrete pipe of any size.
6. Storm drainage pipe 900 mm (36") in diameter and larger.
7. Water and sewer pipe 300 mm (12") in diameter and larger.
8. Finish hardware for doors.
9. Other individual items of equipment costing over \$1,000 each
10. Materials where the aggregate value of a single type of material exceeds \$1,000 and is either:
 - a) Fabricated or cut to fit the Work before delivery, or
 - b) Of a size or type not available from any manufacturer without a special production run.

On unit price Bid items, the amount paid for materials or equipment delivered but not incorporated in the Work shall not exceed 75% of the amount of the Bid item which includes such material or equipment.

On lump sum Bid items, the amount paid for materials and equipment delivered and not incorporated in the Work shall not exceed 75% of the item in the approved schedule submitted in accordance with 9-2 of which such materials or equipment is a part.

Should materials or equipment previously paid for be damaged, destroyed, stolen or removed from the Work site, the payment previously made therefor will be deducted from the next progress payment, unless such materials or equipment are replaced prior thereto.

On the closure date for progress payments, as provided in 9-3.2, the Contractor shall certify that all materials and equipment not incorporated into the Work, for which payment has previously been made or is being requested, is still at the Work site and in good condition. Failure to provide such certification will be cause for deducting previous payments for materials not incorporated in the Work from the amount due the Contractor in the progress payment.

Payment for materials or equipment, as provided herein, shall not constitute approval or acceptance thereof nor shall such payment modify or abridge any of the rights the Agency has under the Specifications or at law nor relieve the Surety of any of its obligations under the bonds.

9-3.4 Mobilization

9-3.4.1 Scope. Mobilization includes preliminary services, work and operations, including but not limited to, furnishing required bonds, obtaining necessary permits and work areas, providing a specified field office, the movement of labor, supplies, equipment and incidentals to the Work site, and for all other work, services and operations which must be performed or for which costs are incurred prior to performing work of the other Contract items.

9-3.4.2 Payment. The Contract lump sum price bid for mobilization shall include full compensation for furnishing all labor, materials, tools, equipment, services and incidentals and for doing all work involved in mobilization as specified herein. Payment for mobilization will be made as the Work proceeds on the following basis except that where a field office is required by the Specifications, no payment for mobilization will be made until the specified field office has been provided:

Partial payment estimate (excluding mobilization & water pollution control payments) as a percentage of the original Contract price (excluding the mobilization & water pollution control Bid items).		Cumulative amount of mobilization pay item earned is the lesser of the amounts as computed by these two columns.	
Equal to or greater than	Less than	Percentage of mobilization pay item	Percentage of the original Contract total.
5	10	50	5
10	20	75	7.5
20	50	95	9.5
50	Completion of Work	100	10
Completion of Work		100	

Where no Bid item is provided for mobilization, payment for mobilization shall be considered to be included in the other Bid items.

9-4 TERMINATION OF AGENCY LIABILITY. After completion of all work required by the contract, Agency will furnish Contractor a Release on Contract form stating the amount of total authorized payments for the project. Contractor shall execute and return said form within 21 days of receipt. Said form shall release and discharge the Agency from all claims of and liability to the Contractor for all manner of debts, demands, accounts, claims, and causes of action under or by virtue of said Contract except:

- a. The claim against the Agency for the remainder, if any, of the amounts retained as provided in 9-3.2, and any amounts retained as required by Stop Notices or Labor Code provisions.
- b. Any unsettled claims or disputes listed on the Release on Contract form which has been processed in compliance with the requirements for making claims under the Contract, including given timely notice pursuant to the applicable provisions of the Contract and following the procedure set forth in 6-12.

Acceptance of the Release on Contract by the Agency shall not be deemed a waiver or release of the Agency's right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

When executing the Release on Contract, the Contractor shall certify that each unsettled claim or dispute listed thereon has been processed in compliance with the requirements for making claims under the Contract, including giving timely notice pursuant to the applicable provisions of the Contract and following the procedures for resolution of disputes or claims set forth in 6-12 and that acceptance of the Release on Contract by the Agency shall not be deemed a waiver or release of the Agency's right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

If Contractor fails to execute and submit a Release on Contract within the 21 day time period set forth above, the Release on Contract shall be deemed to have been submitted with no unsettled claims or disputes listed on the Release on Contract. A payment of \$1.00 will be made to the Contractor for such Release on Contract and waiver.

SECTION 10 - DIVERSION, CONTROL AND REMOVAL OF WATER

10-1 DESCRIPTION. This section covers the diversion, control and removal of all water entering into the construction area or otherwise affecting construction activities.

10-2 REQUIREMENTS. All permanent construction shall be performed in a site free from water unless otherwise provided for in the Special Provisions. The Contractor shall construct, maintain, and operate all necessary cofferdams, pumps, channels, flumes, drains, well points and/or other temporary diversion, protective, and water removal works required for diversion, control and removal of all water, whether surface or groundwater, whatever its source, during construction.

Inundation of partially completed Work due to lack of control during non-working periods will not be permitted, and may be cause for requiring removal and replacement of Work already completed.

The Contractor shall be responsible for obtaining the use of any property in addition to that provided for in the Plans and Specifications, which may be required for the diversion, protective, and water removal works so as not to create a hazard to persons or property or to interfere with the water rights of others.

It shall be understood and agreed that the Contractor shall hold the Agency and the Engineer harmless from legal action taken by any third party with respect to construction and operations of the diversion and protective works.

10-3 DIVERSION AND CONTROL WORKS.

Prior to beginning of work involving diversion, control and removal of water, the Contractor shall submit a water control plan to the Engineer. In the event circumstances during the course of construction require changes to the original water control plan, a revised water control plan shall be promptly submitted to the Engineer in each instance. No responsibility shall accrue to the Engineer or the Agency as a result of the plan or as a result of knowledge of the plan.

Construction and operation of the diversion, control and removal works shall be in accordance with the water control plan submitted, except deviations therefrom may be specifically approved by the Engineer.

All works installed by the Contractor in connection with dewatering, control, and diversion of water but not specified to become a permanent part of the Work, shall be removed and the site restored, insofar as practical, to its original condition prior to completion of construction or when directed by the Engineer.

10-4 PAYMENT. No separate Bid item is included. Payment for this item of Work will be considered to be included in the payments made for other items of Contract Work to which water control is incidental.

PART 2 CONSTRUCTION MATERIALS

SECTION 200 - ROCK MATERIALS

200-1 ROCK PRODUCTS

200-1.6 Stone for Riprap

200-1.6.1A Alternate Stone for Riprap. As an alternate to the requirements of Subsection 200-1.6, the sample may be subject to the following tests:

TESTS	TEST METHOD NO.	REQUIREMENTS
Apparent Specific Gravity	ASTM C 127	2.40 Min.
Resistance to Abrasion	ASTM C 535, Grading 1	35% Max.
Soundness	Section 211-8	10% Max.
Wet and Dry Loss	Section 211-9	5% Max.
Solubility	Section 211-10	No Loss

All rock shall be angular or subangular in shape. Angular shall be defined as having sharp corners and straight planes on all faces, with no evidence of wear caused by wind, water or abrasion. Subangular shall be defined the same as angular except that evidence of wear by wind, water or abrasion may be allowed. Determination of angularity will be made by the Engineer.

200-1.6.2 Riprap Size

The individual classes of rock used for riprap shall conform to the following:

Rock Sizes	RIPRAP CLASSES					
	1-Tonne (1-Ton)	½-Tonne (½-Ton)	¼-Tonne (¼-Ton)	Light	Facing	Cobble
	PERCENTAGE LARGER THAN					
2-Tonne (2-Ton)	0-5					
1-Tonne (1-Ton)	50-100	0-5				
½-Tonne (½-Ton)		50-100	0-5			
¼-Tonne (¼-Ton)	90-100		50-100	0-5		
100-kg (200-lb)		90-100		50-100	0-5	
35-kg (75-lb)			90-100	90-100	50-100	0-5
10-kg (25-lb)					90-100	95-100
0.5-kg (1-lb)	100	100	100	100	100	100

The amount of material smaller than the smallest size listed in the table for any class of riprap shall not exceed the percentage limit listed in the table determined on a weight basis.

Compliance with the percentage limit shown in the table for all other sizes of the individual pieces of any class of riprap shall be determined by the ratio of the number of individual pieces larger than the specified size compared to the total number of individual pieces larger than the smallest size listed in the table for that class.

Flat or needle shapes will not be accepted unless the thickness of individual pieces is greater than 1/3 the length.

Before placing in final location, depositing, or stockpiling within the project limits, each individual load of riprap must meet the size requirements of the class specified.

SECTION 206 - MISCELLANEOUS METAL ITEMS

206-3 GRAY IRON AND DUCTILE IRON CASTINGS

206-3.3.2A Manhole Frame and Cover Sets

Unless otherwise specified, manhole frames and covers shall be in accordance with the following Standard Plans contained in the SPPWC:

Clear Opening Diameter mm (Inches)	SPPWC Plan No.	Catalog Numbers	
		Alhambra Foundry	Long Beach Iron Works
600 (24)	630-1	A-1495	X-162
675 (27)	631-1	A-1496	X-164
750 (30)	632-1	A-1497	X-163
900 (36)	633-1	A-1498	X-106A

206-5 METAL RAILINGS.

206-5.2 Flexible Metal Guard Rail Materials.

206-5.2A Flexible Metal Guard Rail Materials; Modification. The "Construction" grade Douglas Fir for "posts, including blocks" does not have to be "free of heart center".

SECTION 210 - PAINT AND PROTECTIVE COATINGS

210-6 STORM DRAIN HARDWARE. All storm drain hardware, including manhole frames and covers, grates, protection bars, steps, etc., shall be protected from corrosion.

Storm drain hardware made of cast iron shall be protected by painting with, or dipping in, a commercial grade asphalt paint. Storm drain hardware made of steel shall be galvanized.

SECTION 211 - MATERIAL TESTS

211-6 SIEVE ANALYSIS. Sieve analysis shall be performed in accordance with ASTM C136.

211-7 Sand Equivalent Test. This test is intended to serve as a field test to indicate the presence or absence of plastic fine material. The test shall be run in accordance with Calif. test 217 or ASTM D2419. When testing material containing asphalt, this test method shall be modified by drying the sample at a temperature not exceeding 38°C (100°F).

211-8 R-VALUE. Resistance (R-value) shall be determined by California Test 301.

211-9 SPECIFIC GRAVITY AND ABSORPTION. Apparent specific gravity, bulk specific gravity and absorption shall be determined by California Test 206, 207, 208, 209, 224, 225, or 308, Method C where zinc stearate may be substituted for paraffin.

211-10 LOS ANGELES RATTLER TEST. Loss in Los Angeles Rattler shall be determined by California Test 211.

211-11 SOUNDNESS. For riprap, the soundness shall be determined in accordance with Calif. Test 214, excluding sections D, E, G.2.b, and H, and adding the following:

- a. The test sample shall be prepared by breaking or sawing a representative sampling of riprap into particles passing the 75 mm (three inch) and retained on the 50 mm (two inch) sieve. If there are a variety of rock types or degrees of weathering within a rock type, each unique type or condition must meet the loss requirement.
- b. The test sample size shall be 25,000 grams (55 lbs.) \pm 1 percent.
- c. All particles of test sample which break into three or more pieces during testing shall be discarded. The remaining sample shall be washed on a 4.75 mm (#4) sieve and all particles retained shall be oven dried.
- d. The loss in weight shall be determined by subtracting from the original weight of the test sample the final weight of all particles retained on the 4.75 mm (#4) sieve. Divide the loss in weight by the original weight and multiply by 100 to determine the percent loss.
- e. Report the following:
 - (1) The percent loss.
 - (2) The number of pieces affected, classified as to number disintegrating, splitting, crumbling, cracking, flaking, etc.

211-12 WET AND DRY LOSS. Wet and dry loss shall be determined as follows:

A sample of rock shall be crushed, screened, oven dried, and 1,000 g (2.2 lbs.) to 1,500 g (3.3 lbs.) of the 19 mm (3/4 inch) to 9.5 mm (3/8 inch) fraction shall be taken for the test.

The crushed and graded sample shall be submerged in tap water for 8 hours at room temperature, after which the sample shall be drained and oven dried at 78°C (140°F). When dry, the sample shall be cooled to room temperature. This completes one cycle.

After 10 cycles, the percent loss shall be computed as follows:

$$\% \text{ Loss} = \frac{100 \times \text{Weight of Material Passing 4.75 mm (No. 4) Sieve}}{\text{Total Weight of Sample}}$$

211-13 SOLUBILITY. Approximately 0.5 kg (one pound), air dried samples shall be immersed in local tap water and in Pacific Ocean water (or a 3.5% sodium chloride solution) for 8 hours each at 78°C (140°F). After immersion, the samples shall be washed with tap water, air dried and reweighed.

211-14 Permeability Test. Permeability tests for granular soils shall be performed in accordance with ASTM D2434, using samples compacted to the specified field density.

PART 3 CONSTRUCTION METHODS

SECTION 301 - TREATED SOILS, SUBGRADE PREPARATION AND PLACEMENT OF BASE MATERIALS

301-1 SUBGRADE PREPARATION

301-1.3 Relative Compaction

301-1.3.1 Firm, Hard and Unyielding. The term "firm, hard and unyielding" as used in 301-1.3 shall mean that when the heaviest construction and hauling equipment used on the Work drives over the subgrade, no permanent deformation shall occur either before or during pavement construction.

301-1.4 Subgrade Tolerances. Subgrade for pavement, sidewalk, curb and gutter, driveways, or other roadway structures shall not vary more than 15 mm (0.05 feet) from the specified grade and cross section. Subgrade for subbase or base material shall not vary more than 15 mm (0.05 feet) from the specified grade and cross section.

Variations within the above specified tolerances shall be compensating so that the average grade and cross section specified are met.

301-2 UNTREATED BASE

301-2.3 Compacting

301-2.3.1 Tolerances. The tolerance requirement in 301-2.3 is modified from 6 mm (0.02 foot) to 15 mm (0.05 foot).

SECTION 302 - ROADWAY SURFACING

302-5 ASPHALT CONCRETE PAVEMENT

302-5.1 General

302-5.1.1 Asphalt Concrete Berms. Asphalt concrete berms shall be constructed of Class III-D-PG70-10 asphalt concrete by mechanical means to conform to the details and location as shown on the Plans.

A tack coat, as provided in 302-5.4, shall be applied to the existing or new pavement preceding the placement of the asphalt concrete berms.

302-5.4 Tack Coat

302-5.4.1 Fog Seal. When specified, a fog seal consisting of material meeting the requirements of 203-3 shall be applied to the surfaces of all completed asphalt concrete at the rate of 0.36 liter per square meter (0.08 gallon per square yard) of the combined emulsion or such lesser rate ordered by the Engineer. Surface to be sealed shall be free from dust, dirt, and other foreign material. Surface shall be sealed within 7 Days after paving.

302-5.9 Measurement and Payment

302-5.9.1 Measurement and Payment for Asphalt Berm. Asphalt concrete berms will be paid for at the Contract Unit Price per linear meter (feet) of berm in place. No separate measurement or payment will be made for asphalt, aggregate, or tack coat.

302-5.9.2 Measurement and Payment for Fog Seal, Tack Coat, and Prime Coat. Measurement and payment for the specified material shall be by the tonne (ton) in place. Emulsions shall be measured after the specified dilution has been made.

SECTION 303 - CONCRETE AND MASONRY CONSTRUCTION

303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS, ACCESS RAMPS AND DRIVEWAYS

303-5.1 Requirements

303-5.1.4 Concrete Substitution. Class 280-C-14 (470-C-2000) may be used in lieu of Class 310-C-17 (520-C-2500) and Class 280-D-14 (470-D-2000) in lieu of Class 310-D-17 (520-D-2500) as specified in 201-1.1.2 for street surface improvements, excluding concrete pavement, when no class is specified on the Plans or in the Special Provisions.

SECTION 306 - UNDERGROUND CONDUIT CONSTRUCTION

306-1 OPEN TRENCH OPERATIONS

306-1.2 Installation of Pipe

306-1.2.1 Bedding

306-1.2.1.1 Bedding Material. When native material is allowed for backfill in the bedding zone, no rocks larger than 40 mm (1½") in maximum dimensions shall be included. Material containing ashes, cinders, and types of refuse or other deleterious material shall not be used as bedding.

306-1.2.1.2 Sewer Pipe Bedding. Bedding for sewer pipe from 100 mm (4") below the pipe to the spring line (horizontal diameter) of the pipe shall be free draining, granular material with a maximum size of 15 mm (1/2 inch), unless another bedding method is shown on the Plans.

Densification of the bedding material may be by the application of water or by mechanical means. Unless otherwise specified, all bedding material shall be densified to a relative density of 90%. Acceptability of densification in the bedding zone will be determined by visual inspection and probing to determine that no voids exist in the backfill material. In this paragraph, the word "voids" does not include intergranular voids in the soil structure.

306-1.2.1.3 Flexible Pipe Bedding. Bedding for flexible drainage and sewer pipe shall be granular material having a sand equivalent of at least 50. The bedding material shall be placed and compacted from 150 mm (six inches) below the pipe to the top of the bedding as defined in 306-1.2.1. A 1 m (three foot) long section of low permeability material (50% passing 75 µm (200) sieve) shall be installed and mechanically compacted in lieu of the above specified bedding material at intervals of 60 m (200 feet) or as otherwise indicated on the Plans.

306-9 DISINFECTION. All water mains and appurtenances shall be disinfected before being placed in service in accordance with AWWA C651 except as specified herein:

- a. The water mains shall be chlorinated so that a chlorine residual of not less than 20 ppm remains in the water after standing in the pipe for 24 hours.
- b. The Agency will perform sampling and testing of bacteriologic samples. Disinfection shall be repeated until two or more consecutive samples are negative for coliform organisms.

The pressure in the line being chlorinated shall be maintained at least 35 kPa (5 psi) lower than that existing in any Agency line to which it is connected.

306-10 WATERWORKS APPURTENANCES

306-10.1 Valves. Valves shall be located as shown on the drawings.

Each valve shall be operated prior to its installation to assure proper functioning. Valves shall be installed plumb and in alignment with the water main. Valves shall be anchored by metal ties to a concrete base. Line valves may be moved to the closest joint upon approval of the Engineer.

306-10.2 Valve Boxes. Each underground valve shall be provided with a valve box. The valve boxes shall be installed plumb and centered over the operating nut of the valve. Valve boxes shall be installed with concrete collars.

Where valve boxes are to be placed in asphaltic type pavement, they shall not be set to grade until after paving has been completed.

Where valve boxes are to be placed in concrete pavement, they shall be set to grade prior to paving operations.

306-10.3 Thrust Devices. A reaction or thrust device shall be provided on all dead ends, tees, elbows, and bends with more than 5 degrees deflection on pressure pipe lines.

Thrust devices shall be cast-in-place concrete, poured against undisturbed or compacted earth. Thrust devices shall be sized and constructed in accordance with the Plans.

Thrust devices and anchor blocks shall be constructed of Class 280-C-14 (420-C-2000) concrete. Thrust devices and anchor blocks shall be cured at least 7 Days where Type IP or II cement is used or at least 48 hours where Type III cement is used.

Metal tie-rods or clamps shall be of adequate strength to prevent movement of pipe. All metal shall be coated in accordance with AWWA C110.

306-10.4 Fire Hydrants. Fire Hydrants shall be installed as shown on the Plans.

All hydrants shall stand plumb and shall have their nozzles parallel with or at right angles to the curb, with the pumper nozzle facing the curb, except that hydrants having only two hose nozzles 90 degrees apart shall be set with each nozzle facing the curb at an angle of 45 degrees.

In uncurbed public road rights of way, fire hydrants shall be located as far as possible from the traveled way while providing a 1 m (3-foot) wide clear space between the fire hydrant and the right of way line. In curbed public road rights of way, fire hydrants shall be installed so that there is 300 mm (12 inches) clear between the face of curb and the fire hydrant.

306-10.5 Fire Hydrant Barricades. Fire hydrant barricades shall consist of 100 mm (4-inch) standard steel pipe, schedule 40, filled with concrete, and having a total length of 2 m (72 inches). They shall be embedded in concrete blocks 300 mm (12 inches) in diameter and 1000 mm (40 inches) deep below ground surface with the barricade pipe embedded to 100 mm (4 inches) above the bottom of the concrete so 1 m (36 inches) extends above ground surface. The steel pipe above ground shall be painted chrome yellow in accordance with AWWA C503.

Barricades shall be installed between the fire hydrant and vehicle traffic paths at locations indicated on the Plans or where required by the water purveyor or Fire Department. Barricades shall not be installed within public road rights of way.

Fire hydrant barricades shall not obstruct the hydrant outlets.

SECTION 310 - PAINTING

310-5 Painting Various Surfaces

310-5.6 Painting Traffic Striping, Pavement Markings, and Curb Markings.

310-5.6.8A Application of Paint - Two Coats All painted traffic striping and markings shall be applied in two coats. The price named in any Bid item for painting traffic striping and markings shall include all costs for both applications, including any delays entailed for the required drying time between applications. If bleeding, curling or discoloration occurs following application of the second coat, unsatisfactory areas shall be given an additional coat, or coats, of paint. No additional payment will be made for work necessary to correct bleeding, curling or discoloration.

PART 4

SECTION 400 - ALTERNATE ROCK PRODUCTS, ASPHALT CONCRETE, PORTLAND CEMENT CONCRETE AND UNTREATED BASE MATERIAL

400-1 Rock Products

400-1.1 Requirements

400-1.1.1 General

Alternate rock material, Type S, as specified in Section 400 may be used on the Work.

400-3 Portland Cement Concrete

Suppliers of portland cement concrete shall file mix designs as required by 400-1.1.2

400-4 Asphalt Concrete

Suppliers of asphaltic cement concrete shall file mix designs as required by 400-1.1.2



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
INSURED	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	NAIC #	
	INSURER A:	
	INSURER B:	
	INSURER C:	
INSURER D:		
INSURER E:		
INSURER F:		

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY						EACH OCCURRENCE \$ See VCSS 7-4.2
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence) \$
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person) \$
							PERSONAL & ADV INJURY \$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE \$ See VCSS 7-4.2
	<input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC						PRODUCTS - COMP/OP AGG \$
							\$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO						BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS						BODILY INJURY (Per accident) \$ 1,000,000
	<input type="checkbox"/> HIRED AUTOS						PROPERTY DAMAGE (Per accident) \$ 1,000,000
							\$
	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR						EACH OCCURRENCE \$
	EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE						AGGREGATE \$
	DED <input type="checkbox"/> RETENTION \$						\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						WC STATUTORY LIMITS OTHER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICE/MEMBER EXCLUDED? (Mandatory in NH)						E L EACH ACCIDENT \$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E L DISEASE - EA EMPLOYEE \$
							E L DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

(Agency) - (Project Name) (Project Specification number)

The Agency and the County of Ventura, including its boards, all special Districts governed by the Board of Supervisors, agencies, departments, officers, consultants, employees, agents and volunteers, is named as Additional Insured as respects work done by Contractor under the terms of the contract on General Liability and Auto Liability Policies. Waiver of Subrogation is applicable to the Agency and the County of Ventura, its boards, districts, agencies, departments, officers, employees, agents and volunteers for Work Comp and General Liability. Endorsements required for referenced contract will be issued by the Insurance Company.

CERTIFICATE HOLDER

CANCELLATION

County of Ventura Public Works Agency L-1670 800 S. Victoria Avenue Ventura, CA 93009-1670	<p>SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.</p> <p>AUTHORIZED REPRESENTATIVE</p>
---	--

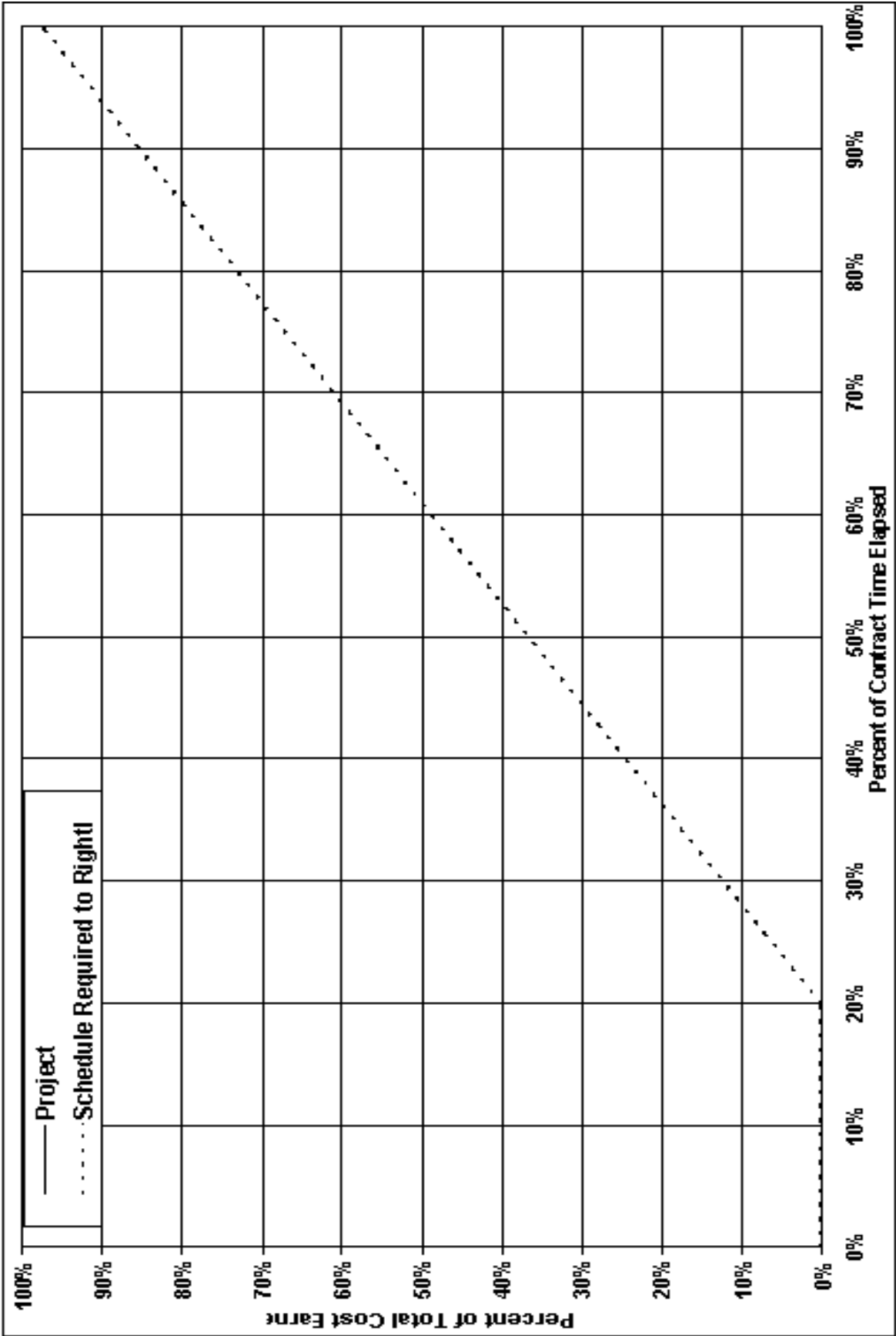
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ACORD 25 (2010/05)

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Spec. No.

Project Name



CONSTRUCTION ELEMENT VS. TIME CHART SAMPLE

EACH HORIZONTAL INTERVAL EQUALS 1 WORKING DAYS OF CONTRACT TIME

Contractor

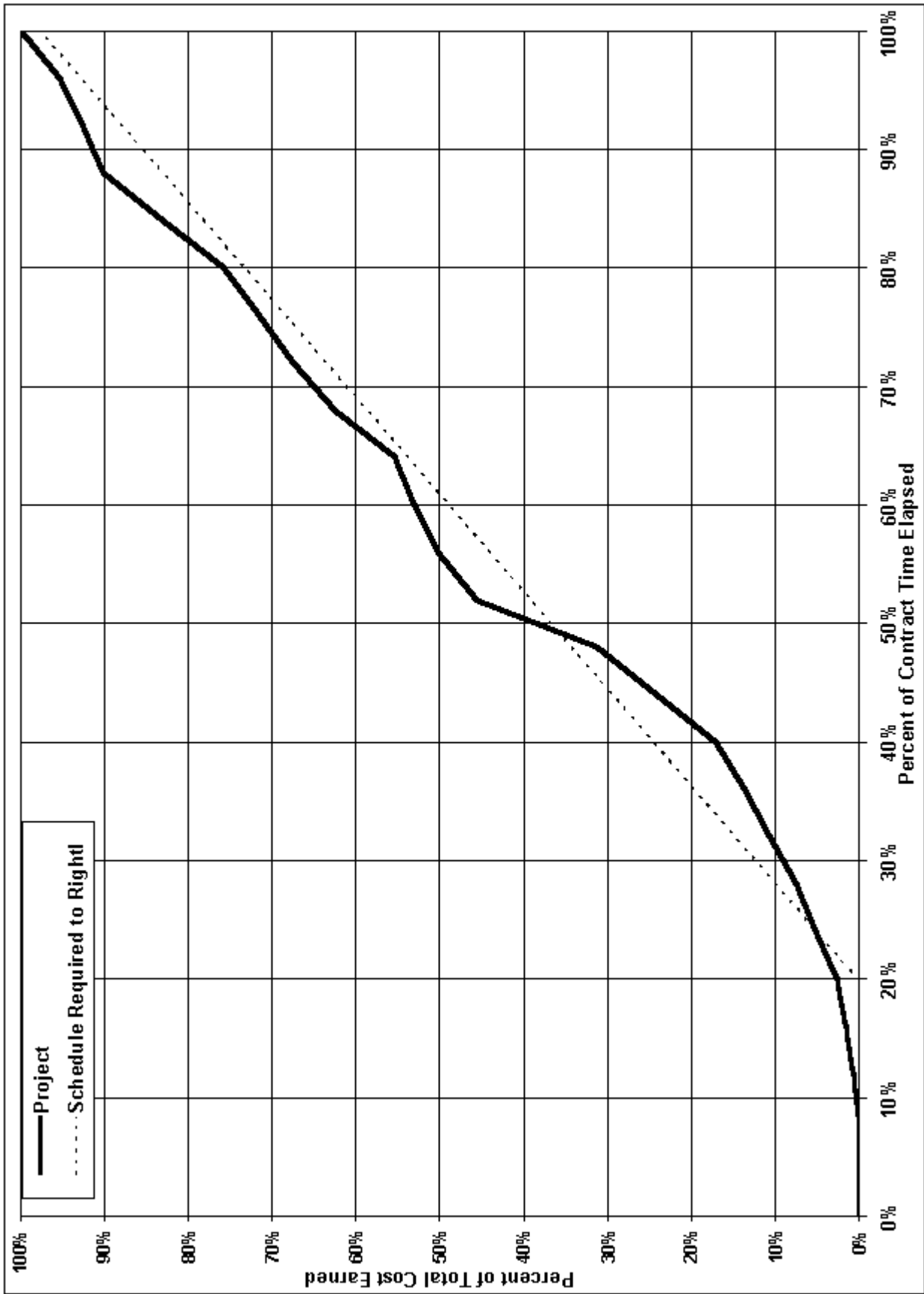
5/22/97

Date _____

Title President

FC97-32

Arroyo Santa Margurita



APPENDIX D**ESCROW AGREEMENT FORM SAMPLE****ESCROW AGREEMENT FOR
SECURITY DEPOSITS IN LIEU OF RETENTION**

This Escrow Agreement is made and entered into by and between
("Agency") whose address is _____ and
("Contractor") whose address is _____ and
("Escrow Agent") whose address is _____.

For the consideration hereinafter set forth, the Agency, Contractor and Escrow Agent agree as follows:

- (1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Agency pursuant to the Construction Contract entered into between the Agency and Contractor for _____ in the amount of dated _____, (hereinafter referred to as the "Contract") which Contract is identified by Spec. No. _____ and Auditor Controller's Contract No. _____. Alternatively, on written request of the Contractor, the Agency shall make payments of the retention earnings directly to the Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Agency within ten days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Agency and Contractor. Securities shall be held in the name of _____, and shall designate the Contractor as the beneficial owner.
- (2) The Agency shall make progress payments to the Contractor for those funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.
- (3) When the Agency makes payments of retentions earned directly to Escrow Agent, the Escrow Agent shall hold them for the benefit of the Contractor until such time as the escrow created under this contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the Agency pays the Escrow Agent directly.
- (4) Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the escrow account. These expenses and payment terms shall be determined by the Agency, Contractor and Escrow Agent.
- (5) The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the Agency.
- (6) Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from Agency to the Escrow Agent that Agency consents to the withdrawal of the amount sought to be withdrawn by Contractor.
- (7) The Agency shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven days' written notice to the Escrow Agent from the Agency of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the Agency.
- (8) Upon receipt of written notification from the Agency certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, the Escrow Agent shall release to the Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.
- (9) Escrow Agent shall rely on the written notifications from the Agency and the Contractor pursuant to Sections (1) to (8), inclusive, of this Agreement and the Agency and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

(10) The names of the persons who are authorized to give written notice or to receive written notice on behalf of the Agency and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of Agency:

_____, Director,
Public Works Agency

_____, Director
Central Services Department

_____, Director
Engineering Services Department

Address for all of the above:
Public Works Agency
800 South Victoria Avenue
Ventura, CA 93009

SAMPLE FORM
Form used for escrow will have names and signatures of persons authorized in accordance with paragraph 10.

On behalf of Contractor:

Title

Name

Signature

Street Address

City & State

Zip Code

On behalf of Escrow Agent:

Title

Name

Signature

Street Address

City & State

Zip Code

At the time the Escrow Account is opened, the Agency and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

Agency:
(Agency name)

Title

Name

Signature

Contractor:
(Contractor company name)

Title

Name

Signature

EXHIBIT "A"
ESCROW INSTRUCTIONS

The parties to this escrow are _____ ("Agency") and _____ ("Contractor") and _____ ("Escrow Agent"). Agency and Contractor have entered into a contract for the construction of _____ which contract is identified by Spec. No. _____ and Auditor-Controller's Contract No. _____ and was entered into by and between Agency and Contractor ("Construction Contract"). Pursuant to Public Contract Code Section 22300, Contractor may substitute certain securities for an equivalent amount of money required to be withheld from progress payments by Agency to Contractor pursuant to the Construction Contract.

The Escrow Agent is hereby instructed as follows:

1. Contractor may deliver to Escrow Agent:
 - (a) Securities of the types specified in Sections 22300 of the Public Contract Code and Section 16430 of the Government Code.
 - (b) Such other documents as are necessary to enable Escrow Agent to convert such securities into cash.
2. Upon receipt of such securities and other documents, Escrow Agent shall notify Agency within ten days of the deposit, and shall examine them to determine whether they are in a form sufficient to effect conversion of the securities into cash. Escrow Agent shall thereupon send written notice of its determination to Agency.
3. Escrow Agent shall hold such securities as trustee for Agency. The right of Agency to such securities is superior to any other lien or claim of lien; provided, however, that Contractor shall be entitled to any interest earned by such securities prior to their conversion to cash pursuant to section 5 hereof, and further provided that such interest may be withdrawn by Contractor at any time and from time to time without notice to Agency.

Securities may be substituted by Contractor, but any securities substituted for securities previously deposited shall not reduce the current cash value of securities held below that last reported to Agency by Escrow Agent.
4. Escrow Agent shall determine the current cash value of such securities held by it as of the close of business on the first business day following the _____ day of each month and, in addition, on any other days which the Agency may from time to time specify in a written notice to Escrow Agent. Current cash value shall be determined as follows:
 - (a) For securities traded over-the-counter or on a stock exchange:
 - (1) Determine either the current bid price for the securities as of the close of business or the face value of the securities, whichever is less.
 - (2) Subtract the cost of sale (broker commission).
 - (3) Subtract all unpaid escrow fees and costs associated therewith.
 - (b) For certificates of deposit:
 - (1) Determine the face amount.
 - (2) Subtract the potential interest penalty for immediate conversion.
 - (3) Subtract all unpaid escrow fees and costs associated therewith.
 - (c) Determine the value of other securities by procedures calculated to determine net realizable value. Promptly upon making each such determination, Escrow Agent shall notify Agency of the securities held and current cash value of such securities.

5. At any time or times that Agency believes it has a right to do so under the provisions of the Construction Contract, Agency may, without the consent of Contractor, deliver to Escrow Agent a written demand that Escrow Agent convert to cash all or any part of such securities. Upon seven days' written notice from Agency of such demand, Escrow Agent shall convert to cash all or part of such securities as demanded and shall distribute the cash as instructed by the Agency.
6. When the Construction Contract has been satisfactorily completed on the part of Contractor and any stop notices filed against the Construction Contract have been released, Agency shall give written notice to Escrow Agent that such securities may be returned to Contractor. Upon receipt of such written notice and payment of all escrow fees and costs, the Escrow Agent shall deliver to Contractor all money, interest, securities and other documents remaining in escrow and the escrow shall terminate.
7. Contractor, and not Agency, shall be liable to Escrow Agent for all of Escrow Agent's fees and costs associated with this escrow.
8. The Director of the Ventura County Public Works Agency, a Department Director of said Agency, or other person authorized in writing by such Director or Department Director is authorized to give written notice and to make written demands on behalf of Agency pursuant to sections 4, 5 and 6 hereof.
9. All written notices and demands pursuant to the escrow agreement and these Instructions shall be addressed as follows:
 - (a) To Agency:

Director, Ventura County Public Works Agency
800 South Victoria Avenue
Ventura, California 93009

(b) To Contractor:

(c) To Escrow Agent:

DATED: _____

By _____	By _____	By _____
Title _____	Title _____	Title _____

AGENCY

CONTRACTOR

ESCROW AGENT
Bank Charter: State ☐ []
Federal ☐ []
Escrow Agent's Address:

RELEASE ON CONTRACT

CONTRACT NAME: _____

SPEC. NO. _____, PROJECT NO. _____

WHEREAS, by the terms of the contract dated _____, 20____ entered into by

_____ and the undersigned CONTRACTOR,

undersigned CONTRACTOR agreed to perform certain work for the compensation specified in said contract; and

WHEREAS, the CONTRACTOR represents that said work is fully completed and that final payment is due to the CONTRACTOR under terms of said contract,

NOW, THEREFORE, in consideration of the promises and the payment by [AGENCY NAME] to the CONTRACTOR of the amount due under the contract, to wit, the sum of \$ _____ and the additional consideration of \$1.00, receipt of which is hereby acknowledged by the CONTRACTOR, the CONTRACTOR hereby releases and forever discharges _____ of and from all manner of debts, dues, demands, sum or sums of money, accounts, claims and causes of action, in law and in equity, under or by virtue of said contract except the claim against the Agency for the remainder, if any, of the amounts retained as provided in 9-3.2, any amounts retained as required by Stop Notices or Labor Code Provisions, and any unsettled claims or disputes as follows: (If none, leave blank)

<u>Description of Claim or Dispute</u>	<u>Amount</u>	<u>Date of Claim</u>	<u>Date of Notice of Potential Claim</u>
--	---------------	--------------------------	--

The CONTRACTOR certifies that each unsettled claim or dispute listed hereon has been processed in compliance with the requirements for making claims under the contract, including giving notice pursuant to the applicable provisions of the contract, and following the procedures for resolution of disputes or claims set forth in subsection 6-12 of the contract. Acceptance of this Release on Contract by the [Agency Name] shall not be deemed as a waiver or release of its right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

IN WITNESS WHEREOF, the hand and seal of the CONTRACTOR have been
hereunto set this ____ day of _____, 20____.

THIS FORM MUST BE ACCOMPANIED
by a proper acknowledgement form
(See Civil Code Section 1189)

Contractor

By

Title

**SURETY BONDS
PERFORMANCE BOND**

Whereas, the «Agency», hereinafter called "Agency", and «Contr», hereinafter called "principal", have entered into a contract dated «ContrDate» whereby principal agrees to complete certain designated work identified as project «ProjName» (Spec. No. «SpecNo»), and to perform other duties and obligations as described in said contract, which is incorporated herein by this reference and made a part hereof; and Whereas, principal is required under the terms of said contract to furnish a bond to guarantee principal's faithful performance of the work and all terms and conditions of the contract;

Now, therefore, we the principal and the undersigned, as corporate surety, are held and firmly bound unto Agency in the penal sum of «CostText» (\$«OrigCostFmtd») lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors, executors and administrators, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the principal, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and provisions in the said contract and any alteration thereof made as therein provided, on principal's part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless Agency, its officers, agents and employees, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

The above obligation shall continue after Agency's acceptance of the work for the duration of the warranty period as specified in the contract during which time if principal fails to make full, complete, and satisfactory repair or replacement to the work and/or fails to protect Agency from loss or damage resulting from or caused by defective materials or faulty workmanship, the obligation of surety hereunder shall continue so long as any obligation of principal remains.

PAYMENT BOND

And, whereas, under the terms of said contract, principal is required before entering upon the performance of the work, to file a good and sufficient payment bond with the Agency to secure the claims to which reference is made in Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code of the State of California.

Now, therefore, said principal and the undersigned, as corporate surety, are held firmly bound unto the Agency and all contractors, subcontractors, laborers, material suppliers and other persons employed in the performance of the aforesaid contract and referred to in the aforesaid Civil Code in the like sum of «CostText» dollars (\$«OrigCostFmtd») for materials furnished or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any amounts required to be deducted, withheld and paid over to the Franchise Tax Board from the wages of employees of the contractor and the contractor's subcontractors, that said surety will pay the same in an amount not exceeding the amount hereinabove set forth, and also in case suit is brought upon this bond, will pay, in addition to the face amount thereof, costs and reasonable expenses and fees including reasonable attorney's fees incurred in successfully enforcing such obligation, to be awarded and fixed by the court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

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

GENERAL TERMS

The surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of said contract or the plans and specifications accompanying the same shall in any manner affect its obligations on these bonds, and it does hereby waive notice of any such change, extension, alteration or addition.

Nothing herein shall limit the Agency's rights or surety's obligations under the contract or applicable law, including, without limitation, California Code of Civil Procedure section 337.15.

In witness whereof, this instrument has been duly executed by the principal and surety above named

on _____, 20____.

«Contr»
Name of Principal

By _____

Title _____

Name of Surety

By _____

Attorney-in-Fact

Address _____

City _____ State _____ Zip _____

INDICATE COMPLETE ADDRESS OF SURETY TO WHICH
CORRESPONDENCE CONCERNING THIS BOND SHOULD BE
DIRECTED.

Telephone No. _____

SAMPLE BOND FORM

Agency will prepare the Bond in this format and transmit it to the Contractor along with the Contract and the Notice of Award letter.

Surety shall fill in the Bond No., date identification and signature of surety in places provided.

Contractor shall sign and indicate title in place provided.



SPECIAL PROVISIONS

SECTION 1000

GENERAL RESPONSIBILITIES OF THE CONTRACTOR

1000-1 SCOPE

General responsibilities and miscellaneous administrative requirements shall be complied with as specified in the Standard Specifications, the plans and these Special Provisions.

1000-2 PRE-BID CONFERENCE

The pre-bid conference will be held at the place and time indicated on Page 1 of the Proposal for the purpose of answering any questions concerning the Project. The information transmitted at this meeting must not be construed to in any way modify the plans and specifications. Any modifications will be forwarded to all plan holders as an addendum.

1000-3 CONTRACTOR'S REPRESENTATIVE

The Contractor to whom the contract is awarded shall provide the following information in writing and submit it at the time and concurrently with the signed contract, contract bonds and certificates of insurance. Failure to comply may result in delays in the processing of the contract documents.

- a. Name of authorized representative at the job site.
- b. Address and telephone number where the above person can be reached.
- c. Address of the nearest office of the Contractor, if any, and the name and telephone number of a person at that office who is familiar with the project.
- d. Address and telephone number of the Contractor's main office and the name and telephone number.
- e. Name of the person at that office familiar with the project.

1000-4 **CONSTRUCTION SCHEDULE**

In addition to the requirements of 6-1, the following shall apply:

An updated construction schedule shall be submitted monthly prior to each progress payment closure date. Processing of partial payments will be delayed until such revised schedule complying with this Special Provision and the Standard Specifications is received and approved.

1000-5 **CONSTRUCTION SURVEYS**

Surveys provided by the Contractor pursuant to 2-9.3 through 2-9.6 required for construction of facilities shall conform to the general industry standards and the following minimum quality and standards.

1000-5.1 **Performance and Accuracy**

The surveys shall be accomplished with sufficient precision to result in the required accuracy and shall be performed under the supervision of a Land Surveyor or Civil Engineer licensed by the State of California. The requirements herein shall apply to the minimum essential control required to accomplish establishment of lines and grades by the Contractor, and to provide the Engineer the necessary references for insuring construction accuracy. The method used to establish working stakes will be at the Contractor's option.

1000-5.2 **Details of Staking**

1000-5.2.1 **Alignment**

Centerline alignment stakes or offset stakes shall be set at a maximum of 50-foot intervals and at all curve points, angle points, and changes in elevation or wall height. On curves, stakes shall be set at 25-foot intervals.

1000-5.2.2 **Right-of-Way and Temporary Work Limits**

If required by the plans, Contractor shall establish those limits using ties to the centerline provided on the plans. The accuracy shall be within plus or minus a half foot.

1000-5.2.3 **Rough Grade Stakes**

For rough grading, with cuts or fills, at least one line of stakes shall be set on catch or hinge points, or an offset line. These stakes shall be marked with cut or fill to permit rough finishing of the grading plane. Where slope

checkpoints have been set near the elevation of the grading plane, they may be used as rough grade stakes. The longitudinal interval shall be per 1000-5.2.1.

1000-5.2.4 Final Grade Stakes - Flood Control and Drainage Structures

For reinforced concrete channels and box conduits 10-foot or less in width, earth channels 20 feet or less in width, single levees, foundation excavation, bank protection and embankment fill, one set of final grade stakes shall be established in the invert to control and to check all elements of the structural section, earth channel or levee slopes. Two sets, one on each side of the invert, shall be established for any facility in excess of the above. These shall be in addition to those set outside the limits of the structure or the excavation. Offset distance from each edge of structure or centerline shall be a constant. Grade shall refer to the plane of the finished invert or slope surface. The mark on the stake shall be on the plane or at a uniform vertical offset from the plane of the finished surface. Longitudinal spacing will be 50 feet for tangent alignment and grade. Spacing will be reduced to 25 feet when radius of curvature is less than 1,000 feet or when rate of change of slope is less than 0.005 ft. / ft. Prior to concrete placement, grade stakes and forms shall be checked. Any displacement shall be corrected. If the displacement resulted from settlement or heave, or if the stakes were not used within a reasonable period of time after being set, they shall be restaked.

For pipe conduits, stakes shall be set at the ends and at grade and line breaks. If conduit is to be constructed in stages, the ends of the staged lengths shall be staked. When ends of long, straight runs are not intervisible, intermediate stakes shall be set. The finished pipe grades shall be controlled by optical sighting devices. Use of stringline will not be allowed.

1000-5.2.5 Final Grade Stakes - Roadways

One set of final grade stakes shall be set to control and to check all elements of the structural section of each roadbed, including asphalt concrete and Portland cement concrete pavements. Two lines, one on each side, shall be set for each roadbed. They shall be set outside the limits of the structural section. Offset from each edge of pavement is to be a constant. On wide roadway, grade stakes may be required on the centerline to control the crown. Grade will be referred to the plane of the pavement's surface. The mark on the stake will be in the plane or at a uniform vertical offset from the plane of the pavement's surface. Longitudinal spacing will be 50 feet for tangent alignment and grade. Spacing will be reduced to 25 feet when radius of curvature is less than 3,000 feet or when rate of change of grade is more than 0.8 percent per station. Prior to cement treated base (CTB) and/or paving operations, final grade stakes shall be checked.

1000-5.2.6 **Miscellaneous**

Survey staking for miscellaneous facilities shall be performed as required by the Engineer.

1000-5.3 **Survey Notes**

All survey notes shall be kept on 8-1/2" x 11" standard Agency forms. Notes shall indicate the name of the project, the Contractor, the firm performing surveys, and the party chief, and they shall be dated. Copies of the notes shall be provided to the Engineer or his representative within one day of performance. No construction work shall be initiated on an increment of the project before the Engineer or his field representative receives survey notes. The original notes shall be retained by the surveyor and submitted to the Engineer upon completion of work organized in a proper order in a loose-leaf folder.

1000-5.4 **Concrete Surveys**

Prior to saw cutting concrete required to complete the project, a survey shall be made to provide markings on the concrete indicating the limits of all concrete removals. This survey shall be made with adequate lead time to allow the Agency to review the limits of concrete removals and make adjustments if deemed appropriate prior to the Contractor's schedule for saw cutting and concrete removals.

1000-6 **COMPLIANCE WITH REGULATORY PERMITS AND AGREEMENTS**

1000-6.1 **Permits and Agreements Obtained by the Agency**

Regulatory permits required for this project include a Department of Fish and Wildlife (CDFW) Streambed Alteration Agreement (No. 1600-2019-0120-R5), a Los Angeles Regional Water Quality Control Board Water Quality Certification (File No. 19-037), and Waste Discharge Requirements (No. R4-2018-125, CI-10555), and a U.S. Army Corps of Engineers Permit (SPL-2013-00592-AJS).

These regulatory permits are attached hereto and are part of these specifications. They shall be kept on site at all times and shall be easily accessible to all construction personnel during work.

1000-6.2 **Caltrans Encroachment Permit 07-20-N-DD-1053**

A Caltrans permit is attached hereto and made a part hereof these specifications. The Contractor shall obtain a second separate permit. The Contractor shall be responsible for any fees imposed by the State for this permit. Payment for Caltrans fees and permit compliance will be paid as a part of 1002.

1000-6.3 **Liability**

The Contractor shall indemnify and hold harmless the Agency from all damage to the Agency, including but not limited to penalties, legal fees, and other expenses, resulting from any violation of any permit made a part of this project if the damage is caused in whole or in a part by any action or omission of the Contractor. Contractor and its sureties shall be liable for the amount necessary to indemnify and hold harmless the Agency for all damage resulting from any such violation and that amount may be deducted from any amount due or becoming due to Contractor from the Agency.

1000-7 **HAUL PERMITS**

The Contractor at Contractor's expense shall obtain all State, County, City, or local permits required to haul excavated materials or demolition waste on public roadways.

1000-8 **ACCESS TO THE PROJECT SITE**

Contractor's access to the project site shall be from State Route 118, also called Los Angeles Avenue. Both sides of the Ferro Ditch and the Box Culvert that drains the field to the Northeast of the Ferro Ditch can only be accessed from the Northwest bound lanes on the Northeast Side of this road.

Before completion of the project, the Contractor, at its own expense, shall restore the access routes, including public streets, driveway entrances and Agency access roads, used by the Contractor, to conditions equal or better than that, which existed prior to use by the Contractor. Contractor shall indemnify and hold harmless the Agency against any claims related to damages, the Contractor is advised to take photos and make videos of the streets prior to mobilization.

Any based access roads used by the contractor shall be restored to conditions equal to or better than those which existed prior to use by the

Contractor.

1000-9 **AVAILABLE REPORT INFORMATION**

The following documents will be available for review at <http://www.ebidboard/public/project/index.asp> until the bids are opened, then after upon request to the Project Manager.

- Geotechnical Investigation Report
- Record Drawings to the The Los Angeles Avenue Drain Unit II
- Record Drawings to the The Santa Clara IID and Los Angeles Avenue Drain Unit I
- Record Drawings to the Ferro Debris Basin – Beardsley Watershed Protection Project
- Water Quality Test Results

1000-10 **PRIVATE PROPERTY**

The Contractor shall protect the private property along the north and south side of the project. The Contractor shall exercise care to minimize impact to the existing agricultural property and stay within the delineated work areas.

1000-11 **SECURE WORK AREA**

It is the responsibility of the Contractor to maintain safe and secure work areas at all times. Safe work areas will include the use of barricades, guards, lights, signs, and any other devices necessary to protect the public. The existing chain link gates at entrance to the project site shall be maintained in good working condition until new gates are installed so project site and adjacent agricultural fields can be secured during non-working hours.

1000-12 **REMOVAL OF MATERIALS**

The Contractor shall dispose of all materials at a County recognized recycling/buy back facility or an approved site in accordance with local ordinances.

1000-13 **WATER FOR CONSTRUCTION**

The Contractor shall make independent arrangements for water supply at the construction site at his expense.

1000-14 **EQUIPMENT AND MATERIALS STORAGE**

The Contractor shall arrange and maintain a secure storage site for all equipment and materials. All equipment and unused materials shall be returned to this site at the end of each workday. All deliveries of materials to the job site shall be planned and executed so that traffic is not obstructed or interfered with in any fashion. The Contractor shall submit a Storage Site Plan for approval by the Engineer.

1000-15 **CONSTRUCTION SITE MAINTENANCE**

In accordance with Section 7-8 of the Standard Specifications, the Contractor shall provide the means to maintain a construction site free from dust and excessive noise. The Contractor is required to control dust during the entire contract period, including holidays and weekends.

If the Contractor fails to maintain a clean construction site in accordance with these specifications, the Agency reserves the right to hire another Contractor or agency to perform this work on a "force account" basis. The cost of performing this work will be deducted from the total contract price at final payment.

1000-16 **AIR QUALITY MITIGATION MEASURES**

The Contractor shall be responsible to implement the following air quality mitigation measures for this project as follows:

- All engines shall be properly tuned and maintained.
- Signs shall be posted on-site limiting traffic to 15 miles per hour or less.
- The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excess amounts of dust.
- Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) shall penetrate sufficiently to minimize fugitive dust during grading activities.

- During periods of high winds (i.e. wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with the APCD in determining when winds are excessive.
- All graded and excavated material and active portions of the construction site, included unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary (at least twice per day) and reclaimed water shall be used whenever possible.
- Graded and/or excavated inactive areas of the construction site shall be monitored at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally safe dust control materials, shall be periodically applied to the graded and excavated areas of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be stabilized at the end of construction.
- Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.
- Personnel involved in grading operations, including contractors and subcontractors, shall be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.
- Material stockpiles shall be enclosed, covered, stabilized, or otherwise treated, to prevent blowing fugitive dust off site.
- The proposed Project shall comply with APCD Rule 55 (Fugitive Dust).
- Disturbed soils and soil piles shall be pre-watered and watered as necessary to reduce fugitive dust emissions.
- Clearing and grading activities shall cease during periods of high winds (greater than 20 miles per hour, averaged over one hour).
- Silt containing material excavated, stockpiled or transported during construction shall be watered as necessary to reduce fugitive dust emissions.
- Trucks transporting earth material off-site shall be covered or maintain a minimum two-foot freeboard, and as required by California Vehicle Code §23114.
- Construction equipment and trucks shall be turned off when idling for more than 5 minutes.

- Construction equipment and trucks shall be maintained in accordance with manufacturers' requirements and specifications.
- Construction equipment and trucks shall use alternative fuels, such as compressed natural gas (CNG) and liquefied natural gas (LNG), if feasible.

1000-17

ARCHAEOLOGICAL RESOURCES

Archaeological and Paleontological discoveries shall conform to 6-3.2.

If human remains are unearthed, State Health and Safety Code Section 7050.5 require that no further disturbance shall occur until the Ventura County Coroner has made the necessary findings as to the origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC will identify the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by PRC Section 5097.98. The MLD should make his/her recommendation within 48 hours of their notification by the NAHC. This recommendation may include (A) non-destructive removal and analysis of human remains and items associated with Native American human remains; (B) preservation of Native American human remains and associated items in place; (C) relinquishment of Native American human remains and associated items to the descendants for treatment; or (D) other culturally appropriate treatment.

In the event that archaeological or historic resources are found during Project implementation, a qualified archaeological consultant shall be contacted immediately by the Agency. Additionally, all ground-disturbing activities shall be halted at the discovery site and within 100 feet of it until the discovery has been evaluated by the qualified archaeological consultant and all appropriate agencies have been notified. If the discovery is recommended as eligible for listing in the California Register of Historic Resources, mitigation of the impacts may include archaeological data recovery and/or monitoring.

1000-18

PERSONNEL EDUCATION

The Agency's Biological Monitor shall brief all project personnel on environmental concerns, including conducting all activities within the Project work limits, special status plant and wildlife species expected to occur within the Project area and their habitat, protective measures that must be implemented to avoid harming plants and wildlife, proper protocol in the event wildlife enters or is injured or killed in the work area during contractor

activities, and buffers in the event active bird nests are encountered. All project personnel shall participate in the environmental education program conducted by the Agency's Biological Monitor before they may work on site. Attendees shall sign in on the day they attend documenting their attendance.

1000-19

ENVIRONMENTAL BEST MANAGEMENT PRACTICES

The following best management practices must be adhered to at all times during periods of active work, as follows:

No debris, soil, silt, sand, rubbish, construction waste, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into or placed where it may be washed by rainfall or runoff into the project work area. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within the channel. Prior to removal from the site, all trash shall be stored outside the channel within designated trash receptacles.

The Contractor shall comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws.

The Contractor shall maintain the site (including stockpiles and staging areas) vegetation-free by mechanical or herbicide means. No plants shall be allowed to grow more than 8 inches high or set seed. Methods and products shall be approved by Engineer prior to herbicide application.

Any equipment or vehicles driven and/or operated within or adjacent to the channel shall be checked and maintained daily to prevent leaks of materials that, if introduced into the water, could be deleterious to aquatic life.

Any and all equipment shall be removed from the channel at the end of each workday.

No concrete or any cement product may be placed during a rain event or if rain is predicted within 48 hours of final placement. Runoff or discharges from within the work limits shall not negatively affect water quality, including but not limited to pH, turbidity, temperature, dissolved oxygen. Surface water and runoff shall not be in contact with newly placed concrete for a minimum of 48 hours.

Stationary equipment such as motors, pumps, generators, and welders, located adjacent to the channel shall be positioned over drip pans.

No equipment maintenance shall be done within or near the project work area where petroleum products or other pollutants from the equipment may enter the channel via rainfall or runoff.

The clean-up of all spills shall begin immediately. The Agency shall be notified immediately by the Contractor of any spills and shall be consulted regarding clean-up procedures.

Temporary fills shall be constructed of non-erodible materials and shall be removed immediately upon work completion, and shall be approved by the Agency prior to implementation.

Water containing mud, silt, or other pollutants from equipment washing or other activities, shall not be allowed to enter the channel or placed in locations that may be subjected to high storm flows.

Rock, gravel, and/or other materials shall not be imported to, taken from or moved within the channel, except as otherwise addressed in these specifications.

Any Contractor employee that inadvertently kills or injures an animal, or finds one either dead, injured, or entrapped, shall immediately report the incident to the onsite Agency Inspector or Agency Biological Monitor. Notification must include the date, time, location, and circumstances of the incident. The Agency must report the incident to CDFW and USFWS. The Agency Biological Monitor must immediately take injured animals to the nearest appropriate veterinary or wildlife rehabilitation facility, and turn over dead animals to CDFW or USFWS.

1000-20

ENVIRONMENTAL COORDINATION

The Contractor shall coordinate and fully cooperate with the Agency and the Agency's Environmental Monitor (Environmental Monitor) as follows:

- a) Provide a minimum of five (5) working days' notice to the Engineer prior to mobilization in order to facilitate surveying of native species in the path of construction. No-work buffer zones may be required if surveys determine the presence of nesting birds within or immediately adjacent to the work limits.
- b) Provide a minimum of five (5) working days' notice to the Engineer prior to mobilization in order to facilitate collection of baseline water quality samples as required in the permits.
- c) Provide a minimum of five (5) working days' notice to the Engineer prior to the installation, any modification, and the removal of the

Water Diversion Plan so that the Environmental Monitor may witness and oversee the work.

- d) Facilitate access so block-nets may be installed downstream and upstream of the temporary work area limits by the Environmental Monitor in order to relocate aquatic organisms from the area to be dewatered, and the area on which the diverted and removed waters will be discharged.
- e) Facilitate access so water quality samples may be collected daily during the first week of the water diversion operation and weekly, thereafter, until the water diversion is removed, in accordance with the Water Quality Certification. The Contractor shall be solely responsible for ensuring that the water quality meets the requirements of the Certification.
- f) Provide a minimum of five (5) working days' notice to the Engineer prior to any vegetation clearing so that the Environmental Monitor may witness and oversee the work.

1000-21 **COORDINATION WITH ADJACENT AGRICULTURAL OPERATIONS MANAGER**

Prior to performing tasks in Sections 1007-2.10 and 1021, the Contractor shall contact and coordinate with the Agricultural Operations Manager. The Ferro Properties Operations Manager contact name is Armando Hernandez, Phone 805-368-0184.

1000-22 **COVID-19 PREVENTION MEASURES**

To effectively maintain a safe work environment during the Coronavirus/COVID-19 pandemic, the Contractor shall develop and implement comprehensive COVID-19 exposure control planning accordance with Cal/OSHA Guidelines for the Construction Industry to include proper social distancing, symptom checking, hygiene, and decontamination procedures.

All workers and employees shall adhere to the most recent guidelines published by the Center for Disease Control and Cal/OSHA. A link to the Cal OSHA Guidelines for the Construction Industry may be found at: <https://covid19.ca.gov/industry-guidance/#top>

At a minimum, the plan shall include a detailed risk assessment and the measures that will be taken to prevent spread of the virus and the following procedures shall be practiced at the project site:

1. Practice social distancing by maintaining a minimum 6-foot distance from others.
2. Preclude gatherings of any size, and anytime two or more people must meet, ensure minimum 6-foot separation. If process requires/has no alternative, provide suitable personal protective equipment (PPE), limit interaction to the minimum time required to perform the given task, and comply to the maximum extent.
3. Provide PPE such as gloves, goggles, face shields, face coverings, and face masks as appropriate for the activity being performed.
4. The owner/contractor should designate a site-specific COVID-19 Supervisor to enforce this guidance. A designated COVID-19 Supervisor should be present on the construction site at all times during construction activities. The COVID-19 Supervisor can be an onsite worker who is designated to carry this role.
5. Identify “choke points” and “high-risk areas” where workers are forced to stand together, such as hallways, hoists and elevators, break areas, and buses, and control them so social distancing is maintained.
6. Minimize interactions when picking up or delivering equipment or materials to ensure minimum 6-foot separation.
7. Stagger the trades as necessary to reduce density and maintain minimum 6-foot separation social distancing.
8. Discourage workers from using other workers’ phones, desks, offices, tools, and equipment. If necessary, clean and disinfect them before and after use.
9. Post in areas visible to all workers the required hygienic practices, including: not touching face with unwashed hands or with gloves; washing hands often with soap and water for at least 20 seconds; use of hand sanitizer with at least 60% alcohol; cleaning AND disinfecting frequently touched objects and surfaces such as workstations, keyboards, telephones, handrails, machines, shared tools, elevator control buttons, and doorknobs; and covering the mouth and nose when coughing or sneezing, as well as other hygienic recommendations by the CDC.

10. The use of cloth face coverings in accordance with the guidelines established by the California Department of Public Health and CDC can be found at the following websites:

<https://covid19.ca.gov/masks-and-ppe/>

<https://covid19.ca.gov/industry-guidance/#top>
https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/COVID-19/Guidance-for-Face-Coverings_06-18-2020.pdf

11. Place wash stations in multiple locations to encourage hand hygiene and ensure the stations are always furnished with sufficient water, soap and paper towels.
12. Require anyone on the project to stay home if they are sick, except to get medical care.
13. Have employees inform their supervisor if they have a sick family member at home with COVID-19.
14. Maintain a daily attendance log of all workers and visitors.

1000-23 **ADDITIONAL INSURED**

The Contractor shall provide an additional insured endorsement to the Contractor's liability policy naming SEACOAST FARMS, LLC, 5725 Ralston Street, Suite 200, Ventura, CA 93003, their officers and employees as additional insureds to the comprehensive liability insurance.

1000-24 **LABOR COMPLIANCE SOFTWARE**

The County of Ventura has implemented, and maintains, a labor compliance software service program called "LCP Tracker".

Contractors and subcontractors shall keep accurate payroll records in accordance with Labor Code Section 1776 and shall furnish weekly certified payrolls for their workers and shall input their certified payroll records electronically using LCP Tracker within 7 days following the end of the preceding week.

NOTE: This requirement is in addition to the State of California requirement to upload payrolls into the State DIR electronic system. However, LCP

Tracker has the functionality to upload the submitted payrolls directly to the State DIR electronic system.

In bidding on the project, it shall be bidder's responsibility to evaluate the cost of complying with the above-referenced LCP Tracker requirements.

Agency will provide materials and information to assist the Contractor with using LCP Tracker.

1000-25

PAYMENT

No separate payment will be made for compliance with all provisions of Section 1000. All costs involved shall be absorbed in the Contractor's Bid for the project.

SECTION 1001

CLEARING AND GRUBBING

Bid Item No. 2

1001-1 SCOPE

This item shall consist of clearing and grubbing of, and disposal of, materials removed, in accordance with the requirements of 300-1. This does not include the removal of the tree stumps and rootballs that are part of the agricultural production on southeast side of the Ferro Ditch. See Section 1006 regarding agricultural tree stump and rootball removal.

1001-2 MEASUREMENT AND PAYMENT

Payment for Clearing and Grubbing will be made on a lump sum basis at the contract price Bid for Bid Item No. 2 in accordance with 300-1.4. Such payment shall be considered full compensation for furnishing all labor, material, tools, and equipment, and doing all the work.

SECTION 1002

Traffic Control

Bid Item No. 3

1002-1 SCOPE

This item shall consist of maintaining and removing all Traffic Control in accordance with Caltrans and County of Ventura requirements, the Standards and Specifications and the Special Provisions.

Traffic Control shall be provided for exit and entrance at Los Angeles Avenue also known as State Route 118. All vehicles shall be restricted to right turn only entrance and exit from the site. All traffic control work shall be in accordance with 7-10 and current requirements set forth in the 2014 California Manual on Uniform Traffic Control Devices (CMUTCD), the Department of Transportation, State of California (Caltrans) Standard Plans and Standard Specifications, latest edition, the Standard Specifications (GREENBOOK) 2018 Edition, the plans, and these Special Provisions.

The Contractor shall obtain a permit incidental to traffic control from the Caltrans and pay all costs incurred by the permit requirements. These costs may include inspection fees and permit fees. The Agency has obtained a Caltrans Permit, however, the Contractor shall obtain its own separate permit.

1002-2 TEMPORARY ACCESS

Contractor shall provide and maintain access at all times during the course of construction to the property owners adjacent to the project work limits.

1002-3 TRAFFIC CONTROL PLAN

Two weeks prior to the start of construction work, the Contractor shall submit to the Engineer, the County of Ventura, and Caltrans, a detailed traffic control plan for the affected roads for approval. Contractor shall comply with all the requirements related to hauling of materials on County of Ventura and Caltrans streets and highways.

The traffic control plan shall include such elements as the locations of any lane closures, restricted hours during which the lane closures would not be allowed, local traffic detours, protective devices and traffic controls (such as

barricades, cones, flagmen, lights, warning beacons, temporary traffic signals, warning signs), providing continuous access to abutting properties, provisions for continued pedestrians and bicycles use, and provisions to maintain emergency access through construction work areas.

1002-4 **CONSTRUCTION SIGNING**

Construction signing shall consist of furnishing, installing, maintaining, and removing construction signs and barricades as required by the County of Ventura and Caltrans. In addition, flagmen may be required to direct traffic during construction.

1002-5 **TRAFFIC MAINTENANCE**

The Contractor shall be responsible for handling vehicular and pedestrian traffic in accordance with 7-10. Vehicular traffic must always be maintained. During construction of the project, trucks delivering material to the project site shall minimize deliveries during peak traffic hours.

The Contractor shall coordinate with emergency service providers (police, fire, ambulance, and paramedic services) to provide advance notice of any lane closures, construction hours, and changes to local access and to identify alternative routes where appropriate.

1002-6 **MEASUREMENTS AND PAYMENT**

Payment for Traffic Control will be made on a lump sum basis at the contract price bid for Bid Item No. 3. Such payment will be considered full compensation for furnishing all labor, materials, tools, equipment, and incidentals required to complete traffic control requirements.

SECTION 1003

DIVERSION, CONTROL, AND REMOVAL OF WATER

Bid Item No. 4

1003-1 SCOPE

This item shall consist of diversion, control and removal of all water entering into the construction area or otherwise affecting construction activities. This item shall be performed in accordance with the Standard Specifications, the plans, and these Special Provisions.

1003-2 CONSTRUCTION METHODS

1003-2.1 General

All work for diversion, control and removal of water proposed by the Contractor shall be approved by the Engineer. All work shall be performed in accordance with 10-1, 10-2, 10-3, and the Water Diversion Guide.

Flow diversion shall be completed in a manner that prevents pollution and siltation, and provides flows to downstream reaches. Flows to downstream reaches shall be provided during all times that the natural flow can support aquatic life. Said flows shall be of sufficient quality and quantity, and appropriate temperature to support fish and other aquatic life both above and below the diversion pursuant to Fish and Game Code section 5937. Normal flows shall be restored to the affected stream immediately upon completion of work at that location.

The Contractor shall submit a Surface Water Diversion Plan for approval by the Engineer.

1003-2.2 Construction Dewatering

Any ground water, seepage water, or project generated waste water encountered within the project work areas shall be pumped to a holding tank, treated for contaminants and released into the channel downstream from the project in compliance with the NPDES permit indicated in 1000-6.2.

Contractor shall employ adequate treatment methods to address all effluent limitations of the permit. Contractor shall treat and test groundwater to

confirm compliance with the permit requirements prior to groundwater discharge to the Ferro Ditch at the downstream end of the project site.

Contractor shall connect and maintain in good working order, a totalizing flow meter to the discharge piping that measures both the instantaneous rate and the cumulative volume of discharge groundwater. The Contractor shall record daily groundwater discharge volumes on Agency provided forms.

1003-3

MEASUREMENT AND PAYMENT

Delete 10-4. Progress payments for Diversion, Control and Removal of Water will be computed by the Engineer based on his estimate of the percentage completion of this item of the work. In general, this will be proportional to the percentage completion of the major items of work to which Diversion, Control, and Removal of Water is incidental. Payment will be made on a lump sum basis at the contract price Bid for Bid Item No. 4. Such Payment shall constitute full compensation for installation and removal of diversion and control works, and furnishing all labor, materials, tools, equipment, and other necessary and incidental items required to complete the work.

SECTION 1004

WATER POLLUTION CONTROL

Bid Item No. 5

1004-1 SCOPE

This item shall consist of preventing, controlling, and abating discharges of pollutants from the construction site. This item shall be performed in accordance with the Standard Specifications, the plans, and these Special Provisions.

1004-2 CONSTRUCTION METHODS

1004-2.1 General

Water Pollution Control proposed by the Contractor shall be approved by the Engineer. All work shall be performed in accordance with 7-8.6, 7-8.6.2, 7-8.6.3, and 7-8.6.4.

The affected area is more than 1 acre and the Agency will file a Notice of Intent (NOI) on the State's Storm Water Multi-Application Reporting and Tracking System (SMARTS). The Contractor shall provide all required Permit Registration Documents (PRDs) outlined in Section II B.3 of the General Construction Permit (GCP) Order No 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) No. CAS000002. The Notice to Proceed will not be issued until all PRD documents have been reviewed and accepted by the Agency.

The Agency has developed a SWPPP and Erosion Control Plan for the Caltrans permit process. The Contractor's QSD may use this SWPPP as the basis for their SWPPP or create a new SWPPP. If the Contractor's QSD chooses to use the existing SWPPP, they shall adopt, sign, and be responsible for it as their own document. If the Contractor's QSD creates a new SWPPP, the Contractor shall submit the new SWPPP to Caltrans for review and approval.

The Contractor shall designate a data submitter, in writing, who will be responsible for uploading all GCP documentation on the SMARTS system. The contractor is responsible for providing a QSD and Qualified SWPPP Practitioner (QSP) meeting all requirements of the GCP throughout the entire duration of the project. The Contractor shall be responsible for all

finer levied by the State Water Quality Control Board for failure to comply with all requirements of the General Construction Permit.

During the bid period, the SWPPP developed by the Agency will be available for review at the Ventura County Government Center, Public Counter of the Ventura County Surveyor's office, and electronically at the following location (Ctrl + Left Click):

<http://www.ebidboard.com/public/projects/index.asp?mbrguid=2B485702-FFAE-4327-A8B7-F1C22BE001D2>

After the contract is awarded, the Contractor may request a copy directly from the Engineer for reference.

1004-3

MEASUREMENT AND PAYMENT

Delete 7-8.6.7. Progress payments for Water Pollution Control will be computed by the Engineer based on his estimate of the percentage completion of this item of the work. In general, this will be proportional to the percentage completion of the major items of work to which Water Pollution Control is incidental. Payment will be made on a lump sum basis at the contract price Bid for Bid Item No. 5 and will include full compensation for installation, maintenance, and removal of water pollution control works, including all labor, equipment, materials, and all other necessary and incidental items required to complete the work.

SECTION 1005
EXCAVATION SAFETY

Bid Item No. 6

1005-1 **SCOPE**

This item shall consist of performing all work required to meet the excavation safety requirements specified in 7-10.4.

1005-2 **MEASUREMENT AND PAYMENT**

Progress payments for Excavation Safety will be computed by the Engineer based on his estimate of the percentage completion of this item of work. In general, this will be proportional to the percentage completion of the major items of work to which Excavation Safety is incidental.

Excavation Safety will be paid for on a lump sum basis at the contract price Bid for Bid Item No. 6. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and doing all the work.

SECTION 1006

TREE STUMP AND ROOTBALL REMOVAL

Bid Item No. 7

1006-1 SCOPE

This item shall consist of the complete removal of specific agricultural tree stumps and corresponding rootball systems and cleanup of all limb debris as identified on the plans and shall be performed in accordance with the Standard Specifications, the plans, and these Special Provisions.

1006-2 CONSTRUCTION METHODS

1006-2.1 Excavation

1006-2.1.1 Existing Tree Rootball Removal Excavation

The tree stumps and their corresponding rootballs shall be removed. Excavation shall be performed as necessary to remove the stump, and rootball. The limits of the excavation will be sufficient both horizontally and vertically to remove rootball mass and roots exceeding ½-inch in diameter.

1006-2.2 Fill

1006-2.2.1 Fill of Rootball Removal Excavation

The hole remaining from the rootball excavation shall be filled and meet the requirements in Section 1010.

1006-3 MEASUREMENT AND PAYMENT

Payment for Tree Stump and Rootball Removal will be paid for per each at the contract price Bid for Bid Item No. 7. Such payment shall be considered full compensation for all the labor, materials, tools, equipment and all incidentals required to complete the work, including excavation and filling of the hole left by the rootball and roots.

SECTION 1007
EXISTING FACILITIES

Bid Item No. 8

1007-1 SCOPE

This item shall consist of the removal, reuse, and disposal of existing facilities, which shall be done in accordance with the Standard Specifications, the plans, and these Special Provisions.

1007-2 CONSTRUCTION METHODS

Removal, reuse, and disposal of existing facilities shall include, but not be limited to:

1007-2.1 Existing ¼ Ton Rock

The existing ¼ ton rock revetment in the settling area above the Ferro Ditch shall be removed. Provided it meets the requirements of 1011, it may be re-used.

1007-2.2 Existing Miscellaneous Concrete Structures within the Ferro Ditch Channel

Remove, and dispose of the existing concreted rock revetment within Ferro Ditch.

1007-2.3 Existing Chain Link Fence and Gates

Remove, and dispose existing Chain Link Fence where delineated on the plans. The Chain Link Fence topped with barbed wire that is Parallel to Los Angeles Avenue and Southeast of the Ferro Ditch is to be salvaged and re-installed as shown on the plans at the end of the project.

1007-2.4 Existing 24" CMP

Remove, and dispose of the existing 24" CMP as shown on the plans.

1007-2.5 **Existing Parapet and Concrete Headwall**

Remove and dispose of the existing Parapet and Headwall flush to the top of the existing RC Box.

1007-2.6 **Existing RC Grade Beam**

Remove and dispose of the existing RC Grade Beam per plan.

1007-2.7 **Existing Reinforced Concrete Filled Sacks**

Remove and dispose of the existing reinforced concrete filled sacks.

1007-2.8 **Existing 6" PVC Side Drains**

Cut and Remove interfering portions of the existing 6" PVC drainage lines. One empties upstream of the Flood Control Wall and the other into the Ferro Ditch. For the line that empties into the Ferro Ditch, connect to RC Channel wall per plan. For line that empties upstream of flood control wall, reinstall per plan. Coordination with farmer is required to ensure that source water is not pumped from existing irrigation drainage well during installation. See contact Information in Section 1000-21.

The New 6" PVC irrigation drainage line shall be installed per Section 1021.

1007-2.9 **Existing RC Cut-Off Wall**

Sawcut, Remove and dispose of existing cut-off wall per plan.

1007-2.10 **Existing 8" Corrugated HDPE**

Cut, Remove and dispose of the interfering portion of the existing 8" Corrugated HDPE Irrigation drainage line. Remove to limits shown on plan. Cap and seal where shown on plans.

The existing irrigation drainage system shall be kept functioning while the replacement line is installed. Contractor shall coordinate with the agricultural operations manager to prevent watering of the lemon grove within 24 hours of connecting replacement line to existing drainage system. Contractor shall coordinate with agricultural operations to pump water out of the drainage well for 24-hours after connecting the new line to it. The agricultural operations contact is: Armando Hernandez 805-368-0184.

The New 8" HDPE Irrigation drainage line shall be installed per Section 1021.

1007-2.11 **Existing Air-Vac system for Agricultural Irrigation**

Contractor shall coordinate with agricultural foreman to schedule the shut off of the agricultural irrigation system. Cut and cap existing agricultural water system as shown on the plans. Salvage and store existing Air-Vac and PVC Irrigation line. After project channel has been constructed, coordinate with the Agricultural Foreman to shut-off the agricultural irrigation system in order to reinstall the Air-Vac system. PVC Irrigation line and Air-Vac shall be reinstalled per plan.

1007-2.12 **Existing Agricultural Signs**

Contractor shall remove and reinstall Agricultural field signs that read "Slow/Despacio" per plan. Reinstallation shall occur after CMB access road installation is complete.

1007-3 **MEASUREMENT AND PAYMENT**

Payment for removal, reuse and disposal of Existing Facilities will be made on a lump sum basis at the contract price Bid for Bid Item No. 8. Such payment shall be considered full compensation for all the labor, materials, tools, equipment and all incidentals required to complete the work.

SECTION 1008

TEMPORARY ORANGE SILT FENCE

Bid Item No. 9

1008-1 **SCOPE**

This item shall consist of furnishing all labor, material and equipment necessary for the installation and removal of a Temporary Orange Silt Fence, and shall be performed in accordance with the Standard Specifications, the plans, and these Special Provisions.

1008-2 **CONSTRUCTION MATERIALS AND INSTALLATION**

Geosynthetic fabric for the silt fence must consist of one of the following:

- Polyester
- Polypropylene
- Combined polyester and polypropylene

The geosynthetics fabric shall be protected from moisture, sunlight, and damage during shipping and storage. Each unit must be labeled with the manufacturer's name, identifying information, and product identification. The Contractor shall submit certificate of compliance along with the submittal.

All properties must be based on Minimum Average Roll Value (MARV). Silt fence fabric must comply with:

Property	ASTM Designation	Specification	
		Woven	Non-woven
Grab breaking load 1-inch grip, lb, min. in each direction	D 4632	120	120
Apparent elongation percent, min., in each direction	D 4632	15	50
Water Flow Rate max. average roll value, gallons per minute/square foot	D 4491	10-50	100-150

Permittivity 1/sec., min.	D 4491	0.05	0.05
Apparent opening size max. average roll value, U.S. Standard sieve size	D 4751	30	30
Ultraviolet Degradation percent of original unexposed grab breaking load 500 hr, minimum	D 4595	70	

1008-2.1 **Posts**

Posts must be wood or metal.

Wood posts must be:

- Untreated fir, redwood, cedar, or pine and cut from sound timber
- Straight and free of loose or unsound knots and other defects that would render the stakes unfit for use
- Pointed on the end to be driven into the ground
- At least 2" x 2" in size, and 4 feet long

Metal posts must:

- Shall be made of steel
- Have a "U," "T," "L," or other cross sectional shape that can resist failure from lateral loads
- Be pointed on the end to be driven into the ground
- Weigh at least 0.75-pound per foot
- Be at least 4 feet long
- Have a safety cap attached to the exposed end. The safety cap must be orange or red plastic and fit snugly to the metal post.

1008-2.2 **Silt Fence**

Silt fence must be:

- a minimum width of 36 in. and a minimum tensile strength of 100 lb force
- Constructed with orange silt fence fabric, posts, and fasteners
- Prefabricated or assembled at the job site

Silt fence fabric must be attached to posts using these methods:

- If prefabricated silt fence is used, posts must be inserted into sewn pockets
- If assembled on the job site:
 - If wood posts are used, fasteners must be staples or nails
 - If steel posts are used, fasteners must be tie wires or locking plastic fasteners
 - Spacing of the fasteners must be no more than 8 inches apart

Silt fence shall be placed along the temporary work limits as shown on the plans, the elevation at the base of the fence shall not vary more than 1/3 of the fence height.

Silt fence is installed by:

1. Placing the bottom of the fabric in a trench that is 6 inches deep
2. Securing with posts placed on the downhill side of the fabric
3. Backfilling the trench with soil and hand or mechanically tamping to secure the fabric in the trench

If silt fence fabric is reinforced with wire or plastic mesh, the post spacing may be increased to a maximum of 10 feet. The field-assembled reinforced silt fence must be able to retain saturated sediment without collapsing.

Silt fence sections can be connected by:

1. Joining separate sections of silt fence to form reaches that are no more than 500 feet long
2. Securing the end posts of each section by wrapping the tops of the posts with at least two wraps of 16-gage diameter tie wire
3. Ensuring that each reach is a continuous run of silt fence from end to end or from an end to an opening, including joined panels

If silt fence fabric is pushed vertically through the soil mechanically, the silt fence fabric shall not be damaged nor slip out of the soil resulting in sediment passing under the silt fence fabric.

Silt fence shall be maintained to provide sediment holding capacity and to reduce runoff velocities.

Sediment deposits, trash, and debris shall be removed from silt fence as needed or when directed by the Engineer. If removed sediment is deposited within project limits, it must be stabilized and not subject to erosion by wind or water.

Trash and debris must be removed and disposed lawfully.

Silt fence shall be maintained by:

1. Removing sediment from behind the silt fence when sediment is $\frac{1}{3}$ the height of the silt fence above ground.
2. Repairing or adjusting the silt fence when rills and other evidence of concentrated runoff occur beneath the silt fence fabric
3. Repairing or replacing the silt fence fabric when it becomes split, torn, or unraveled

Silt fence shall be repaired within 24 hours of discovering damage unless the Engineer approves a longer period. If vehicles, equipment, or activities disturb or displace Silt fence shall be repaired.

Ground disturbance, including holes and depressions, caused by the installation and removal of the silt fence must be backfilled and repaired.

Silt fence is measured by the linear foot along the centerline of the installed fence.

1008-3

MEASUREMENT AND PAYMENT

Measurement and payment for the Temporary Orange Silt Fence will be made on linear foot basis at the contract unit price for Bid Item No. 9. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and all incidentals required to complete the work.

SECTION 1009

EXCAVATION

Bid Item No. 10

1009-1 SCOPE

This item shall consist of Excavation for the construction installation of rock rip rap, reinforced concrete major structures, walls, access roads and related facilities as well as contour grading adjacent to Flood Control Wall, including the disposal of all excavated materials. This item shall be performed in accordance with the Standard Specifications, the plans, and these Special Provisions.

1009-2 CONSTRUCTION METHODS

Excavation shall be performed in accordance with 300-7.3. Excavated material may be used for fill and backfill, providing it meets the requirements of Section 1010. Excess excavation material shall be disposed of outside the project limits at a site of the Contractor's choice in accordance with 7-5.2.3. The Contractor shall furnish the Engineer, a copy of the grading permit to dispose of excess excavation material, per 7-5.2.3.

1009-3 MEASUREMENT AND PAYMENT

Original ground lines shown on the plans are based on surveys performed in April 2018. The Agency does not warrant the accuracy of such information as of the date of Bid submittal. It is the Contractor's responsibility to ascertain the existence of any conditions affecting the cost of the work by reasonable examination of the site.

The quantities used in determining payment for excavation will not be measured in the field, but shall be based upon the original ground lines and pay lines indicated on the plans. No allowances will be made in the event the excavation quantities based on the computations as outlined above do not equal the actual amount shown on the proposal form.

Payment for Excavation will be made on a cubic yard basis at the contract price bid for Bid Item No. 10. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and doing all work including grading, shaping, disposing of excess material, restoring

adjacent ground to original condition and other work required under this section or by the plans.

SECTION 1010

FILL AND BACKFILL

Bid Item No. 11

1010-1 SCOPE

This item shall consist of Fill and Backfill for reinforced concrete major structures, rock rip rap lined channels, walls, access roads and related facilities. This item shall be performed in accordance with the Standard Specifications, the plans and these Special Provisions.

1010-2 CONSTRUCTION MATERIALS

1010-2.1 Fill and Backfill Materials

Fill and backfill materials may consist of native or imported materials, or both, unless otherwise specified, and shall be of sufficient quantity as required to fill and back fill over and around the structures as shown on the plans, excluding filter materials. Fill and backfill material shall be approved by the Engineer prior to use. Imported material shall be approved prior to bringing on site.

1010-3 CONSTRUCTION METHODS

1010-3.1 Moisture Requirement

During the fill or backfill operation, the moisture content of all fill and backfill material shall be maintained within 2 percent of optimum. Fill and backfill material shall be dried or moistened as necessary to achieve the required moisture content. The optimum moisture content for each site or soil type will be determined by the Engineer.

1010-3.2 RC Flood Control Wall, Box Culvert, Channel, and Transition Structure

Fill and backfill for RC flood control wall, box culvert, channel, transition structure, and rock rip rap lined channel shall be performed in accordance with 300-7.4, except that the thickness of backfill layers shall conform to 300-3.5.1. No impact, free-fall, or stomping equipment will be allowed.

1010-3.3 **Placement Control**

No materials shall be deposited against the outside walls of RC structures until the concrete within the entire cross section of said structure has developed a strength of not less than the 28-day compressive strength of 4000 psi, in accordance with the requirements of 201-1.1.5. As an alternate method, the Contractor may, at his own expense, have concrete tested to determine when the concrete compressive strength reaches the 28-day compressive strength. The specimens shall be made according to ASTM C31, Making and Curing Concrete Test Specimens in the Field, in molds supplied by the Agency.

1010-4 **MEASUREMENT AND PAYMENT**

Original ground lines shown on the plans are based on surveys performed in April 2018. The Agency does not warrant the accuracy of such information as of the date of Bid submittal. It is the Contractor's responsibility to ascertain the existence of any conditions affecting the cost of the work by reasonable examination of the site.

The quantities used in determining payment for Fill and Backfill will not be measured in the field, but will be based upon the original ground lines and fill limits shown on the plans.

No allowance will be made in the event the Fill and Backfill quantities based on the computations as outlined above do not equal the actual amount of earthwork yardage involved. Final payment will be based on the yardage calculated by the lines shown on the plans and figure shown in the proposal form only, except as provided in the Specifications.

Payment for Fill and Backfill will be made on a cubic yard basis at the contract price bid for Bid Item No. 11. Such payment shall be considered full compensation for furnishing all labor, materials, tools and equipment, and doing all of the work, including base preparation, scarifying, grading, shaping, compacting or consolidating, and all other work required under this section or by the plans.

SECTION 1011

ROCK RIPRAP

Facing Class Rock Riprap – Bid Item No. 12
Facing Class Rock Concreted Riprap – Bid Item No. 13
¼ Ton Class Riprap – Bid Item No. 14
No 2. Class Rock Lining - Bid Item No. 34

1011-1 **SCOPE**

This item shall consist of Rock Riprap construction, both concreted and loose, for channel revetment, and shall be performed in accordance with the Standard Specifications, the plans, and these Special Provisions.

1011-2 **CONSTRUCTION MATERIALS**

1011-2.1 **Rock Gradation**

The rock shall conform to the following gradations:

	¼ Ton Class	Facing Class	Backing No. 2 Class
Rock Sizes	Percentage Larger Than	Percentage Larger Than	Percentage Larger Than
½ Ton	0-5	-	
¼ Ton	50-100	-	
200	-	0-5	
75	95-100	50-100	0-5
25	-	90-100	25-75
5			90-100
1			

The amount of material smaller than the smallest size listed in the table for any class of rip rap shall not exceed the percentage limit listed in the table determined on a weight basis. Compliance with the percentage limit shown in the table for all other sizes of the individual pieces of any class rip rap shall be determined by the ratio of the number of individual pieces larger than the specified size compared to the total number of individual pieces larger than the smallest size listed in the table for that class.

Flat or needle shapes will not be accepted unless the thickness of individual pieces is greater than 1/3 the length. Each individual load of rock rip rap delivered to the project site shall meet the size requirements of the specified gradation.

1011-2.2 **Rock Quality**

Rock shall meet the requirements of 200-1.6, except that all rock shall be angular or subangular in shape. Angular shall be defined as having sharp corners and straight planes on all faces, with no evidence of wear caused by wind, water or abrasion. Subangular shall be defined the same as angular, except with minor evidence of wear caused by wind, water, and abrasion. Rounded or river run cobble shall meet the requirements of subangular provided it is broken so there is a minimum of 3 faces with sharp corners and straight planes. The Engineer will make determination of angularity.

The following quality requirements and tests shall apply:

- a. Minimum apparent specific gravity of 2.5 per ASTM C-127.
- b. Los Angeles abrasion test at 1,000 revolutions and a maximum abrasion loss of 35 percent of ASTM C-535, Grading 1.
- c. Weight loss in 5 cycles shall be not more than 10 percent when sodium sulfate is used or 15 percent when magnesium sulfate is used in the test for soundness performed in accordance with ASTM D5240.
- d. A maximum wetting and drying loss of 5 percent after 10 cycles. A sample of rock shall be crushed, screened, oven-fired, and 1,000 to 1,400 grams of the 3/4-inch to 3/8-inch fraction shall be taken for the test.

After 10 cycles, the percent loss shall be computed as follows:
 $\% \text{ Loss} = 100 \times \text{Weight of Material Passing No. 4 Sieve}$

1011-2.3 **Concrete**

Concrete shall be Class 658-E-3500 and shall conform to the requirements of Subsection 201-1. The water content of the concrete shall be such as to permit pumping in the interstices with limited spading and brooming. The amount of water to be used shall be approved by the Engineer.

1011-2.4 **Gravel Bedding**

The 6-inch thick bedding that is to be used as a protective layer for the nonwoven geosynthetic fabric that is to be installed in the Ferro Ditch Channel shall be uniformly graded 3-inch minus gravel.

1011-2.5 **Nonwoven Geosynthetic Fabric**

The Geosynthetic Filter fabric that is to underly the No.2 Rock Lining shall meet the Cal Trans Class 8 RSP fabric standard.

The nonwoven Geotextile that is to underly the 6" thick gravel bedding shall be Mirafi 140N or approved equal by the engineer shall conform to 213-5.

1011-3 **CONSTRUCTION METHODS**

1011-3.1 **Placing Rock Lining/Riprap**

The Facing Class rock shall be placed by equipment on top of the gravel layer and to the thickness and grades shown on plans. The No. 2 Class Rock shall be placed by equipment between the box culvert and the floodwall as shown on plans. The rip rap and rock lining shall be constructed to the full course thickness in one operation and chinking or filling with loose material shall be avoided. The rock shall be delivered and placed in a manner that will insure that the riprap in place shall be reasonably homogeneous with the larger rocks, uniformly distributed, and firmly in contact one to another with the smaller rocks and spalls filling the voids between larger rocks. Placement of the rock shall begin at the toe and proceed up the slope.

The Rock Lining and Rip Rap shall be placed in a manner to prevent damage to structures. Hand placing will be required to the extent necessary to prevent damage to structures.

Placement of the rock by dumping will not be allowed for the facing class Rock Rip but is permitted for the No 2. Class rock lining to be used adjacent to the flood wall.

1011-3.2 **Placing Concrete**

The surface of the rock to be concreted shall be cleaned of adhering dirt and clay and then moistened. Concrete shall be placed in a continuous operation for any day's run at any one location. Concrete shall be brought to the place of final deposit by means of pumping. Immediately after depositing, the concrete shall be spaded and rodded into place with suitable

spades, trowels or other approved means until the minimum penetration shown on the plans is attained and the surface of the concrete has attained a uniform line. Large depression into the surface of the concrete will not be allowed.

After the concrete has been placed, the rocks shall be thoroughly brushed so that their top surfaces are exposed. The outer rocks shall project approximately 1/3 of the required thickness of the layer above the concreted surface. After completion of any 10-foot strip, no workman or load shall be permitted on the surface for a period of at least 24 hours. Concreted rip rap shall be cured as provided in 302-6.6 except that a fully atomizing, non-agitator tank, may be used.

A 6-inch concrete cap shall be placed on top of the grouted riprap. It shall be finished with a uniform and heavy broom to create a drivable surface. The concrete cap shall be formed with wood on the road side and wire on the slope side.

1011-4

MEASUREMENT AND PAYMENT

Quantities of Backing No. 2 Class Rock Lining, Facing Class Rock Riprap, Facing Class Concreted Rock Riprap, and 1/4 Ton Class Rock Riprap will be measured to the neat lines and limits shown on the plans. Such payment shall be considered full compensation for furnishing all labor, material, tools and equipment, gravel bedding, nonwoven geotextile fabric, and doing all the work. No additional quantity shall be included for subgrade stabilization, gravel bedding of geotextile fabric.

Payment for Facing Class Riprap will be made on a cubic yard basis at the contract unit price bid for Bid Item No. 12.

Payment for Facing Class Concreted Rock Riprap will be made on a cubic yard basis at the contract unit price bid for Bid Item No. 13 including the 6-Inch Cap Concrete.

Payment for 1/4 Ton Class Riprap will be made on a cubic yard basis at contract unit bid for Bid Item No. 14.

Payment for Backing No. 2 Class Rock Lining will be made on a cubic yard basis at contract unit bid for Bid Item No. 34

Such payment shall include subgrade stabilization, non-woven Geosynthetic Fabric, Gravel Bedding and 6- Inch thick concrete cap and shall be considered full compensation for furnishing all labor, materials, equipment, and doing all the work.

SECTION 1012

CHAIN LINK FENCE AND GATE

5' High Chain Link Fence - Bid Item No. 15
20' Wide x 5' High Double Leaf Gate – Bid Item No. 16

1012-1 SCOPE

This item shall consist of removal and replacement of existing Chain Link Fence, and Double Leaf Gates which shall be done in accordance with the Standard Specifications, the plans, and these Special Provisions.

1012-2 CONSTRUCTION MATERIALS

1012-2.1 Chain Link Fabric

Chain Link Fabric for fence and gates shall be galvanized, 9-gage, all chain link fabric shall be woven into approximately 2-inch mesh. Fabric shall have knuckled selvage on the top and bottom edges and shall conform to the requirements of ASTM A 392.

1012-2.2 Posts, Rails, Braces and Gate Frames

Materials for posts, rails, braces and gate frames shall be schedule 40 Class 1, galvanized and shall conform to the requirements of 206-6.1 and Table 206-6.2 (A).

1012-2.3 Tension Wires and Fabric Ties

Materials for tension wires and fabric ties shall be galvanized and shall conform to the requirements of 206-6.4.

1012-2.4 Truss or Tension Rods

Materials for truss or tension rods and turnbuckles shall be galvanized and shall conform to the requirements of 206-6.5.

1012-2.5 Fittings

All fittings and hardware shall be galvanized and shall conform to the requirements of 206-6.6.

1012-2.6 **Gusset**

Corner gussets shall be made of 3/8-inch steel plate, galvanized, welded to gate frame with 4-inch contact sides and 1/8-inch weld. All welds shall be galvanized.

1012-2.7 **Eye-Tops**

All eye-tops shall be galvanized steel cast top only as shown on the plans.

1012-2.8 **Gate Hinge Assembly**

Gate hinge assembly shall be galvanized and U-bolt shall be belted from inside face of the gate and welded.

1012-2.9 **Gate Latch or Catcher Assembly**

Gate latch or catcher assembly shall be galvanized. Gate catcher shall include: 1 7/8-inch Class 1 pipe with cap, gate holdback assembly, U-bolt and nuts. Gate catcher post shall be imbedded 18-inches in concrete footing.

1012-3 **PORTLAND CEMENT CONCRETE FOOTING**

Post footing shall be Portland cement concrete Class 520-C-2500 or 520-C-2500P and shall conform to the requirements of 201-1. Finished surfaces of footing shall be crowned at the top to shed water.

1012-3.1 **Galvanization**

Chain link fence and gates galvanization shall conform to the requirements of 210-3.

1012-4 **CONSTRUCTION METHODS**

1012-4.1 **Chain Link Gates**

Chain link gates shall be constructed in accordance with 304-3.3 and 600-2 of the SPPWC except that it shall include two 6-inch nominal pipe size posts filled with concrete on each side of the gates for gates wider than 4-feet

1012-4.2 **Chain Link Fences**

Chain link fences shall be constructed in accordance with 304-3.2 and 600-3 of the SPPWC, except that it shall include the top rail one inch below the top of the fabric.

1012-4.3 **Post Cap**

Post cap shall be new, galvanized and riveted to the posts.

1012-4.4 **Materials Inspection and Testing**

An Inspector or other authorized representative of the Engineer will examine all chain link fence and gate materials before they are worked in the shop or sent to the project site. Two samples of each material shall be cut from stock designated by the Inspector or Engineer and sent to the reputable laboratory for thickness and zinc coating tests per ASTM A 90 in accordance with 210-3.2. The Contractor is responsible for the cost of the laboratory tests.

1012-5 **MEASUREMENT AND PAYMENT**

Payment for 5' High Chain Link Fence will be made on a linear foot basis at the contract unit price Bid for Bid Item No. 15.

Payment for 20' Wide x 5' High Double Leaf Gate will be made on a per each basis at the contract unit price Bid for Bid Item No. 16.

Such payments shall constitute full compensation for all removals and salvage of existing gate materials, and furnishing all labor, materials, fittings and equipment, tools and all other necessary and incidental items required to complete the work.

SECTION 1013
CONCRETE FOR MAJOR STRUCTURES
Bid Item No. 17

1013-1 **SCOPE**

This item shall consist of Portland cement concrete for the box culvert, the flood control wall, the reinforced concrete rectangular open channel and the reinforced concrete transitional structure. These Items shall be constructed in accordance with the Standard Specifications, the plans, and these Special Provisions.

1013-2 **CONSTRUCTION MATERIALS**

1013-2.1 **Portland Cement**

Cement shall be Type II, low alkali Portland cement conforming to ASTM C 150 and the low alkali requirements of Table 2 therein. The Contractor shall submit Portland cement mix design for approval by the Engineer.

1013-2.2 **Aggregate**

Aggregate shall conform to the requirement of Section 200. Alternate Rock Material Type S as specified in 400 is also allowed. All aggregate shall meet the requirements of the combined aggregate gradation C in accordance with 201-1.3.2, Table 210-1.3.2(A). Soundness loss determined by California Test Method 214 shall not exceed 10 percent. The Contractor shall submit aggregate gradation certifications for approval by the Engineer.

1013-2.3 **Water Cement Ratio**

Water to cement ratio shall not be greater than 0.45.

1013-2.4 **Strength Requirements**

All concrete shall meet the requirements of 201-1 and attain a minimum 28-day compressive strength of 4,000 psi.

Sampling and testing shall conform to the requirements of 201-1 except that the last two paragraphs of 201-1.1.5 shall be revised to read as follows:

The average of any three consecutive strength tests in a reach between two adjacent construction joints shall be equal to or greater than 4,000 psi. No more than 10% of the test on the entire project shall be less than the specified 28-day strength. No test shall be less than 90% of the specified 28-day strength. This criteria shall apply only to strength data obtained from concrete test cylinders.

In the event that the concrete test cylinders fail to meet the above strength requirements, the concrete placed within that reach shall be cored. The Engineer shall determine the frequency and location of the cores to provide representative sampling. The average of three cores from the same reach between two adjacent construction joints, taken within 35 days of the pour, shall not be less than 90% of the specified 28 day strength and no single core shall test less than 85 % of the specified 28 day strength. The cores shall be obtained and tested for compressive strength in accordance with ASTM C 42 and ASTM C 39. The Contractor shall pay the Agency the cost of such coring and testing.

1013-2.5 **Asphaltic Filler**

Asphaltic Filler shall be W. R. Meadows Fiber Expansion Joint, or approved equal. The Contractor shall submit asphaltic filler specifications for approval by the Engineer.

1013-2.6 **Curing Compound**

Curing compound shall comply with 201-4.1.1, Type 1-D, with red fugitive dye. The Contractor shall submit curing compound specifications for approval by the Engineer.

1013-2.7 **Waterstop**

Waterstop shall be Greenstreak Base Seal Waterstop 776, or approved equal. The Contractor shall submit Waterstop specifications for approval by the Engineer.

1013-3 **CONSTRUCTION METHODS**

1013-3.1 **Construction Joints**

When keyed construction joints are indicated on the plans, a formed keyed joint per the dimension shown shall be provided. Use of pre-molded or pre-formed joint material will not be allowed unless it conforms to the dimensions shown on the plans.

1013-3.2 **Sequence of Placement of Concrete**

A minimum of 16 hours shall elapse between alternate placements of Portland cement concrete in adjacent sections, both longitudinally and transversely along the construction joints in the invert slabs. Similar minimum elapsed time shall be required for alternate pours in the walls and top slabs. Continuous pours of sections in excess of 50 feet long will not be allowed unless otherwise indicated on the plans. The Contractor shall maintain a uniform placement pattern approved by the Engineer.

1013-3.3 **Invert Slabs**

Following consolidation of the placed concrete by vibration method, the concrete shall be struck off or screeded to the required grade by means of a straight edge. A small amount of concrete is to be pushed ahead of the straight edge to fill in the low spots. Immediately after strike off, the concrete shall be worked with a "bull float" or "darby" until a smooth surface is obtained. As the sheen begins to leave the surfaces, edging and jointing work shall be done.

When the concrete has set sufficiently for proper finishing, a two-step operation of floating and troweling shall be used on the invert. The first step shall be floating of the concrete surface, with power equipment, until a smooth uniform surface is acquired. When the concrete has hardened so that water and fine material will not be worked to the surface, the second step of the finishing operation shall commence. This step shall be the finishing of the invert surface with a power steel trowel.

All edging and jointing work should be re-marked before the second step or steel troweling operations to insure sharp and clean markings.

If shoring is used for construction, it shall be performed in such a manner as not to interfere with the finishing of the invert slab. No deviation from this requirement will be allowed. Solid sheeting will not be allowed.

1013-3.4 **Vertical Walls**

1013-3.4.1 **Finishing of Top of Walls**

In order to provide for accurate and even surface finish, forms for the channel wall construction shall not extend above finished wall grade. Chamfer strips shall be provided on both inside and outside forms. Edging of concrete corners will not be allowed.

1013-3.5 **Placing Concrete Under Adverse Weather Conditions**

The following is in addition to the requirements of 303-1.8.8. If quick setting is encountered, the concrete shall not be retempered. Rather than introducing free water at the plant, water may be added to a dry batched mix through a certified water meter near the project site. If this is done, other specification requirements are not waived. The total elapsed time between the addition of cement to the aggregates and discharging the completed mix shall not exceed 90 minutes with concrete temperatures less than 85° F. With higher concrete temperatures, less time will be allowed, as approved by the Engineer.

1013-3.5.1 **48-hour Clear Weather forecast**

No concrete shall be placed less than 24 hours after rainfall, and unless there is 48 hours of clear weather forecast from the last scheduled placement. For the purposes of this section, any forecast by the National Oceanic and Atmospheric Administration (NOAA) of 50% or greater chance of measurable (0.01 inch or more) precipitation within the next 48 hours.

1013-3.6 **Curing**

Curing shall comply with 303-1.10, except that the curing compound shall be applied using power operated spray equipment at a uniform rate of not less than one gallon per 150 square feet of surface.

1013-3.7 **Corrective Measures**

When cracks in excess of 0.03 inch in width occur in the structure or cracks indicate penetration of water and leaching, the cracks shall be injected with an epoxy approved by the Engineer, to the level of finish concrete.

In the event that concrete cylinder or core tests indicate that a portion of the element (slabs or walls) between construction joints is under strength as defined under "Strength Requirements," the entire element shall be considered under strength and correction measures approved by the Engineer shall be performed by the Contractor.

1013-3.8 **Upstream Water Diversion Removal**

The upstream water diversion shall remain in place for a minimum of 48 hours after the last concrete section of concrete invert is poured.

1013-4

MEASUREMENT AND PAYMENT

Measurement and payment for Concrete for Major Structures will be made on a cubic yard basis in accordance with 303-1.11 at the contract unit price Bid for Bid Item No. 17. Such payment shall be considered full compensation for all materials, including asphaltic filler, joint sealant, curing compound, waterstop, and labor, tools, equipment and doing all the work.

SECTION 1014

REINFORCING STEEL FOR MAJOR STRUCTURES

Bid Item No. 18

1014-1 SCOPE

This item shall consist of furnishing, bending, fabricating and placing Reinforcing Steel for Major Concrete Structures and other structures incorporated therein. This item shall be performed in accordance with the Standard Specifications, the plans, and these Special Provisions.

1014-2 CONSTRUCTION MATERIALS

The Specifications for the Caltrans box culvert are defined in the 2018 Caltrans Standard Specification, Section 51.

All reinforcing steel shall be Grade 60 billet steel conforming to 201-2. The Contractor shall submit reinforcing steel mill certificates for approval by the Engineer.

1014-3 CONSTRUCTION METHODS

Prior to fabricating the reinforcing steel, the Contractor shall submit an electronic copy of the reinforcing steel take-off/placing diagram shop drawings for review. However, furnishing of the shop drawings to the Engineer shall not be construed to imply that the shop drawings will be reviewed for accuracy. The Contractor shall be wholly and completely responsible for the accuracy of the shop drawings and for furnishing and placing the reinforcing steel in accordance with the details shown on the plans and as specified. Comments on the shop drawings by the Engineer shall be addressed by the Contractor immediately upon receipt, and revised and/or corrected shop drawings shall be resubmitted prior to steel reinforcing placement on the job site.

1014-4 MEASUREMENT AND PAYMENT

All longitudinal and transverse reinforcing steel quantities are computed on a per foot basis using unit weights based on Deformed Billet Steel Bars for Concrete Reinforcing, ASTM Designations A615, A616 and A617. No

allowance was made for laps in longitudinal and transverse reinforcing, unless lap is shown on plans; nor for reduction in length in the reinforcing bars due to bends (bar lengths based on theoretical dimensions); nor for additional transverse reinforcing as specified 3 inches from the construction joints.

No deduction in steel quantities was made for metal inserts or openings 5 square feet or less in area.

Quantities of Reinforcing Steel for Major Structures will not be measured for payment. Payment shall be made on a per pound basis in accordance with the computed theoretical quantities based on the contract plans and these Special Provisions and at the contract price Bid for Bid Item No. 18. Such payment shall be considered full compensation for all labor, materials, tools, equipment and doing all the work.

SECTION 1015

SUBDRAIN PIPE

Bid Item No. 19

1015-1 SCOPE

This item shall consist of furnishing and installing subdrain pipe, complete in place, and shall be performed in accordance with 306-2.1, the plans and these Special Provisions.

1015-2 CONSTRUCTION MATERIALS

1015-2.1 Subdrain Pipe

The subdrain pipe, both perforated and non-perforated, as well as all fittings, shall be PVC pipe, Schedule 40, conforming to ASTM D-1785. Subdrain pipe shall include all pipe, couplings, elbows, plugs, etc., to install per plans. Standard sewer and plugs shall be as manufactured by Certain-Teed, Johns-Manville, or an approved equal. Perforations shall conform to ASTM C-508 as to size. Pattern shall be as shown on the plans.

1015-3 CONSTRUCTION METHODS

1015-3.1 General

The excavated subgrade shall be kept free of surface water. Mudholes, ruts, or soft spots due to the Contractor's operations shall be repaired at his expense, subject to approval by the Engineer. The Filter Materials A and B shall be placed around drainage pipe so as to provide even support throughout the entire length of the pipe and to permit the installed pipe to lie upon true alignment and grade.

The Filter Materials A and B shall be spread to such depth as to obtain the specified thickness after compaction and shall be uniform and true to the lines and grades indicated on the drawings. Any pipe damaged during placement or compaction shall be replaced at the Contractor's expense.

The Contractor shall exercise due care to prevent water from surface drainage or other sources such as mud, muck, or debris, from running into the filter or drain material, both during and after its placement, until the

lining, backfill, or structure placed thereon is completed or until the concrete placed thereon has attained its final set. The Contractor shall provide and operate drainage sumps and pumps, or equivalent means approved by the Engineer, to prevent any such saturations of the filter drain materials.

1015-3.2 **Tests of the Subdrain System**

A test of each completed section of subdrain pipe adjacent to the channel walls shall be performed after placement of the filter materials, but prior to backfill, and shall consist of the flushing of the subdrain line with sufficient water to develop a flow of five cubic feet per minute, out of the end of the line being tested, as measured by approved measuring equipment to be furnished by the Contractor. Final acceptance of the subdrain system will be made only if the discharge is of uniform flow and of adequate quantity. At the Contractor's option, the 5-inch diameter ball test may be used instead of water.

Any necessary clearing of subdrain pipe to meet the above requirements shall be performed by the Contractor at his own expense.

1015-4 **MEASUREMENT AND PAYMENT**

Payment for Subdrain Pipe will be made on a per linear foot basis in place, including wall connections, end plugs, at the contract unit price bid for Bid Item No. 19. This payment will include full compensation for all labor, materials, tools and equipment to complete the work.

SECTION 1016
CMB ACCESS ROAD

Bid Item No. 20

1016-1 SCOPE

This item shall consist of access road construction, which shall be performed in accordance with the Standard Specifications, the plans, and these Special Provisions.

1016-2 CONSTRUCTION MATERIALS

Surfacing shall consist of CMB meeting the requirements of 200-2.4. Gradation shall be fine. The Contractor shall submit gradation certifications and test results for approval by the Engineer.

1016-3 CONSTRUCTION METHODS

1016-3.1 Subgrade

The subgrade shall be prepared in accordance with 301-1. The relative compaction and tolerances shall be as required for base.

1016-3.2 Crushed Miscellaneous Base (CMB) Surfacing

Surfacing shall be a minimum of 6 inches thick and shall be constructed in accordance with 301-2, except that the relative compaction shall not be less than 95 percent.

1016-4 MEASUREMENT AND PAYMENT

Measurement and payment for CMB Access Road surfacing will be made on a square yard basis at the contract unit price Bid for Bid Item No. 20. Such payment will be considered full compensation for furnishing all labor, materials (including water), tools, equipment, and incidentals required to perform and complete all the work.

SECTION 1017

FILTER MATERIAL

Filter Material A - Bid Item No. 21

Filter Material B - Bid Item No. 22

1017-1 **SCOPE**

This item shall consist of furnishing and installing the entire filter materials under and adjacent to the warped section, channel, box conduit, and around subdrain pipe, and shall be performed in accordance with the Standard Specifications, the plans and these Special Provisions.

1017-2 **CONSTRUCTION MATERIALS**

1017-2.1 **Filter Material A Requirements**

Filter Material A, in place, shall conform to quality requirements for sand for Portland cement concrete as specified in 200-1.5.3.

1017-2.1.1 **Gradation**

Filter Material A shall conform to the following gradation:

SIEVE SIZE	PERCENTAGE PASSING
3/8"	100
No. 4	90-100
No. 8	75-90
No. 16	55-75
No. 30	30-50
No. 50	10-25
No. 100	2-10
No. 200	0-5

1017-2.2 **Filter Material B Requirements**

Filter Material B, in place, shall conform to quality requirements for coarse aggregate for Portland cement concrete as specified in Section 200-1.4, except that the specific gravity shall be a minimum of 2.3. Soundness loss determined by California Test Method No. 214 shall not exceed 10 percent.

1017-2.2.1 **Gradation**

Filter Material B shall conform to the following gradation:

SIEVE SIZE	PERCENTAGE PASSING
1-1/2"	100
1"	95-100
3/4"	55-85
3/8"	8-20
No. 4	0-5
No. 200	0-5

1017-2.3 **Filter Fabric A**

Filter Fabric A for subdrain system shall consist of a needle punched nonwoven geotextile composed of polypropylene fibers which are formed into a stable network such that the fibers retain their relative position. Filter Fabric shall meet the specifications of Mirafi ® 140NL or approved equal. Filter Fabric shall be placed between Filter Material A and B to keep the Filter Materials separated as shown in the construction plans.

1017-3 **CONSTRUCTION METHODS**

1017-3.1 **Base Preparation**

Foundation surfaces and trenches shall be clean and free of organic matter, loose soil, foreign substances, and standing water when Filter A is placed. Earth surfaces upon or against which Filter A will be placed shall not be scarified.

1017-3.2 **Placement**

Filter Material A shall be installed to the neat lines and grades shown on the plans, and may be placed by dumping and spreading by any suitable equipment. However, care shall be exercised to prevent contamination with native or deleterious material.

Filter Material A, under structure invert slab, shall be compacted in 12-inch maximum layer by track rolling with at least four passes over the entire surface with the use of bulldozer, with a basic machine weight of 5 tons and with sufficient water to provide a firm and unyielding surface as determined by the Engineer.

Along structure walls, Filter Material A shall be compacted in 8-inch layers using three passes of hand directed compaction equipment.

At the time of compaction, the moisture content of the material shall be such as to insure a firm and unyielding surface.

Filter Material B shall be placed in such a manner as to insure complete encasement of the subdrain pipe. No mixing of Filter A and B will be allowed. Contractor will be required to follow special placement methods to insure compliance with details on the plans.

1017-4

MEASUREMENT AND PAYMENT

Filter Materials A and B will be measured to the neat lines as shown on the typical pay section and the cross sections. No adjustment will be made for changes in the excavation cut slopes, or over excavation not specifically required by the Engineer for Filter Material A, or spillage of Filter Material B. Payment for Filter Materials A and B will be made on a cubic yard basis at the contract price bid for Bid Item Nos. 21 and 22 respectively. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and incidentals to complete the installation in place.

SECTION 1018

RC PIPE, JUNCTION STRUCTURES, AND APPURTENANCES

36" Concrete Flared-End Section – Bid Item No. 23

36" RC Pipe – Bid Item No. 24

36" Junction Structure – Bid Item No. 26

1018-1 SCOPE

These items shall consist of providing and installing the 36" Concrete Flared End Section, 36" RC Pipe, 36" Junction Structure and appurtenances as shown on the plans and shall be performed in accordance with the Standard Specifications, the plans, and these Special Provisions.

1018-2 CONSTRUCTION MATERIALS

10018-2.1 Reinforced Concrete Pipe

RC pipes shall conform to 207-2 and the D-load specified on the construction plans. The pipes shall be cast with Portland cement conforming to 201-1.2.1, except that the saw cutting of the edge is required.

1018-2.2 Portland Cement Concrete

Portland cement concrete shall meet the requirements of 201-1.

1018-2.3 Concrete Flared-End Section

The Concrete Flared End Section shall conform to the details shown on the State of California Department of Transportation Standard Plan D94B and meet the standards set in Section 70-5.02 "Flared End Section" of the 2018 Caltrans Standard Specifications.

1018-2.4 Steel Reinforcement

Steel reinforcement shall conform to 201-2. Reinforcing steel shall be Grade 60 billet steel.

1018-3 **CONSTRUCTION METHODS**

1018-3.1 **Pipe Trench**

Pipe trenches shall be excavated in accordance with 306-3. Any over excavation of the RC pipe trenches shall be backfilled with concrete bedding at no additional cost. Excavation material may be used for trench fill, provided it satisfies the requirements of 306-6. The contractor shall dispose of unsuitable material outside of the project limits. The moisture content of the material at the time of compaction shall be maintained within 2 percent below and 2 percent above optimum. The Engineer will determine the optimum moisture content for each site or soil type.

1018-4 **MEASUREMENTS AND PAYMENT**

Payment for 36" Concrete Flared-End Section will be made in accordance with 306-15.7 on a lump sum basis at the contract unit price bid for Bid Item No. 23.

Payment for 36" RC Pipe will be made in accordance with 306-15.1 on a linear foot basis at the contract unit price bid for Bid Item No. 24.

Payment for 36" Junction Structure will be made in accordance with 306-15.7 on a lump sum basis at the contract unit price bid for Bid Item No. 26.

SECTION 1019

DRAINAGE GATES AND 12" THIMBLE

36" Diameter Automatic Drainage Flap Gate – Bid Item 25

36"H x 48"W Automatic Drainage Flap Gate - Bid Item No. 27

12" Diameter Automatic Drainage Flap Gate and Wall Thimble - Bid Item No. 28

1019-1 SCOPE

This item shall consist of furnishing and installing two automatic drainage flap gate and one wall thimble and shall be performed in accordance with the Standard Specifications, the plans and these Special Provisions.

1019-2 CONSTRUCTION MATERIALS

1019-2.1 Type of Gate

Circular Drainage Gates shall be a Waterman F-25 or approved equal flap gate with bronze seats and stainless steel hardware.

Rectangular Drainage Gate shall be a Waterman F-20 or approved equivalent flap gate with bronze seats and stainless steel hardware.

1019-2.2 Wall Thimble

Wall thimble shall be heavy, one-piece castings. The front flange shall be machined to a plane and shall be drilled and holes tapped to mate the drilling pattern of the gate frame. Holes shall be plugged to prevent concrete from intruding into threaded area. The vertical centerline shall be clearly shown by permanent marks at the top and bottom of the machined face. The word "top" shall be marked permanently near the top center-line of the thimble opening. The surfaces to be cast into the concrete shall be free of paint, oil, and grease. Corrosion-resistant studs and nuts shall be provided for attaching the gate. Mastic shall be applied to form a seal between the front face of the thimble and the back of the gate frame. The mounting face of the thimble shall be installed flush with the face of the wall. Thimble Type shall be "F" Type.

1019-2.3 Frame and Cover

The frame and cover shall be cast iron or cast steel and shall be fitted with bronze seat facings. The frame shall be of flat back and inclined face design

to assure positive closure. The cover shall be cast in one piece, with domed construction to withstand maximum seating head specified by manufacture. Built-in stops shall be provided to prevent the cover from rotating sufficiently to become wedged in the open position.

1019-2.4 **Seat Facings**

Seat facings shall be bronze material securely attached to frame and cover by welding or other approved methods and machined to a smooth finish to insure proper contact.

1019-2.5 **Linkage System**

The linkage system by which the flap gate is mounted onto the frame shall be the double pivoted type. The hinge links shall be stainless steel, bronze bushed, pivot points on cover and frame.

1019-2.6 **Assembly Hardware**

All assembly hardware, including anchor bolts, shall be stainless steel.

1019-2.7 **Materials Specification**

Materials in flap gate and appurtenances shall conform to the requirements of the applicable specifications listed below for the alloy, grade, type, or class of material and the condition and finish appropriate to the structural and operational requirements.

<u>Material</u>	<u>Specification</u> (ASTM)
Gray Cast Iron	A 48, Class 30 or A 126, Class B
Stainless Steel	A 167, A 276, or A 582 Type 302, 303,304, or 303L
Bronze bar, rods, shapes	B 21 or B 98
Cast iron	A 48, Class 30, or A 126, Class B
Cast-steel	A 27 or A 148

1019-2.8 **Coating**

Except for the stainless steel fasteners and seating faces, the automatic flap gate shall be completely coated with coal tar epoxy system prior to delivery for installation. The coal tar epoxy system shall meet the requirements of Federal Standard TT-C-535A.

1019-2.9 **Certification**

The material certification shall include the name of the manufacturer, the manufacturer's model number (for standard catalog items) or the seating head for which the gate is designed together with such drawings and specifications as may be necessary to show that the gate conforms to the requirements of these Special Provisions.

1019-3 **CONSTRUCTION METHODS**

The drainage gates shall be installed to allow for free outflow.

Circular Drainage Gates shall be installed on the wall thimble per manufacture recommendations.

Flap gate shall be properly adjusted at the factory minimum leakage requirements. Flap gate shall be crated at the point of manufacture in strong crates of such design and material as to effectively protect the flap gate and shall be delivered to the site of the work in unbroken crates.

The flap gate furnished for installation on the project shall have furnished with it a detailed set of instructions covering the manufacturer's recommended method of installation. The Contractor shall adjust the gate in the field after installation to the satisfaction of the Engineer.

The Contractor shall exercise due care in handling and installing of flap gate and a template shall be used to set the anchor bolts for the gate frame when mounted on concrete headwall. The joint between the gate frame and the concrete collar or headwall shall be watertight.

1019-4 **MEASUREMENT AND PAYMENT**

Payment for the 36" Diameter Automatic Drainage Flap Gate will be made on a lump sum basis at the contract unit price bid for Bid Item No. 25.

Payment for the 36"H x 48"W Automatic Drainage Flap Gate will be made on a per each basis at the contract unit price bid for Bid Item No. 27.

Payment for the 12" Diameter Automatic Drainage Flap Gate and Wall
Thimble will be made on a lump sum basis at the contract unit price bid for
Bid Item No. 28.

SECTION 1020

PVC PIPE INSTALLATION

6" PVC Irrigation Drainage Line - Bid Item No. 30
12" PVC Irrigation Sleeve - Bid Item No. 35

1020-1 SCOPE

This item of work consists of Includes all labor, materials, equipment, and operations required to complete the PVC Pipe installation in accordance with the Standard Specification, these Special Provisions, and the Plans.

1020-2 CONSTRUCTION MATERIALS

1020-2.1 General

All PVC Pipe shall be in accordance with 207-17 and as specified herein.

1020-2.2 PVC Pipe, Pipe Fittings, Couplings and Joints

All PVC Pipe, Pipe Fittings, Couplings and Joints shall conform to table 207.17.1

1020-3 CONSTRUCTION METHODS

Installation shall be in accordance with 306-7.7.2. PVC Pipe used for marking the location of the 12" PVC Irrigation sleeve shall be installed per plan.

1020-3.1 Well Pumping and Upstream Diversion

See Section 1007-2.10.

1020-3.2 Trenching

Pipe trenches shall be excavated in accordance with 306-3. The Contractor shall dispose of unsuitable material outside of the project limits.

1020-3.3 **Bedding and Backfilling**

Bedding shall conform to 306-6. Bedding Excavation material may be used for trench fill, provided it satisfies the requirements of 306-6. The moisture content of the material at the time of compaction shall be maintained within 1 percent below and 3 percent above optimum.

1020-3.4 **Clean Up and Repair**

Upon completion of the work, make the ground surface level, remove excess materials, rubbish, debris, etc., and remove construction and installation equipment from the premises. Dispose of in a safe and legal manner.

1020-4 **MEASUREMENT AND PAYMENT**

Payment for 6" PVC Irrigation Drainage Pipe will be made in accordance with 306-15.1 on a linear foot basis at the contract price bid for Bid Item No. 30. Such payment will be considered full compensation for furnishing all labor, materials, tools, equipment, and incidentals required to complete the installation in place.

Payment for 12" PVC Irrigation Sleeve will be made in accordance with 306-15.1 on a linear foot basis at the contract price bid for Bid Item No. 35. Such payment will be considered full compensation for furnishing all labor, materials, including 3" PVC location markers, tools, equipment, and incidentals required to complete the installation in place.

SECTION 1021

CORRUGATED HDPE IRRIGATION DRAINAGE LINE

8" HDPE Irrigation Drainage Pipe - Bid Item No. 31
8" Collar HDPE To CMP Sump Well - Bid Item 32

1021-1 **SCOPE**

This item of work consists of Includes all labor, materials, equipment, and operations required to complete the removal and replacement of the 6" PVC irrigation pipe in accordance with the Standard Specification, these Special Provisions, and the Plans.

1021-2 **CONSTRUCTION MATERIALS**

1021-2.1 **General**

All PVC Pipe shall be in accordance with 207-17 and as specified herein.

1021-2.2 **HDPE Pipe, Pipe Fittings, Couplings and Joints**

All Corrugated HDPE Pipe, Pipe Fittings, Couplings and Joints shall conform to table 207.18

1021-2.3 **Portland Cement Concrete**

Portland cement concrete shall meet the requirements of 201-1.

1021-2.4 **Threaded Rod Anchorage**

All threaded Rod Anchorage, nuts, and washers shall be galvanized and shall be in accordance with ASTM Standard 206-1.4.3.

1021-3 **CONSTRUCTION METHODS**

Installation shall be in accordance with Section 306-7.7 of the Standard Specifications. 24-hours prior to connecting the New HDPE line to the existing well, captured water in the well shall be pumped so that the water level in the well is kept a minimum of 3' below the invert of the new HDPE Line. This will require coordination with Agricultural Operations Manager. See Section 1000.

1021-3.1 **Trenching**

Pipe trenches shall be excavated in accordance with 306-3. The Contractor shall dispose of unsuitable material outside of the project limits.

1021-3.2 **Bedding and Backfilling**

Bedding shall conform to 306-6. Bedding Excavation material may be used for trench fill, provided it satisfies the requirements of 306-6. The moisture content of the material at the time of compaction shall be maintained within 1 percent below and 3 percent above optimum.

1021-3.3 **Clean Up and Repair**

Upon completion of the work, the Contractor shall grade the ground surface level, remove excess materials, rubbish, debris, etc., and remove construction and installation equipment from the premises, dispose of in a safe and legal manner.

1021-4 **MEASUREMENT AND PAYMENT**

Payment for 8" Corrugated HDPE Irrigation Drainage Pipe will be made in accordance with 306-15.1 on a linear foot basis at the contract price bid for Bid Item No. 31. Such payment will be considered full compensation for furnishing all labor, materials, tools, equipment, and incidentals required to complete the installation in place.

Payment for 8" Collar HDPE To CMP Sump Well will be made in accordance with 306-15.1 on a lump sum basis at the contract price bid for Bid Item No. 32. Such payment will be considered full compensation for furnishing all labor, materials, tools, equipment, and incidentals required to complete the installation in place.

SECTION 1022

POTHOLING

Bid Item No. 33

1022-1 SCOPE

This item shall consist of furnishing all labor, material, equipment, appurtenances, testing, and services to pothole existing utilities in accordance with the Standard Specification, these Special Provisions, and the Plans.

1022-2 CONSTRUCTION METHODS

1022-2.1 General

Contact Underground Service Alert at least 48 hours prior to performing the potholing of identified utilities.

Pothole existing ATT line as shown on the Plans and in accordance with Ventura County Standard Specifications Section 5.

1022-3 MEASUREMENT AND PAYMENT

Payment for Potholing will be made on a lump sum basis at the contract price bid for Bid Item No. 33. Such payment will be considered full compensation for furnishing all labor, materials, tools, equipment, and incidentals required to complete the Work.

SECTION 1023
RC Flood Control Wall
Bid Item No. 33

1023-1 **SCOPE**

This item shall consist of furnishing all labor, material, equipment, testing, and services to construct the RC Flood Control Wall in accordance with the Standard Specification, these Special Provisions, and the Plans.

1023-2 **CONSTRUCTION MATERIALS**

1023-2.1 **Concrete**

Concrete shall be per Section 1013-2 of these specifications.

1023-2.2 **Reinforcing Steel**

Reinforcing Steel shall be per Section 1014-2 of these specifications.

1023-3 **CONSTRUCTION METHODS**

1023-3.1 **Concrete**

Construction Methods for Concrete shall be per Section 1013-3 of these specifications.

1023-3.2 **Reinforcing Steel**

Construction Methods for Reinforcing Steel shall be per Section 1014-3 of these specifications.

1023-4 **MEASUREMENT AND PAYMENT**

Payment for RC Flood Control Wall will be made on a lump sum basis at the contract price bid for Bid Item No. 33. Such payment shall be considered full compensation for all materials, joint sealant, curing compound, tools, equipment and labor including doing all the work.



BEST MANAGEMENT PRACTICES

ENVIRONMENTAL BEST MANAGEMENT PRACTICES and PERMIT CONDITIONS SUMMARY

This document was created as a permit compliance reference tool for District staff. The Best Management Practices (BMPs) have been altered from the originals evaluated during the CEQA and permitting processes to clarify content without changing regulatory requirements. These BMPs incorporate all permit conditions received for the Routine Operations & Maintenance Program, including the Biological Opinions from federal agencies (Table 1). Four new BMPs were developed to clarify permit conditions and incorporate other regulatory requirements related to erosion control, environmental training, and invasive aquatic species control. Also included for easy reference are: summaries of the “grandfathered” streambed alteration agreements incorporated by reference to the permits, summaries of endangered species additional conditions, and regulatory agency contact information.

Table 1. Routine Operation & Maintenance Programmatic Permits

AGENCY	PERMIT NO.	DATE ISSUED
U.S. Army Corps of Engineers	Regional General Permit No. 92	2/13/2013
U.S. Fish and Wildlife Service	Biological Opinion	12/12/2012
National Marine Fisheries Service	Biological Opinion	9/7/2012
California Department of Fish and Wildlife	Streambed Alteration Agreement No. 1600-2004-0512-R5	8/3/2009
Los Angeles Regional Water Quality Control Board	Section 401 Water Quality Certification File No. 08-148	8/17/2009

BEST MANAGEMENT PRACTICES: PAGE 2

GRANDFATHERED STREAMBED ALTERATION AGREEMENTS: PAGE 14

ENDANGERED SPECIES ADDITIONAL CONDITIONS: PAGE 17

REGULATORY AGENCY CONTACT INFORMATION: PAGE 21

For inquiries regarding these permits or conditions, please contact:

Pam Lindsey, Watershed Ecologist 805-654-2036

ENVIRONMENTAL BEST MANAGEMENT PRACTICES

BMP 1: Avoid Channel Earthwork During the Rainy Season/Events.

- Avoid earthwork in earthen and soft bottom channels from December 1 to April 1 unless water is absent.
- If work is considered critical, work in flowing water is acceptable, provided flow is diverted according to the Water Diversion Guide and sensitive aquatic species not present.
- No earthwork shall be conducted during rain events, or if 0.25 inches or more of rain is forecast within 12 hours of scheduled work.

BMP 2: Prevent Discharge of Silt-Laden Water During Concrete Channel Cleaning.

- Prevent the discharge of silt-laden water or pollutants downstream when removing sediments, vegetation, algae, and trash from concrete channels.
- Install BMPs: silt barriers, sand bags, straw bales, as appropriate per Board Order No. 10-0108; NPDES Permit No. CAS004002, July 8, 2010.
- Follow the Water Diversion Guide if a flow diversion is installed.

BMP 3: Location of Temporary Stockpiles.

- Temporary stockpiles in the channel bottom shall be limited to one working day and not overnight.
- Temporary stockpiles may be placed in channel bottoms or debris basins if they are placed in such a manner that they would not be exposed to flowing water.
- Permanent stockpiles shall be located landward of the 100-year floodplain to the maximum extent feasible.

BMP 4: Survey for Habitat (nesting) Prior to Routine Maintenance Work.

- A biological survey for nesting birds required prior to work from February 1 to September 15 if in or adjacent to suitable habitat.
- Nesting habitat defined as cattail patches, short and tall trees, and shrubby areas. Open gravel, bridges, culverts, and fence posts may also support nests.
- Work= mowing/disking, earth work, clean outs, access road work lasting more than one day, and repairs where nesting bird habitat is in work area or within 300 feet.
- If active bird nests are identified, work within 300 feet (500 feet for raptors) must be postponed until after September 15, unless the biologist determines the nest becomes inactive or a reduced buffer is approved by regulatory agencies.
- No bio survey needed for routine herbicide application in/on facilities to sparse, short (<3 foot) weedy vegetation (includes young (<1year old mule fat, willows or cattails).

BMP 5/6: Survey for Steelhead Migration/Rearing Conditions and Sensitive Aquatic Species Prior to Routine Maintenance Work.

- Applies to earthwork/repairs in surface water and within 100 feet of water:

<u>ZONE 1:</u> <ul style="list-style-type: none">• Matilija Creek• San Antonio Creek• Thacher Creek• Ventura River	<u>ZONE 2:</u> <ul style="list-style-type: none">• Hopper Creek• Piru Creek• Pole Creek (unlined portions)• Santa Clara River• Santa Paula Creek• Sespe Creek
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- Approved biologist must survey for steelhead migration or rearing conditions and other sensitive aquatic species prior to earthwork in or within 100 feet of surface water.
- If flows are deemed sufficient for steelhead migration, earthwork within or adjacent to the channel shall be postponed until after June 15 and before October 31.
- If rearing habitat is present, approved biologist shall determine if steelhead are present.
- If other sensitive species are found in the work area, work will stop while District environmental staff contact CDFW/USFWS. The approved biologist may be authorized to relocate these species to nearby suitable habitat.
- **Special authorization is required for water diversion** if flow conditions are suitable for steelhead or other aquatic species, even if the Water Diversion Guide is followed.
- Steelhead presence notification to NMFS at least 10 days prior to work by District environmental staff.
- If authorized by NMFS, an approved biologist shall isolate the work area with block nets and relocate any steelhead in the work area to suitable habitat with perennial surface water. The biologist shall continuously monitor during water diversion and any work within occupied steelhead habitat.
- Steelhead relocations or other impacts by flow diversion or dewatering shall be documented and reported to the NMFS within 30 days of completion of the maintenance work.
- Concrete, grout, brick & mortar or other cement products shall not be used to construct stream diversions when steelhead and other sensitive aquatic species are likely present.
- If steelhead are found dead or injured at the work site, environmental staff shall notify NMFS immediately.
- Any steep-walled excavations that may trap California red-legged frog that will be left overnight in areas within or adjacent to the Ventura River or San Antonio Creek shall be covered.

BMP 7: Continue Existing Procedures for Sediment Removal and Vegetation Control for Specific Reaches in Calleguas Creek Watershed.

- Conduct sediment removal and in-stream vegetation control along unimproved channels along Calleguas Creek, Conejo Creek, Revolon Slough, Arroyo Las Posas and generally throughout Zone 3 in accordance with previous Streambed Alteration Agreements.

See Attached "Grandfathered Streambed Alteration Agreement Conditions."

BMP 8: Avoid Disturbance to Native Beach or Wetland Species.

- Applies to facilities maintained in beach/coastal strand.
- Prior to beach access March 1 to September 15, approved biologist shall survey for western snowy plovers or California least terns nesting or roosting on beach. If present, maintenance work shall be postponed until after the breeding season, unless a species protection plan is prepared, approved by USFWS/CDFW, and implemented.
- Avoid driving over beach dune vegetation when accessing storm drain outlets.
- Minimize native beach plant removal during outlet maintenance.
- Prior to beach outlet maintenance, environmental staff shall determine if suitable habitat is present at the outlet for tidewater gobies. If suitable habitat is present, approved biologist shall conduct fish surveys. If present and maintenance work affects habitat, work shall be postponed until surface water is absent, unless a species protection plan is prepared, approved by USFWS, and implemented.

BMP 9: Aquatic Pesticide Application.

- Follow the most up-to-date Best Management Practices and the monitoring and reporting requirements in the District's NPDES Stormwater Quality Management Plan.
- Comply with the Ventura County Application Protocol for Pesticides, Fertilizers, and Herbicides, including working under the direction of a Qualified Applicator, using materials approved for aquatic use, following the manufacturer's application directions, avoiding application prior to forecasted storm events and ensuring wind conditions are suitable to avoid spray drift.

BMP 10: Leave Vegetation on Upper Basin Slopes.

- Leave native vegetation on the debris and detention basin slopes above the 20 percent capacity debris line unless any of the following apply:
 - Shrubs and trees are hazards to the stability and function of the basin
 - Sediment meets or exceeds the 20 percent capacity line
 - Slope re-grading is required to correct or prevent rill erosion or other damage
 - Vegetation is on engineered fill
 - Vegetation constitutes a fire hazard to nearby properties.

BMP 11: Leave Patches of Vegetation in Channel Bottom.

- Minimize vegetation removal or thinning in earthen or earthen bottom channels; remove the least amount necessary to achieve the specific maintenance objectives for the reach.
- Remove native vegetation in a non-continuous manner, leaving small patches intact, provided they will not adversely affect conveyance capacity.

BMP 12: Leave Herbaceous Wetland Vegetation in Channel Bottom.

- Minimize removal or thinning of emergent native vegetation rooted in or adjacent to the low flow channel or aquatic habitats, unless inconsistent with maintenance objectives or capacity requirements.

BMP 13: Maximum 15-foot Vegetation-Free Zone at the Toe of the Bank.

- Do not exceed a 15-foot wide vegetation-free zone at levee and bank toes when thinning or removing vegetation for inspection purposes.

BMP 14: Avoid Road Base Discharge.

- Do not place or spill road base, fill, sediments, and asphalt beyond the previously established road bed when working adjacent to channels and basin bottoms.

BMP 15: Mitigate/Replace Temporary Impacts to Habitat.

- Restore native vegetation in temporary work areas after completion of repair or reconstruction work. Prior to work, a vegetation restoration plan must be submitted to the regulatory agencies for approval.
- No habitat restoration sites shall be placed within the routine maintenance limits of the repaired structures.
- Habitat restoration shall only be required if the impacted area supports native wetland or riparian vegetation; no restoration is required for barren areas or areas dominated by non-native plants.

BMP 16: Oak Tree Mitigation Ratio.

- Replace native oak trees removed by maintenance activities if greater than 3 inches in diameter at breast height (dbh), or 2 inches dbh if multi-trunked.
- Oak tree replacement ratios:

TRUNK SIZE (dbh)	RATIO
4 to 6 inches	3:1
6 to 12 inches	5:1
12 to 24 inches	10:1
24 to 36 inches	15:1
>36 inches	20:1

- A tree replacement plan consistent with County Policy or permit requirements, whichever is greater, shall be prepared and submitted to the regulatory agencies prior to implementation.

BMP 17: Concrete Wash-Out Protocols.

- Fluids associated with the curing, finishing and wash-out of concrete shall not be discharged to the channel or basin.
- Concrete wastes (liquid, dust, solids) shall be stockpiled separately from sediment and protected by erosion control measures to prevent discharge to the channel, basin, or waters of the State.
- Conduct appropriate waste management practices based on considerations of flow velocities, site conditions, suitability of erosion control materials, and construction costs.

BMP 18: Water Diversion Guide.

- Follow water diversion methods and procedures established in the District's Water Diversion Guide.
- Baseline water quality monitoring is required PRIOR to installation of any water diversion, daily for the first 5 days the diversion is in place, and weekly thereafter. Contact District environmental staff to contract for/conduct monitoring.
- Fish mortality associated with stream flow diversion or dewatering shall be reported by environmental staff to the California Department of Fish & Wildlife within 24 hours of discovery.

BMP 19: Minimize Erosion from Stream Gauge Maintenance.

- Cut interfering vegetation with chain-saw or hand tools to near ground surface. No herbicide application to stumps. No excavation of roots.
- Implement additional erosion control methods as needed, based on considerations of flow velocities, site conditions, availability of materials, construction costs, durability and maintenance requirements.

BMP 20: Implementation of Integrated Pest Management Program.

- Implement the approved Integrated Pest Management (IPM) program.
- Apply appropriate rodent control methods at each facility as appropriate for site conditions (rodent population, type of facility, season).
- Maintain uniform inspection records for each facility and all control efforts.
- Report IPMP activities to the regulatory agencies annually in the Annual Monitoring Report.

BMP 21: Avoid Spills and Leaks.

- Keep all equipment in good working condition and free of leaks.

- No equipment maintenance or refueling in a channel or basin bottom.
- Place drip pans under all stationary equipment such as motors, pumps, generators, compressors, and welders.
- Spill containment materials must be on site or readily available for any equipment maintenance or refueling that occurs adjacent to a watercourse.
- Train all maintenance crews in spill containment and response.
- Immediately clean up all spills. Submit report to the Office of Spill Prevention and Response.

BMP 22: Biological Surveys in Appropriate Habitat Prior to Vegetation Maintenance.

- Biologists conducting surveys for tidewater goby, California red-legged frog, least Bell's vireo and southwestern willow flycatcher shall be approved by the U.S. Fish & Wildlife Service in writing.
- Prior to sediment removal, vegetation control, or repair work in earthen or earthen bottom facilities, an approved biologist shall survey for threatened, endangered, or sensitive species if suitable habitat occurs in or near work area. If such species are within or in close proximity to the work areas, the District shall reschedule the work when the species are not present.
- If it is necessary to conduct the work while sensitive species are present or in proximity to the work areas, a species protection plan shall be developed, approved by USFWS/NMFS/CDFW, then implemented.
- An approved biologist shall periodically monitor the work area during maintenance activities for wildlife and relocate species as needed to minimize mortality.
- Exotic fish, invertebrate, amphibian and reptile species shall be captured when feasible, dispatched and properly disposed by a qualified biologist.

BMP 23: Invasive Plant Removal Protocols.

- Remove invasive plant species in a manner that prevents propagation.
- Spray or mow plants before seeds ripen, when feasible.
- All cut/removed invasive vegetation shall be taken to a dump as a destruction load.
- Do not stockpile invasive vegetation (including mulch) where materials would wash downstream or allowed to propagate.
- For giant reed (*Arundo donax*), minimize ground disturbance and use foliar glyphosate treatment on smaller infestations, as feasible. Best to apply herbicide May 1 to October 1, if breeding birds absent. No grading to remove root masses unless earthwork is part of routine maintenance work.

BMP 24: Air Quality (Dust Control). The following measures shall be incorporated into maintenance activities to minimize fugitive dust emissions during grading, excavation, and construction activities.

- Minimize the areas disturbed at any one time by clearing, grading, earth moving, or excavation operations to prevent excessive dust.
- Water grading/excavation areas prior to and during work.
- Cover all truck loads; required by California Vehicle Code §23114.
- Prevent fugitive dust (via treatment) on all graded and excavated material, exposed soil areas, stockpiles, including unpaved parking and staging areas, and other active portions of the construction site.
- District staff shall weekly monitor contractor graded and/or excavated inactive areas of the construction site for dust stabilization.
- No grading/earth work during periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties) to prevent excessive fugitive dust.
- Use rumble strips or track out devices where vehicles enter and exit unpaved roads onto paved road.
- All on site construction roads that have a daily traffic volume of more than 50 daily trips shall be stabilized as to minimize transport of earthen material from the site.
- There shall be at least one qualified District staff on site each work day to monitor the provisions of the Fugitive Dust Mitigation Plan and any other applicable fugitive dust rules, ordinances, or conditions.
- Personnel involved in grading operations shall be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health Regulations.
- All project construction operations shall be conducted in compliance with all applicable APCD Rules and Regulations with emphasis on Rule 50 (Opacity) and Rule 51 (Nuisance).

BMP 25: Construction Noise.

- Noise-generating construction activities shall be restricted to the daytime (i.e., 7:00 AM to 7:00 PM, Monday through Friday).
- Minimize sustained construction noise adjacent to sensitive wildlife during the nesting season, as directed by the biological monitor.
- When construction noise is anticipated to affect sensitive wildlife, environmental staff shall consult with regulatory agencies regarding additional mitigation measures.

BMP 26: Stabilize Exposed Soil.

- To limit erosion, minimize soil disturbance work in channels and basins to that which can be stabilized prior to rain events.

BMP 27: Native Tree Removal (see BMP 16 for oaks).

- Prior to vegetation removal, a qualified biologist shall prepare an inventory of all native trees in the work area exceeding 4 inches dbh.

- Native trees in temporary impact areas shall be cut to ground level to facilitate regrowth, and not removed by heavy equipment.
- Native California black walnut, cottonwood and sycamore trees exceeding 4 inches dbh shall be replaced at a 10:1 ratio, if removed.
- Replacement trees shall attain a survival rate of 75 percent the first year and 100 percent thereafter, and monitored and maintained for a 5 years after planting.

BMP 28: Environmental Training.

- Prior to any sediment removal, vegetation control, or repair work in earthen or earthen-bottomed channels and basins that contain surface water or native vegetation, a qualified biologist familiar with the work site shall provide training to the work crew regarding potential species present, habitats to avoid, measures to implement to minimize impacts, and events/situations that require work to be stopped and the biologist to be contacted.

BMP 29: Work in California Red-legged Frog Habitat.

- Any steep-walled excavations that may trap California red-legged frogs that will be left overnight in suitable habitat (Ventura River, San Antonio Creek) shall be covered.
- Approved biologists handling California red-legged frogs shall not use gloves, unless they are well-rinsed and composed of vinyl.
- Approved biologists working in California red-legged frog habitat shall follow the Declining Amphibian Task Force Fieldwork Code of Practice.

BMP 30: New Zealand Mudsnail Control Protocols

The protocols have been developed to address the sixty work code activities described in the District's 2012-2013 Annual Work Plan. The work code activities have been lumped into general types of materials/activities to allow the assignment of protocols to be followed to minimize the spread of this invasive species (see Table 2). These protocols address three general modes of potential spread of New Zealand mudsnail; hand tools & boots, mobile equipment and vehicles, and reusable instream materials.

First, determine if the reach to be maintained supports New Zealand mudsnail by reviewing maps and the infested reach list (Table 3). If so, implement Part A.

Second, determine if the equipment to be used was borrowed from the Transportation Department OR last used in another Zone. If so, implement Part B.

Table 2. New Zealand Mudsnail Protocols by Work Code

Protocol	Work Codes
1	PS41, PS42, PT20, PT21, PT22, PT23, PT24, PT25, PT26, PT27, PT28, PT29, PT31, PT32, PT33, PT34, PT35, PT36, PT37, PT38, PT41, PT42, PT43, PT44, PT45, PT47, PT48, PT49, PT51, PT53, PT55, PT56, PT57, PT60, PT61, PT62, PT64, PT65, PT66, PT68, PT70, PT72, PT74, PT76, PT77, PT80, PT83, PT85, PT86, PT88, PT89, PT90, PT91, PT92, PT93
2	PS41, PS42, PT20, PT21, PT22, PT23, PT24, PT25, PT26, PT27, PT28, PT32, PT33, PT34, PT35, PT36, PT37, PT38, PT41, PT42, PT43, PT44, PT45, PT47, PT48, PT49, PT51, PT53, PT55, PT56, PT57, PT60, PT61, PT62, PT64, PT65, PT66, PT68, PT70, PT72, PT74, PT76, PT77, PT80, PT83, PT85, PT86, PT88, PT89, PT90, PT91, PT92, PT93
3	PS41, PS42, PT 22, PT 29, PT31, PT32, PT33, PT40, PT41, PT42, PT43, PT45, PT45, PT48, PT49, PT51, PT53, PT54, PT57, PT60, PT61, PT62, PT64, PT 66, PT68, PT80, PT83, PT85, PT86, PT88, PT89, PT90, PT91, PT92, PT93
4	PT20, PT21, PT23, PT24, PT25, PT26, PT27, PT28, PT34, PT35, PT36, PT37, PT38, PT44, PT51, PT53, PT68, PT70, PT72, PT74, PT76, PT77, PT80, PT85

Part A (infested reaches):

- Wash hand tools, boots and power tools that contact surface water using Protocol 1.
- Wash mobile equipment used in surface water that may have incidental soil attached (e.g., dozers, excavators, discing equipment, wheeled loaders and motor graders) using Protocol 2A (on-site power wash, on-site or off-site hot pressure wash).
- Wash equipment that infrequently crosses the wetted channel and does not have incidental soil attached (e.g., herbicide trailers, chipper, water pumps [hand carried and trailer-mounted], mowers and motor vehicles) using Protocol 3 (on-site or off-site hot or cold pressure wash).
- Wash hard surfaced instream materials that may be transported between work sites (e.g., K-rail, diversion pipe, water hoses and concrete forms) using Protocol 4 (on-site or off-site hot pressure wash).
- Discard sand bags (and other fibrous materials that could harbor mudsnails) which have been immersed in surface waters in a landfill. Do not re-use at other sites.

Table 3. New Zealand Mudsnail Infested Reaches

ZONE	REACH NO.	NAME
2	42011	Pacific Ocean to Harbor Blvd.
2	42012	Harbor Blvd. to Victoria Avenue
2	42151	Camarillo Hills Drain to Hwy 101
2	42152	Hwy 101 to Central Avenue
3	42154	Central Avenue to Wright Road
3	45241	Wright Road to U/S to Drop Structure #2
3	45243	Drop Structure #2
3	45245	Beardsley Wash Drop Structure #2 U/S to Triple Arch
3	45246	Connelly Triple Arch
3	45247	Connelly Triple Arch U/S to Milligan Barranca
3	46101	Arroyo Santa Rosa to Arroyo Conejo N.Fork
3	46102	Arroyo Conejo N. Fork to Arroyo Conejpo South Branch
3	46103	Arroyo Conejo S. Branch to Hillcrest Drive
3	46104	Hillcrest Drive to Moorpark Road
3	46111	Arroyo Conejo to Ventu Park Road
3	46112	Ventu Park Road to Borchard Road
3	46161	Arroyo Conejo to Lynn Road
4	48061	L.A.County Line to Kanan Road
4	48071	L.A. County Line to Conifer Street
4	48072	Conifer Street to Oak Hills Drive
4	48073	Oak Hills Drive through Kanan Road
4	48076	Medea Creek @ Mile 1.2, U/S
4	48101	L.A. County Line U/S North
4	48107	Las Virgines Creek @ Mile 2.6, U/S

U/S: upstream

Part B (borrowed equipment or used in other Zone):

- Wash mobile equipment used in surface water that may have incidental soil attached (e.g., dozers, excavators, discing equipment, wheeled loaders and motor graders) using Protocol 2B (on-site or off-site hot pressure wash).
- Wash equipment that infrequently crosses the wetted channel and does not have incidental soil attached (e.g., herbicide trailers, chipper, water pumps [hand carried and trailer-mounted], mowers and motor vehicles) using Protocol 3 (on-site or off-site hot or cold pressure wash).

Protocol 1 - Hand Tools, Boots and Wetted Power Tools

This control protocol involves cleaning any hand tools, boots and wetted portions of power tools (weed whipper, drill, concrete vibrator, etc.) that come in contact with potentially infected surface water prior to leaving the work site each day OR leaving these materials at the site until the work is complete. Hand tools, boots and wetted portions of power tools must be cleaned before leaving the site using the following procedure:

1. Remove any accumulated mud/soil from the article to be cleaned;
2. Fill a portable plastic tub (child's swimming pool, or equivalent) to a depth allowing complete submersion of the boots or tools with a 4 percent solution (5 fluid ounces per gallon) of a commercial disinfectant (GS High Dilution Disinfectant 256, Spartan Chemical Company);
3. Scrub all surfaces with a brush;
4. Let soak in the disinfectant for approximately 10 minutes;
5. Rinse with **potable** water; and
6. Dispose of the used disinfectant solution in a sewer or upland area where it cannot enter surface waters.

Protocol 2A – Instream Mobile Equipment (Infested Reaches)

This Protocol applies to equipment that is used in the wetted channel and likely to have incidental soil attached, such as dozers, excavators, discing equipment, wheeled loaders and motor graders.

1. All attached soil must be removed at the project site using a pressurized water hose provided by a water truck (or equivalent pressurized water source);
2. Wash water must be contained and not allowed to run-off into a storm drain or drainage feature;
3. The equipment must be washed on-site using a portable hot pressure washer OR taken to the nearest O & M washing facility (Saticoy or Moorpark) for a hot pressure wash.
4. Care must be taken to pressure wash all surfaces with hot water that typically come in contact with surface water and/or wet sediments, such as wheels, tires, discs, dozer tracks, excavator and loader buckets, dozer and grader blades, undercarriage, hydraulic cylinders and hoses, and fenders.

Protocol 2B – Instream Mobile Equipment (All Other Reaches)

This Protocol applies to equipment that is used in the wetted channel and likely to have incidental soil attached, such as dozers, excavators, discing equipment, wheeled loaders and motor graders.

1. The equipment must be washed on-site using a portable hot pressure washer OR taken to the nearest O & M washing facility (Saticoy or Moorpark) for a hot pressure wash.
2. Care must be taken to pressure wash all surfaces with hot water that typically come in contact with surface water and/or wet sediments, such as wheels, tires, discs, dozer tracks, excavator and loader buckets, dozer and grader blades, undercarriage, hydraulic cylinders and hoses, and fenders.

Protocol 3 – Other Mobile Equipment and Vehicles

This Protocol applies to equipment that infrequently crosses the wetted channel and does not have incidental soil attached, such as herbicide trailers, chipper, water pumps (hand carried and trailer-mounted), mowers and motor vehicles.

1. The wheels, tires and undercarriage of this equipment must be pressure washed, either on-site or the nearest O & M washing facility (Saticoy or Moorpark).
2. If washed on-site, wash water must be contained and not allowed to run-off into a storm drain or drainage feature.

Protocol 4 - Reusable Instream Materials

Materials that may be transported between work sites may include sand bags, K-rail, diversion pipe, water hoses and concrete forms (wood). Sand bags immersed in surface waters cannot be fully cleaned, and must be emptied of sand (on-site or the District's maintenance yard) and the bag deposited in a proper trash receptacle.

1. Wash hard surfaced materials on-site using a portable hot pressure washer OR take to the nearest O & M washing facility (Saticoy or Moorpark) for a hot pressure wash.
2. Care must be taken to remove all attached soil or sediment and fully contact all surfaces.

GRANDFATHERED STREAMBED ALTERATION AGREEMENT CONDITIONS

SAA 5-270-92: REVOLON SLOUGH

- Control vegetation (banks and bottom) annually after July 1 for 100 feet upstream, under, and 100 feet downstream of all bridges.
- Control vegetation (banks and bottom) annually after July 1 for 50 feet upstream and 50 feet downstream of all grade control structures.
- Sediment may be removed when deposition exceeds two feet above design grade.
- Vegetation control may be by hand, herbicide, or mechanical methods.

Hwy 1 to Las Posas Road Bridge 45101:

- Herbicide inside banks, maintain access road as needed during year.
- No bottom vegetation maintenance.

Las Posas Road Bridge to Hueneme Road Bridge 45103:

- Herbicide inside banks, maintain access road as needed during year.
- July 1 to February 1: on west side bottom allow 50 foot long by 15 foot wide pockets of riparian vegetation separated by 100 foot long vegetation management (non-native species removal) zones. Remove willows greater than 3 inches dbh in pockets.
- July 1 to February 1: Outside riparian pockets, allow 20 percent of bottom with vegetation for two out of three years.
- July 1 to February 1: Outside riparian pockets, all vegetation may be removed every third year.

Hueneme Road Bridge to Wood Road Bridge 45105:

- Herbicide inside banks, maintain access road as needed during year.
- July 1 to February 1: one west side bottom allow solid strip of riparian vegetation 15 feet wide. Remove willows greater than 3 inches dbh annually.
- July 1 to February 1: Outside riparian pockets, allow 20 percent of bottom to retain vegetation. Remove willows greater than 3 inches dbh annually.
- July 1 to February 1: Outside riparian pockets, all vegetation may be removed every other year from Hueneme Road to Etting Road. Remove willows greater than 3 inches dbh annually.

SAA 5-388-90: PORTIONS OF CALLEGUAS CREEK WATERSHED

- Control vegetation (banks and bottom) annually July 1 to February 1 for 100 feet upstream, under, and 100 feet downstream of all bridges/culverts (except as noted below).
- Control vegetation (banks and bottom) annually July 1 to February 1 for 25 feet upstream and 25 feet downstream of all grade control structures (except as noted below).
- Vegetation control may be by hand, mechanical, or herbicide methods.

Arroyo Simi from Beltramo Road to No. 2 Canyon 47013:

- Herbicide inside banks, maintain access road as needed during year.
- July 1 to February 1: allow 10 foot wide strip of riparian vegetation at toe of each bank. Alternate removal of strips each year.
- July 1 to February 1: maintain up to 16 foot wide vegetation free pilot channel in center of creek bottom.

Arroyo Simi Sycamore Canyon to Erringer Road 47021:

- Herbicide inside banks, maintain access road as needed during year.
- Control vegetation (banks and bottom) as needed 100 feet upstream and 50 feet downstream of all bridges and grade control structures.
- Minimize maintenance activities March 1 to July 1.
- All willow and woody plant species may be controlled.
- Allow up to 25 percent cover of cattails/tules in channel bottom.

Arroyo Simi Erringer Road to Royal Avenue 47021:

- Herbicide inside banks, maintain access road as needed during year.
- July 1 to February 1: control all vegetation (banks and bottom) as needed.
- Vegetation control may be by hand, mechanical, or herbicide methods.

SAA 5-540-91: CALLEGUAS CREEK

- Control vegetation (banks and bottom) annually after July 1 for 100 feet upstream, under, and 100 feet downstream of all bridges/culverts.
- Vegetation control may be by hand, mechanical, or herbicide methods, unless specifically noted below.

Calleguas Creek Highway 1 to Hueneme Road 45021/45023:

- Herbicide inside banks and 25 feet from toe in bottom, maintain access road as needed during year. No other herbicide use in bottom.
- July 1 to February 1: each year allow a 10 foot wide (minimum) strip of riparian vegetation along one side of low flow channel. Alternate mechanical removal of strips each year.

Calleguas Creek Hueneme Road to 850 ft Upstream of University Road 45025/45027:

- Herbicide inside banks and 25 feet from toe in bottom, maintain access road as needed during year. No other herbicide use in bottom.
- July 1 to February 1: each year allow a 10 foot wide (minimum) strip of riparian vegetation along one side of low flow channel. Alternate mechanical removal of strips each year.

Calleguas Creek Pleasant Valley Road to Seminary Road 45033/45035/45037:

- Herbicide armored banks and 15 feet from toe in bottom, maintain access road as needed

during year.

- No removal of native vegetation on natural (unarmored) banks of channel.
- Control vegetation (banks and bottom) annually July 1 to February 1 for 100 feet upstream, under, and 100 feet downstream of all bridges/culverts and stabilizers.
- Allow 20 percent cover of riparian vegetation in channel bottom each year, if feasible.

SAA 5-541-91: ARROYO LAS POSAS CREEK

Covers reaches:

- 1) Below Hitch Road 45065
- 2) From S. Grimes Canyon Road to the Moorpark WWTP 45063
- 3) Stabilizer upstream of Somis 45053
- 4) Junction of Seminary Road and Arroyo Las Posas 45051

- Vegetation control may be by hand, mechanical, or herbicide methods.
- Control vegetation (banks and bottom) annually July 1 to February 1 for 100 feet upstream, under, and 100 feet downstream of all bridges/culverts and stabilizers.
- Herbicide armored banks and 15 feet from toe in bottom (except established willows), maintain access road as needed during year.

SAA 5-542-91: CONEJO CREEK (LINKED TO SAA 5-115-89)

- Herbicide routinely cleared portions of banks, maintain access road as needed during year.
- Control vegetation (banks and bottom) annually July 1 to February 1 for 100 feet upstream, under, and 100 feet downstream of all bridges.
- Vegetation control may be by hand, herbicide, or mechanical methods, except as noted below.

Conejo Creek -Calleguas Creek Confluence to Highway 101 46011/46012/46013/46014:

- Permanently allow a strip of riparian vegetation along one side of low flow channel.

Conejo Creek Highway 101 to Upland Drain 46015/46016:

- Herbicide inside banks and 25 feet from toe in bottom, maintain access road as needed during year. No other herbicide use in bottom.
- July 1 to February 1: mechanical or hand removal of vegetation in other portions of bottom; allow two 20 foot wide vegetated strips or allow 20 percent of bottom vegetated. If practical, allow vegetated strips along low flow channel.
- July 1 to February 1: remove allowed vegetation the following year; allow new equivalent vegetated areas.

ENDANGERED SPECIES ADDITIONAL CONDITIONS

Facilities and reaches with the potential for endangered species are mapped in the District's GIS system.

GAMBEL'S WATERCRESS AND MARSH SANDWORT: Conduct full (spring/summer 2014) surveys in 6.98 acres of facilities with suitable habitat. Opportunistically survey for these species during any field visits to facilities with suitable habitat.

SOUTHERN STEELHEAD: See BMP 5/6 above. For Calleguas Creek watershed, steelhead are generally not present, but an occasional stray may occur and we must stop work and notify NMFS and CDFW immediately.

CALIFORNIA GNATCATCHER: See survey triggers and protocols in table below. If species present, stop work and notify USACE and USFWS to determine course of action.

WORK TYPE	SURVEYS NEEDED
A. Heavy equipment more than 1 day adjacent to identified habitat per maps.	A. 3 bird surveys within 7 days prior to work.
B. Heavy equipment work more than 3 days adjacent to identified habitat per maps.	B. Morning bird survey prior to every third day of work.

WESTERN SNOWY PLOVER: Beach grooming at BEMP (near J St. Drain) during March 1 to September 15 requires nesting surveys and coordination with USFWS. Use lifeguard paths for access to minimize impacts to habitat. See also BMP 8.

CALIFORNIA LEAST TERN: Beach grooming at BEMP (near J St. Drain) during March 1 to August 15 requires nesting surveys and coordination with USFWS. Use lifeguard paths for access to minimize impacts to habitat. See also BMP 8.

CALIFORNIA RED-LEGGED FROG: USFWS Biological Opinion identified the following impact minimization measures. “Work” includes herbicide, earthwork, and other maintenance, except access road and fence maintenance. See also BMPs 6 and 29. Applies only in Zone 1.

MEASURE #	ACTION: Zone 1 only
CRLF-1	Approved biologist conducts daily pre-work surveys. Relocate all life stages potentially affected by work.
CRLF-2	Relocation site will be shortest distance to suitable habitat not affected by work.
CRLF-3	Biologist will maintain detailed descriptions of relocated individuals to determine if same individuals are recaptured.
CRLF-4	Biologist will train all O&M personnel and contractors regarding species and work type/boundaries.
CRLF-5	Biologist required to remain on site until all frogs have been relocated, worker education is complete, and vegetation removal has been completed.
CRLF-6	Biologist to permanently remove non-native aquatic species, when feasible.

Take Limits: Must report acreage of habitat affected by maintenance and mitigation each year in the Ventura River Watershed.

TAKE TYPE	ACRES/INDIVIDUALS ANNUALLY
Suitable habitat affected by maintenance and repair activities	2.5 acres per year
Expected take (relocation, harassment, etc) by maintenance and repair	25 individuals (eggs, tadpoles or frogs)
Suitable habitat affected by mitigation or restoration activities	10 acres per year
Expected take by mitigation	50 individuals per year (eggs, tadpoles, frogs)
Critical habitat affected by maintenance and repair activities	2.3 acres per year
Critical habitat affected by mitigation activities	10 acres per year

TIDEWATER GOBY: USFWS Biological Opinion identified the following impact minimization measures. “Work” includes earthwork, and other maintenance, except access road and fence maintenance. See also BMPs 8 and 22.

MEASURE #	ACTION
TWG-1	J St Drain downstream of Hueneme Road 42321 & Oxnard Industrial Drain just upstream and downstream of Hueneme Road 42302: channel cleanouts only when water naturally absent (no pumping or diversion of surface water)
TWG-2& 4	Sediment removal or dewatering in other facilities: biologist to use block nets and relocate gobies from work area to suitable nearby habitat per B.O.
TWG-3	Any pump intakes in occupied goby habitat must be screened.
TWG-5	Biologist required to remain on site to observe fish and potential turbidity levels during all dewatering activities; relocate fish as needed.
TWG-6	Block nets may be left overnight if inspected for efficacy..
TWG-7	Do not release gobies into areas scheduled for work on subsequent days.

Take Limits: Must report acreage of habitat affected by maintenance and mitigation each year in all watersheds.

TAKE TYPE	VENTURA	SANTA CLARA	ORMOND LAGOON	CALLEG CREEK	TOTAL
Suitable habitat affected by maintenance and repair	3 ac /year	0.1 ac./yr	0.1 ac/yr	2 ac/yr	5.2 ac/yr
Expected take (relocation, harassment, etc) by maintenance and repair	All individuals within affected area				Indeterminate
Suitable habitat affected by mitigation or restoration	0	0	0	0	0
Expected take by mitigation	0	0	0	0	0
Critical habitat affected by maintenance and repair	0.2 ac/yr	0	0	N/A	0.2 ac/yr
Critical habitat affected by mitigation or restoration	0	0	0	N/A	0

LEAST BELL'S VIREO/SW WILLOW FLYCATCHER: USFWS Biological Opinion identified the following impact minimization measures. "Work" includes earthwork, and other maintenance, except access road and fence maintenance. See also BMPs 4, 7, and 22.

MEASURE #	ACTION
LBV-1	If feasible, conduct work between Sept 16 to Feb 28 in facilities with LBV suitable habitat within 500 feet of work area.
LBV -2	March 1 to September 15: approved biologist conduct surveys for LBV/SWFL prior to work with habitat within 500 feet. (see list of facilities)
LBV -3	If LBV/SWFL nest detected, minimum 500 foot buffer between work and nest unless otherwise agreed to by USFWS. Biologist must monitor nest during work.
LBV -4	Mitigation/restoration projects in suitable LBV/SWFL habitat: avoid removal of willow and cottonwood trees >8 inch dbh..

Take Limits: Must report acreage of habitat affected by maintenance and mitigation each year in all watersheds.

TAKE TYPE LBV	VENTURA	SANTA CLARA	CALLEGUAS CREEK	TOTAL
Suitable habitat affected by maintenance and repair	3.5 ac/yr	4.6 ac/yr	17.4 ac/yr	25.5 ac/yr
Expected take by maintenance and repair	3 pairs	4 pairs	10 pairs	17 pairs
Suitable habitat affected by mitigation or restoration	10 ac/yr	15 ac/yr	10 ac/yr	35 ac/yr
Expected take by mitigation	6 pairs	9 pairs	6 pairs	21 pairs

(see SWFL limits next page)

TAKE TYPE SWFL	VENTURA	SANTA CLARA	CALLEGUAS CREEK	TOTAL
Suitable habitat affected by maintenance and repair	3.2 ac/yr	4.5 ac/yr	8.4 ac/yr	16.1 ac/yr
Expected take by maintenance and repair	1 pair	1 pair	1 pair	3 pairs
Suitable habitat affected by mitigation or restoration	10 ac/yr	15 ac/yr	10 ac/yr	35 ac/yr
Expected take by mitigation	1 pair	1 pair	1 pair	3 pairs
Critical habitat affected by maintenance and repair	3 ac/yr	3 ac/yr	N/A	6 ac/yr
Critical habitat affected by mitigation or restoration	10 ac/yr	15 ac/yr	N/A	25 ac/yr

REGULATORY AGENCY CONTACT LIST

Contact Pam Lindsey BEFORE contacting regulatory personnel.

AGENCY	NAME	PHONE	EMAIL
USACE	Antal Szijj	805-585-2147	Antal.J.Szijj@usace.army.mil
USFWS	Jenny Marek Chris Dellith	805-677-3313 805-667-3308	Jenny_Marek@fws.gov Chris_Dellith@fws.gov
NMFS	Brittany Struck Anthony Spina	562-432-3905 562-980-4045	Brittany.Struck@noaa.gov Anthony.Spina@noaa.gov
CDFW	Randy Rodriguez Sarah Rains	562-342-2143 805-498-2385	Randy.Rodriguez@wildlife.ca.gov Sarah.Rains@wildlife.ca.gov
LARWQCB	Valerie Carrillo Zara	213-576-6759	Valerie.CarrilloZara@waterboards.ca.gov

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CDFW STREAMBEAD
ALTERATION
AGREEMENT NO.
1600-2019-0120-R5



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



November 13, 2019

Glenn Shephard
Ventura County Watershed Protection District
800 S. Victoria Avenue
Ventura, CA 93009
Glenn.Shephard@ventura.org

Subject: Final Lake or Streambed Alteration Agreement, Notification No. 1600-2019-0120-R5, Ferro Ditch Chanel Improvement Project, Ventura County

Dear Mr. Shephard:

Enclosed is the final Streambed Alteration Agreement (Agreement) for the Ferro Ditch Channel Improvement (Project). Before the California Department of Fish and Wildlife (CDFW) may issue an Agreement, it must comply with the California Environmental Quality Act (CEQA). In this case, CDFW acting as a responsible agency filed a Notice of Determination (NOD) within five working days of signing the Agreement. The NOD was based on information contained in the Mitigated Negative Declaration prepared by the lead agency.

Under CEQA, the filing of a NOD triggers a 30-day statute of limitations period during which an interested party may challenge the filing agency's approval of the Project. You may begin the Project before the statute of limitations expires if you have obtained all necessary local, state, and federal permits or other authorizations. However, if you elect to do so, it will be at your own risk.

If you have any questions regarding this letter, please contact Joseph Stanovich, Environmental Scientist at (562)-430-7642 or by email at Joseph.Stanovich@wildlife.ca.gov.

Sincerely,

Erinn Wilson
Environmental Program Manager

ec: CDFW
Randy Rodriguez – Los Alamitos
Steve Gibson – Los Alamitos
Joseph Stanovich – Los Alamitos

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
SOUTH COAST REGION
3883 RUFFIN ROAD
SAN DIEGO, CA 92123



STREAMBED ALTERATION AGREEMENT
NOTIFICATION NO. 1600-2019-0120-R5
FERRO DITCH TRIBUTARY TO CALLEGUAS CREEK

GLENN SHEPHARD
VENTURA COUNTY WATERSHED PROTECTION DISTRICT
FERRO DITCH CHANNEL IMPROVEMENT PROJECT (PROJECT)

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and Ventura County Watershed Protection District (Permittee) as represented by Glenn Shephard.

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified CDFW on May 8, 2019, that Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC section 1603, CDFW has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

PROJECT LOCATION

The Project is located in the Beardsley watershed, in south-central unincorporated Ventura County, California. The project begins northwest of the intersection of State Route 118 and Santa Clara Avenue, called Ferro Ditch, which drains to Revolon Slough; Latitude 34°15'23.98" N, Longitude 119°06'39.9" W; Accessors Parcel Numbers 109-0-041-010, 109-0-041-080, and 109-0-041-160.

PROJECT DESCRIPTION

The Project is a part of the Beardsley Watershed Project that is designed to reduce the potential for flood damage and soil erosion to agricultural and rural residential properties in the watershed. The Project is an earthen and concreted rock riprap channel approximately 1,700 feet long, extending downstream and south of the Ferro Debris

Basin to Los Angeles Avenue, State Route 118 (SR 118). The Ferro Ditch Channel is the uppermost tributary in one branch of the constructed channel system.

The Project will widen and rock line the existing earthen trapezoidal channel, both sides and bottom. The existing, primarily earthen, trapezoidal channel will be converted to a wider and deeper trapezoidal channel with 2:1 side slopes. It will increase the channel depth from 4 feet to 6.75 feet, with a base width of 7 feet, and a new average top width of 34 feet. The bottom of the culvert under Highway 118 is about 2.5 feet below the existing channel bottom at the downstream end. A 2-foot-thick riprap layer will be placed on a filter blanket to prevent washout of the sub-grade; the top three feet of the rock slope protection will be concreted to support a safer surface for the widened access road.

The downstream-most 80 linear feet of the existing earthen channel will be constructed as a concrete-lined open channel and a reinforced concrete box culvert, which will join the existing reinforced box culvert at Highway 118. This feature comprises 0.05 acre of new impervious surface.

The Project will place 0.78 acre of loose rock riprap to the channel bottom and sides comprising a temporary impact. Approximately 0.10 acre of existing loose rock riprap within the channel will be removed and replaced comprising additional temporary impacts during project construction. Therefore, a total of 0.88 acres of temporary impact along 1,620 linear feet of channel will occur associated with placement and replacement of rock riprap.

Equipment expected to be utilized throughout construction activities include common hand tools, pumps for dewatering, two excavators with various attachments, tractor, sheep's foot compactor, rubber tired compactor, motor grade, and concrete dump trucks.

PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect based on information received from the Permittee include: **Amphibians:** true toad (*Anaxyrus boreus halophilus*); chorus frog (*Pseudacris hypochondriaca*) **Birds:** red-tailed hawk (*Buteo jamaicensis*); red-shouldered hawk (*Buteo lineatus*); mallard (*Anas platyrhynchos*); killdeer (*Charadrius vociferous*); mourning dove (*Zenaida macroura*); common raven (*Corvus corax*); dark-eyed junco (*Junco hyemalis*); house finch (*Carpodacus mexicanus*); lesser goldfinch (*Spinus psaltria*); barn swallow (*Hirundo rustica*); northern rough-winged swallow (*Stelgidopteryx serripennis*); Brewer's blackbird (*Euphagus cyanocephalus*); hooded oriole (*Icterus cucullatus*); western gull (*Larus occidentalis*); northern mockingbird (*Mimus polyglottos*); house sparrow (*Passer domesticus*); European starling (*Sturnus vulgaris*); American robin (*urdus migratorius*); Anna's hummingbird (*Calypste anna*); **Mammals:** raccoon (*Procyon lotor*); striped skunk (*Mephitis mephitis*); coyote (*Canis latrans*); **Plants:** watercress (*Nasturtium officinale*);

broadleafed cattail (*Typha latifolia*); and all other aquatic and wildlife resources in the area.

The adverse effects the project could have on the fish or wildlife resources identified above include: loss of natural bed or bank; change in contour of bed, channel, or bank; change in gradient of bed, channel, or bank; change in composition of channel materials (large woody debris or substrate particle size); soil compaction or other disturbance to soil layer; restriction or increase in sediment transport; colonization by exotic plant or animal species; change to, loss, or decline of natural bed substrate; disruption to nesting birds and other wildlife; disturbance from project activity; and loss or impediment of terrestrial animal species travel routes due to temporary structures (e.g., survey tape, sandbags, erosion protection materials etc.).

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to CDFW personnel, or personnel from another state, federal, or local agency upon request.

1.2 Providing Agreement to Persons at Project Site. Permittee shall maintain copies of the Agreement and any extensions and amendments to the Agreement on the project site.

1.3 Notification of Conflicting Provisions. Permittee shall notify CDFW if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency, or local codes and regulations. In that event, CDFW shall contact Permittee to resolve any conflict.

1.4 Project Site Entry. Permittee agrees that CDFW personnel may enter the project site at any time to verify compliance with the Agreement.

1.5 Personnel Compliance On Site. If the Permittee or any employees, agents, contractors and/or subcontractors violate any of the terms or conditions of this agreement, all work shall terminate immediately and shall not proceed until CDFW has taken all of its legal actions.

1.6 Pre-project briefing. A pre-construction meeting/briefing shall be held, involving all the contractors and subcontractors, concerning the conditions in this Agreement.

1.7 Notification Requirements. CDFW requires that the Permittee:

- 1.7.1 Immediately notify CDFW in writing if monitoring reveals that any of the protective measures were not implemented during the period indicated in this program, or if it anticipates that measures will not be implemented within the time period specified.
 - 1.7.2 Immediately notify CDFW if any of the protective measures are not providing the level of protection that is appropriate for the impact that is occurring, and recommendations, if any, for alternative protective measures. CDFW shall verify compliance with protective measures to ensure the accuracy of the Permittee's mitigation, monitoring, and reporting efforts.
 - 1.7.3 CDFW may, at its sole discretion, review relevant documents maintained by the Permittee, interview the Permittee's employees and agents, inspect the work site, and take other actions to assess compliance with or effectiveness of protective measures in this Agreement.
- 1.8 Implementation Requirements. The agreed work includes activities associated with the Project Location and Project Description that is provided above. Specific work areas and mitigation measures are described on/in the plans and documents submitted by the Permittee with the Notification Package, and shall be implemented as proposed unless directed differently by this Agreement.
- 1.9 Designated Biologist(s). At least thirty (30) days before initiating ground- or vegetation-disturbing activities, Permittee shall submit to CDFW in writing the name, qualifications, business address, and contact information for Designated Biologist(s). The Designated Biologist is an individual who is experienced with construction-level biological monitoring, who is able to recognize species in the project area, and who is familiar with the habits and behavior of those species. The Designated Biologist shall have academic and professional experience in biological sciences and related resource management activities as it pertains to this project. The Designated Biologist shall be knowledgeable and experienced in the biology and natural history of local fish and wildlife resources present at the project site. The Designated Biologist shall be responsible for monitoring all project activities, including construction and any ground- or vegetation-disturbing activities in areas subject to this Agreement.
- 1.10 Designated Biologist Authority. The Designated Biologist shall have authority to immediately stop any activity that is not in compliance with this Agreement, and/or to order any reasonable measure to avoid or minimize impacts to fish and wildlife resources. Neither the Designated Biologist nor CDFW shall be liable for any costs incurred as a result of compliance with this measure. This includes cease-work orders issued by CDFW.
- 1.11 On-site Education. Permittee shall conduct an education program for all persons employed or otherwise working on the project site prior to performing any work on-site during the pre-construction meeting. Permittee shall provide the same education

program for any new workers prior to their performing work on-site. The program shall consist of a presentation from the Designated Biologist that includes a discussion of the biology of the habitats and species identified in this Agreement and present at this site. The Designated Biologist shall also include as part of the education program information about the distribution and habitat needs of any special status species that may be present, legal protections for those species, penalties for violations and project-specific protective measures included in this Agreement. Copies of the education program materials shall be maintained at the Project site for workers to reference as needed. Upon completion of the education program, employees shall sign a form stating they attended the program and understand all protection measures. These forms shall be filed at the worksite offices and be available to CDFW upon request.

1.12 Post Storm Event Inspection. After any storm event, Permittee shall inspect all sites scheduled to begin or continue construction within the next 72 hours. Corrective action for erosion and sedimentation shall be taken as needed. National Weather Service 72-hour weather forecasts shall be reviewed prior to the start of any phase of the project that may result in sediment runoff to the stream, and construction plans adjusted to meet this requirement. The National Weather Service forecast can be found at: <http://www.nws.noaa.gov>.

1.13 Best Management Practices (BMP). In addition to the conditions outlined in this Agreement, the Permittee will implement the following BMP's:

1. Use the minimum size/type of equipment necessary to complete construction activities and minimize potential impacts.
2. Keep gates, fences, and "no trespassing" signs in working order to discourage dumping and vandalism.
3. Install and maintain silt fencing, k-rail, sandbag barriers, and straw wattles as appropriate during work to prevent soil from leaving the work areas into the stream or channel.
4. Place silt fencing or other barriers around temporary soil stockpile sites to contain material.
5. Maintain soil stockpiles free of vegetation.
6. Use water diversions to prevent soil and concrete from entering surface waters adjacent to work areas.
7. Where concrete pouring occurs, use plastic-lined sandbag concrete wash out pits stationed in upland areas.

8. Employ rumble strips, street sweepers, and wattles over storm drain inlets to prevent soil from entering streets and storm drains.
9. Locate temporary stockpiles on barren soil or areas with non-native weeds on channel bottoms such that no exposure to flowing water would occur.
10. Avoid road base discharges to streams.
11. Conduct water diversion activities according to the District's approved Water Diversion Guide.
12. Implement the District Integrated Pest Management Program for rodent control if needed.
13. Avoid spills and leaks of vehicular fluids.
14. Implement air quality BMPs during grading, excavation, and construction activities.

2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

Aquatic and Terrestrial Species Specific Protection

2.1 Protected Species. This Agreement does not authorize take, incidental or otherwise, of any protected species. For the purpose of this Agreement, "protected species" means the following: a species fully protected under state law; a candidate species or species listed as threatened or endangered under the California Endangered Species Act (CESA; Fish & G. Code § 2050 et seq.) and/or Endangered Species Act (ESA; 16 U.S.C. § 1531 et seq.); a species identified by CDFW as a species of special concern; or any other species for which take is prohibited under state or federal law. No direct or indirect impacts shall occur to any protected species, except as may be authorized by a Natural Community Conservation Plan or one or more individual permits that authorize such impacts.

2.2 Non-listed Special Status Species and other vertebrates. The Designated Biologist shall be present during vegetation removal and initial ground disturbance activities to monitor for non-listed special-status and/or common ground-dwelling vertebrates encountered within the work area and will relocate out of the project area as needed. The Designated Biologist shall be on site for (5) five consecutive work days after installation of water diversion, and once a week for a remainder of the project to check BMPs and collect water quality samples. The Designated Biologist shall make every effort to relocate the species out of harm's way to the extent feasible by doing one of the following: (1) Utilize shovel, rake, or similar hand tool to gently re-direct the animal out

of work area; and (2) capture/relocate species to appropriate habitat outside the disturbance area. The Designated Biologist shall have the authority to temporarily stop construction activities until the species is determined to be out of harm's way. The District shall supply the working calendar for the Designated Biologist to allow CDFW personnel to visit the site while the Designated Biologist is present during construction activities.

2.3 Incidental Take Permit. An Incidental Take Permit (ITP) from CDFW may be required if the project, project construction, or any project-related activity during the life of the project will result in "take," as defined by the Fish and Game Code, of any species protected by CESA [Fish & G. Code, §§ 86, 2080, 2081, subd. (b) (c)]. If there is a potential for take, Permittee may request consultation with CDFW and obtain the necessary state permits and/or submit plans to avoid any impacts to the species. Consultation with U.S. Fish and Wildlife Service or National Marine Fisheries Service would be required to receive take authority for federal threatened and endangered species.

2.4 Leave Wildlife Unharmd. If any native wildlife or non-native avian species are encountered during project activities, said wildlife shall be allowed to leave the project area unharmed. If any listed wildlife is encountered, Permittee shall contact the CDFW immediately.

2.5 Observations of Protected Species and/or Rare Plant Species. If protected species or state-listed rare plant species are observed in the area, Permittee shall immediately notify and consult with CDFW for further actions. Please note that additional state permits may be required prior to commencing project activities.

2.6 Notification to the California Natural Diversity Database. If any Protected Species are observed in project surveys, the Designated Biologist shall have responsibility to submit a California Native Species Field Survey Form and survey map to be submitted to the California Natural Diversity Database within 5 working days of the sightings. The form is available online at: <https://www.wildlife.ca.gov/Data/CNDDB>. Instructions for completing and submitting the form are available at: <https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data>.

2.7 Pre-project Survey. The Permittee shall have a Designated Biologist conduct a pre-project survey no more than 72 hours prior to start of work. If the survey yields information pertaining to any new resource impacts, CDFW shall be consulted immediately. Survey results including negative findings, analysis, and recommendations, along with the field notes shall be provided to CDFW prior to commencing construction. These surveys are intended to record any general wildlife and botanical observations, determine the presence/absence of any aquatic species within the work area, determine the presence and activity of any species of special concern or any threatened or endangered species, document area of surface water, check bridges and/or culverts to determine if bats or birds are nesting/roosting, visually check pipes and construction materials for the presence of wildlife sheltering within

them, and identify suitable relocation areas for any host of species that may need to be moved out of harm's way during work. Should any sensitive species be found during pre-project surveys and work must be done in identified areas during sensitive periods, the Permittee shall develop and implement a plan for the protection of these species. This plan shall be approved by CDFW prior to commencing work.

2.8 Check for Wildlife in Pipes/Construction Materials. The Permittee, Designated Biologist, or Designated Representative shall visually check sections of pipe/construction materials for the presence of wildlife sheltering within them prior to the materials being used, or shall have the ends capped while stored on site so as to prevent wildlife from entering. After placement, exposed end(s) shall be capped at the end of each day during construction to prevent wildlife from entering and being trapped. All excavated pits shall be covered at the end of each work day to prevent wildlife from entering or becoming trapped within them.

Nesting Bird Protection and Surveys

2.9 Migratory Birds. Be advised, migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). This Agreement does not allow Permittee, any employees, or agents to destroy or disturb any active bird or raptor nest at any time of the year.

2.10 Nesting Birds. Permittee should, if feasible, not remove or otherwise disturb vegetation or conduct any other Project activities on the Project site from February 1 to September 15 to avoid impacts to breeding/nesting birds. If the nesting season cannot be avoided and construction or vegetation removal occurs between February 1 to September 15 (January 1 to July 31 for raptors), then Permittee shall make every effort to clear vegetation before February 1 (January 1 for raptors) and shall do one of the following to avoid and minimize impacts to nesting birds:

- 1) The Designated Biologist shall survey for breeding/nesting habitat within the project site for breeding/nesting birds. Three surveys shall be conducted three days apart at the appropriate time of day during the breeding season. Project activities must be initiated within 72 hours of the conclusion of surveys. The Designated Biologist shall provide CDFW field notes or other documentation within 24 hours of completing the surveys. An email report with a letter report to follow may be used. The email/letter report should state how impacts of any nesting birds will be avoided by citing the appropriate information from these conditions. The Designated Biologist shall submit a buffer size to CDFW for review and approval prior to work activities. The buffer size shall be determined on a case-by-case basis based on life history of the individual species, species sensitivity to noise, vibration, and general disturbance, current site conditions (screening vegetation, terrain, etc.), ambient levels of human activity, the various

project-related activities necessary to construct the project, and other features. The breeding habitat/nest site shall be fenced and/or flagged in all directions, and this area shall not be disturbed until the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the project.

2) Permittee, in consultation with the Designated Biologist, shall develop a project-specific Nesting Bird Management Plan (Plan). The site-specific Plan shall be submitted to CDFW for review and comment no less than thirty (30) days prior to initiation of project activities. Permittee shall resolve all CDFW comments prior to initiation of project activities. The Plan shall include appropriate survey methods and establish the necessary buffers to avoid take or nest as defined in the Fish and Game Code section 3503 and 3503.5. Detailed survey results, including field data sheets, shall be submitted to CDFW for review within one week following completion of each survey. Permittee, or any person acting on behalf of Permittee, is not relieved from complying with Fish and Game Code sections 3503 (bird nests and eggs) and 3503.5 (birds of prey).

2.11 Take of Bird Nests. Permittee shall not take or destroy nests (or eggs) of birds that are designated under Federal and California State laws, MBTA and Fish and Game code sections 3503, 3503.5, 3511, and 3513.

Habitat Protection

2.12 Demarcate Work Area Boundary. In consultation with the Designated Biologist, the Permittee or Designated Representative shall demarcate the outer perimeter of the work area to prevent damage to adjacent habitat and to provide visual orientation to its limits. Marking shall be in place during all periods of operation. All persons employed or otherwise working on the project site shall be instructed about the restrictions that the marking represents. Permittee shall remove all temporary flagging, fencing, and/or barriers from the project site and vicinity of the stream upon completion of project activities.

2.13 Diversion Plan. If flowing or ponded water is within the proposed work limits, the Permittee shall implement the Water Diversion Guide from the *Final Program Environmental Impact Report for Environmental Protection Measures for the Ongoing Routine Operations and Maintenance Program* (VCWPD 2008). A Designated Biologist shall be on-site monitoring the dewatering activities and shall relocate any wildlife species that has the potential to be impacted by the dewatering activities.

2.14 Vegetation Removal. Only trees marked for removal and approved by CDFW shall be removed. The Permittee shall make effort to allow wildlife to flee, prior to removal.

2.15 Hours of Operation and Lighting. Permittee's construction activities shall take place during daylight hours only to the maximum extent feasible.

Equipment and Access

2.16 Staging and Vehicle Storage. Staging/storage areas for equipment and materials shall be located outside of the stream in an area selected due to its non-vegetated status. Staging in all other areas is prohibited by this Agreement unless otherwise approved by CDFW PRIOR to staging activities.

2.17 Operating Equipment and Vehicle Leaks. Any equipment or vehicles driven and/or operated within or adjacent to the ephemeral drainage shall be checked and maintained daily to prevent leaks of materials that could be deleterious to aquatic and terrestrial life or riparian habitat. No equipment maintenance or fueling shall be done within or near any stream channel or lake margin where petroleum products or other pollutants from the equipment may enter these areas. Stationary equipment such as motors, pumps, generators, and welders, located within or adjacent to the stream/lake shall be positioned over drip pans. Stationary heavy equipment shall have suitable containment to handle a catastrophic spill/leak. Clean up equipment such as extra boom, absorbent pads, skimmers, shall be on site prior to the start of project-related activities. No equipment maintenance shall be done within or near any stream channel or lake margin where petroleum products or other pollutants from the equipment may enter these areas under any flow.

Turbidity and Siltation

2.18 Erosion Control Measures. Permittee shall utilize erosion control measures throughout all phases of operation where sediment runoff from exposed slopes threatens to enter a river, stream, or lake. Furthermore, any type of erosion control shall be weed-free. Permittee shall stabilize all exposed/disturbed areas within the project site to the greatest extent possible. Permittee or Designated Representative shall monitor erosion control measures during and after each storm event and repair and/or replace ineffective measures immediately. Permittee shall make modifications, repairs and improvements to erosion control measures whenever it is needed.

2.19 Sediment Control. Permittee shall implement Best Management Practices where sediment from project-related activities placed in upland areas might likely be washed into the stream. Sediment from project-related activities shall not be placed where it is likely to have a negative impact on native trees.

2.20 Erosion Control. Any erosion control shall exclude the use of plastic or "hard" netting. If netting is to be used, it must be flexible (e.g., "soft" hemp) so that snakes or other animals do not become trapped in the netting.

2.21 Runoff Control. Preparation shall be made so that runoff from steep, erodible surfaces will be diverted into stable areas with little erosion potential. Frequent water checks shall be placed on dirt roads, cat tracks, or other work trails to control erosion.

Pollution, Litter and Cleanup

2.22 Concrete – Designated Monitor. At all times when the Permittee is pouring or working with wet concrete there shall be a designated monitor to inspect the containment structures and ensure that no concrete or other debris enters into the channel outside of those structures.

2.23 Concrete – Primary Containment. Permittee shall install the necessary containment structures to control the placement of wet concrete and to prevent it from entering into the channel outside of those structures. No concrete shall be poured within the high-flow line when measurable rainfall is forecast within 24-hours. New concrete shall be excluded from the wetted channel for a period of 48-hours after it is poured.

2.24 Remove Cleared Material from Stream. All trimmed or cleared material/vegetation shall be removed from the area and deposited where it cannot re-enter the stream.

2.25 Pollution Prevention. Any equipment or vehicles driven and/or operated adjacent to the stream shall be checked and maintained daily to prevent leaks of materials that could be deleterious to aquatic and terrestrial life or riparian habitat. Stationary equipment such as motors, pumps, generators, and welders, located within or adjacent to the river shall be positioned over drip pans. Stationary heavy equipment shall have suitable containment to handle a catastrophic spill/leak. No equipment maintenance shall be done within or near any stream channel or lake margin where petroleum products or other pollutants from the equipment may enter these areas under any flow.

2.26 Contaminated Site Water. Water containing mud, silt, or other pollutants from equipment washing or other activities, shall not be allowed to enter a flowing stream, dry ephemeral stream or into storm drains. Such water shall be settled, filtered, or otherwise treated prior to discharge back into the water body.

2.27 Pollutants and Debris. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, construction waste, cement or concrete or washings thereof, asphalt, paint, oil or other petroleum products or any other substances which could be hazardous to aquatic life, or other organic or earthen material from any logging, construction, or other associated project-related activity shall be allowed to contaminate the soil and/or enter into or placed where it may be washed by rainfall or runoff into, waters of the State. Any of these materials, placed within or where they may enter a stream, by the Permittee or any party working under contract, or with the permission of the Permittee, shall be removed immediately. When project-related activities are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any stream or lake.

2.28 Spill Cleanup. Permittee shall begin the cleanup of all oil/toxic material spills immediately. CDFW shall be notified immediately by the Permittee of any spills and shall be consulted regarding cleanup procedures.

2.29 Pollution Compliance. The Permittee shall comply with all litter and pollution laws. All contractors, subcontractors and employees shall also obey these laws and it shall be the responsibility of the Permittee to ensure compliance.

2.30 Debris. Except as otherwise permitted in this Agreement, the removal of soil, vegetation, and vegetative debris from the stream bed or stream banks is prohibited. The Permittee shall remove all human generated debris, such as yard and farm cuttings, broken concrete, construction waste, garbage and trash. The Permittee shall remove washed out culverts, and other construction materials, that the Permittee places within, or where they may enter, the stream. Permittee shall pick up all debris and waste daily. Permittee shall dispose of all Project generated debris, materials and rubbish in a legal manner.

2.31 Hazardous Substances. Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering the waters of the state. Any of these materials, placed within or where they may enter the stream by Permittee or any party working under contract, or with the permission of Permittee, shall be removed immediately.

Exotic Species Removal and Control

2.32 Invasive Plant Control/Eradication. To minimize the spread of invasive plant species to uninfested areas within and outside of the project site, Permittee shall conduct project activities in a manner that prevents the introduction, transfer, and spread of invasive species, including plants, animals, and microbes (e.g., algae, fungi, parasites, bacteria, etc.), from one project site and/or waterbody to another. Prevention BMPs and guidelines for invasive plants can be found on the California Invasive Plant Council's website at: <http://www.cal-ipc.org/ip/prevention/index.php> and for invasive mussels and aquatic species can be found at the Stop Aquatic Hitchhikers website: <http://www.protectyourwaters.net/>.

2.33 Inspection of Project Equipment. Permittee shall inspect all vehicles, heavy equipment, tools, waders and boots, and other project-related equipment and remove all visible soil/mud, plant materials, and animal remnants prior to entering and exiting the project site and/or between each use in different waterbodies.

2.34 Notification of Invasive Species. Permittee shall notify CDFW immediately if an invasive species not previously known to occur within the project site is discovered during project activities by submitting a completed Suspect Invasive Species Report (available online at: http://www.dfg.ca.gov/invasives/inv_reporting/sightingReport.html) and photos to the Invasive Species Program by email at: invasives@wildlife.ca.gov. Notification may also be provided by calling (866) 440-9530. Upon receiving notification, CDFW will provide Permittee with guidance for further action as appropriate to the species.

2.35 No Introduction of Invasive Plants. Permittee shall not knowingly plant, seed, or otherwise introduce any plants listed in the California Invasive Plant Council's Invasive Plant Inventory: <http://www.cal-ipc.org/ip/inventory/index.php> in the areas within or adjacent to the project site.

3. Compensatory Mitigation

3.1 Required Compensatory Mitigation. To compensate for the permanent impacts to approximately 0.05 acres of earthen channel transition to a concrete lined open box channel, the Permittee shall conduct 0.14 acre of riparian habitat restoration at the Arroyo Simi Habitat Mitigation Project (ASHMP) per the Addendum to the ASHMP submitted July 26, 2019. The impacts from widening and rock-lining the channel will allow infiltration and exfiltration, which allows wetlands and vegetation to exist within the channel between maintenance events therefore requiring no compensatory mitigation.

3.1.1 Mitigation and Monitoring Reports. Permittee shall have the qualified restoration specialist monitor the recovery of plant, wildlife, and aquatic resources in the area following mitigation implementation. Monitoring of plant, wildlife, and aquatic resources shall be done in summer and winter of each year, through the term of restoration. The results and analysis shall be submitted with the annual MCRP annual report to CDFW by September 30 of each year for the remaining time of the ASHMP after Project completion. This report shall include the status and any success trends for the success criteria outlined in the ASHMP. Photos from designated photo stations shall be included.

3.2 Mitigation for Unauthorized Impacts. Permittee shall mitigate for impacts beyond those authorized in this Agreement to an amount determined by CDFW. In the event that additional mitigation is required, the type of mitigation shall be determined by CDFW, and may include creation, restoration, enhancement, and/or preservation.

4. Reporting Measures

Permittee shall meet each reporting requirement described below.

4.1 Notification Prior to Work. The Permittee shall notify CDFW, in writing, at least five (5) days prior to initiation of project-related activities and at least five (5) days prior to completion of project and mitigation activities. Notification shall be sent to the email address: R5LSACompliance@wildlife.ca.gov, Reference # 1600-2019-0120-R5.

4.2 Reporting. All surveys, pre and post construction notifications, monitoring reports and any other required communication between the Permittee and CDFW shall be submitted to R5LSACompliance@wildlife.ca.gov Reference # 1600-2019-0120-R5.

4.3 Final Project Report. Permittee shall provide a final project report to CDFW no later than **six months after the project is fully completed**, including a brief description

of the activities performed, color photographs of before and after project-related activities and surrounding staging areas, and biological survey notes (including monitoring reports).

4.4 Mitigation Annual Reports. Permittee shall submit an annual report to CDFW by September 30 of each year for the remaining time of the ASHMP after Project completion. This report shall be based on the reporting requirements from the approved Mitigation Creation and Restoration Plan. The report shall include photographs from designated photograph stations and other relevant information such as the success of natural revegetation establishment, survival, percent cover, and height of both tree and shrub species; the number by species of plants replaced; an overview of the revegetation effort, the restoration effectiveness, and the method used to assess these parameters; a summary of invasive species control, methods used to remove non-native plants, and a list of wildlife observed on site.

4.5 Compliance. CDFW shall verify compliance with protective measures to ensure the accuracy of the Operator's mitigation, monitoring and reporting efforts. CDFW may, at its sole discretion, review relevant documents maintained by the Operator, interview the Operator's employees and agents, inspect the work site, and take other actions to assess compliance with or effectiveness of protective measures in this Agreement.

CONTACT INFORMATION

Any communication that Permittee or CDFW submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or CDFW specifies by written notice to the other.

To Permittee:

Glenn Shephard
Ventura County Watershed Protection District
800 South Victoria Avenue
Ventura, CA 93009
Glenn.Shephard@ventura.org

To CDFW:

California Department of Fish and Wildlife
South Coast Region
3883 Ruffin Road
San Diego, California 92123
Attn: Lake and Streambed Alteration Program
Notification #1600-2019-0120-R5
Email: R5LSACompliance@wildlife.ca.gov

LIABILITY

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute CDFW's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.

SUSPENSION AND REVOCATION

CDFW may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before CDFW suspends or revokes the Agreement, it shall provide Permittee written notice that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before CDFW suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused CDFW to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes CDFW from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects CDFW's enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from obtaining any other permits or authorizations that might be required under other federal, state, or local laws or regulations before beginning the project or an activity related to it.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the FGC including, but not limited to, FGC sections 2050 *et seq.* (threatened and endangered species), 3503 (bird nests and eggs), 3503.5 (birds of prey), 5650 (water pollution), 5652 (refuse

disposal into water), 5901 (fish passage), 5937 (sufficient water for fish), and 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

AMENDMENT

CDFW may amend the Agreement at any time during its term if CDFW determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter CDFW approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

EXTENSIONS

In accordance with FGC section 1605(b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to CDFW a completed CDFW "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). CDFW shall process the extension request in accordance with FGC 1605(b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (FGC section 1605(f)).

EFFECTIVE DATE

The Agreement becomes effective on the date of CDFW's signature, which shall be: 1) after Permittee's signature; 2) after CDFW complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC section 711.4 filing fee listed at http://www.wildlife.ca.gov/habcon/ceqa/ceqa_changes.html.

TERM

This Agreement shall expire on October 31, 2024, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC section 1605(a)(2) requires.

AUTHORITY

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.


AUTHORIZATION

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify CDFW in accordance with FGC section 1602.

CONCURRENCE

The undersigned accepts and agrees to comply with all provisions contained herein.

FOR VENTURA COUNTY WATERSHED PROTECTION DISTRICT



Glenn Shephard
District Director

10/22/19

Date

FOR DEPARTMENT OF FISH AND WILDLIFE



Erinn Wilson

Environmental Program Manager

11.13.2019

Date

Prepared by: Joseph Stanovich
Environmental Scientist

RWQCB FILE
NO. 19-037



GAVIN NEWSOM
GOVERNOR



JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

November 18, 2019

Mr. Glenn Shephard
Director
Ventura County Watershed Protection District
800 South Victoria Avenue
Ventura, CA 93009-1610

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED
No. 7018 2290 0002 2267 7298

Dear Mr. Shephard:

RE: CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER
FOR THE FERRO DITCH CHANNEL MODIFICATION (4WQC40119037)

Enclosed please find a Clean Water Act Section 401 Water Quality Certification and Order, authorized by Los Angeles Regional Water Quality Control Board Executive Officer, Renee Purdy. This Order is issued to the Ventura County Watershed Protection District (Applicant) for the Ferro Ditch Channel Modification (Project). Attachments A through C of the Enclosure are also part of the Order.

This Order is issued in response to an application submitted by the Ventura County Watershed Protection District for proposed Project discharge to waters of the state, to ensure that the water quality standards for all waters of the state impacted by the Project are met. You may proceed with your Project according to the terms and conditions of the enclosed Order.

If you require further assistance, please contact Valerie Carrillo Zara by phone at (213) 576-6759 or by email at Valerie.CarrilloZara@waterboards.ca.gov. You may also contact LB Nye, Senior Environmental Scientist, by phone at (213) 576-6785 or by email at LB.Nye@waterboards.ca.gov.

Sincerely,

LB Nye
Regional Programs Section Chief
Section 401 Certification and Wetlands Unit
Los Angeles Water Quality Control Board

Enclosures (1): Order for Ferro Ditch Channel Modification, File No. 19-037

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

Megan Doran
Environmental Planner
Ventura County Watershed Protection
District

Elizabeth Payne
CWA Section 401 WQC Program
Division of Water Quality
State Water Resources Control Board

Antal Szijj
Regulatory Division, Ventura Field Office
U.S. Army Corps of Engineers

Brock Warmuth
California Department of Fish and Wildlife
Streambed Alteration Team
Los Alamitos Field Office

Melissa Scianni
Office of Water
US EPA, Region 9

Christopher Diel
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Ventura, CA

Brian Trautwein
Watershed Program Director
Environmental Defense Center

Kira Redmond
Executive Director
Santa Barbara Channel Keeper

Los Angeles Regional Water Quality Control Board

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER

Effective Date: November 18, 2019

Program Type: Fill/Excavation

Reg. Meas. ID:	430801
Place ID:	858520
WDID:	4WQC40229037
NWP:	Individual Permit
USACOE#:	SPL-2013-00592
R4 File No	19-037

Project Type: Channel Construction and Maintenance

Project: Ferro Ditch Channel Modification (Project)

Applicant: Ventura County Watershed Protection District

Applicant Contact: Glenn Shephard
Director
Ventura County Watershed Protection District
800 South Victoria Avenue
Ventura, CA 93009-1610
Phone: (805) 654-2010
Email: Glenn.Shephard@ventura.org

Applicant's Agent: Megan Doran
Environmental Planner
800 South Victoria Avenue
Ventura, CA 93009-1610
Phone: (805) 477-1976
Email: Megan.Doran@ventura.org

Water Board Staff: Valerie Carrillo Zara
Engineering Geologist
320 W. 4th Street, Suite 200
Los Angeles, CA 90013
Phone: 213-576-6759
Email: Valerie.carrilloZara@waterboards.ca.gov

Water Board Contact Person:

If you have any questions, please call Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) Staff listed above or (213) 576-6600 and ask to speak with the Water Quality Certification and Wetlands Unit Program Manager.

Table of Contents

I.	Order.....	3
II.	Public Notice	3
III.	Project Purpose.....	3
IV.	Project Description	3
V.	Project Location	4
VI.	Project Impact and Receiving Waters Information	5
VII.	Description of Direct Impacts to Waters of the State.....	5
VIII.	Compensatory Mitigation.....	5
IX.	California Environmental Quality Act (CEQA).....	5
X.	Petitions for Reconsideration.....	6
XI.	Fees Received	6
XII.	Conditions	6
XIII.	Water Quality Certification.....	20

Attachment A	Maps
Attachment B	Signatory Requirements
Attachment C	Report and Notification Requirements

I. Order

This Clean Water Act (CWA) section 401 Water Quality Certification action and Order (Order) is issued at the request of Ventura County Watershed Protection District (hereinafter Permittee) for the Project. This Order is for the purpose described in the application and supplemental information submitted by the Permittee. The application was received on May 9, 2019. The application was deemed complete on June 18, 2019. Prior to receiving a complete application, Los Angeles Water Board staff issued a notice of incomplete application and the Permittee responded to the request for application information on the following dates (Table 1).

Table 1: Record of Notice(s) of Incomplete Application

Date of Notice of Incomplete Application	Date all requested information was received.
May 29, 2019	June 18, 2019

II. Public Notice

The Los Angeles Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 from June 18, 2019 to the effective date of the Order. The Los Angeles Water Board did not receive any comments during the comment period.

III. Project Purpose

The Project will increase the capacity of the Ferro Ditch Channel (Channel) in order to provide flood protection for 50-year storm events. The Channel has deteriorated to such an extent that flood control and safety are compromised. In addition, sloughing of the side walls has resulted in undermining of the maintenance roads.

IV. Project Description

The Project is a part of the Beardsley Watershed Project (PL 83-566 Small Watershed Project plan) that is designed to reduce the potential for flood damage and soil erosion to agricultural and rural residential properties in the watershed. The overall Beardsley Watershed Project infrastructure is designed to carry at least the two percent chance peak storm flow (50-year storm flow) with freeboard as prescribed by the Natural Resources Conservation Service (NRCS) and Ventura County Watershed Protection District (District) design criteria.

The Channel is an earthen and concreted rock riprap channel approximately 1,700 feet long, extending downstream and south of the Ferro Debris Basin (Basin) to Los Angeles Avenue, State Route 118 (SR 118). The Ferro Ditch Channel is the uppermost tributary in one branch of the constructed channel system; proposed channel capacity increases represent completion of the Beardsley Watershed Project.

The Project will widen and rock line the existing earthen trapezoidal channel, both sides and bottom. The benefits from the rock-lined channel surpass those of a concrete channel. Riprap is a more flexible lining than concrete that will adjust in response to changes in channel shape, making it a more sustainable alternative with a potentially longer life span that is easier to repair.

The existing, primarily earthen, trapezoidal channel will be converted to a wider and deeper trapezoidal channel with 2:1 side slopes. It will increase the channel depth from 4 feet to 6.75 feet, with a base width of 7 feet, and a new average top width of 34 feet. The bottom of the culvert under Highway 118 is about 2.5 feet below the existing channel bottom at the downstream end. A 2-foot-thick riprap layer will be placed on a filter blanket to prevent washout of the sub-grade; the top three feet of the rock slope protection (currently outside of USACOE jurisdiction) will be concreted to support a safer surface for the widened access road.

The downstream-most 80 linear feet of the existing earthen channel will be constructed as a concrete-lined open channel and a reinforced concrete box culvert, which will join the existing reinforced box culvert at Highway 118. This feature comprises 0.04 acre of new impervious surface within waters of the U.S. as a permanent impact. This Project feature improves safety along the highway by eliminating the open channel condition within State right of way.

The Project will place 0.71 acre of loose rock riprap to the channel bottom and sides. The impacts from widening and rock-lining the channel will create additional opportunities for infiltration and exfiltration and allow for growth of vegetation. Approximately 0.09 acre of existing loose rock riprap within the channel will be removed and replaced comprising additional temporary impacts during project construction. Therefore, a total of 0.80 acre of temporary impact along 1,620 linear feet of channel will occur associated with placement and replacement of rock riprap.

Two project components will be constructed in existing uplands (non-waters). To provide access roads with safe driving widths, the top three feet of the channel banks will be concreted in the spaces between the rock riprap. Additional local drainage modifications will also be constructed, including a flap gate and headwall to keep stormwater in the Los Angeles Avenue Drain from backing up onto agricultural land west of the channel.

Construction of the Project will last approximately 6 months.

V. Project Location

The project is located in South Central Unincorporated Ventura County.

<u>Latitude</u>	<u>Longitude</u>
34.2575	-119.1102
34.2574	-119.1101
34.2586	-119.1091
34.2585	-119.1090
34.2598	-119.1080
34.2597	-119.1079
34.2609	-119.1069
34.2608	-119.1068

A map showing the Project location is found in Attachment A of this Order.

VI. Project Impact and Receiving Waters Information

The Project is located within the jurisdiction of Los Angeles Water Board. Receiving waters and groundwater potentially impacted by this Project are protected in accordance with the applicable water quality control plan (Basin Plan) for the region and other plans and policies which may be accessed online at: http://www.waterboards.ca.gov/plans_policies/. The Basin Plan includes water quality standards, which consist of existing and potential beneficial uses of waters of the state, water quality objectives to protect those uses, and the state and federal antidegradation policies.

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

Receiving Water: Beardsley Channel Reach 5
(Hydrologic Unit Code: 180701030106)

Designated Beneficial Uses: MUN*, FRSH, REC-1, REC-2, WARM, WILD

*Conditional beneficial use

VII. Description of Direct Impacts to Waters of the State

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

Table 2: Total Project Fill/Excavation Quantity									
Aquatic Resource Type	Temporary Impact ¹			Permanent Impact					
				Physical Loss of Area			Degradation of Ecological Condition Only		
	Acres	CY ²	LF	Acres	CY	LF	Acres	CY	LF
Stream Channel	0.80		1,620	0.04		80			

VIII. Compensatory Mitigation

The Permittee has agreed to provide compensatory mitigation for direct impacts, described in Section I for permanent impacts.

IX. California Environmental Quality Act (CEQA)

On January 15, 2013, the Ventura County Watershed Protection District, as lead agency, adopted an initial study/mitigated negative declaration (IS/MND) (State Clearinghouse (SCH) No. 2012071018) for the Project and filed a Notice of Determination (NOD) at the SCH on January 15, 2013. The Los Angeles Water Board is a responsible agency under CEQA (Pub. Resources Code, § 21069) and in making its determinations and findings, must presume that

¹ Includes only temporary direct impacts to waters of the state and does not include upland areas of temporary disturbance which could result in a discharge to waters of the state.

² Cubic Yards (CY); Linear Feet (LF)

the Ventura County Watershed Protection District's adopted environmental document comports with the requirements of CEQA and is valid. (Cal. Code Regs., tit. 14 § 15096(e); Pub. Resources Code, § 21167.2) The Los Angeles Water Board has reviewed and considered the environmental document and finds that the environmental document prepared by the Ventura County Watershed Protection District adequately addresses the Project's water resource impacts. (Cal. Code Regs., tit. 14, § 15096, subd. (f).)

X. Petitions for Reconsideration

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

XI. Fees Received

The fee amount for the proposed project has been determined as required by California Code of Regulations, title 23, sections 3833(b)(3) and 2200(a)(3) and was calculated as Fill and Excavation Discharges, with the dredge and fill fee calculator.

Table 3: Record of Fees Received		
Date Received	Check No.	Amount
May 9, 2019	1001879650	\$1,638.00
September 3, 2019	1001903848	\$10,533.00
	Total	\$12,171.00

XII. Conditions

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

A. Authorization

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

B. Reporting and Notification Requirements

Requirements for the content of these reporting and notification types are detailed in Attachment C, including specifications for photo and map documentation during the Project. Written reports and notifications must be submitted using the Reporting and Notification Cover Sheet located in Attachment C, which must be signed by the Permittee or an authorized representative.

1. Project Reporting

- a. **Annual Reporting:** The Permittee shall submit an Annual Report each year on the anniversary of Project effective date. Annual Reporting requirements are detailed in

Attachment C. Annual reporting shall continue until a Notice of Project Complete Letter is issued to the Permittee.

2. Project Status Notifications

- a. **Commencement of Construction:** The Permittee shall submit a Commencement of Construction Report at least seven (7) days prior to start of initial ground disturbance activities.
- b. **Request for Notice of Completion of Discharges Letter:** The Permittee shall submit a Request for Notice of Completion of Discharges Letter following completion of active Project construction activities, including any required restoration and permittee-responsible mitigation. This request shall be submitted to the Los Angeles Water Board staff within thirty (30) days following completion of all Project construction activities. Upon acceptance of the request, Los Angeles Water Board staff shall issue a Notice of Completion of Discharges Letter to the Permittee, which will end the active discharge period and associated annual fees.
- c. **Request for Notice of Project Complete Letter:** The Permittee shall submit a Request for Notice of Project Complete Letter when construction and/or any post-construction monitoring is complete,³ and no further Project activities will occur. This request shall be submitted to Los Angeles Water Board staff within thirty (30) days following completion of all Project activities. Upon approval of the request, the Los Angeles Water Board staff shall issue a Notice of Project Complete Letter to the Permittee which will end the post discharge monitoring period and associated annual fees.

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

a. Accidental Discharges of Hazardous Materials⁴

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

- i. As soon as (A) Permittee has knowledge of the discharge or noncompliance, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures then:
 - first call – 911 (to notify local response agency)
 - then call – Office of Emergency Services (OES) State Warning Center at: (800) 852-7550 or (916) 845-8911
 - Lastly, follow the required OES procedures as set forth in:

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

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

http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill_Booklet_Feb2014_FINAL_BW_Acc.pdf

- ii. Following notification to OES, the Permittee shall notify Los Angeles Water Board, as soon as practicable (ideally within 24 hours). Notification may be via telephone, e-mail, or delivered written notice.
 - iii. Within five (5) working days of notification to the Los Angeles Water Board, the Permittee must submit an Accidental Discharge of Hazardous Material Report.
- b. Violation of Compliance with Water Quality Standards:** The Permittee shall notify the Los Angeles Water Board of any event causing a violation of compliance with water quality standards. Notification may be via telephone, e-mail, or delivered written notice.
- i. Examples of noncompliance events include: lack of any reporting in a timely manner, lack of storm water treatment following a rain event, discharges causing a visible plume in a water of the state, water contact with uncured concrete, and exceedances of limits for the analytes for *In-Water Work or Diversions* listed below.
 - ii. This notification must be followed within three (3) working days by submission of a Violation of Compliance with Water Quality Standards Report.
- c. In-Water Work or Diversion**
- i. If stream diversion will be necessary, the Permittee shall submit to the Los Angeles Water Board staff a Stream Diversion Plan, with a diagram and a narrative description of the method to divert the stream and associated BMPs for acceptance, at least 30 days in advance of any stream diversion.
 - ii. During stream diversion, water quality monitoring shall be conducted. Requirements for water quality monitoring are below.
 - iii. The Permittee shall notify the Los Angeles Water Board at least forty-eight (48) hours prior to initiating work in water or stream diversions. Notification may be via telephone, e-mail, or delivered written notice.
- d. Modifications to Project**
- Project modifications may require an amendment of this Order. The Permittee shall give advance notice to Los Angeles Water Board staff if Project implementation as described in the application materials is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority by submitting a Modifications to Project Report. The Permittee shall inform Los Angeles Water Board staff of any Project modifications that will interfere with the Permittee's compliance with this Order.
- e. Transfer of Property Ownership:** This Order is not transferable in its entirety or in part to any person or organization except after notice to the Los Angeles Water Board in accordance with the following terms:

- i. The Permittee must notify the Los Angeles Water Board of any change in ownership or interest in ownership of the Project area by submitting a Transfer of Property Ownership Report. The Permittee and purchaser must sign and date the notification and provide such notification to the Los Angeles Water Board at least 10 days prior to the transfer of ownership. The purchaser must also submit a written request to the Los Angeles Water Board to be named as the permittee in a revised order.
 - ii. Until such time as this Order has been modified to name the purchaser as the permittee, the Permittee shall continue to be responsible for all requirements set forth in this Order.
- f. **Transfer of Long-Term BMP Maintenance:** If maintenance responsibility for post-construction BMPs such as debris basins is legally transferred, the Permittee must submit to the Los Angeles Water Board a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer or designer specifications. The Permittee must provide such notification to the Los Angeles Water Board with a Transfer of Long-Term BMP Maintenance Report at least 10 days prior to the transfer of BMP maintenance responsibility.

C. Water Quality Monitoring

1. **General:** If surface water is present, continuous visual surface water monitoring shall be conducted to detect accidental discharge of construction related pollutants (e.g. oil and grease, turbidity plume, or uncured concrete).
2. **Accidental Discharges/Noncompliance:** Upon occurrence of an accidental discharge of hazardous materials or a violation of compliance with a water quality standard, Los Angeles Water Board staff may require water quality monitoring based on the discharge constituents and/or related water quality objectives and beneficial uses.
3. **In-Water Work or Diversions:**
Water quality monitoring shall be in conformance with the District's Water Diversion Guide for the Ventura County Maintenance Program EIR dated December 2007.

During planned work in water or stream diversions any discharge(s) to waters of the state shall conform to the following water quality standards:

- a. **Oil and Grease.** Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses.
- b. **Dissolved Oxygen.** At a minimum, the mean annual dissolved oxygen concentration of all waters shall be greater than 7 mg/L, and no single determination shall be less than 5.0 mg/L, except when natural conditions cause lesser concentrations.

The dissolved oxygen content of all surface waters designated as WARM shall not be depressed below 5 mg/L as a result of waste discharges.

- c. pH. The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of waste discharge.
- d. Turbidity. Downstream TSS shall be maintained at ambient levels. Where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

Sampling shall be conducted in accordance with Table 4 sampling parameters.⁵

Table 4: Sample Type and Frequency Requirements			
Parameter	Unit of Measurement	Type of Sample	Minimum Frequency
Oil and Grease	N/A	Visual	Continuous
Dissolved Oxygen	mg/L & % saturation	Grab	Daily for the first 5 days, weekly, thereafter
pH	Standard Units	Grab	Daily for the first 5 days, weekly, thereafter
Turbidity	NTU	Grab	Daily for the first 5 days, weekly, thereafter
Temperature	°F (or as °C)	Grab	Daily for the first 5 days, weekly, thereafter

Baseline sampling shall be conducted at a minimum of one location within the project boundary for each phase. All other sampling shall take place at a minimum of two locations. In streams or flowing water the sample locations shall be upstream and downstream. Results of the analyses shall be submitted to this Regional Board by the 15th day of each subsequent sampling month. A map or drawing indicating the locations of sampling points shall be included with each submittal. A summary of results shall discuss the analysis. Every measurement not meeting the compliance limits shall be accompanied by an explanation, the actions taken to correct the degradation to waters, and addressed in *Violation of Compliance with Water Quality Standards* report described above.

4. **Post-Construction:** Visually inspect the Project site during the rainy season for 5 years to ensure excessive erosion, stream instability, or other water quality pollution is not occurring in or downstream of the Project site. If water quality pollution is occurring, contact the Los Angeles Water Board staff member overseeing the Project within three (3) working days. The Los Angeles Water Board may require the submission of a

⁵ Pollutants shall be analyzed using the analytical methods described in 40 Code of Federal Regulations Part 136; where no methods are specified for a given pollutant, the method shall be approved by Los Angeles Water Board staff. Grab samples shall be taken between the surface and mid-depth and not be collected at the same time each day to get a complete representation of variations in the receiving water. A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring shall be maintained onsite.

Violation of Compliance with Water Quality Standards Report. Additional permits may be required to carry out any necessary site remediation.

D. Standard

1. This Order is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330, and California Code of Regulations, title 23, chapter 28, Article 6 commencing with sections 3867-3869, inclusive. Additionally, the Los Angeles Water Board reserves the right to suspend, cancel, or modify and reissue this Order, after providing notice to the Permittee, if the Los Angeles Water Board determines that: the Project fails to comply with any of the conditions of this Order; or, when necessary to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) or federal Clean Water Act section 303 (33 U.S.C. § 1313). For purposes of Clean Water Act section 401(d), the condition constitutes a limitation necessary to assure compliance with water quality standards and appropriate requirements of state law.
2. This Order is not intended and shall not be construed to apply to any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license, unless the pertinent certification application was filed pursuant to subsection 3855(b) of chapter 28, title 23 of the California Code of Regulations, and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. This Order is conditioned upon total payment of any fee required under title 23 of the California Code of Regulations and owed by the Permittee.
4. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under state and federal law. For purposes of Clean Water Act, section 401(d), the applicability of any state law authorizing remedies, penalties, processes, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Order.

E. General Compliance

1. Failure to comply with any condition of this Order shall constitute a violation of the Porter-Cologne Water Quality Control Act and the Clean Water Act. The Permittee and/or discharger may then be subject to administrative and/or civil liability pursuant to Water Code section 13385.
2. Permitted actions must not cause a violation of any applicable water quality standards, including impairment of designated beneficial uses for receiving waters as adopted in the Basin Plans by any applicable Los Angeles Water Board or any applicable State Water Board (collectively Water Boards) water quality control plan or policy. The source of any such discharge must be eliminated as soon as practicable.
3. In response to a suspected violation of any condition of this Order, the Los Angeles Water Board may require the holder of this Order to furnish, under penalty of perjury, any technical or monitoring reports the Water Boards deem appropriate, provide that the

burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The additional monitoring requirements ensure that permitted discharges and activities comport with any applicable effluent limitations, water quality standards, and/or other appropriate requirement of state law.

4. The Permittee must, at all times, fully comply with engineering plans, specifications, and technical reports submitted to support this Order; and all subsequent submittals required as part of this Order. The conditions within this Order and Attachments supersede conflicting provisions within Permittee submittals.
5. This Order and all of its conditions contained herein continue to have full force and effect regardless of the expiration or revocation of any federal license or permit issued for the Project. For purposes of Clean Water Act, section 401(d), this condition constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements of state law.
6. The Permittee shall adhere to all requirements in the mitigation monitoring and reporting program (MMRP) (Mitigation Measure Monitoring Program Implementation Plan for the Ferro Ditch Channel Improvements Project, December 2012) which is incorporated herein by reference.
7. **Construction General Permit Requirement:** If enrolled, the Permittee shall maintain compliance with conditions described in, and required by, NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-009-DWQ and NPDES No. CAS 000002 as amended by Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ, and any amendments thereto) (General Construction Permit).

F. Administrative

1. Signatory requirements for all document submittals required by this Order are presented in Attachment B of this Order.
2. This Order does not authorize any act which results in the taking of a threatened, endangered or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, §§ 2050-2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531-1544). If a "take" will result from any act authorized under this Order held by the Permittee, the Permittee must obtain authorization for the take prior to any construction or operation of the portion of the Project that may result in a take. The Permittee is responsible for meeting all requirements of the applicable endangered species act for the Project authorized under this Order.
3. The Permittee shall grant Los Angeles Water Board staff, or an authorized representative (including an authorized contractor acting as a Water Board representative), upon presentation of credentials and other documents as may be required by law, permission to:
 - a. Enter upon the Project or compensatory mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records are kept.

- b. Have access to and copy any records that are kept and are relevant to the Project or the requirements of this Order.
 - c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order.
 - d. Sample or monitor for the purposes of assuring Order compliance.
- 4. A copy of this Order shall be provided to any consultants, contractors, and subcontractors working on the Project. Copies of this Order shall remain at the Project site for the duration of this Order. The Permittee shall be responsible for work conducted by its consultants, contractors, and any subcontractors.
 - 5. A copy of this Order must be available at the Project site(s) during construction for review by site personnel and agencies. All personnel performing work on the Project shall be familiar with the content of this Order and its posted location at the Project site.
 - 6. Lake and Streambed Alteration Agreement – The Permittee shall submit a signed copy of the Department of Fish and Wildlife's lake and streambed alteration agreement to the Los Angeles Water Board immediately upon execution and prior to any discharge to waters of the state.
 - 7. This Order shall expire **five (5) years** from date of this Order. The Applicant shall submit a complete application at least 90 days prior to termination of this Order if renewal is requested.

G. Best Management Practices

1. Dewatering and In-Water Work

A. Water Diversion Guide.

- The applicant shall follow water diversion methods and procedures established in the District's Water Diversion Guide.
- Baseline water quality monitoring shall be required PRIOR to installation of any water diversion, daily for the first 5 days the diversion is in place, and weekly thereafter.
- Fish mortality associated with stream flow diversion or dewatering shall be reported by environmental staff to the California Department of Fish & Wildlife within 24 hours of discovery.

2. Fugitive Dust

A. Air Quality (Dust Control). The following measures shall be incorporated into maintenance activities to minimize fugitive dust emissions during grading, excavation, and construction activities.

- Minimize the areas disturbed at any one time by clearing, grading, earth moving, or excavation operations to prevent excessive dust.
- Water grading/excavation areas prior to and during work.
- Cover all truck loads.
- Prevent fugitive dust (via treatment) on all graded and excavated material, exposed

- soil areas, stockpiles, including unpaved parking and staging areas, and other active portions of the construction site.
- District staff shall weekly monitor contractor graded and/or excavated inactive areas of the construction site for dust stabilization.
- No grading/earth work during periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties) to prevent excessive fugitive dust.
- Use rumble strips or track out devices where vehicles enter and exit unpaved roads onto paved road.
- All on site construction roads that have a daily traffic volume of more than 50 daily trips shall be stabilized as to minimize transport of earthen material from the site.
- There shall be at least one qualified District staff on site each work day to monitor the provisions of the Fugitive Dust Mitigation Plan and any other applicable fugitive dust rules, ordinances, or conditions.
- All project construction operations shall be conducted in compliance with all applicable APCD Rules and Regulations with emphasis on Rule 50 (Opacity) and Rule 51 (Nuisance).

3. Good Site Management “Housekeeping”

A. Avoid Spills and Leaks.

- The Permittee shall keep all equipment in good working condition and free of leaks.
- No equipment maintenance or refueling shall be in a channel or basin bottom.
- The Permittee shall place drip pans under all stationary equipment such as motors, pumps, generators, compressors, and welders.
- Spill containment materials shall be on site or readily available for any equipment maintenance or refueling that occurs adjacent to a watercourse.
- The Permittee shall train all maintenance crews in spill containment and response.
- The Permittee shall immediately clean up all spills and submit report to the Office of Spill Prevention and Response.

4. Invasive Species and Soil Borne Pathogens

A. Invasive Plant Removal Protocols.

- The Permittee shall remove invasive plant species in a manner that prevents propagation.
- The Permittee shall spray or mow plants before seeds ripen, when feasible.
- All cut/removed invasive vegetation shall be taken to a dump as a destruction load.
- The Permittee shall not stockpile invasive vegetation (including mulch) where materials would wash downstream or allowed to propagate.

5. New Zealand Mudsail Control Protocols

These protocols address three general modes of potential spread of New Zealand mudsnail; hand tools & boots, mobile equipment and vehicles, and reusable instream materials.

First, the Permittee shall determine if the reach to be maintained supports New Zealand mudsnail by reviewing maps and the infested reach list (Table 5). If so, implement Part A.

Second, the Permittee shall determine if the equipment to be used was borrowed from the Transportation Department OR last used in another Zone. If so, implement Part B.

Part A (infested reaches):

- Wash hand tools, boots and power tools that contact surface water using Protocol 1.
- Wash mobile equipment used in surface water that may have incidental soil attached (e.g., dozers, excavators, discing equipment, wheeled loaders and motor graders) using Protocol 2A (on-site power wash, on-site or off-site hot pressure wash).
- Wash equipment that infrequently crosses the wetted channel and does not have incidental soil attached (e.g., herbicide trailers, chipper, water pumps [hand carried and trailer-mounted], mowers and motor vehicles) using Protocol 3 (on-site or off-site hot or cold pressure wash).
- Wash hard surfaced instream materials that may be transported between work sites (e.g., K-rail, diversion pipe, water hoses and concrete forms) using Protocol 4 (on-site or off-site hot pressure wash).
- Discard sand bags (and other fibrous materials that could harbor mudsnails) which have been immersed in surface waters in a landfill. Do not re-use at other sites.

Table 5. New Zealand Mudsail Infested Reaches

ZONE	REACH NO.	NAME
2	42011	Pacific Ocean to Harbor Blvd.
2	42012	Harbor Blvd. to Victoria Avenue
2	42151	Camarillo Hills Drain to Hwy 101
2	42152	Hwy 101 to Central Avenue
3	42154	Central Avenue to Wright Road
3	45241	Wright Road to U/S to Drop Structure #2
3	45243	Drop Structure #2
3	45245	Beardsley Wash Drop Structure #2 U/S to Triple Arch
3	45246	Connelly Triple Arch
3	45247	Connelly Triple Arch U/S to Milligan Barranca
3	46101	Arroyo Santa Rosa to Arroyo Conejo N.Fork
3	46102	Arroyo Conejo N. Fork to Arroyo Conejo South Branch
3	46103	Arroyo Conejo S. Branch to Hillcrest Drive
3	46104	Hillcrest Drive to Moorpark Road

3	46111	Arroyo Conejo to Ventu Park Road
3	46112	Ventu Park Road to Borchard Road
3	46161	Arroyo Conejo to Lynn Road
4	48061	L.A. County Line to Kanan Road
4	48071	L.A. County Line to Conifer Street
4	48072	Conifer Street to Oak Hills Drive
4	48073	Oak Hills Drive through Kanan Road
4	48076	Medea Creek @ Mile 1.2, U/S
4	48101	L.A. County Line U/S North
4	48107	Las Virgines Creek @ Mile 2.6, U/S

U/S: upstream

Part B (borrowed equipment or used in other Zone):

- Wash mobile equipment used in surface water that may have incidental soil attached (e.g., dozers, excavators, discing equipment, wheeled loaders and motor graders) using Protocol 2B (on-site or off-site hot pressure wash).
- Wash equipment that infrequently crosses the wetted channel and does not have incidental soil attached (e.g., herbicide trailers, chipper, water pumps [hand carried and trailer-mounted], mowers and motor vehicles) using Protocol 3 (on-site or off-site hot or cold pressure wash).

Protocol 1 - Hand Tools, Boots and Wetted Power Tools

This control protocol involves cleaning any hand tools, boots and wetted portions of power tools (weed whipper, drill, concrete vibrator, etc.) that come in contact with potentially infected surface water prior to leaving the work site each day OR leaving these materials at the site until the work is complete. Hand tools, boots and wetted portions of power tools must be cleaned before leaving the site using the following procedure:

1. Remove any accumulated mud/soil from the article to be cleaned;
2. Fill a portable plastic tub (child's swimming pool, or equivalent) to a depth allowing complete submersion of the boots or tools with a 4 percent solution (5 fluid ounces per gallon) of a commercial disinfectant (GS High Dilution Disinfectant 256, Spartan Chemical Company);
3. Scrub all surfaces with a brush;
4. Let soak in the disinfectant for approximately 10 minutes;
5. Rinse with potable water; and
6. Dispose of the used disinfectant solution in a sewer or upland area where it cannot enter surface waters.

Protocol 2A – Instream Mobile Equipment (Infested Reaches)

This Protocol applies to equipment that is used in the wetted channel and likely to have incidental soil attached, such as dozers, excavators, discing equipment, wheeled loaders and motor graders.

1. All attached soil must be removed at the project site using a pressurized water hose provided by a water truck (or equivalent pressurized water source);

2. Wash water must be contained and not allowed to run-off into a storm drain or drainage feature;
3. The equipment must be washed on-site using a portable hot pressure washer OR taken to the nearest O & M washing facility (Saticoy or Moorpark) for a hot pressure wash.
4. Care must be taken to pressure wash all surfaces with hot water that typically come in contact with surface water and/or wet sediments, such as wheels, tires, discs, dozer tracks, excavator and loader buckets, dozer and grader blades, undercarriage, hydraulic cylinders and hoses, and fenders.

Protocol 2B – Instream Mobile Equipment (All Other Reaches)

This Protocol applies to equipment that is used in the wetted channel and likely to have incidental soil attached, such as dozers, excavators, discing equipment, wheeled loaders and motor graders.

1. The equipment must be washed on-site using a portable hot pressure washer OR taken to the nearest O & M washing facility (Saticoy or Moorpark) for a hot pressure wash.
2. Care must be taken to pressure wash all surfaces with hot water that typically come in contact with surface water and/or wet sediments, such as wheels, tires, discs, dozer tracks, excavator and loader buckets, dozer and grader blades, undercarriage, hydraulic cylinders and hoses, and fenders.

Protocol 3 – Other Mobile Equipment and Vehicles

This Protocol applies to equipment that infrequently crosses the wetted channel and does not have incidental soil attached, such as herbicide trailers, chipper, water pumps (hand carried and trailer-mounted), mowers and motor vehicles.

1. The wheels, tires and undercarriage of this equipment must be pressure washed, either on-site or the nearest O&M washing facility (Saticoy or Moorpark).
2. If washed on-site, wash water must be contained and not allowed to run-off into a storm drain or drainage feature.

Protocol 4 - Reusable Instream Materials

Materials that may be transported between work sites may include sand bags, K-rail, diversion pipe, water hoses and concrete forms (wood). Sand bags immersed in surface waters cannot be fully cleaned, and must be emptied of sand (on-site or the District's maintenance yard) and the bag deposited in a proper trash receptacle.

1. Wash hard surfaced materials on-site using a portable hot pressure washer OR take to the nearest O & M washing facility (Saticoy or Moorpark) for a hot pressure wash.
2. Care must be taken to remove all attached soil or sediment and fully contact all surfaces.

6. Roads**A. Avoid Road Base Discharge.**

- Road base, fill, sediments, and asphalt shall not be placed or spilled beyond the previously established road bed when working adjacent to channels and basin bottoms.

7. Sediment Control

A. Location of Temporary Stockpiles.

- Temporary stockpiles in the channel bottom shall be limited to one working day and not overnight.
- Temporary stockpiles may be placed in channel bottoms or debris basins if they are placed in such a manner that they would not be exposed to flowing water.
- Permanent stockpiles shall be located landward of the 100-year floodplain to the maximum extent feasible.

8. Special Status Species

A. Survey for Habitat (nesting) Prior to Routine Maintenance Work.

- A biological survey for nesting birds required prior to work from February 1 to September 15 if in or adjacent to suitable habitat.
- If active bird nests are identified, work within 300 feet (500 feet for raptors) must be postponed until after September 15, unless the biologist determines the nest becomes inactive or a reduced buffer is approved by regulatory agencies.

B. Biological Surveys in Appropriate Habitat Prior to Vegetation Maintenance.

- Prior to work, an approved biologist shall survey for threatened, endangered, or sensitive species if suitable habitat occurs in or near work area. If such species are within or in close proximity to the work areas, the District shall reschedule the work when the species are not present.
- If it is necessary to conduct the work while sensitive species are present or in proximity to the work areas, a species protection plan shall be developed, approved by appropriate agencies, then implemented.
- An approved biologist shall periodically monitor the work area during maintenance activities for wildlife and relocate species as needed to minimize mortality.
- Exotic fish, invertebrate, amphibian and reptile species shall be captured when feasible, dispatched and properly disposed by a qualified biologist.

9. Stabilization/Erosion Control

A. Stabilize Exposed Soil.

- Soil disturbance work in channels and basins shall be limited to that which can be stabilized prior to rain events.

10. Storm Water

The project shall comply with the local regulations associated with the Los Angeles Water Board's Municipal Stormwater Permit issued to Ventura County and co-permittees under NPDES No. CAS004002 and Waste Discharge Requirements Order No. R4-2010-0108 or subsequent order.

11. Other BMPs**A. Rainy Season Work.**

- No earthwork shall be conducted during rain events, or if 0.25 inches or more of rain is forecast within 12 hours of scheduled work.

B. Concrete Wash-Out Protocols.

- Fluids associated with the curing, finishing and wash-out of concrete shall not be discharged to the channel.
- Concrete wastes (liquid, dust, solids) shall be stockpiled separately from sediment and protected by erosion control measures to prevent discharge to waters of the State.
- Appropriate waste management practices shall be based on considerations of flow velocities, site conditions, suitability of erosion control materials, and construction costs.

C. Environmental Training.

- Prior to work, a qualified biologist familiar with the work site shall provide training to the work crew regarding potential species present, habitats to avoid, measures to implement to minimize impacts, and events/situations that require work to be stopped and the biologist to be contacted.

H. On-site Mitigation for Temporary Impacts

1. The Permittee shall restore all areas of temporary impacts to waters of the state and all Project site upland areas of temporary disturbance which could result in a discharge of waters of the state. Temporary impacts do not warrant mitigation since the pre-project conditions will return soon after project completion.

I. Compensatory Mitigation for Permanent Impacts⁶

1. **Final Compensatory Mitigation Plan** The Permittee shall provide compensatory mitigation for impacts to waters of the state in accordance with the Mitigation and Monitoring Plan for Arroyo Simi Habitat Restoration and Enhancement Project (Compensatory Mitigation Plan) revised July 2019 and incorporated herein by reference. Any deviations from, or revisions to, the Mitigation and Monitoring Plan for Arroyo Simi Habitat Restoration and Enhancement Project must be pre-approved by Los Angeles Water Board staff. The monitoring period shall continue until the Los Angeles Water Board staff determines that performance standards have been met. This may require the monitoring period to be extended.

2. Compensatory Mitigation Plan

- a. The Permittee has submitted a compensatory mitigation plan as part of a complete application. Impacts to waters of the state are not authorized and shall not occur until a compensatory mitigation plan has been accepted by Los Angeles Water Board

⁶ Compensatory Mitigation is for permanent physical loss and permanent ecological degradation of a water of the state.

staff. Upon acceptance by Los Angeles Water Board staff, the Permittee shall implement the approved plan.

- b. The final compensatory mitigation plan shall include all plan elements as outlined in 40 CFR § 230.94(c)
- c. Permittees fulfilling their compensatory mitigation obligations by securing credits from an approved mitigation bank or in-lieu fee program, need only include the items described in 40 CFR § 230.94(c)(5)-(6), and the name of the specific mitigation bank or in-lieu fee program to be used.

3. Total Required Compensatory Mitigation

- a. The Permittee is required to provide compensatory mitigation for the authorized permanent impact to the Ferro Ditch channel by conducting non-native, invasive plant removal, trash and debris removal, and revegetation with native plants at a minimum 3:1 area replacement ratio (0.13 acres).
- b. Total required Project compensatory mitigation information for permanent physical loss of area, ecological degradation and temporal loss is summarized in Table 5.

Table 5: Required Project Compensatory Mitigation Quantity								
Aquatic Resource Type	Comp Mit. Type ⁷	Units	Method ⁸					
			Est.	Re-est.	Reh.	Enh.	Pres.	Unknown
Stream Channel	MB	Acres			0.13			

XIII. Water Quality Certification

I hereby issue the Order for the Ferro Ditch Channel Modification, 4WQC40119037 certifying that as long as all of the conditions listed in this Order are met, any discharge from the referenced Project will comply with the applicable provisions of Clean Water Act sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards).

⁷ Compensatory mitigation type may be: In-Lieu-Fee (ILF); Mitigation Bank (MB); Permittee-Responsible (PR)

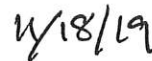
⁸ Methods: establishment (Est.), reestablishment (Re-est.), rehabilitation (Reh.), enhancement (Enh.), preservation (Pres.). Unknown applies to advance credits with an unknown method and or location.

This discharge is also regulated pursuant to State Water Board Water Quality Order No. 2003-0017-DWQ which authorizes this Order to serve as Waste Discharge Requirements pursuant to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.).

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



Renee Purdy
Executive Officer
Los Angeles Water Quality Control Board



Date

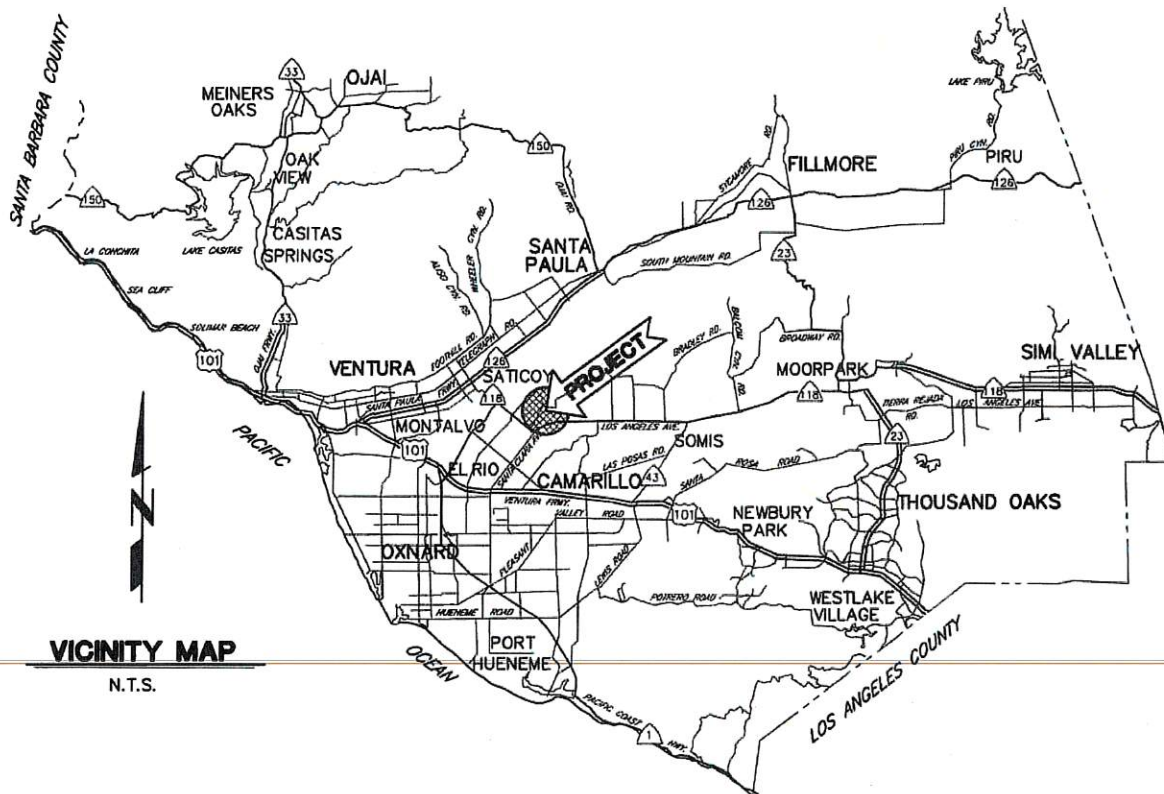


Figure 1 Vicinity Map

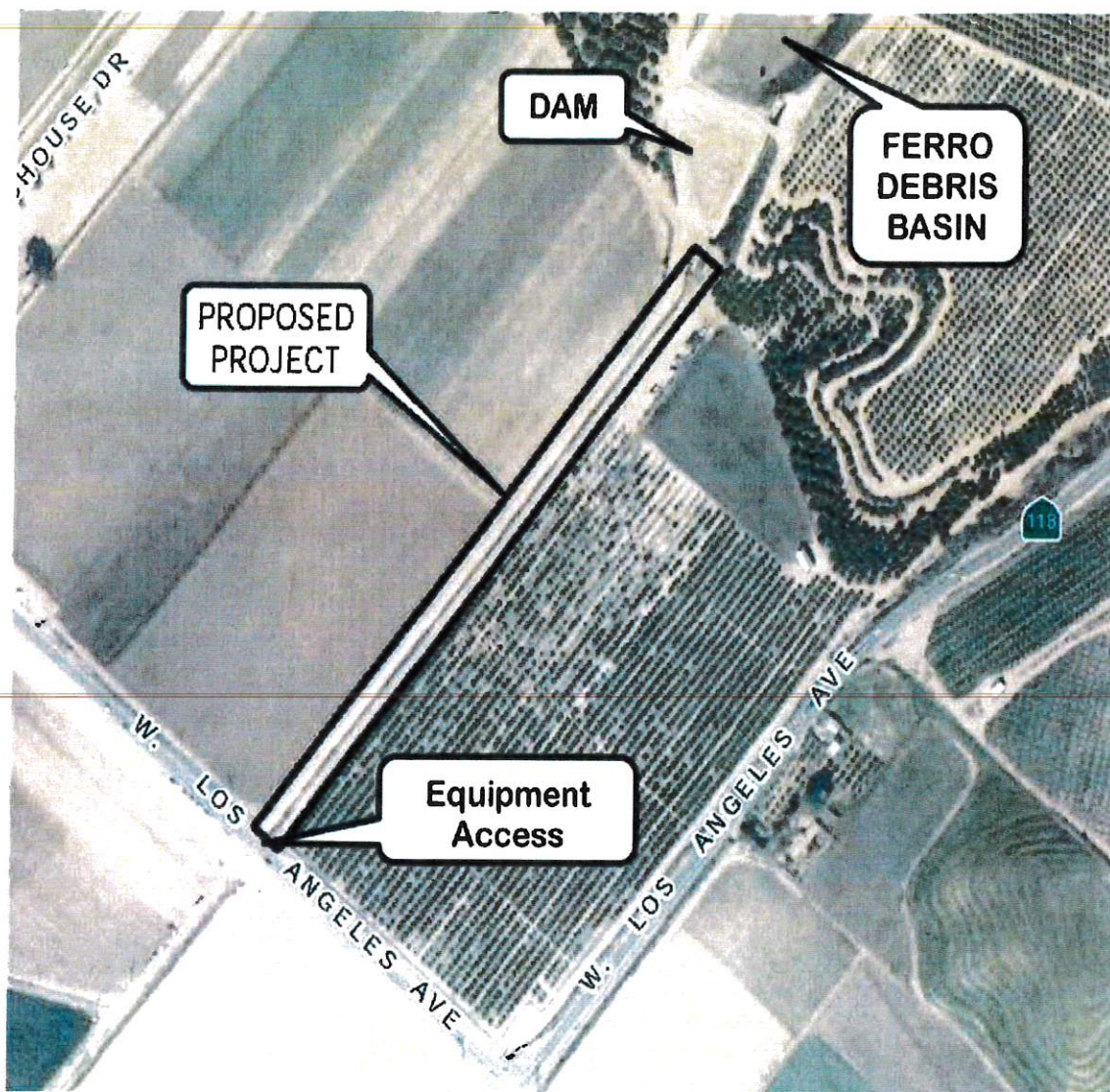


Figure 2 Plan View

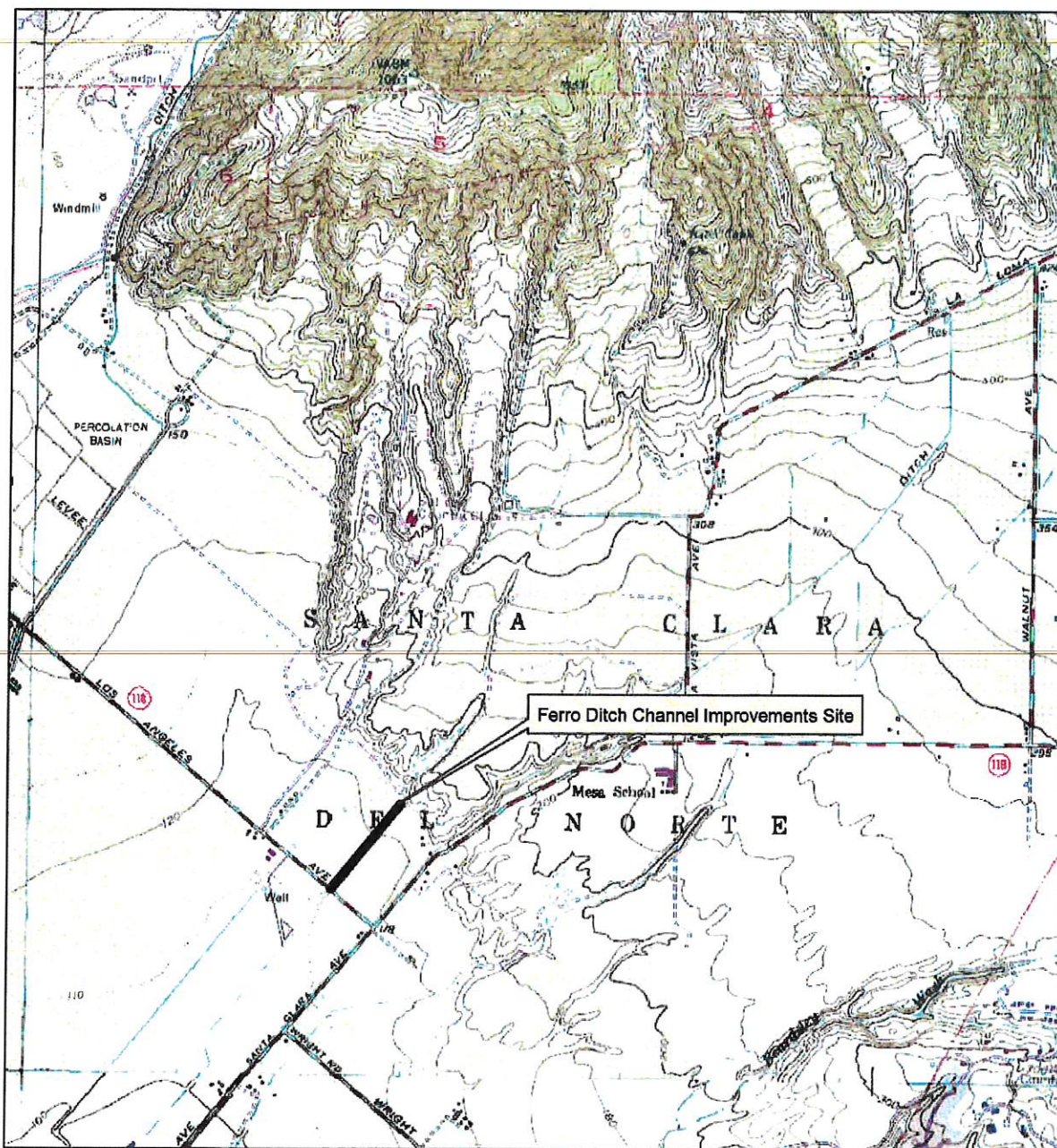


Figure 3 Quad Map

Attachment B
Signatory Requirements

SIGNATORY REQUIREMENTS

*All Documents Submitted In Compliance With This Order
Shall Meet The Following Signatory Requirements:*

1. All applications, reports, or information submitted to the Los Angeles Water Quality Control Board (Los Angeles Water Board) must be signed and certified as follows:
 - a) For a corporation, by a responsible corporate officer of at least the level of vice-president.
 - b) For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
 - c) For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.
2. A duly authorized representative of a person designated in items 1.a through 1.c above may sign documents if:
 - a) The authorization is made in writing by a person described in items 1.a through 1.c above.
 - b) The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
 - c) The written authorization is submitted to the Los Angeles Water Board Staff Contact prior to submitting any documents listed in item 1 above.
3. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Copies of this Form

Include a copy of the Project specific Cover Sheet below with your report: please retain a copy for your records.

Report Submittal Instructions

1. Check the box on the Report and Notification Cover Sheet next to the report or notification you are submitting.
 - **Part A (Annual Report):** This report will be submitted annually from the anniversary of Project effective date until a Notice of Project Complete Letter is issued.
 - **Part B (Project Status Notifications):** Used to notify the Los Angeles Water Board of the status of the Project schedule that may affect Project billing.
 - **Part C (Conditional Notifications and Reports):** Required on a case by case basis for accidental discharges of hazardous materials, violation of compliance with water quality standards, notification of in-water work, or other reports.
2. Sign the Report and Notification Cover Sheet and attach all information requested for the Report Type.
3. **Electronic Report Submittal Instructions:**
 - Submit signed Report and Notification Cover Sheet and required information via email to: Valerie.CarrilloZara@waterboards.ca.gov
 - Include in the subject line of the email: Subject: ATTN: Valerie CarrilloZara; File No: 19-037, Reg. Measure ID: 430801 Report

Definition of Reporting Terms

1. **Active Discharge Period:** The active discharge period begins with the effective date of this Order and ends on the date that the Permittee receives a Notice of Completion of Discharges Letter or, if no post-construction monitoring is required, a Notice of Project Complete Letter. The Active Discharge Period includes all elements of the Project including site construction and restoration, and any Permittee responsible compensatory mitigation construction.
2. **Request for Notice of Completion of Discharges Letter:** This request by the Permittee to the Los Angeles Water Board staff pertains to projects that have post construction monitoring requirements, e.g. if site restoration was required to be monitored for 5 years following construction. Los Angeles Water Board staff will review the request and send a Completion of Discharges Letter to the Permittee upon approval. This letter will initiate the post-discharge monitoring period and a change in fees from the annual active discharge fee to the annual post-discharge monitoring fee.

3. **Request for Notice of Project Complete Letter:** This request by the Permittee to the Los Angeles Water Board staff pertains to projects that either have completed post-construction monitoring and achieved performance standards or have no post-construction monitoring requirements, and no further Project activities are planned. Los Angeles Water Board staff will review the request and send a Project Complete Letter to the Permittee upon approval. Termination of annual invoicing of fees will correspond with the date of this letter.
4. **Post-Discharge Monitoring Period:** The post-discharge monitoring period begins on the date of the Notice of Completion of Discharges Letter and ends on the date of the Notice of Project Complete Letter issued by the Los Angeles Water Board staff. The Post-Discharge Monitoring Period includes continued water quality monitoring or compensatory mitigation monitoring.
5. **Effective Date:** Date of Order issuance.

Map/Photo Documentation Information

When submitting maps or photos, please use the following formats.

1. **Map Format Information:**

Preferred map formats of at least 1:24000 (1" = 2000') detail (listed in order of preference):

- **GIS shapefiles:** The shapefiles must depict the boundaries of all project areas and extent of aquatic resources impacted. Each shape should be attributed with the extent/type of aquatic resources impacted. Features and boundaries should be accurate to within 33 feet (10 meters). Identify datum/projection used and if possible, provide map with a North American Datum of 1983 (NAD38) in the California Teale Albers projection in feet.
 - **Google KML files** saved from Google Maps: My Maps or Google Earth Pro. Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. Include URL(s) of maps. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
 - **Other electronic format** (CAD or illustration format) that provides a context for location (inclusion of landmarks, known structures, geographic coordinates, or USGS DRG or DOQQ). Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
 - Aquatic resource maps marked on paper **USGS 7.5 minute topographic maps** or **Digital Orthophoto Quarter Quads (DOQQ)** printouts. Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
2. **Photo-Documentation:** Include a unique identifier, date stamp, written description of photo details, and latitude/longitude (in decimal degrees) or map indicating location of photo. Successive photos should be taken from the same vantage point to compare pre/post construction conditions.

REPORT AND NOTIFICATION COVER SHEET

Project: Ferro Ditch Channel Modification Project

Permittee: Ventura County Watershed Protection District

Reg. Meas. ID: 430801 **Place ID:** 858520 **File No:** 19-037

Report Type Submitted

Part A – Project Reporting

Report Type ☐ Annual Report

Part B - Project Status Notifications

Report Type ☐ Commencement of Construction

Report Type ☐ Request for Notice of Completion of Discharges Letter

Report Type ☐ Request for Notice of Project Complete Letter

Part C - Conditional Notifications and Reports

Report Type ☐ Accidental Discharge of Hazardous Material Report

Report Type ☐ Violation of Compliance with Water Quality Standards Report

Report Type ☐ In-Water Work/Diversions Water Quality Monitoring Report

Report Type ☐ Modifications to Project Report

Report Type ☐ Transfer of Property Ownership Report

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Print Name ¹

Affiliation and Job Title

Signature

Date

¹STATEMENT OF AUTHORIZATION (include if authorization has changed since application was submitted)

I hereby authorize _____ to act in my behalf as my representative in the submittal of this report, and to furnish upon request, supplemental information in support of this submittal.

Permittee's Signature

Date

***This Report and Notification Cover Sheet must be signed by the Permittee or a duly authorized representative and included with all written submittals.**

Part A – Project Reporting

Report Type	Annual Report
Report Purpose	Notify the Los Angeles Water Board staff of Project status during both the active discharge and post-discharge monitoring periods.
When to Submit	Annual reports shall be submitted each year on the anniversary of Project effective date. Annual reports shall continue until a Notice of Project Complete Letter is issued to the Permittee.
Report Contents	<p>The contents of the annual report shall include the topics indicated below for each project period. Report contents are outlined in Annual Report Topics below.</p> <p><u>During the Active Discharge Period</u></p> <ul style="list-style-type: none"> • Topic 1: Construction Summary • Topic 2: Mitigation for Temporary Impacts Status • Topic 3: Compensatory Mitigation for Permanent Impacts Status <p><u>During the Post-Discharge Monitoring Period</u></p> <ul style="list-style-type: none"> • Topic 2: Mitigation for Temporary Impacts Status • Topic 3: Compensatory Mitigation for Permanent Impacts Status
Annual Report Topics (1-3)	
Annual Report Topic 1	Construction Summary
When to Submit	With the annual report during the Active Discharge Period.
Report Contents	<ol style="list-style-type: none"> 1. Project progress and schedule including initial ground disturbance, site clearing and grubbing, road construction, site construction, and the implementation status of construction storm water best management practices (BMPs). If construction has not started, provide estimated start date and reasons for delay. 2. Color photos, pre-project and current. 3. Map showing general Project progress. 4. If applicable: <ol style="list-style-type: none"> a. Summary of any conditional reports sent during the year such as "Accidental Discharge of Hazardous Material Report" or "Accidental Discharge of Hazardous Material Report" b. Copies of revised permits from other agencies c. Compilation of all water quality monitoring results for the year in a spreadsheet format.
Annual Report Topic 2	Mitigation for Temporary Impacts Status
When to Submit	With the annual report during both the Active Discharge Period and Post-Discharge Monitoring Period.

Report Contents	<p>*If not applicable report N/A.</p> <ol style="list-style-type: none"> 1. Planned date of initiation and map showing locations of mitigation for temporary impacts to waters of the state and all upland areas of temporary disturbance which could result in a discharge to waters of the state. 2. If mitigation for temporary impacts has already commenced, provide a map and information concerning attainment of mitigation success.
Annual Report Topic 3	Compensatory Mitigation for Permanent Impacts Status
When to Submit	With the annual report during both the Active Discharge Period and Post-Discharge Monitoring Period.
Report Contents	<p>*If not applicable report N/A.</p> <p>Part A. Permittee Responsible</p> <ol style="list-style-type: none"> 1. Planned date of initiation of compensatory mitigation site installation. 2. If installation is in progress, a map of what has been completed to date. 3. If the compensatory mitigation site has been installed, provide a final map and information concerning attainment of performance standards contained in the compensatory mitigation plan. <p>Part B. Mitigation Bank or In-Lieu Fee</p> <ol style="list-style-type: none"> 1. Status or proof of purchase of credit types and quantities. 2. Include the name of bank/ILF Program and contact information. 3. If ILF, location of project and type if known.

Part B – Project Status Notifications

Report Type	Request for Notice of Completion of Discharges Letter
Report Purpose	Notify Los Angeles Water Board staff that post-construction monitoring is required and that active Project construction, including any mitigation and permittee responsible compensatory mitigation, is complete.
When to Submit	Must be received by Los Angeles Water Board staff within thirty (30) days following completion of all Project construction activities.
Report Contents	<ol style="list-style-type: none"> 1. Pre- and post-photo documentation of all Project activity sites where the discharge of dredge and/or fill/excavation was authorized. 2. An updated monitoring schedule for mitigation for temporary impacts to waters of the state and permittee responsible compensatory mitigation during the post-discharge monitoring period, if applicable.

Report Type	Request for Notice of Project Complete Letter
Report Purpose	Notify Los Angeles Water Board staff that construction and/or any post-construction monitoring is complete, or is not required, and no further Project activity is planned.
When to Submit	Must be received by Los Angeles Water Board staff within thirty (30) days following completion of all Project activities.

Report Contents	<p>Part A: Mitigation for Temporary Impacts</p> <ol style="list-style-type: none"> 1. A report establishing that areas of temporary impacts to waters of the state, and upland areas of temporary disturbance which could result in a discharge to waters of the state, have been successfully restored and all identified success criteria have been met. Pre- and post-photo documentation of all restoration sites. <p>Part B: Permittee Responsible Compensatory Mitigation</p> <ol style="list-style-type: none"> 2. A report establishing that the performance standards outlined in the compensatory mitigation plan have been met. 3. Status on the implementation of the long-term maintenance and management plan and funding of endowment. 4. Pre- and post-photo documentation of all compensatory mitigation sites. 5. Final maps of all compensatory mitigation areas (including buffers). <p>Part C: Post-Construction Storm Water BMPs</p> <ol style="list-style-type: none"> 6. Date of storm water permit Notice of Termination(s), if applicable. 7. Report status and functionality of all post-construction BMPs.
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Part C – Conditional Notifications and Reports

Report Type	Accidental Discharge of Hazardous Material Report
Report Purpose	Notifies Los Angeles Water Board staff that an accidental discharge of hazardous material has occurred.
When to Submit	Within five (5) working days following the date of an accidental discharge. Continue reporting as required by Los Angeles Water Board staff.
Report Contents	<ol style="list-style-type: none"> 1. The report shall include the OES Incident/Assessment Form, a full description and map of the accidental discharge incident (i.e. location, time and date, source, discharge constituent and quantity, aerial extent, and photo documentation). If applicable, the OES Written Follow-Up Report may be substituted. 2. If applicable, any required sampling data, a full description of the sampling methods including frequency/dates and times of sampling, equipment, locations of sampling sites. 3. Locations and construction specifications of any barriers, including silt curtains or diverting structures, and any associated trenching or anchoring.

Report Type	Violation of Compliance with Water Quality Standards Report
Report Purpose	Notifies Los Angeles Water Board staff that a violation of compliance with water quality standards has occurred.
When to Submit	The Permittee shall report any event that causes a violation of water quality standards within three (3) working days of the noncompliance event notification to Los Angeles Water Board staff.

Report Contents	The report shall include: the cause; the location shown on a map; and the period of the noncompliance including exact dates and times. If the noncompliance has not been corrected, include: the anticipated time it is expected to continue; the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and any monitoring results if required by Los Angeles Water Board staff.
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Report Type	In-Water Work and Diversions Water Quality Monitoring Report
Report Purpose	Notifies Los Angeles Water Board staff of the completion of in-water work.
When to Submit	Within three (3) working days following the completion of in-water work. Continue reporting in accordance with the approved water quality monitoring plan.
Report Contents	As required by the approved water quality monitoring plan.

Report Type	Modifications to Project Report
Report Purpose	Notifies Los Angeles Water Board staff if the Project, as described in the application materials, is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority.
When to Submit	Prior to any alteration or modification of Project activities.
Report Contents	A description and location of any alterations of Project activities. Identify any Project modifications that will interfere with the Permittee's compliance with the Order. Any alteration may require an Amendment, to be determined by Los Angeles Water Board staff.

Report Type	Transfer of Property Ownership Report
Report Purpose	Notifies Los Angeles Water Board staff of change in ownership of the Project or Permittee-responsible mitigation area.
When to Submit	At least 10 working days prior to the transfer of ownership.
Report Contents	<ol style="list-style-type: none"> 1. A statement that the Permittee has provided the purchaser with a copy of this Order and that the purchaser understands and accepts: <ol style="list-style-type: none"> a. the Order's requirements and the obligation to implement them or be subject to administrative and/or civil liability for failure to do so; and b. responsibility for compliance with any long-term BMP¹ maintenance plan requirements in this Order. 2. A statement that the Permittee has informed the purchaser to submit a written request to the Los Angeles Water Board to be named as the permittee in a revised order.

¹ Best Management Practices (BMPs) is a term used to describe a type of water pollution or environmental control.

RWQCB WASTE
DISCHARGE
REQUIREMENTS
CI-10555

Los Angeles Regional Water Quality Control Board

July 13, 2020

Mr. Glenn Shephard, Director
Ventura County Watershed Protection District
800 South Victoria Avenue, #1610
Ventura, CA 93009

**COVERAGE UNDER GENERAL NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM AND WASTE DISCHARGE REQUIREMENTS FOR
VENTURA COUNTY WATERSHED PROTECTION DISTRICT, FERRO DITCH
IMPROVEMENT PROJECT NO. 85301, CITY OF SOMIS, 800 SOUTH VICTORIA
AVENUE, VENTURA, CA (ORDER NO. R4-2018-0125, NPDES NO. CAG994004, CI-
10555)**

Dear Mr. Shephard:

We have completed our review of your application for a permit to discharge groundwater to surface waters under the National Pollutant Discharge Elimination System (NPDES). Based on the information provided, the proposed groundwater discharge from the project site meets the conditions to be regulated under Order No. R4-2018-0125 *General National Pollutant Discharge Elimination System and Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* adopted by the Board on September 13, 2018.

Enclosed are your Waste Discharge Requirements, which also serve as your NPDES permit, consisting of Order No. R4-2018-0125 and Monitoring and Reporting Program No. CI-10555. The discharge limitations in Part V.A.1 Tables 1, 4, 21, 22, 23, 24, 25, 26 and Receiving Water Limitations in Part VI.A.3 Table 30 of Order No. R4-2018-0125 for the specific constituents listed on Tables A.2. through A.9. of the Fact Sheet are the applicable limitations. Because the groundwater discharge from the project flows to Beardsley Channel/Wash a tributary to Calleguas Creek above Potrero Road, the mineral limitations in Attachment B.4.a of Order No. R4-2018-0125, are applicable to your discharge. All other parts of the Order apply, including but not limited to narrative and receiving water limitations. No later than three days prior to initiation of discharge, you must notify Ventura County Watershed Protection District via email to: discharge.alert@ventura.org about the discharge. Prior to starting discharge, a

representative sample of the effluent shall be obtained and analyzed to determine compliance with the discharge limitations.

The Monitoring and Reporting Program requires you to implement the monitoring program on the effective date of coverage under this permit. All monitoring reports should be sent to the Regional Board, electronically by e-mail to losangeles@waterboards.ca.gov. When submitting monitoring or technical reports to the Regional Board per these requirements, please include a reference to "Compliance File No. CI-10555 and NPDES No. CAG994004", which will assure that the reports are directed to the appropriate file and staff. Also, please do not combine other reports with your monitoring reports. Submit each type of report as a separate document.

The Regional Board is implementing a paperless office system to reduce paper use, increase efficiency and provide a more effective way for our staff, the public and interested parties to view water quality documents. Therefore, please convert all regulatory documents, submissions, data and correspondence that you would normally submit to us as hard copies to a searchable Portable Document Format (PDF). Documents that are less than 10 MB should be emailed to losangeles@waterboards.ca.gov. Documents that are 10 MB or larger should be transferred to a disk and mailed to the Los Angeles Regional Board listed in section X.B.5.c of the attached Monitoring and Reporting Program. If you need additional information regarding electronic submittal of documents, please visit the Regional Board's website listed above and navigate to Paperless Office.

To avoid paying future annual fees, please submit a written request for termination of your enrollment under the general permit in a separate letter, when the project has been completed and the permit is no longer needed.

We are sending a copy of Order No. R4-2018-0125 by email only to you and other parties on the mailing list listed below. A paper copy of the Order will be furnished to anyone who requests it, or it can be obtained at our web site address: http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/.

If you have any questions, please contact Namiraj Jain at 213-620-6003 or e-mail at namiraj.jain@waterboards.ca.gov.

Sincerely,

Renee Purdy
Executive Officer

Enclosures:

Fact Sheet

Monitoring and Reporting Program No. CI-10555

General NPDES No. CAG994004, Order No. R4-2018-0125

cc:

Environmental Protection Agency, Region 9, Permit Section (WTR-5)

U.S. Army Corps of Engineers

U.S. Fish and Wildlife Services, Division of Ecological Services

NOAA, National Marine Fisheries Service

California Department of Fish and Wildlife

Ventura County, Department of Public Works, Environmental Program Division

Ventura County, Department of Public Works, Flood Control Division

Ventura County, Department of Health Services

icis-npdes@pgenv.com, PG Environmental

James Ashby, PG Environmental

Sarah Torres, PG Environmental

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
320 West 4th Street, Suite 200, Los Angeles, California 90013**

**Fact Sheet
WASTE DISCHARGE REQUIREMENTS**

For

**VENTURA COUNTY WATERSHED PROTECTION DISTRICT
(FERRO DITCH IMPROVEMENT PROJECT NO. 85301, CITY OF SOMIS)
(Order No. R4-2018-0125, Series 063)
NPDES No. CAG994004
CI-10555**

Project Location Address

2121 CA Highway 118
Somis, CA 93066

Facility Mailing Address

800 South Victoria Avenue # 1610
Ventura, CA 93009

Project Description

Ventura County Watershed Protection District (Discharger), proposes to discharge groundwater generated during construction and replacement of 0.3 miles of undersized and damaged earthen Ferro Ditch located between Highway 118 and Ferro Ditch Basin in the City of Somis, California. The project improvements include the construction of a deeper and wider rock-lined channel with gravel bedding and 80 linear feet of concrete channel improvements. The project also involves construction of a flap gate structure on the Los Angeles Avenue Drain (LAAD) 15 feet upstream of the inlet of the LAAD box conduit under Highway 118. Dewatering is necessary during the construction project. The extracted groundwater from the site will be passed through weir tanks and ion exchange resin to treat for heavy metals present in the groundwater. The treated groundwater will be discharged into the Ferro Ditch downstream of the construction site. The area map, project location map, and treatment schematic are shown in Figure 1, Figure 2, and Figure 3, respectively.

The authorization to discharge under the general NPDES permit will be effective for the duration of the construction project. If discharge to surface water is necessary after the construction is complete, the discharger must submit a new Notice of Intent (NOI) to the Regional Board for the continuing enrollment under the general NPDES permit for dewatering discharge from the facility.

Volume and Description of Discharge

A proposed maximum of 500,000 gallons per day (gpd) of treated groundwater will be discharged from Discharge Points M-001 (Ferro Ditch) and Point M-002 (Los Angeles Avenue Drain). The groundwater discharge flows into Beardsley Channel/Wash, a tributary to Calleguas Creek, a water of the United States.

Table A.1. Discharge Locations

Discharge Point	Discharge Location	Latitude	Longitude
M-001	Ferro Ditch	N 34° 15' 32.82",	W 119° 06' 34.36"
M-002	Los Angeles Avenue Drain	N 34° 15' 31.68",	W 119° 06' 46.82"

Applicable Effluent Limitations

Based on the information provided in the NPDES Application Supplemental Requirements, the Regional Board has determined that the constituents listed in Tables A.2. through A.9. below show reasonable potential to exist in the discharge. Therefore, the effluent limitations in Part V.A.1. Tables 1, 4, 21, 22, 23, 24, 25, 26 and Receiving Water Limitations¹ in Part VI.A.3. Table 30 of Order No. R4-2018-0125 for the specific constituents listed on Tables A.2. through A.9. of the Fact Sheet are the applicable limitations. Because the groundwater discharge from the project flows to Beardsley Channel/Wash a tributary to Calleguas Creek above Potrero Road, the mineral limitations in Attachment B.4.a of Order No. R4-2018-0125, are applicable to the discharge. The Discharger must comply with all other parts of the Order, including, but not limited to, narrative effluent and receiving water limitations.

The Discharger is required to comply with the following effluent limitations during its enrollment under Order No. R4-2018-0125.

Table A.2. Effluent Limitation

Constituents	Units	Maximum Daily Limitations	Average Monthly Limitations
Total Suspended Solids	mg/L	75	50
Turbidity	NTU	150	50
BOD5 20oC	mg/L	30	20
Oil and Grease	mg/L	15	10
Settleable Solids	ml/L	0.3	0.1
Sulfides	mg/L	1.0	---
Phenols	mg/L	1.0	---
Residual Chlorine	mg/L	0.1	---

¹ While these limitations are identified as receiving water limitations in Order R4-2018-0125, to protect the beneficial uses of the receiving waters, they are applied as effluent limitations for enrollees because there are no receiving water monitoring requirements for enrollees in the General Order.

Constituents	Units	Maximum Daily Limitations	Average Monthly Limitations
Methylene Blue Active Substance (MBAS)	mg/L	0.5	---
Total Dissolved Solids (TDS)	mg/L	850	---
Sulfate	mg/L	250	---
Chloride	mg/L	150	---
Boron	mg/L	2	---
Nitrogen (Nitrate-nitrogen + Nitrite-nitrogen)	mg/L	10	---
Antimony	µg/L	6	---
Chromium VI	µg/L	16	8

Table A.3. Calleguas Creek Watershed Toxicity TMDL

Constituents	Units	Maximum Daily Limitations	Average Monthly Limitations
Chlorpyrifos	µg/L	0.025	0.014
Diazinon	µg/L	0.10	0.05

Table A.4. Calleguas Creek Organochlorine Pesticides, Polychlorinated Biphenyls, TMDL

Constituents	Units	Maximum Daily Limitations	Average Monthly Limitations
Chlordane	ng/L	1.2	0.59
4,4-DDD	ng/L	1.7	0.84
4,4-DDE	ng/L	1.2	0.59
4,4-DDT	ng/L	1.2	0.59
Dieldrin	ng/L	0.28	0.14
Polychlorinated biphenyl (PCBs)	ng/L	0.34	0.17
Toxaphene	ng/L	0.33	0.16

Table A.5. Calleguas Creek and Its Tributaries Toxicity TMDL

Constituents	Units	Effluent Limitations
Toxicity	Toxicity Unit (TUC)	1

Table A.6. Calleguas Creek Watershed Metal- Mercury TMDL WLAs –Dry2 and Wet3 Weather

Constituents	Units	Maximum Daily Limitations	Average Monthly Limitations
Mercury	µg/L	0.1	0.051

Table A. 7. Calleguas Creek–Beardsley Wash/Channel Watershed Metals TMDL WLAs –Dry Weather

Constituents	Units	Maximum Daily Limitations	Average Monthly Limitations
Copper	µg/L	6.1	3.0
Nickel	µg/L	13.6	6.8
Selenium	µg/L	8.2	4.1

Table A.8. Calleguas Creek–Beardsley Wash/Channel Watershed Metals TMDL WLAs –Wet Weather

Constituents	Units	Maximum Daily Limitations	Average Monthly Limitations
Copper	µg/L	5.8	2.9
Nickel	µg/L	75	37
Selenium	µg/L	290	140

Table A.9. Fresh Water Bacteria Limitations

Receiving Water Bacteria TMDL	Units	Geometric Mean	Single Sample
E. coli	MPN/100 mL	126	235

Frequency of Discharge:

Groundwater discharge is expected to last for about 6 months or for the duration of the construction repair project.

Reuse of Groundwater Water Discharge:

The Discharger submitted a feasibility study to the Regional Board analyzing water conservation, reuse, and/or alternative disposal options for the discharge. Groundwater will be used for dust control purposes. It is not feasible to recycle the groundwater for other useful purposes at the site, including for lawn irrigation. Therefore, the rest of the treated groundwater will be discharged to Beardsley Channel in compliance with the requirements of the attached Order R4-2018-0125.

² For purposes of this General Permit, discharges occurring from April 15th through November 14th are considered dry weather discharges.

³ For purposes of this General Permit, discharges occurring from November 15th through April 14th are considered wet weather discharges.

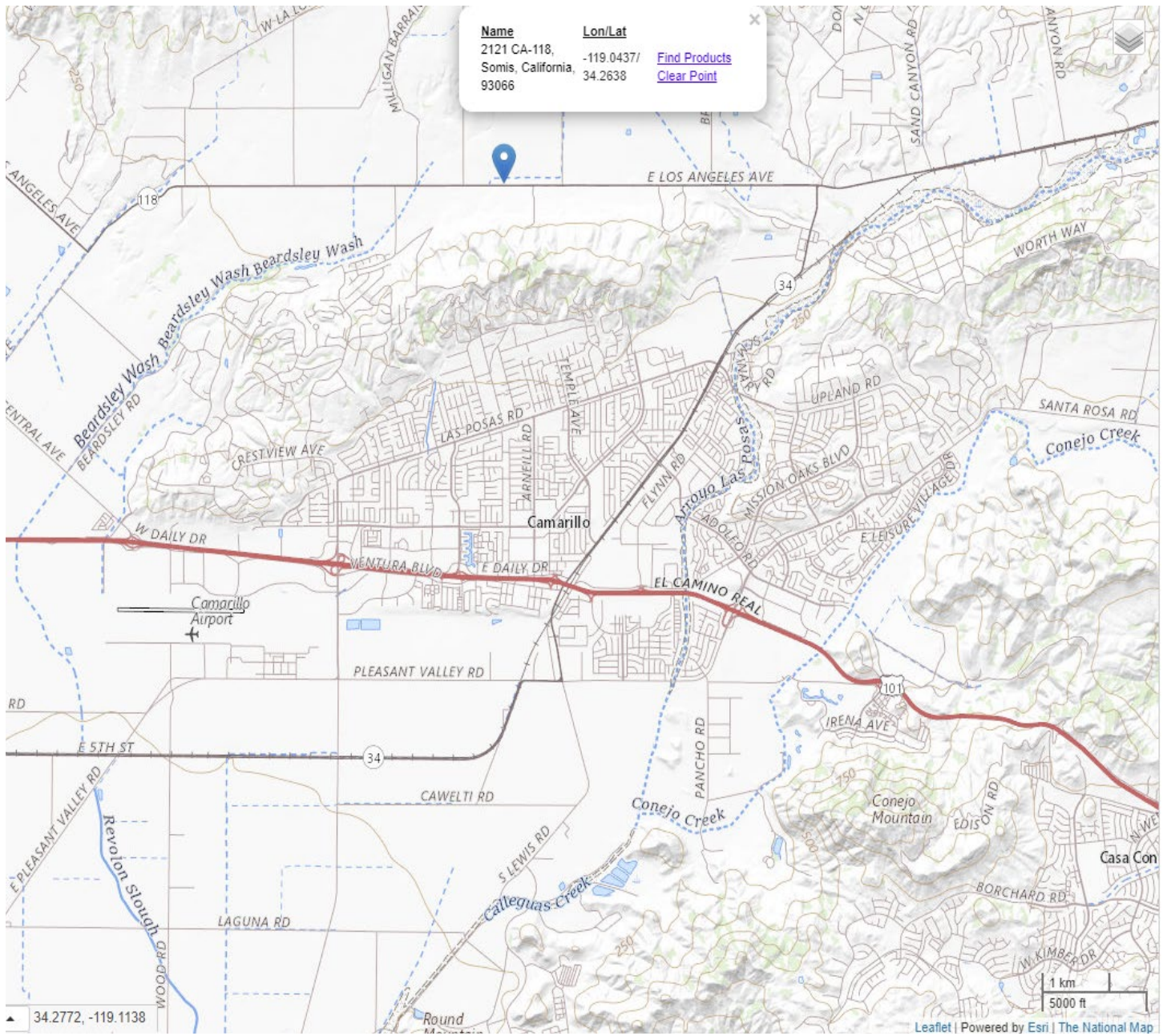


Figure 1. Area Map

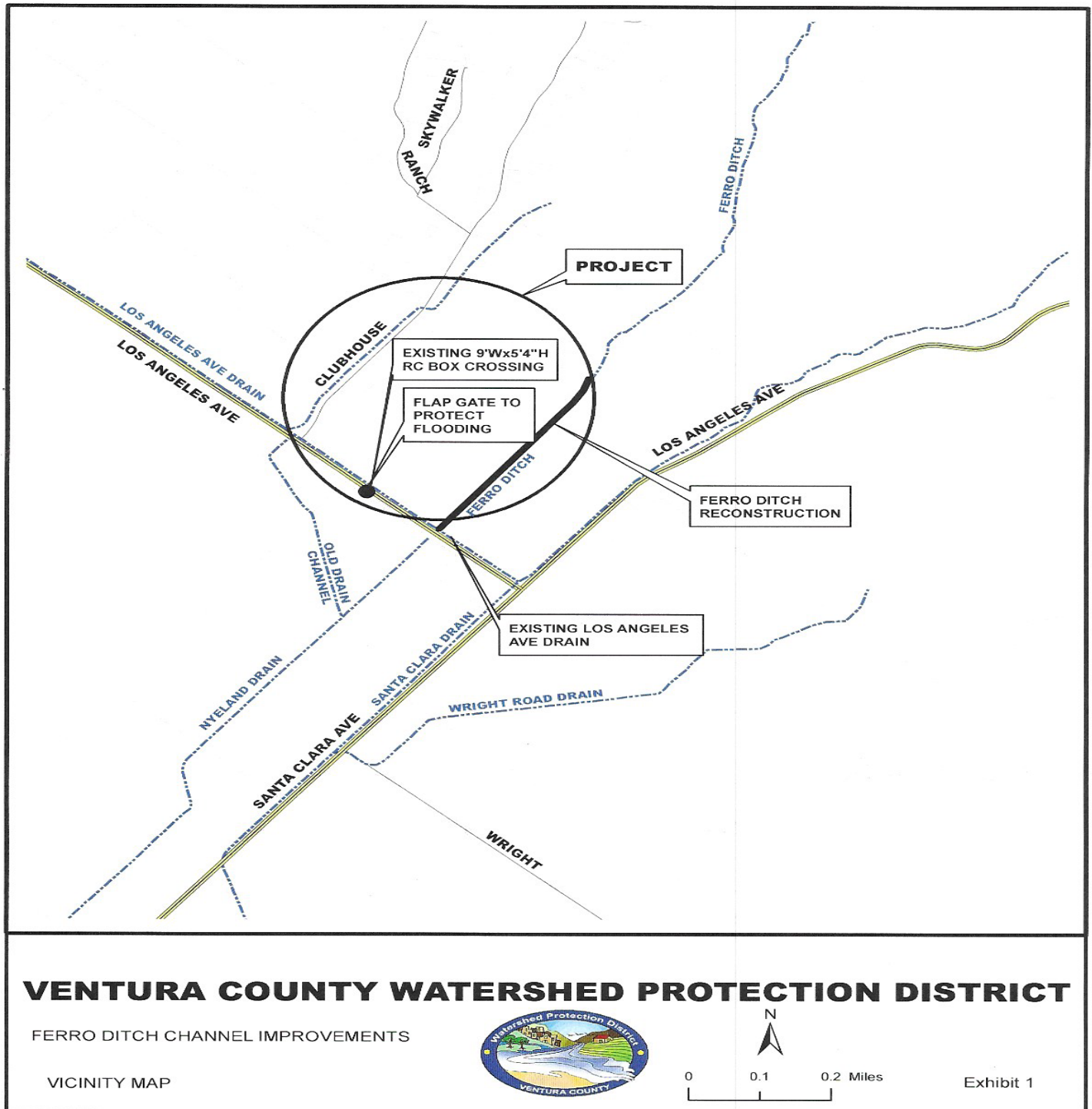
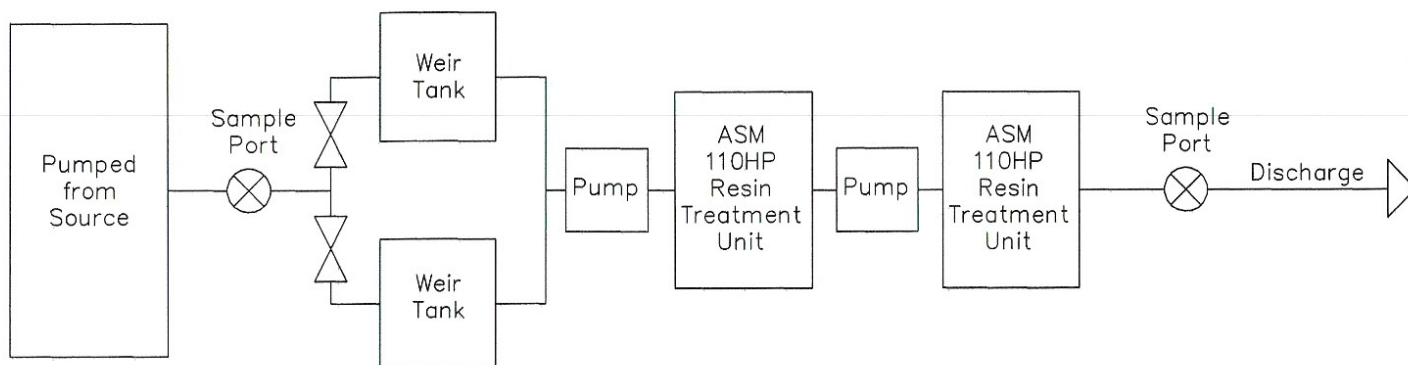


Figure 2. Project Location Map



SYSTEM DESIGNED TO TREAT 30,000 GPD

COMPONENTS TO BE TREATED:
Hexavalent Chromium, Antimony, and Selenium

SAVE DATE: 4/29/20 MUELLER, JOHN

K: \PROJECTS\ZONE3\FERRODITCH\85301 FERRO DITCH IMPROVEMENT\DESIGN\DESIGN DRAWINGS\EXHIBITS\GW_TREATMENT_SCHEMATIC.DWG

PUBLIC
VENTURA COUNTY
WORKS

Ferro Ditch Improvement Project Groundwater Treatment Schematic

Figure 3—Treatment Schematic

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

Monitoring and Reporting Program CI-10555
For

VENTURA COUNTY WATERSHED PROTECTION DISTRICT
(FERRO DITCH IMPROVEMENT PROJECT NO. 85301, CITY OF SOMIS)
For

Discharges of Groundwater from Construction and Project Dewatering to Surface
Waters in

Coastal Watersheds of Los Angeles and Ventura Counties

(General NPDES Permit No. CAG994004, Order No. R4-2018-0125 Series No. 063)

This Order was adopted by the Regional Water Board on:	September 13, 2018
Enrollment to this Order shall become effective on:	July 13, 2020
This Order shall expire on:	November 13, 2023

The U.S. Environmental Protection Agency and the Regional Water Quality Control Board have classified discharges covered under this General Permit as a minor discharge.

Ordered by:_____

Renee Purdy
Executive Officer

Date: July 13, 2020

Table of Contents

Revised Monitoring and Reporting Program CI-10555.....	1
I. General Monitoring Provisions	3
II. Monitoring Locations.....	8
III. Influent Monitoring Requirements (Not Applicable)	9
IV. Effluent Monitoring Requirements.....	9
V. Whole Effluent Toxicity Testing Requirements.....	10
A. Acute Toxicity Effluent Monitoring Program	10
B. Ammonia Removal	11
C. Chlorine Removal	12
D. Reporting.....	12
VI. Land Discharge Monitoring Requirements (Not Applicable)	13
VII. Reclamation Monitoring Requirements (Not Applicable)	13
VIII. Receiving Water Monitoring Requirements – (Not Applicable)	13
IX. Other monitoring requirements (Not Applicable)	13
X. Reporting Requirements	13
A. General Monitoring and Reporting Requirements	13
B. Self-Monitoring Reports	14
C. Discharge Monitoring Reports (DMRs) (Not Applicable)	16
D. Other Reports (Not Applicable)	16
E. Notification.....	16
XI. Monitoring Frequencies adjustment	17

Monitoring and Reporting Program (MRP)

40 CFR section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. Sections 13267 and 13383 of the California Water Code (CWC) also authorize the Regional Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements which implement the federal and California regulations.

I. General Monitoring Provisions

- A.** An effluent sampling station shall be established for Discharge Point M-001 and M-002 and, shall be located where representative samples of that effluent can be obtained.
- B.** This Regional Water Board shall be notified in writing of any change in the sampling stations once established or in the methods for determining the quantities of pollutants in the individual waste streams.
- C.** Pollutants shall be analyzed using the analytical methods described in 40 CFR section Sections 136.3, 136.4, and 136.5 (revised May 18, 2012); or, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. U.S. EPA published regulations for the Sufficiently Sensitive Methods Rule (SSM Rule) which became effective September 18, 2015. For the purposes of the NPDES program, when more than one test procedure is approved under 40 C.F.R. part 136 for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv). Both 40 C.F.R sections 122.21(e)(3) and 122.44(i)(1)(iv) apply to the selection of a sufficiently sensitive analytical method for the purposes of monitoring and reporting under NPDES permits, including review of permit applications. A U.S. EPA-approved analytical method is sufficiently sensitive where:
 - 1. The State Water Resources Control Board Minimum Level (ML) is at or below both the level of the applicable water quality criterion/objective and the permit limitation for the measured pollutant or pollutant parameter; or
 - 2. In permit applications, the ML is above the applicable water quality criterion/objective, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
 - 3. The method has the lowest ML of the U.S. EPA-approved analytical methods where none of the U.S. EPA-approved analytical methods for a

pollutant can achieve the MLs necessary to assess the need for effluent limitations or to monitor compliance with a permit limitation.

The MLs in Appendix 4 of the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, February 2005, (the Policy), which adopted amendments to the State Implementation Policy, March 2000 (SIP)) remain applicable. However, there may be situations when analytical methods are published with MLs that are more sensitive than the MLs for analytical methods listed in the Policy. For instance, U.S. EPA Method 1631E for mercury is not currently listed in Appendix 4 of the Policy and Appendix A of this permit order, but it is published with an method quantitation limit (also called reporting limit or minimum level) of 0.2 ng/L that makes it a sufficiently sensitive analytical method. Similarly, U.S. EPA Method 245.7 for mercury is published with an method quantitation limit of 5 ng/L.

- D. For any analyses performed for which no procedure is specified in the U.S. EPA guidelines or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.
- E. Laboratories analyzing effluent samples and receiving water samples shall be certified by the State Water Board Environmental Laboratory Approval Program (ELAP) or approved by the Regional Water Board Executive Officer (Executive Officer) and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP.
- F. Each monitoring report must affirm in writing that “all analyses were conducted at a laboratory certified for such analyses by the State Water Board or approved by the Executive Officer and in accordance with current U.S. EPA guideline procedures or as specified in this Monitoring and Reporting Program”.
- G. The monitoring reports shall specify the analytical method, the Method Detection Limit (MDL), and the ML for each pollutant. For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported by one of the following methods, as appropriate:
 - 1. An actual numerical value for sample results greater than or equal to the ML; or
 - 2. “Detected, but Not Quantified (DNQ)” if results are greater than or equal to the laboratory’s MDL but less than the ML; or

3. “Not Detected (ND)” for sample results less than the laboratory’s MDL with the MDL indicated for the analytical method used.

Analytical data reported as “less than” for the purpose of reporting compliance with permit limitations shall be the same or lower than the permit limit(s) established for the given parameter.

Current MLs, which are listed in Appendix A, are those published by the State Water Resources Control Board in the Policy.

- H. Where possible, the MLs employed for effluent analyses shall be lower than the permit limitations established for a given parameter. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory QA/QC procedures.

Where possible, the ML’s employed for effluent analyses not associated with determining compliance with effluent limitations in this order shall be lower than the lowest applicable water quality objective, for a given parameter. Water quality objectives for parameters may be found in the Basin Plan Chapter 3 and California Toxics Rule (40 CFR 131.38). If the ML value is not below the water quality objective, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test, the associated laboratory QA/QC procedures, reporting levels (RL’s), and MDL.

The Regional Water Board, in consultation with the State Water Board Quality Assurance Program, shall establish a ML that is not contained in Appendix A to be included in the Discharger’s permit in any of the following situations:

1. When the pollutant under consideration is not included in Appendix A;
2. When the Discharger and Regional Water Board agree to include in the permit a test method that is more sensitive than that specified in 40 CFR Part 136 (revised May 18, 2012);
3. When the Discharger agrees to use an ML that is lower than that listed in Appendix A;
4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix A, and proposes an appropriate ML for their matrix; or,

5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved method 1613 for dioxins and furans, method 1624

for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Regional Water Board, and the State Water Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

- I. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR section 136.3. All QA/QC items must be run on the same dates the samples were actually analyzed, and the results shall be reported in the Regional Water Board format, when it becomes available, and submitted with the laboratory reports. Proper chain of custody procedures must be followed, and a copy of the chain of custody shall be submitted with the report.
- J. All analyses shall be accompanied by the chain of custody, including but not limited to date and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, QA/QC data, method detection limits, analytical methods, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.
- K. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments to insure accuracy of measurements, or shall insure that both equipment activities will be conducted.
- L. The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. The annual monitoring report required in Section X.b.3. of this MRP shall also summarize the QA activities for the previous year. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per sampling period, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples.
- M. When requested by the Regional Water Board or U.S. EPA, the Discharger will participate in the NPDES discharge monitoring report QA performance study. The Discharger must have a success rate equal to or greater than 80%.
- N. For parameters that both monthly average and daily maximum limitations are specified and the monitoring frequency is less than four times a month, the following shall apply. If an analytical result is greater than the monthly average

limitation, the Discharger shall collect four additional samples at approximately equal intervals until compliance with the monthly average limitation has been demonstrated. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later. In the event of noncompliance with a monthly average effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the monthly average effluent limitation has been demonstrated. The Discharger shall provide for the approval of the Executive Officer a program to ensure future compliance with the monthly average limitation.

- O.** In the event wastes are transported to a different disposal site during the report period, the following shall be reported in the monitoring report:
1. Types of wastes and quantity of each type;
 2. Name and address for each hauler of wastes (or method of transport if other than by hauling); and
 3. Location of the final point(s) of disposal for each type of waste.

If no wastes are transported off-site during the reporting period, a statement to that effect shall be submitted.

- P.** Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.
- Q.** All monitoring reports shall include the discharge limitations in the Order, tabulated analytical data, the chain of custody form, and the laboratory report (including but not limited to date and time of sampling, date of analyses, method of analysis and detection limits).
- R.** Each monitoring report shall contain a separate section titled "Summary of Non-compliance" which discusses the compliance record and corrective action taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.
- S.** Before commencing a new discharge, a representative sample of the effluent shall be collected and analyzed for toxicity and for all the constituents listed in Fact Sheet, and the test results must meet all applicable limitations of Order No. R4-2018-0125.
- T.** In the event of presence of oil sheen, debris, and/or other objectionable materials or odors, discharge shall not commence until compliance with the

requirements is demonstrated. All visual observations shall be included in the monitoring report.

- U. If monitoring results indicate an exceedance of a limit contained in Order R4-2018-0125, the discharge shall be terminated and shall only be resumed after remedial measures have been implemented and full compliance with the requirements has been ascertained.
- V. In addition, as applicable, following an effluent limit exceedance, the Discharger shall implement the following accelerated monitoring program:
 - 1. Monthly monitoring shall be increased to weekly monitoring
 - 2. Quarterly monitoring shall be increased to monthly monitoring
 - 3. Semi-annually monitoring shall be increased to quarterly
 - 4. Annual monitoring shall be increased to semi-annually

If three consecutive accelerated monitoring events demonstrate full compliance with effluent limits, the Discharger may return to the regular monitoring frequency, with the approval of the Executive Officer of the Regional Water Board.

II. Monitoring Locations

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table 1. Monitoring Points Information

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
Discharge Point 1 (Arroyo Simi South Bank District's Access Road)	M-001	Treated effluent, after treatment and before contact with the receiving water and/or dilution by any other water or waste.
Discharge Point 2 (Arroyo Simi Downstream of Sycamore Road)	M-002	If more than one discharge point is authorized under the General Permit, compliance monitoring locations shall be named M-002, M-003, etc. and shall be located so as to allow collection of treated effluent after treatment and before contact with receiving water and/or dilution by any other water or waste.

III. Influent Monitoring Requirements (Not Applicable)

IV. Effluent Monitoring Requirements

The Discharger shall monitor the effluent at Discharge Point M-001 and M-002. (The representative effluent samples shall be collected after all treatment processes (if any) while discharging and before contact or mixing with receiving water or other waters and/or dilution with any other water or waste).

Table 2. Monitoring Constituents

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gal/day	totalizer	continuously ¹	2
pH	pH units	grab	monthly	2
Temperature	°F	grab	monthly	2
Total Suspended Solids	mg/L	grab	monthly	2
Turbidity	NTU	grab	monthly	2
BOD ₅ 20°C	mg/L	grab	monthly	2
Oil and Grease	mg/L	grab	monthly	2
Settleable Solids	ml/L	grab	monthly	2
Sulfides	mg/L	grab	monthly	2
Phenols	mg/L	grab	monthly	2
Residual Chlorine	mg/L	grab	monthly	2
Methylene Blue Active Substances	mg/L	grab	monthly	2
Total Dissolved Solids	mg/L	grab	monthly	2
Sulfate	mg/L	grab	monthly	2
Chloride	mg/L	grab	monthly	2
Boron	mg/L	grab	monthly	2
Nitrogen (Nitrate-nitrogen + Nitrite-nitrogen)	mg/L	grab	monthly	2

¹ Record the monthly total flow and report the calculated daily average flow and monthly flow in the quarterly and annual reports, as appropriate

² Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP (and included as Appendix A of this Order), where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Antimony	µg/L	grab	weekly ³	2
Chromium VI	µg/L	grab	weekly ³	2
Selenium TR	µg/L	grab	weekly ³	2
Chlorpyrifos	µg/L	grab	quarterly	2
Diazinon	µg/L	grab	quarterly	2
Chlordane	ng/L	grab	quarterly	2
4,4-DDD	ng/L	grab	quarterly	2
4,4-DDE	ng/L	grab	quarterly	2
4,4-DDT	ng/L	grab	quarterly	2
Dieldrin	ng/L	grab	quarterly	2
PCBs	ng/L	grab	quarterly	2
Toxaphene	ng/L	grab	quarterly	2
Mercury	µg/L	grab	quarterly	2
Copper	µg/L	grab	quarterly	2
Nickel	µg/L	grab	quarterly	2
E. coli	MPN/100 mL	grab	quarterly	2
Chronic Toxicity	TUc	Grab	quarterly	2
Acute Toxicity	% survival	grab	annually	2

V. Whole Effluent Toxicity Testing Requirements

The MRP requires an annual test of Acute Toxicity, which measures primarily lethal effects that occur over a 96-hour period. Acute toxicity shall be recorded in percent survival measured in undiluted (100%) effluent.

A. Acute Toxicity Effluent Monitoring Program

1. The Discharger shall conduct acute toxicity tests on effluent samples (e.g., grab samples) by methods specified in 40 CFR Part 136 which cites U.S. EPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, October 2002, U.S. EPA, Office of Water, Washington D.C. (EPA/821-R-02-012) or a more recent edition to ensure compliance in 100 % effluent.

³ Weekly for the first month and monthly thereafter if no exceedances were observed.

2. The fathead minnow, *Pimephales promelas*, shall be used as the test species for discharge into freshwater and the topsmelt, *Atherinops affinis*, shall be used as the test species for discharge into coastal water. If the salinity of the receiving water is between 1 to 32 parts per thousand (ppt), the Discharger have the option of using the inland silverside, *Menidia beryllina*, instead of the topsmelt. The method for topsmelt (Larval Survival and Growth Test Method 1006.0) is found in U.S. EPA's Short-term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms, First Edition, August 1995 (EPA/600/R-95/136), or a more recent edition. The method for *Pimephales promelas* is found in U.S. EPA's Acute Toxicity Test Method 2000.0 and method for *Menidia beryllina* is found in U.S. EPA's Acute Toxicity Test Method 2006.0, or a more recent edition.
3. In lieu of conducting the standard acute toxicity testing with the fathead minnow, the Discharger may elect to report the results or endpoint from the first 48 hours of the chronic toxicity test as the results of the acute toxicity test.
4. Accelerated Toxicity Monitoring: If the results of the toxicity test yield a survival of less than 90%, then the frequency of analyses shall increase to monthly until at least three test results have been obtained and full compliance with effluent limitations has been demonstrated, after which the frequency of analyses shall revert to annually. Results of toxicity tests shall be included in the first monitoring report following sampling.
5. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water.

B. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and no other toxicants before the Executive Officer would allow for control of pH in the test.
 - a. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.
 - b. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.

- c. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.
 - d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.
2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Regional Water Board, and receiving written permission expressing approval from the Executive Officer of the Regional Water Board.

C. Chlorine Removal

Except with prior approval from the Executive Officer of the Regional Water Board, chlorine shall not be removed from bioassay sample.

D. Reporting

1. The Discharger shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month as required by this General Permit. Test results shall be reported as % survival for acute toxicity test results with the self-monitoring reports (SMR) for the month in which the test is conducted.
2. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, then those results also shall be submitted with the SMR for the period in which the investigation occurred.
 - a. The full report shall be submitted on or before the end of the month in which the SMR is submitted.
 - b. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the acute toxicity average limit.
3. Test results for toxicity tests shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the SMR. Routine reporting shall include, at a minimum, as applicable, for each test:
 - a) Sample date(s);
 - b) Test initiation date;

- c) Test species;
 - d) End point values for each dilution (e.g., number of young, growth rate, percent survival);
 - e) Any applicable charts; and
 - f) Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).
4. The Discharger shall provide a compliance summary, which includes a summary table of toxicity data from all samples collected during that year.

The Discharger shall notify this Regional Water Board by calling Namiraj Jain (213) 620-6003 and by email to namiraj.jain@waterboards.ca.gov of any toxicity exceedance of the limit or trigger within 24 hours of receipt of the results followed by a written report within 14 calendar days of receipt of the results.

The verbal or electronic notification shall include the exceedance and the plan the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

VI. Land Discharge Monitoring Requirements (Not Applicable)

VII. Reclamation Monitoring Requirements (Not Applicable)

VIII. Receiving Water Monitoring Requirements – (Not Applicable)

IX. Other monitoring requirements (Not Applicable)

X. Reporting Requirements

A. General Monitoring and Reporting Requirements

The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

1. If there is no discharge during any reporting period, the report shall so state.
2. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.

3. The Discharger shall inform the Regional Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

B. Self-Monitoring Reports

1. At any time during the term of this General Permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). Until such notification is given, the Discharger shall email electronic copy of SMRs to losangeles@waterboards.ca.gov. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP. The Discharger shall submit SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule: Monitoring Periods and Reporting Schedule.

Table 3. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Continuously	July 13, 2020	Continuously	Submit with quarterly SMR
Monthly	First day of calendar month following permit effective date or on permit effective date, if that date is first day of the month.	1 st day of calendar month through last day of calendar month.	Submit with quarterly SMR
Quarterly	Closest of January 1, April 1, July 1, or October 1	Jan 1 through Mar. 31; Apr 1 through June 30; July 1 through 30; Oct. 1 through Dec. 31	45 days from the end of the monitoring period

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Annually	January 1 following (or on) July 13, 2020	January 1 through December 31	45 days from the end of the monitoring period

4. Reporting Protocols. The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in Part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (\pm a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
 - d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.
5. The Discharger shall submit SMRs in accordance with the following requirements:

- a. Data Summary Tables: The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
- b. Cover letter and Summary of Non-Compliance: The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
- c. Paperless Submittal of SMRs: SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D). The Regional Water Board is implementing a paperless office system to reduce paper use, increase efficiency and provide a more effective way for our staff, the public and interested parties to view water quality documents. Therefore, please convert all regulatory documents, submissions, data and correspondence that you would normally submit to us as hard copies to a searchable Portable Document Format (PDF). Documents that are less than 10 MB should be emailed to losangeles@waterboards.ca.gov. Documents that are 10 MB or larger should be transferred to a disk and mailed to the address listed below.

CRWQCB – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013
Attn: Information & Technology Unit

If you need additional information regarding electronic submittal of documents please visit and navigate the Paperless Office pages in the Regional Water Board's website at
<http://www.waterboards.ca.gov/losangeles/resources/Paperless/>.

- C. Discharge Monitoring Reports (DMRs) (Not Applicable)**
- D. Other Reports (Not Applicable)**
- E. Notification**

A. The Discharger shall notify the Executive Officer in writing prior to discharge of any chemical which may be toxic to aquatic life. Such notification shall include:

1. Name and general composition of the chemical
2. Frequency of use
3. Quantities to be used
4. Proposed discharge concentrations and
5. U.S. EPA registration number, if applicable

No discharge of such chemical shall be made prior to obtaining the Executive Officer's approval.

B. The Discharger shall notify the Regional Board by calling Namiraj Jain at (213) 620-6003 and/or email to namiraj.jain@waterboards.ca.gov within 24 hours of noticing an exceedance above the effluent limits in Order No. R4-2018-0125. The Discharger shall provide to the Regional Water Board within 14 days of observing the exceedance a detailed statement of the actions undertaken or proposed that will bring the discharge into full compliance with the requirements and submit a timetable for correction.


C. Pre-Discharge Notification

Three (3) days prior to initiation of a discharge, the Discharger shall notify the MS4 operator Ventura County Flood Control District at Discharge.alert@ventura.org and provide the following information about the discharge:

1. The reasons for discharge
2. The start date of discharge
3. The location of discharge and the applicable receiving water
4. The estimated flow rate discharge, indicating if the discharge is intermittent or continuous

XI. Monitoring Frequencies adjustment

Monitoring frequencies may be adjusted by the Executive Officer to a less frequent basis if the Discharger makes a request and the request is backed by statistical trends of monitoring data submitted.



USACE PERMIT SPL-2013-00592-AJS

DEPARTMENT OF THE ARMY PERMIT

Permittee: Ventura County Watershed Protection District; Glenn Shephard

Project Name: Ferro Ditch Channel Improvement Project

Permit Number: SPL-2013-00592-AJS

Issuing Office: Los Angeles District

Note: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

To permanently discharge fill into 0.72 acre of waters of the U.S., and to temporarily discharge fill into 0.1 acre of waters of the U.S. pursuant to Section 404 of the Clean Water Act of 1972, in association with the Ferro Ditch Channel Improvement Project as shown on the attached drawings.

Specifically, you are authorized to:

1. Construct a concrete-lined transition structure extending 80 linear feet upstream from the existing concrete box culvert.
2. Widen and deepen 1,600 linear feet of channel extending upstream from the new transitions structured and line with ¼-ton ungrouted riprap.

Project Location: Within Ferro Ditch, between Ferro Basin and Los Angeles Avenue (Hwy 118), near the city of Camarillo, Ventura County, California.

Permit Conditions:

General Conditions:

1. The time limit for completing the authorized activity ends on **March 6, 2025**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification from this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished with the terms and conditions of your permit.

Special Conditions:

1. The Permittee shall mitigate for permanent impacts to 0.04 acre of waters of the U. S., through enhancement of 0.14 acre of waters of the U.S. as described in the final, approved mitigation plan: "Arroyo Simi Habitat Mitigation Plan" (dated July 2019, and prepared by Ventura County Watershed Protection District). The Permittee shall complete site preparation and planting and initiate monitoring as described in the final, approved mitigation plan concurrently with impacts to waters of the U.S. According to the final, approved mitigation plan, responsible parties would be as follows: a) Implementation: VCWPD; b) Performance: VCWPD. The Permittee retains ultimate legal responsibility for meeting the requirements of the final, approved mitigation plan. Detailed mitigation objectives, performance standards, and monitoring requirements are described in the above final, approved mitigation plan. Your responsibility to complete the required compensatory mitigation as set forth in Special Condition 1 will not be considered fulfilled until you have demonstrated compensatory mitigation project success and have received written verification of that success from the U.S. Army Corps of Engineers Regulatory Division.

MONITORING: You shall submit monitoring reports for all compensatory mitigation sites as described in the final, approved mitigation plan by October 1 of each year following the construction of mitigation. To assure compensatory mitigation success, you shall monitor the mitigation area(s) for at least five (5) consecutive growing seasons after construction or until the Corps determines the final performance standards are met (monitoring shall be for a minimum of 5

years unless the Corps agrees earlier that success has been reached and maintained for a sufficient time period, or, if success is not demonstrated to the Corps' satisfaction after the 5th year of monitoring, additional monitoring may be required by the Corps as determined at that time). The monitoring period shall commence upon completion of the construction of the mitigation site(s). Additionally, you shall demonstrate continued success of the compensatory mitigation site(s), without human intervention, for at least two consecutive years during which interim and/or final performance standards are met. The compensatory mitigation project will not be deemed successful until this criterion has been met.

GIS DATA: Within 60 days following permit issuance for Standard Individual Permits or within 60 days following written Corps approval of the mitigation plan for General Permits, you shall provide to this office GIS data (polygons only) depicting the boundaries of all compensatory mitigation sites, as authorized in the above, final mitigation plan. All GIS data and associated metadata shall be provided on a digital medium (CD or DVD) or via file transfer protocol (FTP), preferably using the Environmental Systems Research Institute (ESRI) shapefile format. GIS data for mitigation sites shall conform to the Regulatory_mitigation_template_20160115.lpk labeling requirements, as specified in the Final Map and Drawing Standards for the South Pacific Division Regulatory Program dated February 10, 2016 (<http://www.spd.usace.army.mil/Missions/Regulatory/PublicNoticesandReferences/tabid/10390/Article/651327/updated-map-and-drawing-standards.aspx>), and shall include a text file of metadata, including datum, projection, and mapper contact information. Within 60 days following completion of compensatory mitigation construction activities, if any deviations have occurred, you shall submit as-built GIS data (polygons only) accompanied by a narrative description listing and explaining each deviation.

Further Information:

1. Congressional Authorities. You have been authorized to undertake the activity described above pursuant to:

() Section 10 of the River and Harbor Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measure ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of

the authorized activity or a reevaluation of the public interest decision, the Corps will normally give you favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.



Glenn Shephard
Director
Ventura County Watershed Protection District

3/10/2020
DATE

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.



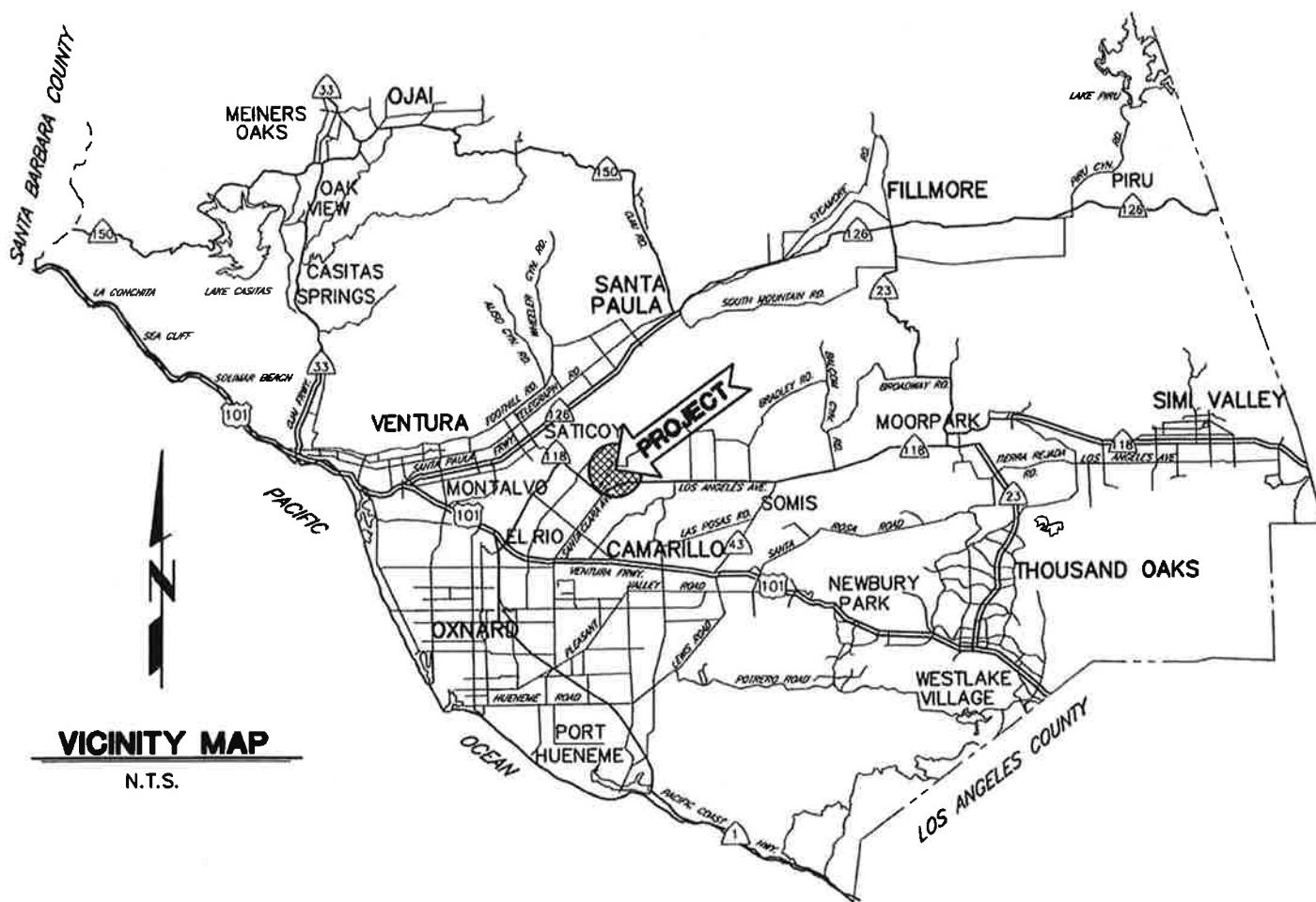
Antal Szijj
Team Lead
North Coast Branch
Regulatory Division

3/11/20
DATE

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

TRANSFEREE

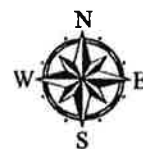
DATE

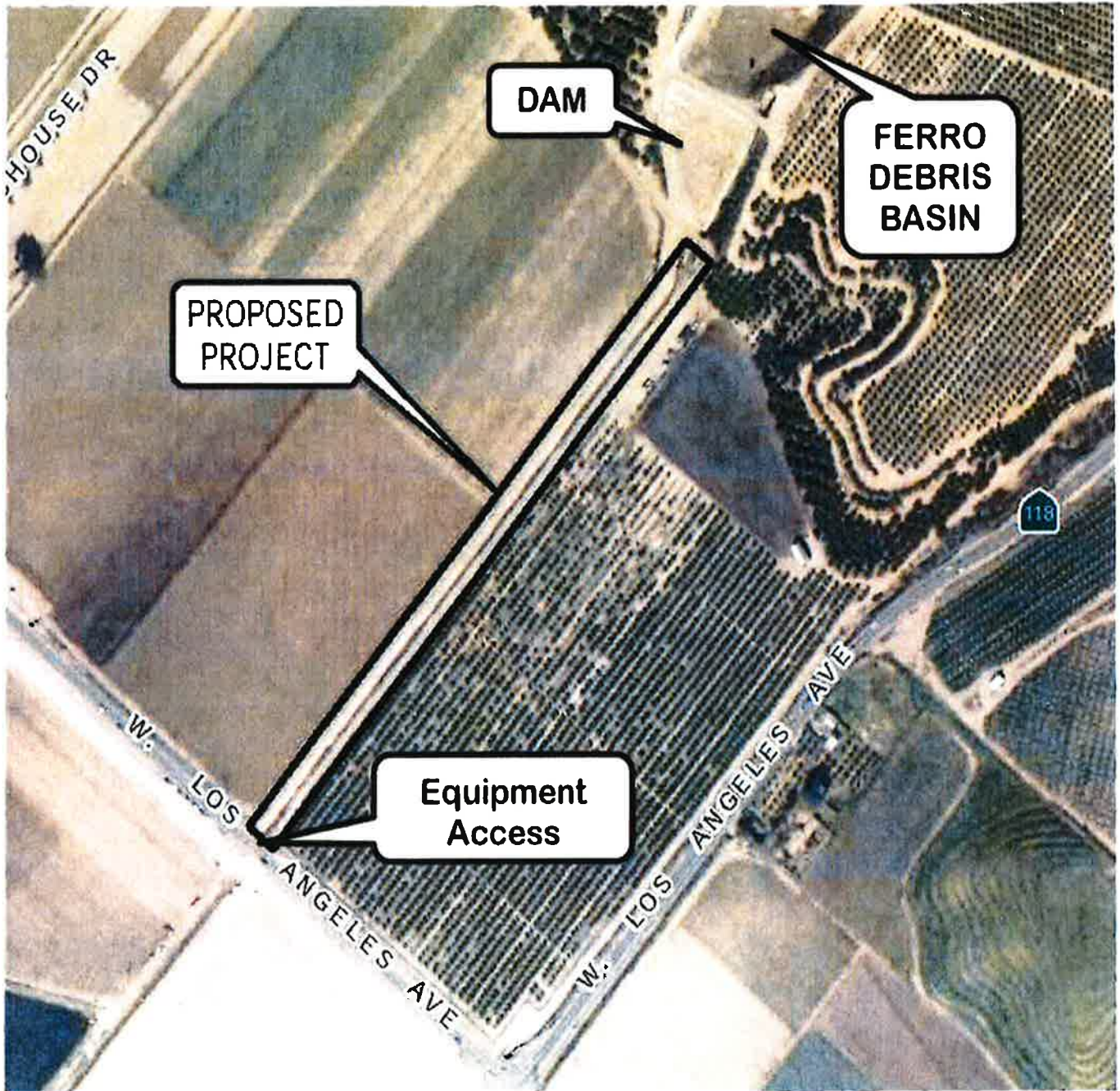


Ferro Ditch Channel Improvement Project Ventura County Watershed Protection District Vicinity Map

Not to scale

FIGURE 1

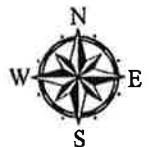


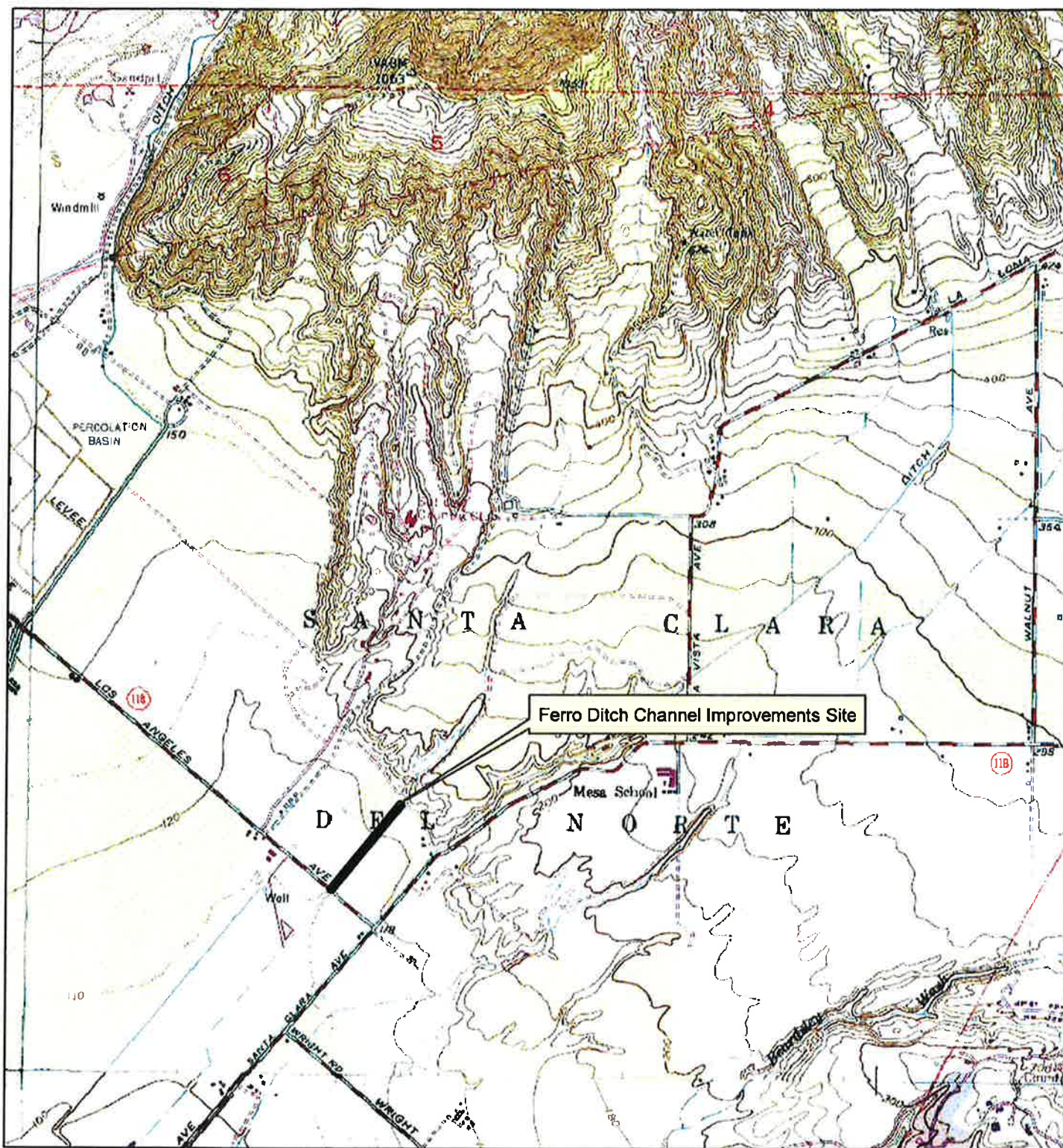


**Ferro Ditch Channel Improvement Project
Ventura County Watershed Protection District
Plan View**

Not to scale

FIGURE 2





Ferro Ditch Channel Improvement Project **Ventura County Watershed Protection District** **USGS Quad Map**

Not to scale

FIGURE 3

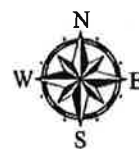




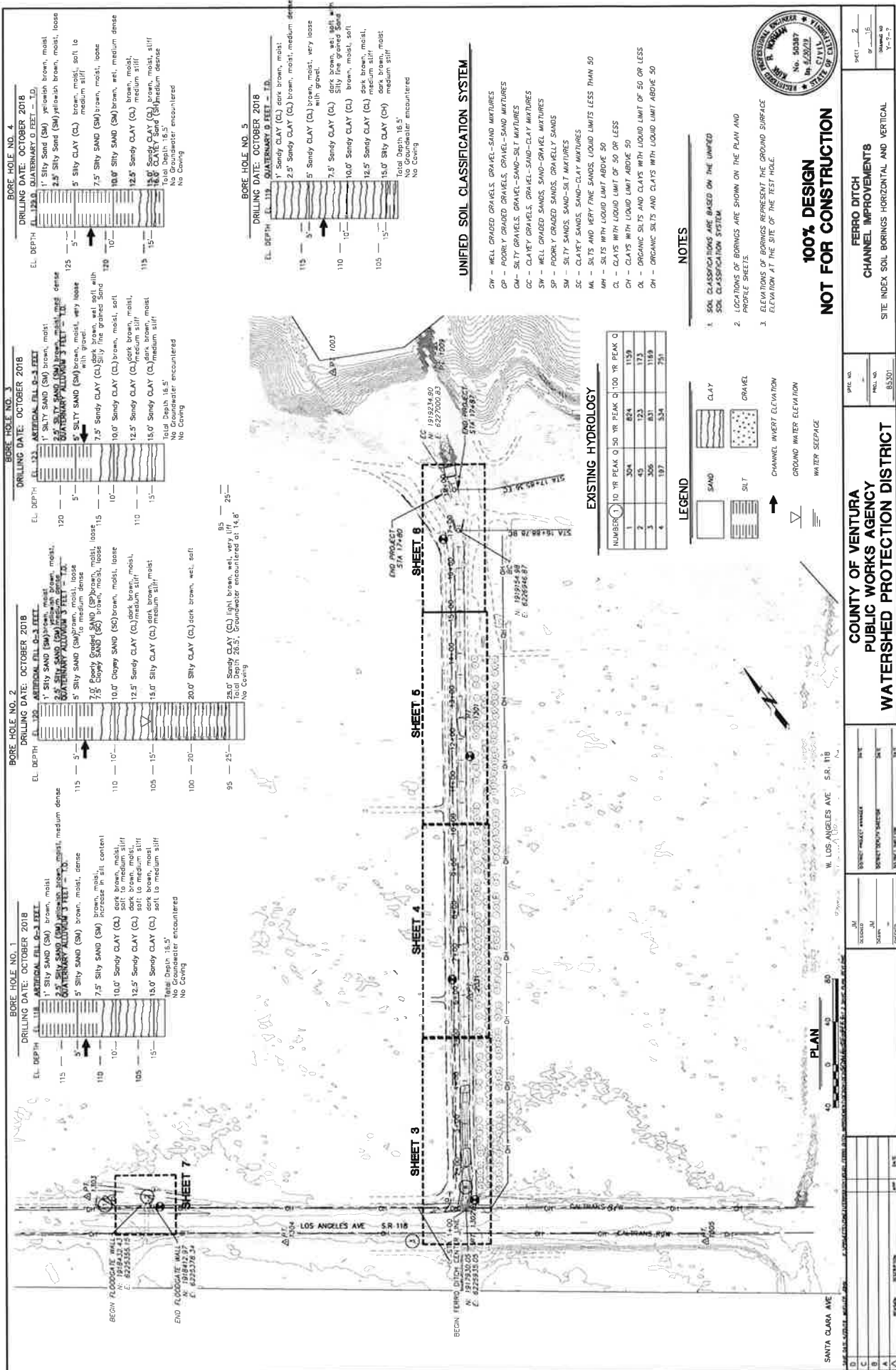
Photo 1: Downstream view of the Ferro Ditch from the Ferro Debris Basin dam.

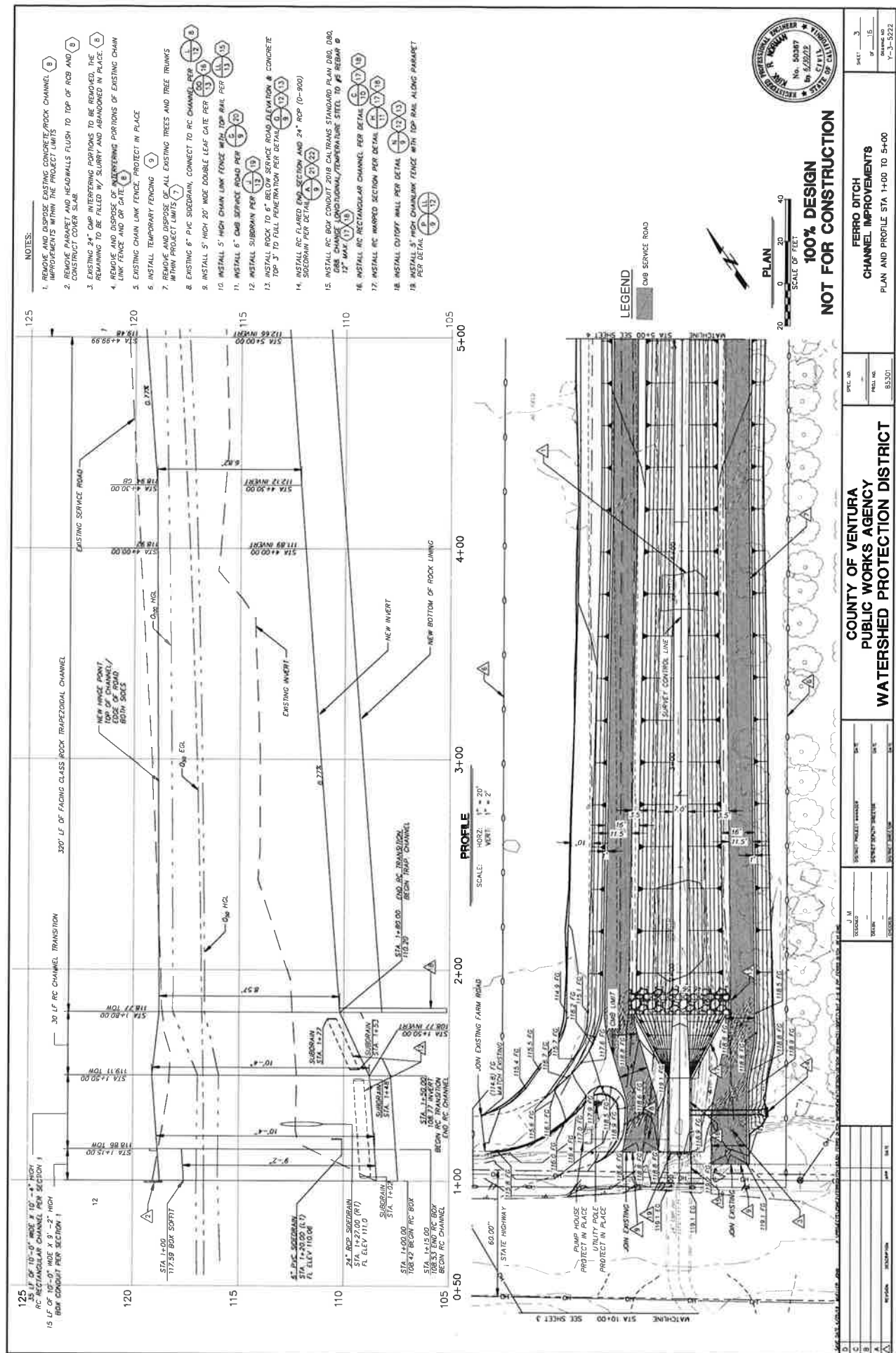


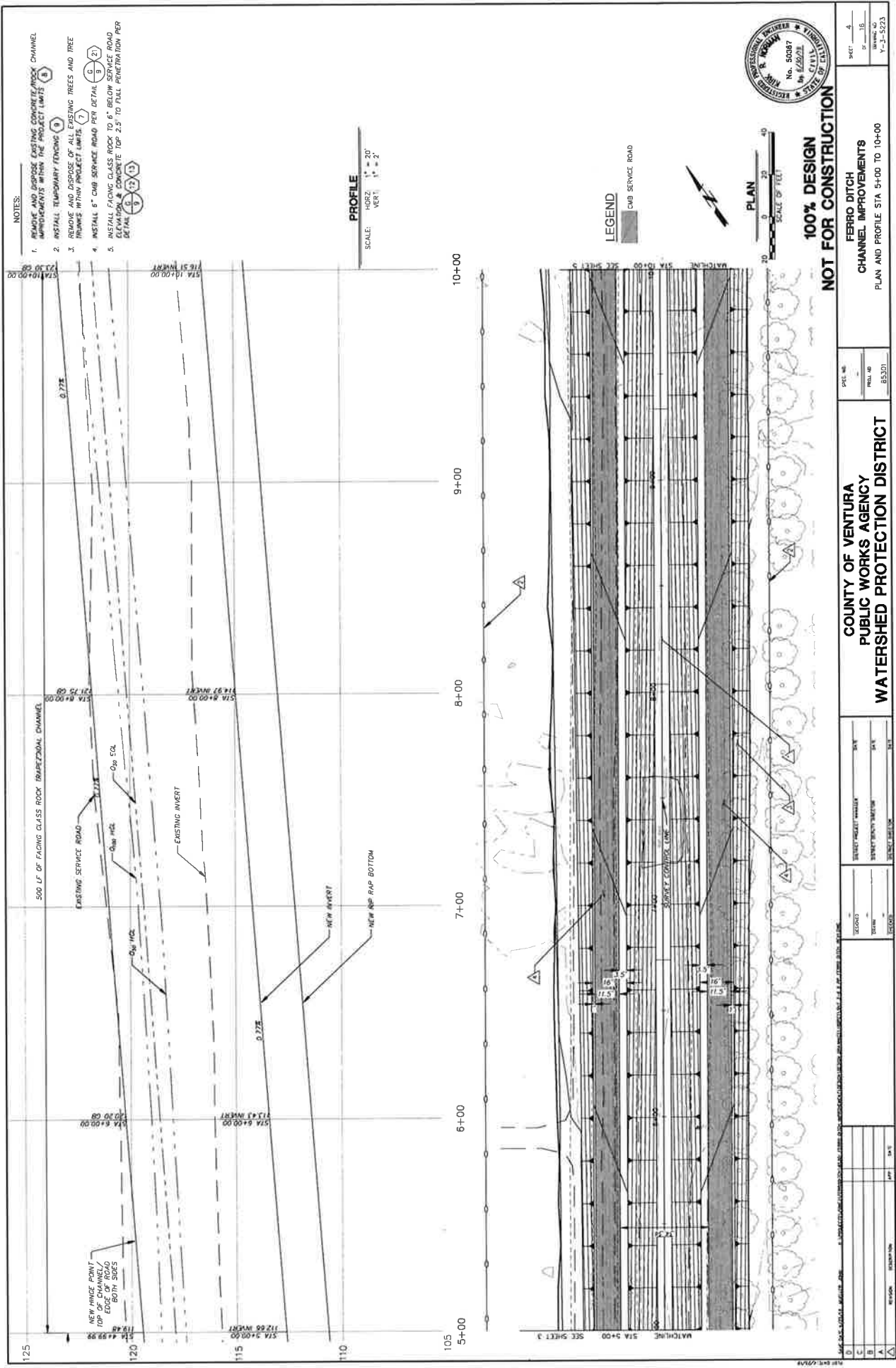
Photo 2: Typical cross section of Ferro Ditch facing downstream.

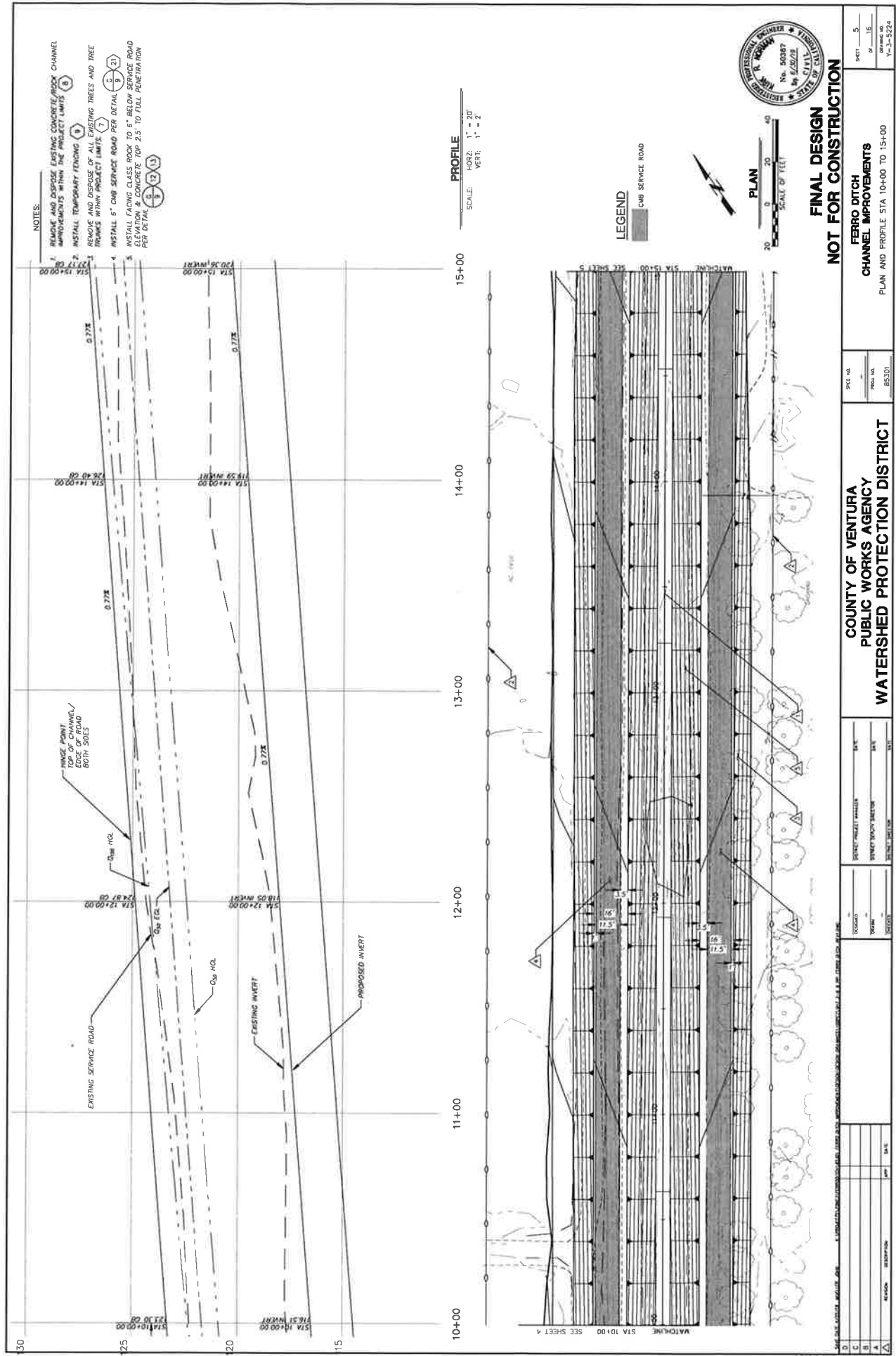
**Ferro Ditch Channel Improvement Project
Ventura County Watershed Protection District
Representative Photographs**

FIGURE 4









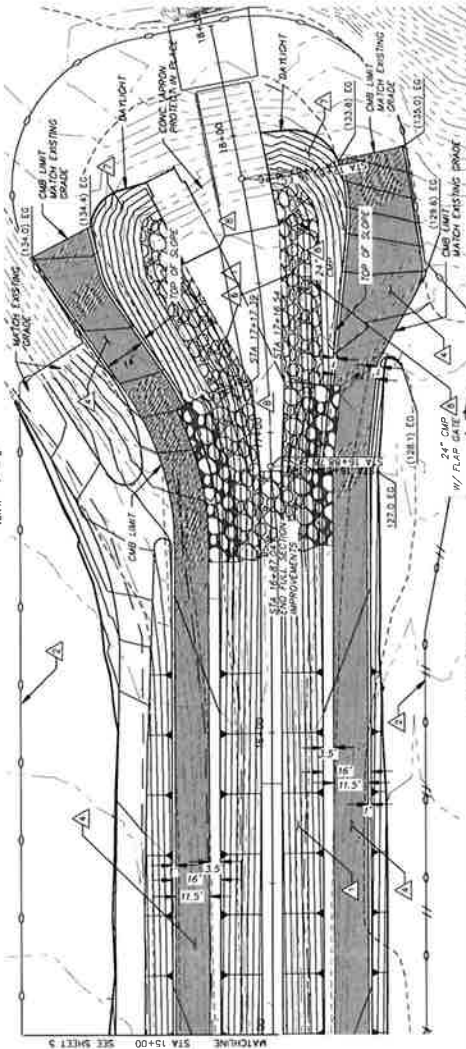
NOTES:

1. REMOVE AND DISPOSE EXISTING CONCRETE ROCK CHANNEL IMPROVEMENTS WITHIN THE PROJECT LIMITS (8)
2. INSTALL TEMPORARY FENCING (9)
3. REMOVE AND DISPOSE OF ALL EXISTING TREES AND TREE TRUNKS WITHIN PROJECT LIMITS (2)
4. INSTALL 8" CMB SERVICE ROAD PER DETAIL (6) (2) (12) (13)
5. INSTALL FACING GLASS ROCK 10" 4" BELOW SERVICE ROAD ELEVATION & CONCRETE TOP 2.5' TO FULL PENETRATION PER DETAIL
6. REMOVE AND REPLACE 1/4 TON GLASS ROCK SLOPE PROTECTION PER DETAIL (11)
7. GRADE 2:1 TO DAYLIGHT
8. PROTECT IN PLACE

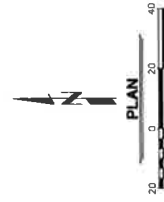


PROFILE

SCALE: HORIZ. 1" = 20'
VERT. 1" = 2'



LEGEND



100% DESIGN
NOT FOR CONSTRUCTION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

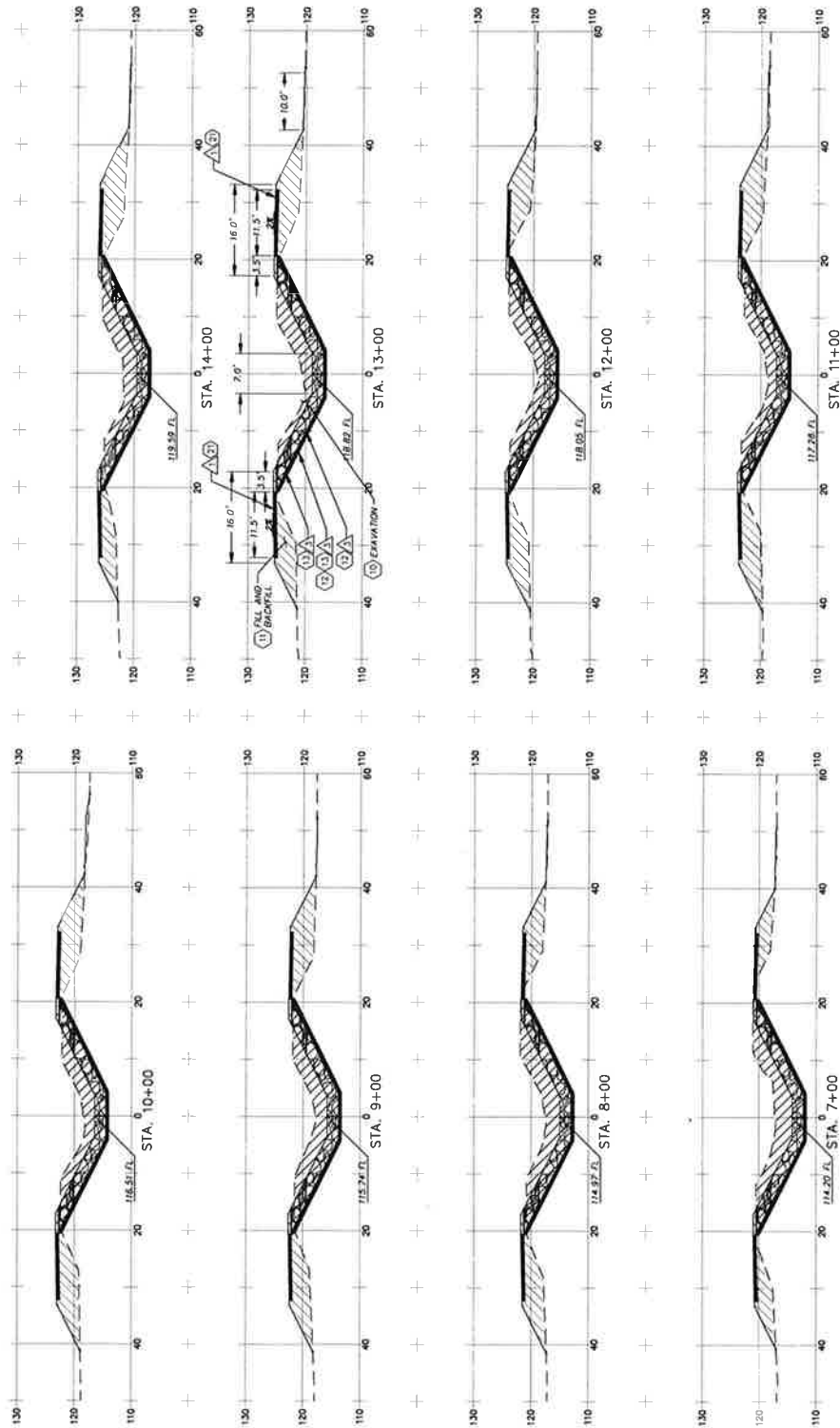
FERRO DITCH
CHANNEL IMPROVEMENTS
PLAN AND PROFILE 15+00 TO 17+87

SHEET 15
OF 15
DRAWING NO.
P-2-2225

DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
IN CHARGE	DATE

NOTES:

1. INSTALL 6" CMB SERVICE ROAD PER (1)
2. INSTALL SUBGRADE PER (1)
3. INSTALL 6" BEDDING LAYER OF 3" MINUS RY GRAVEL METAL ROCK PER (1)
4. INSTALL 6" BEDDING LAYER OF 3" MINUS RY GRAVEL METAL ROCK PER (1)
5. TOP 3" TO FULL PENETRATION PER DETAIL (1)



100% DESIGN
NOT FOR CONSTRUCTION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

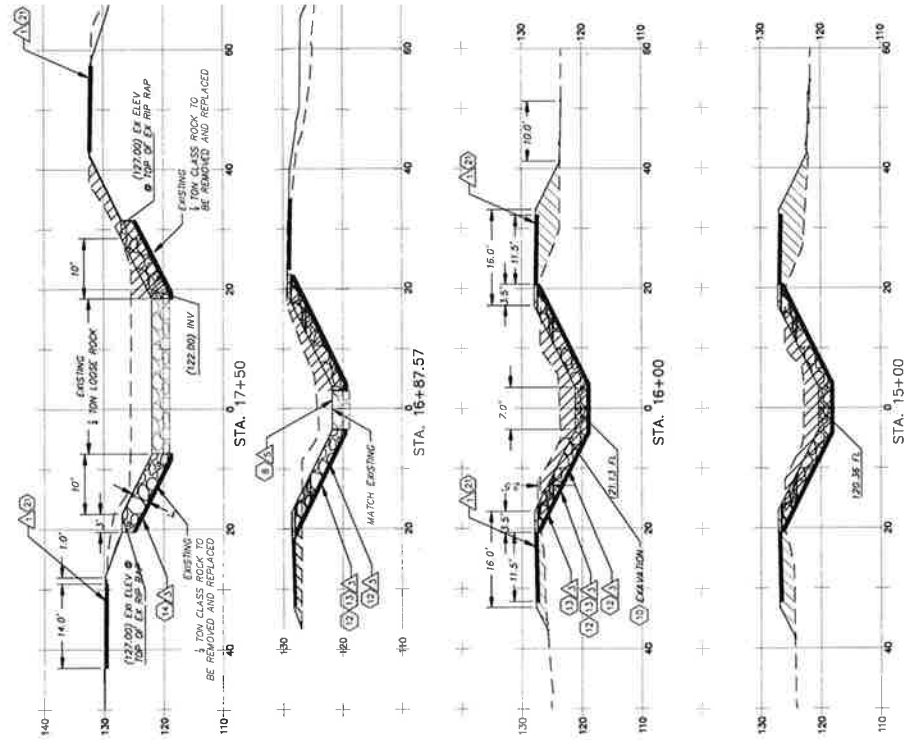
FERRO DITCH
CHANNEL IMPROVEMENTS
CROSS SECTIONS 7+00 TO 14+00

DATE: 1/5
BY: 1/5
PROJECT NO: Y-3-5233

DESIGNED	BY	DATE
CHECKED	BY	DATE
APPROVED	BY	DATE
PROJECT MANAGER	BY	DATE
DISTRICT ENGINEER	BY	DATE
DISTRICT SUPERVISOR	BY	DATE

NOTES:

1. INSTALL 6" CURB SERVICE ROAD PER (C-5)
2. INSTALL SUBGRADE PER (S-1)
3. INSTALL 6" BEDDING LAYER OF 3" MINUS PIT GRAVEL. INSTALL ROCK CURB AND 6" BEDDING LAYER OF 3" MINUS PIT GRAVEL. CONCRETE TOP 3" TO FULL PENETRATION PER DETAIL (C-5)
4. INSTALL 6" BEDDING LAYER OF 3" MINUS PIT GRAVEL. INSTALL ROCK CURB AND 6" BEDDING LAYER OF 3" MINUS PIT GRAVEL. CONCRETE TOP 3" TO FULL PENETRATION PER DETAIL (C-5)
5. PROTECT IN PLACE EXISTING ROCK LINED BOTTOM



100% DESIGN
NOT FOR CONSTRUCTION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

FERRO DITCH
CHANNEL IMPROVEMENTS
CROSS SECTIONS 15+00 TO 17+50

SHEET 15
OF 15
DRAWING NO.
Y-3-5234

DATE: 12/20/21	BY: R. R. R.	CHECKED: R. R. R.	APPROVED: R. R. R.
DESIGNED: R. R. R.	DRAWN: R. R. R.	IN CHARGE: R. R. R.	DATE: 12/20/21
PROJECT: FERRO DITCH	LOCATION: WATERSHED PROTECTION DISTRICT	SCALE: 1" = 10' H and V	SHEET: 15 OF 15

CALTRANS
ENCROACHMENT
PERMIT
07-20-N-DD-1053

In compliance with (Check one):

- ☒ Your application of April 6, 2020
- ☐ Utility Notice No. _____ of _____
- ☐ Agreement No. _____ of _____
- ☐ R/W Contract No. _____ of _____

Permit No. 07-20-N-DD-1053	
Dist/Co/Rte/PM 07-VEN-118, PM 3.858/4.0	
Permit Approval Date 11/25/2020	
Fee Paid \$ EXEMPT	Deposit \$ EXEMPT
Performance Bond Amount (1) \$ 0.00	Payment Bond Amount (2) \$ 0.00
Bond Company	
Bond Number (1)	Bond Number (2)

TO: County of Ventura, Watershed Protection District
800 S. Victoria Ave, #1610
Ventura, CA 93009
Attn: Kirk Norman 805-654-2017

, PERMITTEE

and subject to the following, PERMISSION IS HEREBY GRANTED to:

Extend existing box culvert, perform grading, backfilling, and temporary traffic control; within State right of way, on CA-118 (Los Angeles Avenue) between Clubhouse Drive and Santa Clara Avenue; in the community of Somis; all in accordance with current State specifications and standard plans, Encroachment Permits Special Provisions, and the stamped Caltrans Permits Plans.

Double Permit Fees: \$984.00

A pre-job meeting with the assigned Caltrans Representative, Jasraj Singh (jasraj.singh@dot.ca.gov), (213) 760-9392, is required at least 7 days prior to start of any work under this permit. Failure to do so may result in permit revocation with no prejudice.

THIS PERMIT IS NOT A PROPERTY RIGHT AND DOES NOT TRANSFER WITH THE PROPERTY TO A NEW OWNER.

The following attachments are also included as part of this permit (Check applicable):

- ☒ Yes ☐ No General Provisions
- ☐ Yes ☒ No Utility Maintenance Provisions
- ☐ Yes ☒ No Storm Water Special Provisions
- ☒ Yes ☐ No Special Provisions
- ☐ Yes ☒ No A Cal-OSHA permit, if required: Permit No. _____
- ☐ Yes ☒ No As-Built Plans Submittal Route Slip for Locally Advertised Projects
- ☒ Yes ☐ No Storm Water Pollution Prevention Plan / Water Pollution Control Plan

In addition to fee, the permittee will be billed actual costs for:

- ☐ Yes ☒ No Review
- ☐ Yes ☒ No Inspection
- ☒ Yes ☐ No Field Work

(if any Caltrans effort expended)

- ☐ Yes ☒ No The information in the environmental documentation has been reviewed and considered prior to approval of this permit.

This permit is void unless the work is completed before May 31, 2021

This permit is to be strictly construed and no other work other than specifically mentioned is hereby authorized.

No project work shall be commenced until all the other necessary permits and the environmental clearances have been obtained.

PERMIT ENGINEER: Vito Buranabul *VB*
COPIES TO:
Maintenance West Region
J. Singh, Permit Insp.
File

APPROVED:

Gloria Roberts (Acting), District Director

BY:



GODSON OKEREKE, P.E., District Permit Engineer *PS*

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For alternate format information, contact the Forms Management Unit at (916) 445-1233, TTY 711, or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

FM 91 1436 (D7 Permit App.)

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
STANDARD ENCROACHMENT PERMIT APPLICATION
TR-0100 (REV 12/2018)

Page 1 of 3

Complete ALL fields, write "N/A" if not applicable. Type or print clearly.
This application is not complete until all requirements have been approved.

Permission is requested to encroach on the State Highway right-of-way as follows:

1. COUNTY Ventura	2. ROUTE 118	3. POST MILE 4
4. ADDRESS OR STREET NAME Los Angeles Avenue	5. CITY Somis	
6. CROSS STREET (Distance and direction from project site) Santa Clara Avenue, 860' and 1600' SE of project		
7. WORK TO BE PERFORMED BY <input type="checkbox"/> APPLICANT <input checked="" type="checkbox"/> CONTRACTOR		8. IS THIS APPLICATION FOR THE CONTRACTOR'S (DOUBLE) PERMIT? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES. If "YES", provide the Parent Permit Number
9. ESTIMATE START DATE 8/01/2020	10. ESTIMATED COMPLETION DATE 8/01/2021	
11. ESTIMATED NUMBER OF WORKING DAYS WITHIN STATE HIGHWAY RIGHT-OF-WAY 60		
12. ESTIMATED CONSTRUCTION COSTS WITHIN STATE HIGHWAY RIGHT-OF-WAY \$100,000		
13. HAS THE PROJECT BEEN REVIEWED BY ANOTHER CALTRANS BRANCH? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES. If "YES", which branch?		
14. FUNDING SOURCE(S) <input checked="" type="checkbox"/> FEDERAL <input type="checkbox"/> STATE <input type="checkbox"/> LOCAL <input type="checkbox"/> PRIVATE <input type="checkbox"/> SB 1 (ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017)		
15. CALTRANS PROJECT CODE (ID) N/A	16. APPLICANT'S REFERENCE / UTILITY WORK ORDER NUMBER 85301	

FOR CALTRANS USE
TRACKING NO. 720-NDD-1053
DIST/CO/RTE/PM 07-VEN-118-4
SIMPLEX STAMP 1053
DATE OF SIMPLEX STAMP 4/6/2020

RECEIVED

APR 06 2020

OFFICE OF PERMITS

17. DESCRIBE WORK TO BE DONE WITHIN STATE HIGHWAY RIGHT-OF-WAY
Attach 6 complete sets of plans (folded to 8.5" x 11") and any applicable specifications, calculations, maps, traffic control plans, etc.
1) 8' Extension(5' in Cal Trans Right Way) of the existing 9'-2" H x 10' W Box Culvert for 5', Grading and backfilling.
2) Regrading of an area between the existing 5'-4" H x 9'W box culvert under crossing and a proposed floodgate that will be constructed outside of the Cal Trans Right of Way.

18 (a). PORTION OF STATE HIGHWAY RIGHT-OF-WAY WHERE WORK IS BEING PROPOSED (check all that apply) *W. Design*
☐ Traffic lane ☐ Shoulder ☐ Sidewalk ☐ Median ☐ At or near an intersection ☐ Mobile work
☒ Outside of the shoulder, 4 feet from edge of pavement ☐ Other *J. Singh, Engr.*

18 (b). PROPOSED TRAFFIC CONTROL PLANS AND METHOD

☐ No traffic control needed ☐ State Standard Plans (T-Sheets) #
☐ Project specific Traffic Control Plans included ☒ To be submitted by contractor

19. EXCAVATION	MAX. DEPTH (in) 14'	MIN. DEPTH (in) 14	AVG. WIDTH (in) 6	LENGTH (ft) 5	SURFACE TYPE (e.g. Asphalt, concrete, soil, etc.) Soil
----------------	------------------------	-----------------------	----------------------	------------------	---

20. PIPES	PRODUCT BEING TRANSPORTED Sub drain and Storm drain	CARRIER PIPE DIAMETER 6, 24 (in.) MATERIAL PVC, RC	CASING PIPE DIAMETER (in.) MATERIAL
-----------	--	---	--

PROPOSED INSTALLATION METHOD (e.g. HDD, Bore & Jack, Open Cut, etc.) Open Cut	VOLTAGE / PSIG
--	----------------

DOES THE PROPOSED PROJECT INVOLVE THE REPLACEMENT AND/OR ABANDONMENT OF AN EXISTING FACILITY?
☐ NO ☒ YES. If "YES", provide a description An existing earthen channel is being replaced by a higher capacity rock lined trap channel.

21. IS A CITY, COUNTY OR OTHER PUBLIC AGENCY INVOLVED IN THE APPROVAL OF THIS PROJECT?
☒ YES (if "YES", check the type of project AND attach the environmental documentation and conditions of approval)

☐ COMMERCIAL DEVELOPMENT ☐ BUILDING ☐ GRADING ☐ OTHER Drainage Infrastructure Improvements
☐ CATEGORICALLY EXEMPT ☐ NEGATIVE DECLARATION ☐ ENVIRONMENTAL IMPACT REPORT ☒ OTHER MND & EA
☐ NO (if "NO", check the category below which best describes the project AND answer questions A-K on page 2)
☐ DRIVEWAY OR ROAD APPROACH, RECONSTRUCTION, MAINTENANCE OR RESURFACING ☐ FENCE ☐ EROSION CONTROL
☐ PUBLIC UTILITY MODIFICATION, EXTENSIONS, HOOKUPS ☐ MAILBOX ☐ LANDSCAPING
☐ FLAGS, SIGNS, BANNERS, DECORATIONS, PARADES AND CELEBRATIONS ☐ OTHER

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EXHIBIT 3

County of Ventura, Watershed Protection District.

TRACKING NO.
720-NDD-1053

The following questions must be answered when a City, County or other public agency IS NOT involved in the approval of this project.

Your answers to these questions will assist Caltrans staff in identifying any physical, biological, social or economic resources that may be affected by your proposed project within State Highway right-of-way and to determine which type of environmental studies may be required to approve your application for an encroachment permit. It is the applicant's responsibility for the production of all required environmental documentation and supporting studies and in some cases this may be costly and time consuming. If possible, attach photographs of the location of the proposed project. Answer these questions to the best of your ability. Provide a description of any "YES" answers (type, name, number, etc.).

A. Will any existing vegetation and/or landscaping within State Highway right-of-way be disturbed?

No

B. Are there waterways (e.g. river, creek, pond, natural pool or dry streambed) adjacent to or within the limits of the proposed project?

Yes

C. Is the proposed project located within five miles of the coast line?

No.

D. Will the proposed project generate construction noise levels greater than 86 decibels (dBA) (e.g. Jack-hammering, pile driving)?

No

E. Will the proposed project incorporate land from a public park, recreation area or wildlife refuge open to the public?

No

F. Are there any recreational trails or paths within the limits of the proposed project?

No

G. Will the proposed project impact any structures, buildings, rail lines or bridges within State Highway right-of-way?

No

H. Will the proposed project impact access to any businesses or residences?

No

I. Will the proposed project impact any existing public utilities or public services?

No

J. Will the proposed project impact any existing pedestrian facilities, such as sidewalks, crosswalks or overcrossings?

No

K. Will new lighting be constructed within or adjacent to State Highway right-of-way?

No

22. Will the proposed project cause a substantial change in the significance of a historical resource (45 years or older), or cultural resource?

☐ YES ☒ NO (if "YES", provide a description)

23. Will the proposed project be on an existing State Highway or street where the activity involves removal of a scenic resource? (e.g. A significant tree or stand of trees, a rock outcropping or a historic building)

☐ YES ☒ NO (if "YES", provide a description)

24. Is work being done on the applicant's property in addition to State Highway right-of-way? ☒ YES ☐ NO

(If "YES", attach 6 complete sets of site and grading plans)

25. Will the proposed project require the disturbance of soil?

☒ YES ☐ NO

If "YES", estimate the area of disturbed soil within State Highway right-of-way in acres: < 0.1 Acre

and estimate the area of disturbed soil outside State Highway right-of-way in acres: 3.8 Acres

26. Will the proposed project require dewatering?

☒ YES ☐ NO

If "YES", estimate Total gallons AND gallons/month. 6,000,000 (Total gallons) AND 1,000,000 (gallons/month)

SOURCE*: ☐ STORMWATER ☒ NON-STORMWATER

(*See Caltrans SWMP for definition of non-storm water discharge: <http://www.dot.ca.gov/env/stormwater/>.)

27. How will any storm water or ground water be disposed?

☒ Storm Drain System ☐ Combined Sewer / Stormwater System ☐ Stormwater Retention Basin ☐ N/A

☐ Other (explain)

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EXHIBIT 3

TRACKING NO
720 NDD-1053

READ THE FOLLOWING CLAUSES PRIOR TO SIGNING THIS ENCROACHMENT PERMIT APPLICATION.

The applicant's submission of this application to the California Department of Transportation constitutes the applicant's agreement and representation that the work or other activity contemplated by the encroachment permit application shall comply with all applicable standards, specifications, policies, requirements, conditions, and regulations of the California Department of Transportation, and the applicant understands the application may be denied if there is non-compliance with any of the above. An exception process exists and may result in approval of a non-compliant encroachment, in the discretion of the California Department of Transportation, but the exception process may require additional time to complete. The applicant understands and agrees all work or other activity contemplated by the encroachment permit application is subject to inspection and oversight by the California Department of Transportation. The applicant understands and agrees encroachment permit fees must still be paid if an application is withdrawn or denied. The applicant understands a denial may be appealed, in accordance with California Streets and Highways Code, Section 671.5, and the related regulations found in California Code of Regulations, Title 21, Division 2, Chapter 8, Article 2.

The applicant understands and agrees that immediately upon issuance of the encroachment permit the applicant is bound by, subject to, and must comply with the "Encroachment Permit General Provisions" (TR-0045), "Stormwater Special Provisions" (TR-0400) and any other applicable Special Provisions and Conditions of the encroachment permit. The "Encroachment Permit General Provisions" (TR-0045), and the Stormwater Special Provisions (TR-0400) are available at: [http://www.dot.ca.gov/trafficops/ep/docs/Appendix_K_\(WEB\).pdf](http://www.dot.ca.gov/trafficops/ep/docs/Appendix_K_(WEB).pdf). If a paper copy is needed of the "Encroachment Permit General Provisions" (TR-0045) and/or "Stormwater Special Provisions" (TR-0400), please contact the District Office of Encroachment Permits. Their contact information is available at: [http://www.dot.ca.gov/trafficops/ep/docs/Appendix_G_\(WEB\).pdf](http://www.dot.ca.gov/trafficops/ep/docs/Appendix_G_(WEB).pdf). The "Encroachment Permit General Provisions" (TR-0045) and any other applicable Special Provisions and Conditions will be provided as part of the encroachment permit. Information about Stormwater requirements is available at the Internet address: <http://www.dot.ca.gov/hq/construc/stormwater/>.

The applicant understands an encroachment permit may be denied, revoked, and/or a bond may be required, for non-payment of prior or present encroachment permit fees. An encroachment permit is not a property right and does not transfer with the property to a new owner. Each of the persons purporting to execute this application on behalf of the applicant and/or on behalf of the applicant's authorized agent or engineer represents and warrants such person has full and complete legal authority to do so and to thereby bind applicant to the terms and conditions herein and to the terms and/or conditions of the encroachment permit. Applicant understands and agrees this application may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Executed copies of this application and/or its counterparts may be reproduced and/or exchanged by copy machine, mail, facsimile, or electronic means (such as e-mail), and such copies shall be deemed to be effective as originals.

28. NAME OF APPLICANT (Project or Property Owner or Organization) County of Ventura, Watershed Protection District			APR 05 2020
ADDRESS OF APPLICANT (Include City, State and Zip Code) 800 S. Victoria Avenue. #1610, Ventura, CA, 93009			OFFICE OF PERMITS
E-MAIL ADDRESS kirk.norman@ventura.org	PHONE NUMBER (805) 654-2017	FAX NUMBER	
29. NAME OF AUTHORIZED AGENT / ENGINEER (A "Letter of Authorization" is required if different from #28) Kirk Norman		IS A LETTER OF AUTHORIZATION ATTACHED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
ADDRESS OF AUTHORIZED AGENT / ENGINEER (Include City, State and Zip Code) 800 S. Victoria Avenue. #1610, Ventura, CA, 93009			
E-MAIL ADDRESS kirk.norman@ventura.org	PHONE NUMBER (805) 654-2017	FAX NUMBER	
30. NAME OF BILLING CONTACT (Same as #28 <input type="checkbox"/> Same as #29 <input checked="" type="checkbox"/>)			
BILLING ADDRESS WHERE INVOICE(S) IS / ARE TO BE MAILED (Include City, State and Zip Code)			
E-MAIL ADDRESS	PHONE NUMBER	FAX NUMBER	

* I hereby certify under penalty of perjury under the laws of the State of California that the information in this application and any document submitted with or in support of this application are true and correct to the best of my knowledge and belief, and that copies of any documents submitted with or in support of this application are true and correct copies of unaltered original documents. I further understand that if I have provided information that is false, intentionally incomplete, or misleading I may be charged with a crime and subjected to fine or imprisonment, or both fine and imprisonment. (Penal Code Section 72)

31. SIGNATURE OF APPLICANT OR AUTHORIZED AGENT* <i>Kirk Norman</i>	32. PRINT OR TYPE NAME Kirk Norman	34. DATE 3 / 4 / 2020
33. TITLE <i>Engineer Manager II</i>		

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT FEE CALCULATION SHEET
 TR-0406 (NEW 06/2015)

PERMIT NO:
720-ND0-1050

WORK ORDER/REFERENCE NUMBER:
85301

THIS PAGE IS FOR CALTRANS USE ONLY

☐ DEFERRED BILLING (Utility) ☒ EXEMPT ☐ PROJECT CODE (ID): _____

FEES

1.	REVIEW.....	_____	hours @	\$ 82.00 / hour =	\$ _____
	INSPECTION.....	_____	hours @	\$ 82.00 / hour =	\$ _____
	FIELD WORK.....	_____	hours @	\$ 82.00 / hour =	\$ _____
	EQUIPMENT AND MATERIALS.....	_____			\$ _____
	CALCULATED BY: _____	DATE: _____		AMOUNT: \$	_____
2.	REVIEW.....	_____	hours @	\$ 82.00 / hour =	\$ _____
	INSPECTION.....	_____	hours @	\$ 82.00 / hour =	\$ _____
	FIELD WORK.....	_____	hours @	\$ 82.00 / hour =	\$ _____
	EQUIPMENT AND MATERIALS.....	_____			\$ _____
	CALCULATED BY: _____	DATE: _____		AMOUNT: \$	_____
3.	REVIEW.....	_____	hours @	\$ 82.00 / hour =	\$ _____
	INSPECTION.....	_____	hours @	\$ 82.00 / hour =	\$ _____
	FIELD WORK.....	_____	hours @	\$ 82.00 / hour =	\$ _____
	EQUIPMENT AND MATERIALS.....	_____			\$ _____
	CALCULATED BY: _____	DATE: _____		AMOUNT: \$	_____
4.	REVIEW.....	_____	hours @	\$ 82.00 / hour =	\$ _____
	INSPECTION.....	_____	hours @	\$ 82.00 / hour =	\$ _____
	FIELD WORK.....	_____	hours @	\$ 82.00 / hour =	\$ _____
	EQUIPMENT AND MATERIALS.....	_____			\$ _____
	CALCULATED BY: _____	DATE: _____		AMOUNT: \$	_____

DEPOSITS

1.	<input type="checkbox"/> CHECK NUMBER: _____	NAME ON CARD/CHECK: _____			
	<input type="checkbox"/> CREDIT CARD	PHONE NUMBER: _____			
	<input type="checkbox"/> CASH	CASHIER'S INITIALS: _____	DATE: _____	AMOUNT: \$	_____
2.	<input type="checkbox"/> CHECK NUMBER: _____	NAME ON CARD/CHECK: _____			
	<input type="checkbox"/> CREDIT CARD	PHONE NUMBER: _____			
	<input type="checkbox"/> CASH	CASHIER'S INITIALS: _____	DATE: _____	AMOUNT: \$	_____
3.	<input type="checkbox"/> CHECK NUMBER: _____	NAME ON CARD/CHECK: _____			
	<input type="checkbox"/> CREDIT CARD	PHONE NUMBER: _____			
	<input type="checkbox"/> CASH	CASHIER'S INITIALS: _____	DATE: _____	AMOUNT: \$	_____
4.	<input type="checkbox"/> CHECK NUMBER: _____	NAME ON CARD/CHECK: _____			
	<input type="checkbox"/> CREDIT CARD	PHONE NUMBER: _____			
	<input type="checkbox"/> CASH	CASHIER'S INITIALS: _____	DATE: _____	AMOUNT: \$	_____
					TOTAL DEPOSITS: \$ _____
CASH DEPOSIT IN LIEU OF BOND		<input type="checkbox"/>	DATE: _____	AMOUNT: \$	_____
PERFORMANCE BOND		<input type="checkbox"/>	DATE: _____	AMOUNT: \$	_____
PAYMENT BOND		<input type="checkbox"/>	DATE: _____	AMOUNT: \$	_____
IS LIABILITY INSURANCE REQUIRED?			<input type="checkbox"/> YES <input type="checkbox"/> NO	AMOUNT: \$	_____

County of Ventura, Watershed Protection District

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EXHIBIT 3

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT FEE CALCULATION SHEET
TR-0406 (NEW 06/2015)

PERMIT NO:
07-20-N-DD-1053

THIS PAGE IS FOR CALTRANS USE ONLY

WORK ORDER/REFERENCE NUMBER:

☐ DEFERRED BILLING (Utility) ☒ EXEMPT ☐ PROJECT CODE (ID): _____

FEES

1.	REVIEW.....	62	hours @	\$ 82.00 / hour =	\$ 5,084
	INSPECTION.....	10	hours @	\$ 82.00 / hour =	\$ 820
	FIELD WORK.....		hours @	\$ 82.00 / hour =	\$
	EQUIPMENT AND MATERIALS.....				\$
	CALCULATED BY: VB	DATE: 11/25/2020		AMOUNT: \$	5,904
2.	REVIEW.....		hours @	\$ 82.00 / hour =	\$
	INSPECTION.....		hours @	\$ 82.00 / hour =	\$
	FIELD WORK.....		hours @	\$ 82.00 / hour =	\$
	EQUIPMENT AND MATERIALS.....				\$
	CALCULATED BY: _____	DATE: _____		AMOUNT: \$	
3.	REVIEW.....		hours @	\$ 82.00 / hour =	\$
	INSPECTION.....		hours @	\$ 82.00 / hour =	\$
	FIELD WORK.....		hours @	\$ 82.00 / hour =	\$
	EQUIPMENT AND MATERIALS.....				\$
	CALCULATED BY: _____	DATE: _____		AMOUNT: \$	
4.	REVIEW.....		hours @	\$ 82.00 / hour =	\$
	INSPECTION.....		hours @	\$ 82.00 / hour =	\$
	FIELD WORK.....		hours @	\$ 82.00 / hour =	\$
	EQUIPMENT AND MATERIALS.....				\$
	CALCULATED BY: _____	DATE: _____		AMOUNT: \$	

DEPOSITS

1.	<input type="checkbox"/> CHECK NUMBER: _____	NAME ON CARD/CHECK: _____			
	<input type="checkbox"/> CREDIT CARD	PHONE NUMBER: _____			
	<input type="checkbox"/> CASH	CASHIER'S INITIALS: _____	DATE: _____	AMOUNT: \$	
2.	<input type="checkbox"/> CHECK NUMBER: _____	NAME ON CARD/CHECK: _____			
	<input type="checkbox"/> CREDIT CARD	PHONE NUMBER: _____			
	<input type="checkbox"/> CASH	CASHIER'S INITIALS: _____	DATE: _____	AMOUNT: \$	
3.	<input type="checkbox"/> CHECK NUMBER: _____	NAME ON CARD/CHECK: _____			
	<input type="checkbox"/> CREDIT CARD	PHONE NUMBER: _____			
	<input type="checkbox"/> CASH	CASHIER'S INITIALS: _____	DATE: _____	AMOUNT: \$	
4.	<input type="checkbox"/> CHECK NUMBER: _____	NAME ON CARD/CHECK: _____			
	<input type="checkbox"/> CREDIT CARD	PHONE NUMBER: _____			
	<input type="checkbox"/> CASH	CASHIER'S INITIALS: _____	DATE: _____	AMOUNT: \$	

TOTAL DEPOSITS: \$ _____

CASH DEPOSIT IN LIEU OF BOND	<input type="checkbox"/>	DATE: _____	AMOUNT: \$	
PERFORMANCE BOND	<input type="checkbox"/>	DATE: _____	AMOUNT: \$	
PAYMENT BOND	<input type="checkbox"/>	DATE: _____	AMOUNT: \$	
IS LIABILITY INSURANCE REQUIRED?	<input type="checkbox"/> YES <input type="checkbox"/> NO		AMOUNT: \$	



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DISTRICT 7 DIVISION OF OPERATIONS
OFFICE OF PERMITS

ENCROACHMENT PERMITS SPECIAL PROVISIONS FOR PERMIT PROJECTS WITHIN STATE RIGHT-OF-WAY

ATTACHED TO AND MADE PART OF ALL ENCROACHMENT PERMITS

The attached District's Special Provisions are generalizations of the Department's policies, procedures, standards, and specifications. They are included only as a convenience to the permittee. It is permittee's responsibility to verify all requirements in the appropriate publications.

EFFECTIVE February 24, 2020
(Rev. 03202020)

GODSON K. OKEREKE, CHIEF, DISTRICT PERMIT ENGINEER

TABLE OF CONTENTS

<u>District 7 Special Provisions</u>	<u>Page</u>
Common Provisions	1
Annual Maintenance Permit Requirement	1
Electrical Systems – Lighting, Signal, and Other Facilities	1-2
Electrical – Detector Loops	2
Excavation – Non-Utility	2-3
Fiber Optic Cable (FOC)	3
Full-Time Inspector	3
Monitoring Wells	3
Special Events	3
Survey Monuments	4
Traffic Controls	5
Traffic Controls (Utility Aerials)	4-5
Utility Relocation Clause	5
 <u>Headquarters Special Provisions</u>	
Access Control and Temporary Safety Barrier Retaining Walls and Soundwalls	5
Advertising Displays	5-6
Air Space Development	6
Art Program	6
Banners and Decorations	6-7
Bus Passenger Shelters, Benches, and Pullouts – Advertising and Location	7
Cables/Geophysical Testing	7
Drainage – Roof and Surface	7-8
Driveway – Commercial	8
Driveway Reconstruction	8
Driveway – Single Family	8
Mail Box	8-9
Notification of Encroachment	9
Pedestrian Safety	9
Railroad Grade Crossing – Maintenance	9-10
Sidewalks	10
Traffic Counters	11
Traffic Striping, Markings, and Signs	11
Utility Leasing	11
Vibrio Generating Equipment	11
 <u>State of California, Department of Transportation TR Forms</u>	
General Provisions, TR-0045 (Rev. 01/2020)	12-16
H-Support Diagram for Aerial Crossings, TR-0108 (Rev. 03/2007)	17
Permit Survey Grid, TR-0151 (Rev. 09/2006)	18
Settlement Rod Detail, TR-0152 (Rev. 09/2006)	19
Trench Detail, TR-0153 (Rev. 11/2019)	20-21
Steel Plate Bridging Utility Provision, TR-0157 (Rev. 04/2018) – <i>Applicable to non-utilities</i>	22
Uncased High-Pressure Natural Gas Pipeline Special Provisions, TR-0158 (Rev. 04/2018)	23-24
Tree Pruning (Trimming) and Chemical Application, TR-0159 (Rev. 01/2018)	25-27
Annual Utility Provisions, TR-0160 (Rev. 10/2019)	28-29
Overhead Utility Provisions, TR-0162 (Rev. 12/2007)	30
Underground Utility Provisions, TR-0163 (Rev. 04/2018)	31-34
Tree Removal, TR-0171 (Rev. 01/2018)	35
Storm Water Special Provisions for Minimal or No Impact, TR-0400 (Rev. 05/2018)	36-37
Rolling Traffic Breaks, TR-0407 (Rev. 10/2017)	38
Hazardous Materials and Hazardous Waste Management, TR-0408 (Rev. 09/2017)	39

DISTRICT 7 SPECIAL PROVISIONS

COMMON PROVISIONS

1. If at any time, the permit is assigned by the permittee, assignee (typically, the Prime contractor) is required to obtain a valid Double Permit per procedures below.
Double Permit (DP) Procedures:
 - A. Assignee furnishes Caltrans with
 - a. a completed Standard Encroachment Permit Application,
 - b. a copy of this permit cover,
 - c. the indicated fees (inspection deposit + State furnished materials if required) as noted on this permit cover, and
 - d. a list of sub-contractors containing Company Names, Specialty, Name of Foreman or Superintendent, and Contact Phone Number.
 - B. A no-fee permit application for a Rider will be required to add additional sub-contractors not listed.
2. It is permittee's responsibility to furnish assignee(s) with a copy of the permit and all attachments; it is assignee's responsibility to have a copy of all associated permits at the jobsite and to present the permits upon requests from governing entities.
3. If a time extension is required, request is required 30-days in advance of the expiration date. Expired permits cannot be reactivated under any circumstance and the Department will not furnish advance warnings.
4. Caltrans is not a member of DigAlert and Caltrans underground facilities are not located by DigAlert. It is solely the permittee's responsibility to locate Caltrans facilities prior to commencing work. Existing underground installations (shown on contract plans or not) damaged by the permittee or assignee shall be replaced, restored in kind, or better at the permittee's expense.
5. When permittee's work falls within one of the provisions of Section 6500 of the Labor Code, the permittee must have a Cal-OSHA permit prior to starting permitted work.
6. American National Standards Institute (ANSI) compliant Class II vests and hard hats shall be worn while working within State's right of way. Workers working at night will be required to wear ANSI Class III warning garments. Class III compliance can be achieved by combining ANSI Class E pants worn with an ANSI Class II vest.
7. The State inspector has full authority to modify permit requirements as necessary to ensure public safety and to suspend permit due to poor workmanship, safeguarding the integrity of the highway facility.

ANNUAL MAINTENANCE PERMIT REQUIREMENT

1. Due to the encroachment installed within State right of way, the permittee is obligated to apply for a maintenance permit annually. The permittee can apply any time after construction is deemed complete.

ELECTRICAL SYSTEMS – LIGHTING, SIGNAL, AND OTHER FACILITIES

In addition to General Provisions, TR-0045, #7, your attention is directed towards the current Construction Manual Section 87 Electrical Systems.

1. All existing electrical systems shall always be protected.
2. All work involving installation or revision to the state's lighting, signal or electrical facilities, permittee shall notify the State Electrical Inspector, 7-day notice to schedule work.
3. Existing traffic signal systems shall be kept fully operational, minimizing inconvenience to the travelling public during construction. If traffic signal system shutdown is necessary, provide the State Electrical Inspector 10-day notice. There shall be no shutdowns or turn-ons on Fridays or any day before a holiday.
4. Permittee shall provide, any temporary wiring, signal equipment, or service connections required at their own expense, to keep the existing traffic signal system in effective operation duration modifications.
5. All equipment shall be new. Poles, signal heads, and safety lighting shall have Manufacturer's Certificate of compliance conforming to State Standard Specification.
6. A completed form DC-CEM-3101 "Notice of Materials to be Used" shall be provided to the State Electrical Inspector for all signal poles, sign poles, light poles, mast arms, BBS, LED's, overhead signs, and other items as directed.
7. Welding operations for overhead sign and pole structures requires satisfactory completion of the Department's "Manufacturing Qualification Audit for Overhead Sign and Pole Structures," and must be listed as having a current audit. Audits are available at:

<https://mets.dot.ca.gov/afl/AuditedFacilitiesList.php>

8. The face of any pole shall not be placed closer than 2-feet from any curb face. Final location of any pole shall be approved by the State Electrical Inspector in the filed prior to installation.
9. All standards (Poles, Mast Arms, Luminaries and Signal Heads) in or near the proximity of any high voltage lines shall meet current CAL/OSHA Electrical Safety Orders.
10. There shall be no official turn-on of any traffic signal until all appurtenances/equipment are properly installed, tested, and approved by the State Electrical Inspector. All associated pavement delineations/markings shall be placed, temporary traffic controls removed, mechanical fittings completed, and all holes filled prior to a signal turn-on.
11. Signal and/or street lighting facilities shall be relocated prior to starting road work in the area.
12. Accidental damages, repairs shall be made within 10-days from the date of incident. If it deemed a threat to public health and safety, repairs shall commence immediately. All repairs are the responsibility of the permittee at no cost to the State.
13. When applicable, the permittee shall furnish the power company's approved construction plan for the power source to the electrical meter cabinet. Construction cannot commence without the approved plan.

ELECTRICAL – DETECTOR LOOPS

1. Prior to commencement of work, if loop detectors are to be damaged, a 7-day notice shall be provided to the State Electrical Inspector to arrange modifications to traffic signal operations. Work shall not commence without State Electrical Inspector approval.
2. Permittee shall provide, any temporary wiring, signal equipment, or service connections required at their own expense, to keep the existing traffic signal system in effective operation duration modifications.
3. All traffic loop detector installations shall have a minimum depth of 3.5-inches for existing pavement and 5-inches for new pavement. Type II wire with hot-melt rubber sealant shall be used. Type E, 6-Inch diameter loops shall be used.
4. Accidental damages, repairs shall be made within 10-days from the date of incident. If it deemed a threat to public health and safety, repairs shall commence immediately. All repairs are the responsibility of the permittee at no cost to the State.
5. Interconnect cables cannot be spliced; new continuous cable of the same type shall be installed between controllers, when damaged.
6. There shall be no official turn-on of any traffic signal until all appurtenances/equipment are properly installed, tested, and approved by the State Electrical Inspector. All associated pavement delineations/markings shall be placed, temporary traffic controls removed, mechanical fittings completed, and all holes filled prior to a signal turn-on.

EXCAVATION – NON-UTILITY

1. If, at the end of the working day, backfilling operations have not been properly completed, steel plate bridging must be required to make the entire highway facility available to the traveling public in accordance with the "Steel Plate Bridging Special Provisions" (TR-0157).
2. PCC pavement to be removed must be saw cut at a minimum depth of 4-inches to provide a neat and straight pavement break along all sides of the excavation. AC pavement must be saw cut to the full depth.
3. Where the edge of the excavation is within 2-foot of existing curb and gutter or pavement edge, the asphalt concrete pavement between the excavation and the curb or pavement edge must be removed.
4. When the permit authorizes excavation, surfacing and base materials and thickness thereof must be as specified in the permit.
5. Sides of excavations in paved areas must be kept as nearly vertical as possible. Excavation widths shall be limited to what is required and shall be of sufficient width to accommodate shoring, if needed.
6. Where it is necessary to excavate under existing curb and gutter, or underground facilities, the void must be backfilled with 2-sack cement-sand slurry.
7. All backfilling must conform to the applicable sections of the Department's Standard Specifications. Ponding or jetting methods of backfilling are prohibited.
8. Any required compaction tests must be performed by a certified laboratory at no cost to the Department and the laboratory report furnished to the Department's representative.
9. No excavation shall be left open after daylight hours unless specifically authorized and adequate protection for traffic is provided in accordance with General Provisions, TR-0045, #14.

10. Repairs to PCC pavement must be made of Portland Cement Concrete containing a minimum of 658 lbs. or 7-sack of cement per cubic yard. Replaced PCC pavement must equal existing pavement thickness. The concrete must be satisfactorily cured and protected from disturbance for not less than 48-hours. Where necessary to open the area to traffic, no more than 2% by weight of calcium chloride may be added to the mix and the road opened to traffic after 6-hours.
11. Temporary repairs to pavements must be made and maintained upon completion of backfill until permanent repairs are made. Permanent repairs to pavements must be made within 30-days of completion of backfill unless otherwise specified by the Department. Temporary pavement patches must be placed and maintained in a smooth riding plane free of humps and/or depressions.
12. Tree roots 3-inches or larger in diameter will not be cut within the tree drip line when excavating adjacent to roadside trees. If such roots are encountered, they must be tunneled under, wrapped in burlap and kept moist until the trench is backfilled. Trenching machines may not be used under trees if the trunk or limbs will be damaged by their use.
13. No earth or construction materials are to be dragged or scraped across the highway pavement, and no excavated earth placed or allowed to remain at a location where it may be tracked onto the highway traveled way, or any public or private approach by the permittee's construction equipment, or by traffic entering or leaving the highway traveled way. Any excavated earth or mud so tracked onto the highway pavement or public or private approach must be immediately removed by the permittee.

FIBER OPTIC CABLE (FOC)

1. Pothole and positively identify the fiber optics cable (FOC) before any excavation work to ensure that the excavation area is clear of any FOC.
2. In the event the fiber optics cable (FOC) is damaged, temporary fusion splicing will be required within 24-hours to restore the damaged cable, and the permittee shall replace the FOC from vault to vault at the permittee's expense within 14-days.
3. Permittee shall pay for any temporary wiring or service connections required to keep the existing traffic signal system in effective operation during modifications.

FULL-TIME INSPECTOR

1. If a full-time Civil Inspector is required; the permittee is required to provide a full-time inspector who has a minimum of 5-years field experience to oversee the entire works under this permit. A minimum of 2-weeks prior to the start of work, permittee's Civil Inspector shall submit his/her resume for review and arrange an interview with State Inspector(s). Please note that Caltrans reserves the right to reject or disqualify the appointed inspector if he/she shows low performance on the job or fails to comply with State requirements.

MONITORING WELLS

1. Access to temporary well(s) shall be from a local road or private property. The intent of this requirement is for service vehicles to park outside the State right-of-way.
2. Permittee shall not discharge treated groundwater or effluent into the State drainage systems without prior written authorization documenting the exception.
3. Temporary conduits or pipelines through culverts is prohibited, a separate permit is required to install an independent conduit or pipeline.
4. If the governing water quality control board requires monitoring beyond the initial 5-year permit duration, the permittee shall apply for a new well permit every 5-years, as needed.
5. A performance bond shall be kept active throughout the life of the well, a new bond will be required with each 5-year re-application.
6. When the governing water quality control board allows well termination, the permittee shall apply for a well abandonment permit with abandonment plans and a copy of the well status determination from the governing water quality control board.

SPECIAL EVENTS

1. If rain, fog, or other elements significantly affect safety for event participants or vehicular traffic, Caltrans may take whatever action is necessary to protect the public. Also, if for some unforeseen reason the traffic demand for the State facility significantly exceeds the anticipated demand, it may be necessary to terminate the event.

SURVEY MONUMENTS

- 1 Your attention is directed to Standard Specification, Section 5-1.36 Property and Facility Preservation, and Business and Professions Code, Section 8771. Permittee must physically inspect the work site and locate survey monuments before work commencement. Monuments that might be disturbed must be referenced or reset in accordance with Business and Professions Code.
- 2 If feasible, monuments should not be set within the traveled way. All monuments that must be set or perpetuated in paved surfaces, must be constructed in accordance with Caltrans Standard Specification Section 78-2 'Survey Monuments' and Standard Plan A74, Type D, or equal with prior approval of the District Surveys Engineer.
- 3 Copies of Corner Records or Record of Surveys recorded in compliance with the Business and Professions Code must be forwarded to the District Surveys Engineer.

TRAFFIC CONTROLS

- 1 All traffic control devices shall be compliant with the current California Manual on Uniform Traffic Control Devices (CAMUTCD).
- 2 A Class C-31 (Construction Zone Traffic Control Contractor) license, as defined by the California Business and Professions Code and the California code of Regulations, is required to perform lane and ramp closures on State highways and freeways. Other Classes are restricted to sidewalk and shoulder closures only.
- 3 Except for installing, maintaining, and removing traffic control devices, whenever work is performed, or equipment is operated in the following work areas, the permittee shall close the adjacent traffic lane unless otherwise provided in the permit:

Approach speed (posted limit)

Over 45 mph

45 mph and Under

Work Areas

Within 6-feet of a traffic lane

Within 3-feet of a traffic lane

- 4 No traffic controls shall be allowed during rainy, foggy or inclement weather.
- 5 Unless noted in the permit or otherwise authorized by the State Inspector, the normal working hours of permitted traffic control shall be limited between 9:00 a.m. and 3:00 p.m., Monday through Friday.
- 6 No traffic controls shall be allowed on designated legal holidays. Designated legal holidays are typically as follows: January 1, the third Monday in January, the third Monday in February, the last Monday in May, July 4, the first Monday in September, November 11, the fourth Thursday in November and December 25.
- 7 Traffic controls shall be maintained in good standing continually throughout each work day.
- 8 Ramp closure requires 7-day advance public notification notice prior to actual closure date or as directed by the State Inspector. Message shall be approved by the State Inspector.
- 9 Permittee shall obtain a Closure ID and Log number from the State Inspector. Permittee shall notify the State Inspector and the Traffic Management Center (TMC) by telephone at (323) 259-2352 immediately prior to a lane/ramp closure. Inform Caltrans' dispatcher the "10-97" closure number before closure installation, and the "10- 98" closure number after closure and all signs have been removed with lane/ramp opened to traffic. Permittee should also provide the Caltrans' dispatcher with an on-site phone number where information regarding this permit may be readily obtained during the closure period.
- 10 Existing traffic signals and highway lighting shall be kept in operation during progress of the work.
- 11 If a transit stop is located within the construction work area, the permittee is responsible for contacting the Transit Agency to arrange a temporary stop elsewhere.

TRAFFIC CONTROLS (UTILITY AERIALS)

1. Wires, cables, or conductors may not be pulled over moving traffic at any time unless a suitable safety net has been installed, refer to TR-0108.
2. The permittee will pay all costs incurred by the District for scheduled work unless the State inspector receives a cancellation notice 24-hours in advance of the scheduled date.
3. ***FREEWAY***
 - a. Installation or removal shall be on Sunday mornings between day break and 8:00 a.m., unless otherwise authorized by the State inspector.
 - b. Aerial crossings made with traffic breaks, breaks shall be performed by the California Highway Patrol (CHP) with a minimum of two CHP vehicles or as otherwise directed by CHP and/or the State inspector.

- c. Traffic break durations shall not exceed 5-minutes at any one time, thereafter, a minimum period of 10-minutes shall be provided to minimize queuing.
 - d. If the permit is accompanied with an approved temporary traffic control plan, there shall be no deviations unless authorized by the State inspector in writing.
4. **CONVENTIONAL HIGHWAY**
- a. Installation or removal shall be made on weekdays between 9:00 a.m. and 11:00 a.m., unless otherwise authorized by the State inspector.
 - b. Traffic may be stopped by competent flagmen with the installation of traffic control signs and devices compliant with the current California Manual of Uniform Traffic Control Devices (CAMUTCD) and/or Standard Plan.
 - c. Traffic shall not be delayed for periods greater than 5-minutes at any one time, thereafter, a minimum period of ten-minutes shall be provided to minimize queuing.

UTILITY RELOCATION CLAUSE

1. **PERMITS FOR LOCAL AGENCY PROJECTS CONSTRUCTED BY ENCROACHMENT PERMIT WITHOUT A COOPERATIVE AGREEMENT:** If existing public or private utilities conflict with the construction project, Permittee will make necessary arrangements with the owners of such utilities for their protection, relocation, or removal. Permittee must inspect the protection, relocation, or removal of such facilities. Total costs of such protection, relocation, or removal that must be legally paid, will be borne by Permittee. If any protection, relocation, or removal of utilities is required, including determination of liability for cost, such work must be performed in accordance with State policy and procedure. Permittee must require any utility company performing relocation work within the State right-of-way to obtain a State Encroachment Permit before the performance of said relocation work. Any relocated utilities must be correctly located and identified on as-built plans.
2. **PERMITS FOR DEVELOPER PROJECTS BEING CONSTRUCTED WITHOUT A HIGHWAY IMPROVEMENT AGREEMENT:** If existing public or private utilities conflict with the construction project, Permittee will make necessary arrangements with the owners of such utilities for their protection, relocation, or removal. Permittee must inspect the protection, relocation, or removal of such facilities. Total costs of such protection, relocation, or removal must be borne by Permittee in compliance with the terms of the Highway Encroachment Permits, Case Law, Public Utility Regulations, and Property Rights. Permittee must require any utility company performing relocation work within the State right-of-way to obtain a State Encroachment Permit before the performance of said relocation work.

HEADQUARTERS SPECIAL PROVISIONS

ACCESS CONTROL AND TEMPORARY SAFETY BARRIER RETAINING WALLS AND SOUNDWALLS:

1. A temporary 6-feet high access control fence shall be provided before removing the existing fence. Existing fence fabric shall be salvaged and delivered to the nearest State facility as directed by the State's representative at no cost to the State. The remaining access control fence shall be tied to the wall.
2. Fence posts are to be removed completely and the holes backfilled with compacted earthen material.
3. Access to the worksite from the freeway is prohibited.
4. Any material stored at the worksite within 30-feet of the traveled way when work is not in progress shall be protected by Type K barrier railing placed at a 20:1 taper or as otherwise directed by the State's representative.
5. Any Type K barrier placed within 10-feet of the traveled way shall have one appropriate reflective marker affixed to the top of each section. A Type "P" object marker shall be installed in front of the approach end section. The end section shall also be protected by a temporary crash cushion array.

ADVERTISING DISPLAYS:

1. **GENERAL**
 - a. Signs, Marquees and Awnings overhanging State highway right of way (R/W) shall comply with the requirements of the applicable local agency, the latest edition of the Uniform Building Code (UBC) or these special provisions, whichever is the higher standard.
2. **SIGNS**
 - a. Vertical Clearance: The minimum clearance of signs from the sidewalk shall be 12-feet.

- b. Codes: Must be structurally adequate and conform to applicable building code and Caltrans' Outdoor Advertising Regulations.
 - c. Location: Support shall be off the right of way. The overhang shall be at least 2-feet behind the curb line. If no curbs are in place, the signs should be placed so that some physical barrier prevents them from being struck.
 - d. Advertising: The wording on the sign may only identify either the owner, the goods sold or manufactured on the premises or the services rendered.
 - e. Lights: No flashing, rotating or intermittent lights shall be allowed except approved public service information. Signs that contain red, yellow, or green lights shall not be permitted where they could interfere with the driver's perception of traffic signals.
 - f. No displays shall interfere with or hide traffic signals or traffic signs.
 - g. Any future change of copy or location must be covered by a separate permit.
3. MARQUEES
- a. The horizontal clearance between a marquee and the curb line shall not be less than 2-feet.
 - b. The minimum vertical clearance from the sidewalk shall be 12-feet.
 - c. A marquee shall be supported entirely by the building.
 - d. Any drainage from the marquee shall not fall on or drain across the sidewalk.
4. AWNINGS
- a. An awning is a temporary shelter supported entirely from the exterior wall of a building.
 - b. Awnings may identify the owner or place of business.

AIR SPACE DEVELOPMENT:

- 1. Column Protection: shall be lumber at least 2-inches nominal thickness and at least 4-inches nominal width with 2-inches maximum clear space between pieces. The lumber shall be strapped to columns with a minimum of 3-galvanized steel bands. The bottoms of the pieces of lumber shall be 2-feet or less above the ground and tops 8-feet minimum above the ground.
- 2. Fencing: a standard 6-feet high chain link fence may be installed around the perimeter of the leasing area with gate(s) as designated. Security may be enhanced by the installation of vertical brackets on the fence posts and attaching 3-strands of barbed wire to the brackets. THE USE OF RAZOR RIBBON COILS ATOP THE FENCE IS PROHIBITED.
- 3. The improvements shall not be occupied by the leasee until all work is completed to the satisfaction of the State and a notice of completion has been issued to the permittee.
- 4. Upon completion of the work, the permittee shall submit one set of film positive reproducible, either matte or clear, "As-Built" plans to the District Permit Engineer.

ART PROGRAM:

- 1. Artwork located within State right of way will be considered a gift to the people of California.
- 2. Caltrans reserves the right to reproduce the artwork for publicity type purposes.
- 3. No commercial advertising on State right of way is allowed. Any identification of the donor or sponsor must have prior approval by Caltrans.
- 4. The permittee must maintain the integrity of the artwork until further notice. The permittee agrees to remove the artwork if so ordered by Caltrans.
- 5. The permittee shall abide by Caltrans' safety rules and regulations, including traffic control.

BANNERS AND DECORATIONS:

- 1. BANNERS
 - a. The banners shall not contain private advertising nor be of a political nature.
 - b. The lower edge of the banners shall be at least 18-feet above the highway pavement at its closest point.
 - c. Suspension or installation on State owned traffic signal poles or other State-owned facilities is prohibited.
 - d. Local police shall provide traffic control while banner is being installed or removed.
 - e. The display may not be in place more than two weeks prior to the event and shall be immediately removed after the, event.
- 2. HOLIDAY DECORATIONS

- a. Installation of Holiday decorations shall not begin prior to the day after Thanksgiving Day.
- b. Decorations attached to vertical structures such as power, telephone, or light poles, are not to project beyond the curb line and shall not hang below a height of 14-feet. Decorations which project beyond the curb line or cross the highway shall have a minimum vertical clearance of 18-feet.
- c. Decorations shall not be attached to State owned poles.
- d. Decorative lighting displaying red, yellow, or green lights shall not be placed where they could interfere with the driver's perception of traffic signals.

BUS PASSENGER SHELTERS, BENCHES, AND PULLOUTS – ADVERTISING AND LOCATION:

1. Advertising displays on bus passenger shelters or benches may not be within 660' of and visible from any Federal Aid Interstate or Primary highway. Advertising displays shall only be placed at approved passenger loading areas. The advertising displays must not extend beyond the exterior limits of the shelter or bench. Advertising shall not exceed 2-display panels per shelter or bench.
2. Bus passenger shelters and benches shall be located a minimum of 2-feet behind the face of curb, with a minimum of 4-feet width of walkway available.
3. All pavement shall be saw cut prior to removal.
4. Pavement markings obliterated shall be replaced in kind by permittee.
5. No telephone installations are authorized by this permit.

CABLES/GEOPHYSICAL TESTING:

1. The shear wave method of geo-physical testing is prohibited.
2. Cables shall not be left on the roadbed overnight.
3. Personnel working within the right of way shall wear orange colored outer garments and hard-hats.
4. No equipment shall be parked on or operated on the traveled way except for normal legal travel.
5. No holes shall be drilled, and no blasting shall be conducted on State right of way.
6. On overcrossing structures, cables shall be placed within 6-inches of curb face.
7. No equipment, work, or personnel shall be allowed within access-controlled rights of way except for personnel and cable necessary to place cable crossings required for continuity. Cable shall cross access-controlled rights of way in culverts or at crossing structures if available within 500-feet of proposed crossing. Any drainage channel shall not be disturbed.
8. Cables shall be placed as close to the right of way line as practical.
9. Cable shall be securely attached to the traveled way by taping. No nails, spikes or other material shall be driven into the pavement.
10. No paint shall be placed upon highway pavements, signs or markers. If pavement markings are necessary, traffic tape, chalk or crayon shall be used. All tape, stakes and other obvious markers shall be removed upon completion of permitted work.
11. All mud, dirt or gravel tracked onto the highway pavement shall be immediately and completely removed.
12. Any ruts or other damage to unpaved shoulder areas caused by driving or operating equipment on soft shoulders shall be repaired immediately.
13. Should any deviation from these procedures be observed, all work shall be suspended until satisfactory steps have been taken to insure compliance.
14. Except as specifically provided herein, all requirements of the vehicle code and other applicable laws must be complied with in all particulars.
15. Work shall be limited to normal working hours unless otherwise specifically authorized on the permit. Permittee will be required to deposit an amount equal to four-hours minimum of overtime per day for inspection charges, if work is permitted beyond normal working hours, weekends or holidays.

DRAINAGE – ROOF AND SURFACE:

1. Drains must be restricted to the exclusive purpose of draining rain water from the roof of permittee's building and/or paved parking lot. Drains if used for any other purpose, such as draining waste water or domestic supply water into the highway, will not be authorized. Drains shall be installed at right angles to the curb line unless otherwise authorized.

2. Removal of PCC Sidewalks or Curbs: Concrete sidewalks or curbs shall be saw cut to the nearest score marks and replaced equal in dimension to that removed with score marks matching existing adjacent sidewalk or curb.
3. After pipe drains are installed, curb and sidewalk shall be replaced with Portland Cement Concrete in accordance with State Standard Specifications.

DRIVEWAY – COMMERCIAL:

1. Asphalt Concrete or PCC pavement shall be saw-cut at conform location.
2. Excavations made within the limits of the right of way shall be backfilled before leaving the work for the night unless otherwise authorized by State's representative. After backfilling, temporary surfacing shall be placed if required by State's representative.
3. The permittee shall contact State's representative before placing structural section materials for the roadway pavement.
4. The approach fill area shall slope away from the highway pavement or improved shoulder and shall be so constructed as to avoid any flowing water reaching the traveled way and to avoid pocketing or ponding of water.
5. If not shown on project plans, the road approach or driveway shall conform to the "Design Guidelines for Typical Rural Driveways in State Right of Way".

DRIVEWAY RECONSTRUCTION:

1. Where reconstruction requires removal of existing asphalt concrete pavement, it shall be either saw-cut before removal or removed by grinding.
2. Existing drainage shall not be impaired.

DRIVEWAYS – SINGLE FAMILY:

1. RURAL LOCATIONS
 - a. The driveway shall be surfaced with a minimum of 3-inches of asphalt concrete placed on 6" of well graded and compacted aggregate base and shall conform to the existing pavement.
 - b. Existing drainage shall not be impaired. Either a valley gutter or a culvert shall be provided.
 - c. Where a culvert is installed, it shall be installed in the flowline of the existing drainage ditch at a slope to provide maximum drainage.
 - d. A standard tapered end section shall be installed at the inlet and outlet of the culvert.
 - e. Any change in the existing drainage pattern, whether occasioned by increase or diversion, and the cost of any damage, repair or restoration of the State highway right of way shall be the responsibility of the permittee.
 - f. Driveway installation shall conform to the attached plan, "Design Guidelines for Typical Rural Driveways in State Right of Way".
2. URBAN LOCATIONS
 - a. Where curbs exist, the driveway structural section shall be a minimum of 4-inches of Portland Cement Concrete (PCC) over 6-inches of aggregate base.
 - b. Driveway details shall comply with State standards unless local standards exceed the State's.
 - c. Any existing utility boxes must be either relocated or adjusted to grade at the permittee's expense.
 - d. Removal of PCC Sidewalks or Curbs: sidewalks or curbs shall be saw cut to the nearest score marks and replaced equal in dimension to that removed with score marks matching existing adjacent sidewalk or curb.

MAIL BOX:

1. LOCATION
 - a. Whenever possible, mailboxes shall be located outside State highway right of way (R/W).
 - b. Mailboxes may be located inside State Highway right of way in compliance with AASHTO's "Roadside Design Guide", 3rd Edition, Chapter 11 "Erecting Mailboxes on Streets and Highways". (A copy can be found in Appendix H of the Encroachment Permits Manual)
 - c. Coordination with the local postmaster is required to determine the exact site.

- d. In areas where curbs or dikes exist, mailboxes shall be located no closer than 1' behind the face of curb or dike to face of box.

2. INSTALLATION

- a. Installation shall be as shown in the "Roadside Design Guide".
- b. Mailboxes supported by structures such as masonry columns, railroad rails and ties, tractor wheels, plow blades, concrete filled barrels are strictly prohibited.
- c. Postmaster approved, neighborhood delivery and collection box units (NDCBU) shall be installed in a location where they will not pose a hazard to errant vehicles.
- d. Request for exceptions must follow the exception process described in Chapter 300 of the Encroachment Permits Manual.

NOTIFICATION OF ENCROACHMENT:

When highway or ramp closures, detours, and work with significant traffic impacts occur, use paragraphs 1, 2, and 3.

Media Notification for Special Events (SE):

1. Permittee shall verify to State's representative that local or regional media, including radio, television or newspapers serving the area affected by the special event, have been notified by letter or press release format. Media contact must allow sufficient time for print or broadcast two days prior to the permitted activity. Letter or press release shall include date, time, location, duration, permitted activity, and identify detours for impacted State highways and local roads.

Highway Signing for Special Events (SE):

Public Notification Signs

2. Permittee shall place public notification signs at locations designated on the approved signing plan a minimum of 7-calendar days before the activity begins. Signs shall be constructed and installed to Caltrans specifications and standards.

Detour Signs

3. Permittee shall place detour signs prior to the permitted activity in accordance with State Standard Specifications.

**When encroachment activities create significant traffic impacts use paragraph 4 for local agency notification.*

Local Agency Notification

4. Permittee shall make written notice to, and coordinate with, local emergency services, law enforcement agencies and public road departments 7-calendar days prior to the scheduled permitted activity. Letter copies shall be provided to the State's representative to evidence contacts.

**When special event (SE) encroachments create significant traffic impacts use paragraph 5 for CHP notification.*

CHP Notification

5. Permittee shall make written notice to, and coordinate with, CHP 7-calendar days before encroachment activities are scheduled. Letter copies shall be provided to the State's representative to evidence contacts.

PEDESTRIAN SAFETY:

1. When the work area encroaches upon a sidewalk, walkway, or crosswalk area, special consideration must be given to pedestrian safety. Protective barricades, fencing, handrails and bridges, together with warning and guidance devices and signs must be utilized so that the passageway for pedestrians, especially blind and other physically handicapped, is safe and well defined and shown on the approved permit plan.
2. Pedestrian walkways and canopies within State Right of Way shall comply with the requirements of the applicable local agency or of the latest edition of the Uniform Building Code whichever contains the higher standards

RAILROAD GRADE CROSSING – MAINTENANCE:

1. This permit does not authorize work on freeways, expressways or other activities not specifically provided for in this permit.

2. Work that reduces the vertical clearance over highways or changes the load carrying capacity of structures is not authorized by this permit.
3. Railroad work shall conform to Railroad, and applicable California Public Utilities Commission standards. Work affecting State highway facilities shall conform to current Caltrans standards.
4. Permittee may control or alter the flow of highway traffic only if absolutely necessary for public safety or to prevent a serious interruption of railroad service. Traffic control shall conform to Caltrans Traffic Control Systems published in the current State Standard Plans.
5. No excavation within 30-feet of the traveled way shall be left open after daylight hours, unless specifically authorized and adequate protection of traffic is provided in accordance with the General Provisions "Protection of Traffic." Backfill and highway paving shall conform to Standard Specifications and the General Provisions.
6. Routine maintenance taking place from the State highway shall be conducted between 9 a.m. and 3 p.m. or as directed by the State representative.
7. Methods of installation and time of work for replacing aerial lines for railroad communication shall be approved by the State representative.

SIDEWALKS:

1. A State issued permit is required for any landscaping or tree installation, including installation of tree wells.
2. A separate permit must be obtained from Caltrans for any driveway, handicap-ramp installations or any sidewalks that are other than Portland Cement Concrete constructed in compliance with Caltrans Standard Specifications.
3. Traffic control is authorized only between 9 a.m. and 3 p.m., Monday through Friday, holidays excluded. Any traffic control that requires lane closure shall be in compliance with the appropriate traffic control plan. Where required by the plan, the use of a flashing arrow board is MANDATORY.
4. New curb and gutter installations shall be State Standard Type A2-6, unless necessary to conform to existing adjacent curb and gutter installations.
5. The minimum width of a sidewalk should be 8-feet between a curb and a building when in urban and rural main street place types. For all other locations the minimum width of sidewalk should be 6-feet when contiguous to a curb or 5-feet when separated by a planting strip.
6. Alignment and grade of gutter and sidewalk shall match the existing.
7. Existing concrete curb and paved shoulder shall be saw cut to a neat line prior to excavating and forming. Existing concrete sidewalk shall be saw cut at the score line. Paved shoulder shall be replaced with asphalt concrete paving material equal "in kind" and thickness to existing shoulder and shall conform to lip of new curb and gutter.
8. Permittee shall be responsible for the relocation or adjustment of any utility required as the result of work authorized by this permit, and utility relocation shall be completed prior to the installation of any new curb, gutter or sidewalk.
9. A monolithic pour of sidewalk and curb and gutter shall not be permitted.

SPECIAL EVENTS:

1. In accordance with subdivision (a) of Streets and Highways Code section 682.5, the Department is not responsible for the conduct or operation of the permitted activity, and the applicant agrees to defend, indemnify, and hold harmless the State, the Department, and the Directors, officers, employees, agents, and contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind and description arising out of any activity for which this encroachment permit is issued.
2. The permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act in the conduct of the event, and further agrees to defend, indemnify, and save harmless the State and the Department, and the Directors, officers, and employees of the State and/or Department, including but not limited to the Director of the Department and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind and description arising out of or by virtue of the Americans with Disabilities Act.

TEMPORARY STRUCTURAL SUPPORTS – TIEBACKS:

1. Permanent tiebacks are prohibited. Tiebacks shall not be used to support the completed structure.

2. The tieback wall shall be monitored during construction to determine any lateral movement.
3. Soldier beams may remain in place providing they are cut off 3' below ground surface and the holes backfilled as directed.

TRAFFIC COUNTERS:

1. Personnel installing or removing traffic counters shall wear an orange colored outer garment and a hard hat.
2. Traffic counters installed on freeway ramps shall be located at the curb return as near as possible to the local street intersection.
3. Counter tubes shall be securely attached to the pavement by taping. No nails, spikes or other material shall be driven into the pavement except to secure the tube at the outside edge of shoulder, at the lip of a gutter, or in the center line stripe.
4. A copy of the collected data shall be sent to the Caltrans District Permit Engineer via the State Inspector.

TRAFFIC STRIPING, MARKINGS, AND SIGNS:

1. Traffic striping, pavement markings and signs shall be furnished and placed by the permittee and the cost shall be borne by the permittee. Where new asphalt concrete has been placed, painted striping and pavement markings shall be installed within 24-hours. Where shown on the plans, after 30-days curing time, thermoplastic materials shall be applied in compliance with Section 84 of the Standard Specifications.
2. Roadside signs shall be placed at locations shown on the permit plans and shall be installed in compliance with the latest edition of Caltrans Standard Plans.
3. Permittee shall furnish to State's representative a completed Form CEM-3101 "Notice of Materials to be Used," and approval of the material used shall be obtained prior to its installation.

UTILITY LEASING:

1. Leasing all or part of the longitudinal utility encroachment is prohibited. Encroachment includes but is not limited to: utilities, carrier pipes, casings, conduits, poles, etc.

VIBRIO GENERATING EQUIPMENT:

1. Equipment shall not be operated on any pavement or other paved surface.
2. Equipment shall not be operated within access-controlled rights of way.
3. Equipment shall be placed and operated as close to the right of way line as possible.
4. Equipment shall be operated so that no damage will occur to trees, plants, wells, culverts, headwalls, structures or other improvements.
5. This permit does not authorize the shear wave method.
6. Equipment shall not be parked on or operated on the traveled way except for normal legal travel.
7. Personnel working within the State right of way shall wear hard hats and orange jackets, shirts or vests.
8. All mud, dirt or gravel tracked onto the highway pavement shall be immediately and completely removed.
9. Dirt areas within the State right of way disturbed by Geophysical testing operations shall be graded back to its original shape and grade

ENCROACHMENT PERMIT GENERAL PROVISIONS

TR-0045 (REV 01/2020)

1. **AUTHORITY:** The California Department of Transportation ("Department") has authority to issue encroachment permits under Division 1, Chapter 3, Article 1, Sections 660 through 734 of the Streets and Highways Code.
2. **REVOCATION:** Encroachment permits are revocable on five (5) business days' notice unless otherwise stated on the permit and except as provided by law for public corporations, franchise holders, and utilities. Notwithstanding the foregoing, in an emergency situation as determined by the Department, an encroachment permit may be revoked immediately. These General Provisions and any applicable Special Provisions are subject to modification or abrogation by the Department at any time. Permittees' joint use agreements, franchise rights, reserved rights or any other agreements for operating purposes in State of California ("State") highway right-of-way may be exceptions to this revocation.
3. **DENIAL FOR NONPAYMENT OF FEES:** Failure to pay encroachment permit fees when due may result in rejection of future applications and denial of encroachment permits.
4. **ASSIGNMENT:** This encroachment permit allows only the Permittee or Permittee's authorized agent to work within or encroach upon the State Highway System, and the Permittee may not assign this permit.
5. **ACCEPTANCE OF PROVISIONS:** Permittee understands and agrees to accept and comply with these General Provisions, the Special Provisions, any and all terms and/or conditions contained in or incorporated into the encroachment permit, and all attachments to the encroachment permit (collectively "the Permit Conditions"), for any encroachment, work, and/or activity to be performed under this encroachment permit and/or under color of authority of this encroachment permit. Permittee understands and agrees the Permit Conditions are applicable to and enforceable against Permittee as long as the encroachment remains in, under, or over any part of the State Highway System.
6. **BEGINNING OF WORK:** When traffic is not impacted (see General Provision Number 35), the Permittee must notify the Department's representative two (2) business days before starting permitted work. Permittee must notify the Department's representative if the work is to be interrupted for a period of five (5) business days or more, unless otherwise agreed upon. All work must be performed on weekdays during regular work hours, excluding holidays, unless otherwise specified in this encroachment permit.
7. **STANDARDS OF CONSTRUCTION:** All work performed within State highway right-of-way must conform to all applicable Departmental construction standards including but not limited to: Standard Specifications, Standard Plans, Project Development Procedures Manual, Highway Design Manual and Special Provisions. Other than as expressly provided by these General Provisions, the Special Provisions, the Standard Specifications, Standard Plans, and other applicable Departmental standards, nothing in these General Provisions is intended to give any third party any legal or equitable right, remedy, or claim with respect to these General Provisions or any provision herein. These General Provisions are for the sole and exclusive benefit of the Permittee and the Department. Where reference is made in such standards to "Contractor" and "Engineer," these are amended to be read as "Permittee" and "Department's representative," respectively, for purposes of this encroachment permit.
8. **PLAN CHANGES:** Deviations from plans, specifications, and/or the Permit Conditions as defined in General Provision Number 5 are not allowed without prior approval from the Department's representative.
9. **INSPECTION AND APPROVAL:** All work is subject to monitoring and inspection. Upon completion of work, Permittee must request a final inspection for acceptance and approval by the Department. The local public agency Permittee must not give final construction approval to its contractor until final acceptance and approval by the Department is obtained.
10. **PERMIT AT WORKSITE:** Permittee must keep the permit package or a copy thereof at the work site at all times and must show it upon request to any Department representative or law enforcement officer. If the permit package, or a copy thereof, is not kept and made available at the work site at all times, the work must be suspended.
11. **CONFLICTING ENCROACHMENTS:** Permittee must yield start of work to ongoing, prior authorized work adjacent to or within the limits of the Permittee's project site. When existing encroachments conflict with Permittee's work, the Permittee must bear all cost for rearrangements (e.g., relocation, alteration, removal, etc.).
12. **PERMITS FROM OTHER AGENCIES:** This encroachment permit is invalidated if the Permittee has not obtained all permits necessary and required by law, including but not limited to permits from the California Public Utilities Commission (CPUC), California Occupational Safety and Health Administration (Cal-OSHA), or any other public agency having jurisdiction. Permittee warrants all such permits have been obtained before beginning work under this encroachment permit.
13. **PEDESTRIAN AND BICYCLIST SAFETY:** A safe minimum continuous passageway of four (4) feet must be maintained through the work area at existing pedestrian or bicycle facilities. At no time must pedestrians be

- diverted onto a portion of the street used for vehicular traffic. At locations where safe alternate passageways cannot be provided, appropriate signs and barricades must be installed at the limits of construction and in advance of the limits of construction at the nearest crosswalk or intersection to detour pedestrians to facilities across the street. Attention is directed to Section 7-1.04, Public Safety, of the Department's Standard Specifications.
14. **PUBLIC TRAFFIC CONTROL:** As required by law, the Permittee must provide traffic control protection, warning signs, lights, safety devices, etc., and take all other measures necessary for the traveling public's safety. While providing traffic control, the needs of all road users, including but not limited to motorists, bicyclists and pedestrians, including persons with disabilities in accordance with the Americans with Disabilities Act, must be an essential part of the work activity. Lane and/or shoulder closures must comply with the Department's Standard Specifications and Standard Plans for traffic control systems, and with the applicable Special Provisions. Where issues are not addressed in the Standard Specifications, Standard Plans, and/or Special Provisions, the California Manual on Uniform Traffic Control Devices (Part 6, Temporary Traffic Control) must be followed.
15. **MINIMUM INTERFERENCE WITH TRAFFIC:** Permittee must plan and conduct work so as to create the least possible inconvenience to the traveling public, such that traffic is not unreasonably delayed.
16. **STORAGE OF EQUIPMENT AND MATERIALS:** The storage of equipment or materials is not allowed within State highway right-of-way, unless specified within the Special Provisions of this encroachment permit. If encroachment permit Special Provisions allow for the storage of equipment or materials within the State highway right-of-way, the equipment and material storage must also comply with Section 7-1.04, Public Safety, of the Department's Standard Specifications.
17. **CARE OF DRAINAGE:** Permittee must provide alternate drainage for any work interfering with an existing drainage facility in compliance with the Department's Standard Specifications, Standard Plans, and/or as directed by the Department's representative.
18. **RESTORATION AND REPAIRS IN STATE HIGHWAY RIGHT-OF-WAY:** Permittee is responsible for restoration and repair of State highway right-of-way resulting from permitted work (Streets and Highways Code, section 670 et seq.).
19. **STATE HIGHWAY RIGHT-OF-WAY CLEAN UP:** Upon completion of work, Permittee must remove and dispose of all scraps, refuse, brush, timber, materials, etc. off the State highway right-of-way. The aesthetics of the highway must be as it was before work started or better.
20. **COST OF WORK:** Unless stated otherwise in the encroachment permit or a separate written agreement with the Department, the Permittee must bear all costs incurred for work within the State highway right-of-way and waives all claims for indemnification or contribution from the State, the Department, and from the Directors, officers, and employees of the State and/or the Department.
21. **ACTUAL COST BILLING:** When specified in the permit, the Department will bill the Permittee actual costs at the currently set Standard Hourly Rate for encroachment permits.
22. **AS-BUILT PLANS:** When required, Permittee must submit one (1) set of folded as-built plans within thirty (30) calendar days after completion and acceptance of work in compliance with requirements listed as follows:
- a) Upon completion of the work provided herein, the Permittee must submit a paper set of As-Built plans to the Department's representative.
 - b) All changes in the work will be shown on the plans, as issued with the permit, including changes approved by Encroachment Permit Rider.
 - c) The plans are to be prominently stamped or otherwise noted "AS-BUILT" by the Permittee's representative who was responsible for overseeing the work. Any original plan that was approved with a Department stamp, or by signature of the Department's representative, must be used for producing the As-Built plans.
 - d) If construction plans include signing or striping, the dates of signing or striping removal, relocation, or installation must be shown on the As-Built plans when required as a condition of the encroachment permit. When the construction plans show signing and striping for staged construction on separate sheets, the sheet for each stage must show the removal, relocation, and installation dates of the appropriate staged striping and signing.
 - e) As-Built plans must contain the Encroachment Permit Number, County, Route, and Post Mile on each sheet.
 - f) The As-Built Plans must not include a disclaimer statement of any kind that differs from the obligations and protections provided by sections 6735 through 6735.6 of the California Business and Professions Code. Such statements constitute non-compliance with Encroachment Permit requirements and may result in the Department retaining Performance Bonds or deposits until proper plans are submitted. Failure to comply may also result in denial of future encroachment permits or a provision requiring a public agency to supply additional bonding.
23. **PERMITS FOR RECORD PURPOSES ONLY:** When work in the State highway right-of-way is within an area under a Joint Use Agreement (JUA) or a Consent to Common Use Agreement (CCUA), a fee exempt encroachment permit is issued to the Permittee for the purpose of providing a notice and record of work. The Permittee's prior rights must be preserved without the intention of creating new or different rights or obligations. "Notice and Record Purposes Only" must be stamped across the face of the encroachment permit.

STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT GENERAL PROVISIONS
TR-0045 (REV. 01/2020)

24. **BONDING:** The Permittee must file bond(s), in advance, in the amount(s) set by the Department and using forms acceptable to the Department. The bonds must name the Department as obligee. Failure to maintain bond(s) in full force and effect will result in the Department stopping all work under this encroachment permit and possibly revoking other encroachment permit(s). Bonds are not required of public corporations or privately-owned utilities unless Permittee failed to comply with the provisions and/or conditions of a prior encroachment permit. The surety company is responsible for any latent defects as provided in California Code of Civil Procedure section 337.15. A local public agency Permittee also must comply with the following requirements:
- In recognition that project construction work done on State property will not be directly funded and paid by State, for the purpose of protecting stop notice claimants and the interests of State relative to successful project completion, the local public agency Permittee agrees to require the construction contractor to furnish both a payment and performance bond in the local public agency's name with both bonds complying with the requirements set forth in Section 3-1.05 Contract Bonds of the Department's Standard Specifications before performing any project construction work.
 - The local public agency Permittee must defend, indemnify, and hold harmless the State and the Department, and the Directors, officers, employees, agents and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all project construction related claims by contractors, subcontractors, and suppliers, and from all stop notice and/or mechanic's lien claimants. The local public agency also agrees to remedy, in a timely manner and to the Department's satisfaction, any latent defects occurring as a result of the project construction work.
25. **FUTURE MOVING OF INSTALLATIONS:** Permittee understands and agrees to relocate a permitted installation upon notice by the Department. Unless under prior property right or agreement, the Permittee must comply with said notice at the Permittee's sole expense.
26. **ENVIRONMENTAL:**
- ARCHAEOLOGICAL/HISTORICAL:** If any archaeological or historical resources are identified or encountered in the work vicinity, the Permittee must immediately stop work, notify the Department's representative, retain a qualified archaeologist who must evaluate the site at Permittee's expense, and make recommendations to the Department's representative regarding the continuance of work.
 - HAZARDOUS MATERIALS:** If any hazardous waste or materials (such as underground storage tanks, asbestos pipes, contaminated soil, etc.) are identified or encountered in the work vicinity, the Permittee must immediately stop work, notify the Department's representative, retain a qualified hazardous waste/material specialist who must evaluate the site at Permittee's expense, and make recommendations to the Department's representative regarding the continuance of work.
27. **PREVAILING WAGES:** Work performed by or under an encroachment permit may require Permittee's contractors and subcontractors to pay appropriate prevailing wages as set by the California Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements must be directed to the California Department of Industrial Relations.
28. **LIABILITY, DEFENSE, AND INDEMNITY:** The Permittee agrees to indemnify and save harmless the State, the Department, and the Directors, officers, employees, agents and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind, and description, including but not limited to those brought for or on account of property damage, invasion of privacy, violation or deprivation of a right under a state or federal law, environmental damage or penalty, or injury to or death of any person including but not limited to members of the public, the Permittee, persons employed by the Permittee, and/or persons acting on behalf of the Permittee, arising out of or in connection with: (a) the issuance and/or use of this encroachment permit; and/or (b) the encroachment, work, and/or activity conducted pursuant to this encroachment permit, or under color of authority of this encroachment permit but not in full compliance with the Permit Conditions as defined in General Provision Number 5 ("Unauthorized Work or Activity"); and/or (c) the installation, placement, design, existence, operation, and/or maintenance of the encroachment, work, and/or activity; and/or (d) the failure by the Permittee or anyone acting on behalf of the Permittee to perform the Permittee's obligations under any part of the Permit Conditions as defined in General Provision Number 5, in respect to maintenance or any other obligation; and/or (e) any change to the Department's property or adjacent property, including but not limited to the features or conditions of either of them, made by the Permittee or anyone acting on behalf of the Permittee; and/or (f) a defect or obstruction related to or caused by the encroachment, work, and/or activity whether conducted in compliance with the Permit Conditions as defined in General Provision Number 5 or constituting Unauthorized Work or Activity, or from any cause whatsoever. The duty

of the Permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code.

It is the intent of the parties that except as prohibited by law, the Permittee will defend, indemnify, and hold harmless as set forth in this General Provision Number 28 regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of: the State; the Department; the Directors, officers, employees, agents and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors; the Permittee; persons employed by the Permittee; and/or persons acting on behalf of the Permittee.

The Permittee waives any and all rights to any type of expressed or implied indemnity from or against the State, the Department, and the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors.

The Permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act in the conduct of the encroachment, work, and/or activity whether conducted pursuant to this encroachment permit or constituting Unauthorized Work or Activity, and further agrees to defend, indemnify, and save harmless the State, the Department, and the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, penalties, liability, suits, or actions of every name, kind, and description arising out of or by virtue of the Americans with Disabilities Act.

The Permittee understands and agrees the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, are not personally responsible for any liability arising from or by virtue of this encroachment permit.

For the purpose of this General Provision Number 28 and all paragraphs herein, "contractors of the State and/or of the Department" includes contractors and their subcontractors under contract to the State and/or the Department.

This General Provision Number 28 and all paragraphs herein take effect immediately upon issuance of this encroachment permit, and apply before, during, and after the encroachment, work, and/or activity contemplated under this encroachment permit, whether such work is in compliance with the Permit Conditions as defined in General Provision Number 5 or constitutes Unauthorized Work or Activity, except as otherwise provided by California law. The Permittee's obligations to defend, indemnify, and save harmless under this General Provision Number 28 take effect immediately upon issuance of this encroachment permit and have no

expiration date, including but not limited to situations in which this encroachment permit expires or is revoked, the work or activity performed under this encroachment permit is accepted or not accepted by the Department, the encroachment, work, and/or activity is conducted in compliance with the Permit Conditions as defined in General Provision Number 5 or constitutes Unauthorized Work or Activity, and/or no work or activity is undertaken by the Permittee or by others on the Permittee's behalf.

29. **NO PRECEDENT ESTABLISHED:** This encroachment permit is issued with the understanding that it does not establish a precedent.

30. **FEDERAL CIVIL RIGHTS REQUIREMENTS FOR PUBLIC ACCOMMODATION:**

a) As part of the consideration for being issued this encroachment permit, the Permittee, on behalf of Permittee and on behalf of Permittee's personal representatives, successors in interest, and assigns, does hereby covenant and agree that:

i) No person on the grounds of race, color, or national origin may be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.

ii) That in connection with the construction of any improvements on said lands and the furnishings of services thereon, no discrimination must be practiced in the selection and retention of first-tier subcontractors in the selection of second-tier subcontractors.

iii) That such discrimination must not be practiced against the public in their access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation), and operation on, over, or under the space of the State highway right-of-way.

iv) That the Permittee must use the premises in compliance with all other requirements imposed pursuant to Title 15, Code of Federal Regulations, Commerce and Foreign Trade, Subtitle A. Office of the Secretary of Commerce, Part 8 (15 C.F.R. Part 8) and as said Regulations may be amended.

b) That in the event of breach of any of the above nondiscrimination covenants, the State and the Department have the right to terminate this encroachment permit and to re-enter and repossess said land and the facilities thereon and hold the same as if said permit had never been made or issued.

31. **MAINTENANCE OF HIGHWAYS:** By accepting this encroachment permit, the Permittee agrees to properly maintain any encroachment. This assurance requires the Permittee to provide inspection and repair any damage, at Permittee's expense, to State facilities resulting from the encroachment.

32. **SPECIAL EVENTS:** In accordance with subdivision (a) of Streets and Highways Code section 682.5 and 682.7, the Department is not responsible for the conduct or

operation of the permitted activity, and the applicant agrees to defend, indemnify, and hold harmless the State, the Department, and the Directors, officers, employees, agents, and contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind and description arising out of any activity for which this encroachment permit is issued. The Permittee is required, as a condition of this encroachment permit, for any event that awards prize compensation to competitors in gendered categories, for any participant level that receives prize compensation, to ensure the prize compensation for each gendered category is identical at each participant level. (Streets and Highways Code, section 682.7.)

The Permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act in the conduct of the event, and further agrees to defend, indemnify, and save harmless the State and the Department, and the Directors, officers, and employees of the State and/or Department, including but not limited to the Director of the Department and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind and description arising out of or by virtue of the Americans with Disabilities Act.

33. **PRIVATE USE OF STATE HIGHWAY RIGHT-OF-WAY:** State highway right-of-way must not be used for private purposes without compensation to the State. The gifting of public property uses and therefore public funds is prohibited under the California Constitution, Article XVI, Section 6.
34. **FIELD WORK REIMBURSEMENT:** Permittee must reimburse the Department for field work performed on Permittee's behalf to correct or remedy hazards or damaged facilities, or to clear refuse, debris, etc. not attended to by the Permittee.
35. **LANE CLOSURE REQUEST SUBMITTALS AND NOTIFICATION OF CLOSURES TO THE DEPARTMENT:** Attention is directed to Section 12-4.02A(3) Submittals, of the Department's Standard Specifications, for lane closure requests submittals requirements and schedules. The Permittee must notify the Department's representative and the Traffic Management Center (TMC) before initiating a lane closure or conducting an activity that may cause a traffic impact. In emergency situations when the corrective work or the emergency itself may affect traffic, the Department's representative and the TMC must be notified as soon as possible.
36. **SUSPENSION OF TRAFFIC CONTROL OPERATION:** The Permittee, upon notification by the Department's representative, must immediately suspend all lane closure operations and any operation that impedes the flow of traffic. All costs associated with this suspension must be borne by the Permittee.

37. **UNDERGROUND SERVICE ALERT (USA)**

NOTIFICATION: Any excavation requires compliance with the provisions of Government Code section 4216 et. seq., including but not limited to notice to a regional notification center, such as Underground Service Alert (USA). The Permittee must provide notification to the regional notification center at least forty-eight (48) hours before performing any excavation work within the State highway right-of-way.

38. **COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA):**

All work within the State highway right-of-way to construct and/or maintain any public facility must be designed, maintained, and constructed strictly in accordance with all applicable Federal Access laws and regulations (including but not limited to Section 504 of the Rehabilitation Act of 1973, codified at 29 U.S.C. § 794), California Access laws and regulations relating to ADA, along with its implementing regulations, Title 28 of the Code of Federal Regulations Parts 35 and 36 (28 C.F.R., Ch. I, Part 35, § 35.101 et seq., and Part 36, § 36.101 et seq.), Title 36 of the Code of Federal Regulations Part 1191 (36 C.F.R., Ch. XI, Part 1191, § 1119.1 et seq.), Title 49 of the Code of Federal Regulations Part 37 (49 C.F.R., Ch. A, Part 37, § 37.1 et seq.), the United States Department of Justice Title II and Title III for the ADA, and California Government Code section 4450 et seq., which require public facilities be made accessible to persons with disabilities.

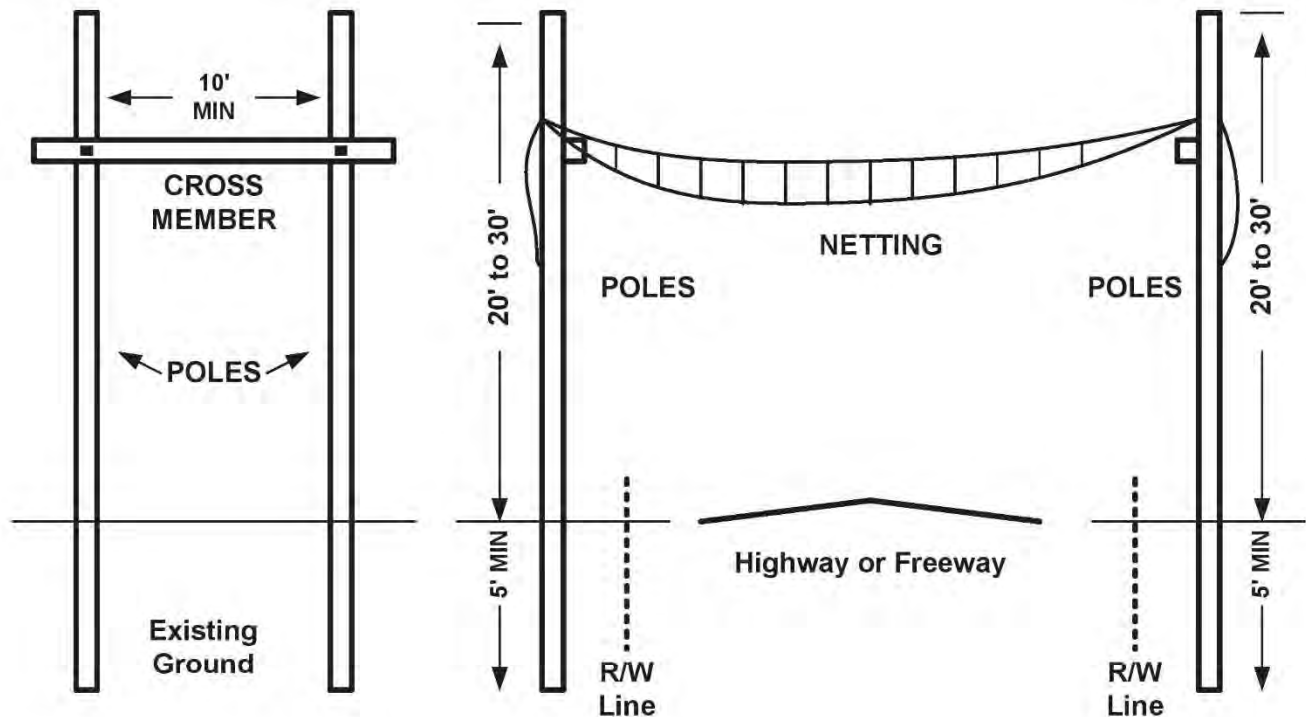
Notwithstanding the requirements of the previous paragraph, all construction, design, and maintenance of public facilities must also comply with the Department's Design Information Bulletin 82, "Pedestrian Accessibility Guidelines for Highway Projects."

39. **STORMWATER:** The Permittee is responsible for full compliance with the following:

- a) For all projects, the Department's Storm Water Program and the Department's National Pollutant Discharge Elimination System (NPDES) Permit requirements under Order No. 2012-0011-DWQ, NPDES No CAS000003; and
- b) In addition, for projects disturbing one acre or more of soil, with the California Construction General Permit Order No. 2009-0009-DWQ, NPDES No CAS000002; and
- c) In addition, for projects disturbing one acre or more of soil in the Lahontan Region with Order No. R6T-2016-0010, NPDES No CAG616002.
- d) For all projects, it is the Permittee's responsibility to install, inspect, repair, and maintain all facilities and devices used for water pollution control practices (Best Management Practices/BMPs) before performing daily work activities.

ENCROACHMENT PERMIT H - SUPPORT DIAGRAM FOR AERIAL CROSSINGS

TR-0108 (REV. 03/2007)

**CONSTRUCTION NOTES:**

A MINIMUM OF 18' SHALL BE MAINTAINED OVER AND ACROSS HIGHWAY OR FREEWAY LANES.

NETTING SHALL BE MAINTAINED OVER AND ACROSS LANES UNTIL AERIAL FACILITIES ARE PROPERLY SECURED IN PLACE.

H - SUPPORTS SHALL BE INSTALLED OUTSIDE OF STATE R/W, UNLESS PERMITTED BY THE STATE'S REPRESENTATIVE.

CHP BREAKS SHALL NOT EXCEED 5 MINUTES FOR THE PLACEMENT OF NETTING.

PLACEMENT OF AERIAL LINES: Installation or removal of overhead conductors crossing a freeway require traffic control by the California Highway Patrol (CHP) and usually occur on weekend mornings. The CHP can perform a rolling break in traffic on most highways to allow up to a five-minute clearing. These breaks are adequate for simple cable installation. Utility personnel carry the conductors across the freeway lanes and hoist them into place on the opposite side of the freeway.

On larger conductor crossings such as transmission lines, 1" or greater in diameter, districts may determine that safety nets are needed to prevent transmission lines from falling on traffic during cabling installations. Temporary safety-net support poles are placed at protected locations outside shoulders and in medians. If locations for temporary supports are not available, the utility company may use K-rail and sand barrel crash cushions. After rope nets are strung during CHP traffic breaks other work is then allowed to proceed. Placement of the aerial line may be by helicopter.

ENCROACHMENT PERMIT SURVEY GRID

TR-0151 (REV. 09/2006)

LEGEND:

Octagon Data Points required when the diameter is < 8'.



Octagon & Triangle Data Points required when the diameter is > 8'.



Settlement Rod may be required when the diameter is > 5'. (Settlement Rod Detail is located in Appendix E of the Encroachment Permits Manual)

EP Edge of Pavement

ETW Edge of Travel Way
(Fog line, Yellow Stripe, etc.)

S Offset Distance away from the pipe alignment, as follows:

3' for casing pipe diameters < 30"

5' for casing pipe diameters 30" - 72"

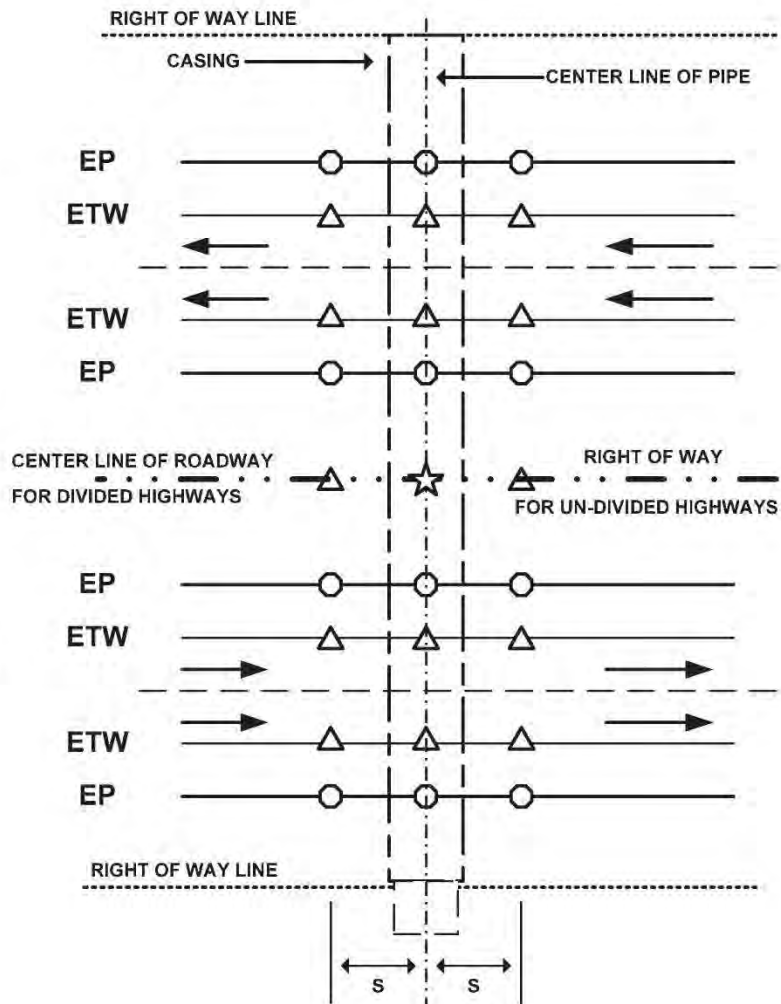
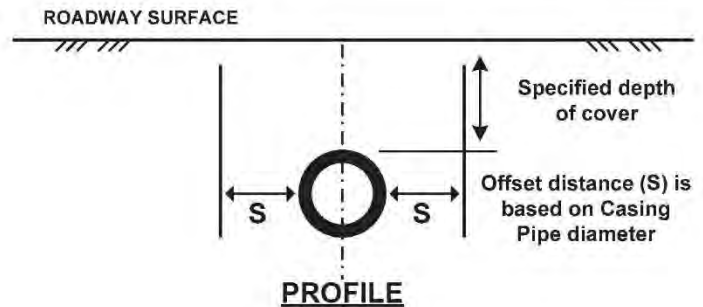
10' for casing pipe diameters 72" - 108"

15' for casing pipe diameters > 108"

NOTES:

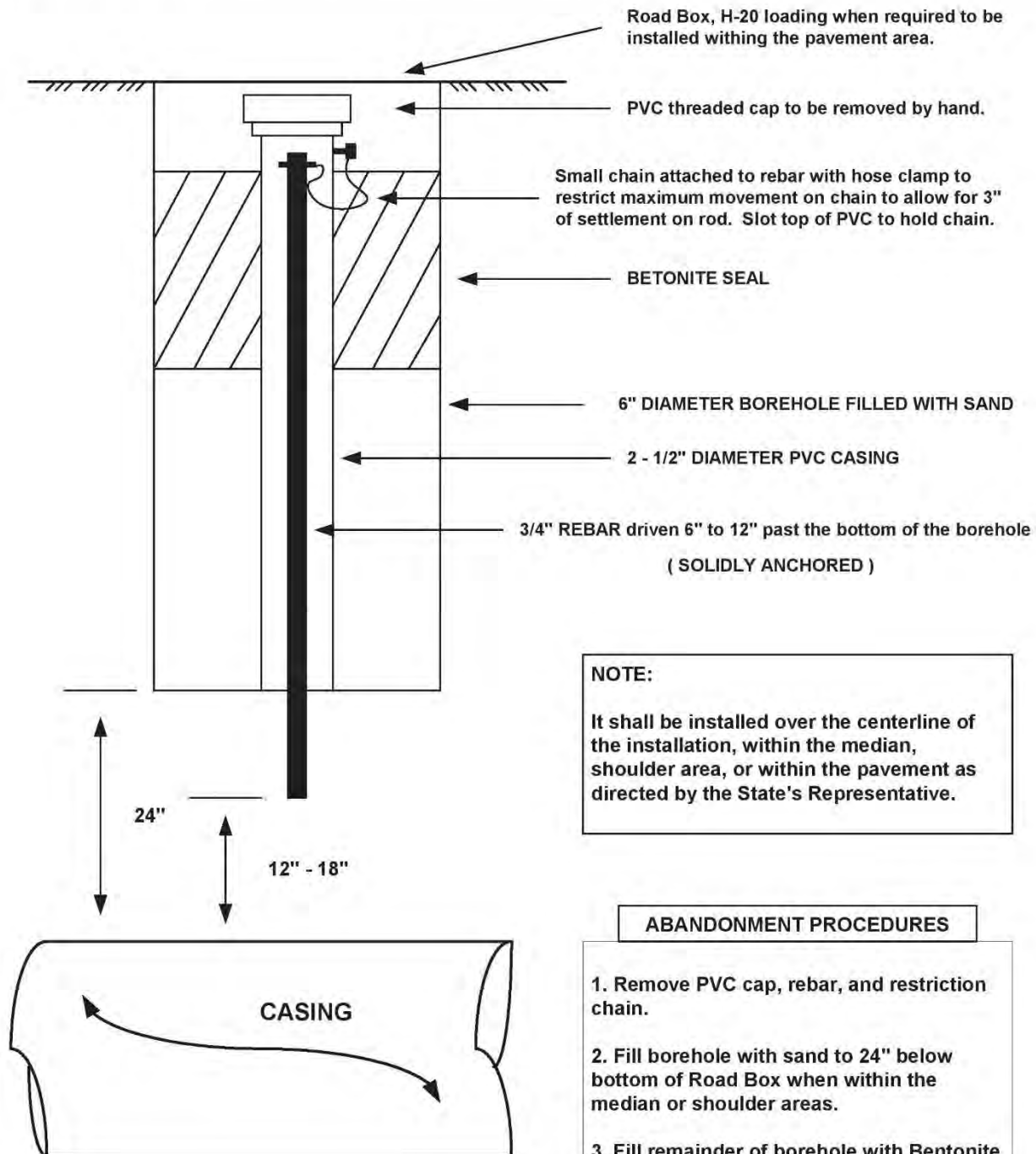
Survey data is to be collected at the specific points along the casing alignment at the following times:

1. Prior to Start of Work.
2. Every two (2) hours continuously throughout the project.
3. Upon completion of the project.
4. Every two (2) months, during a six month period after the date of completion, and or As Required by the Department.

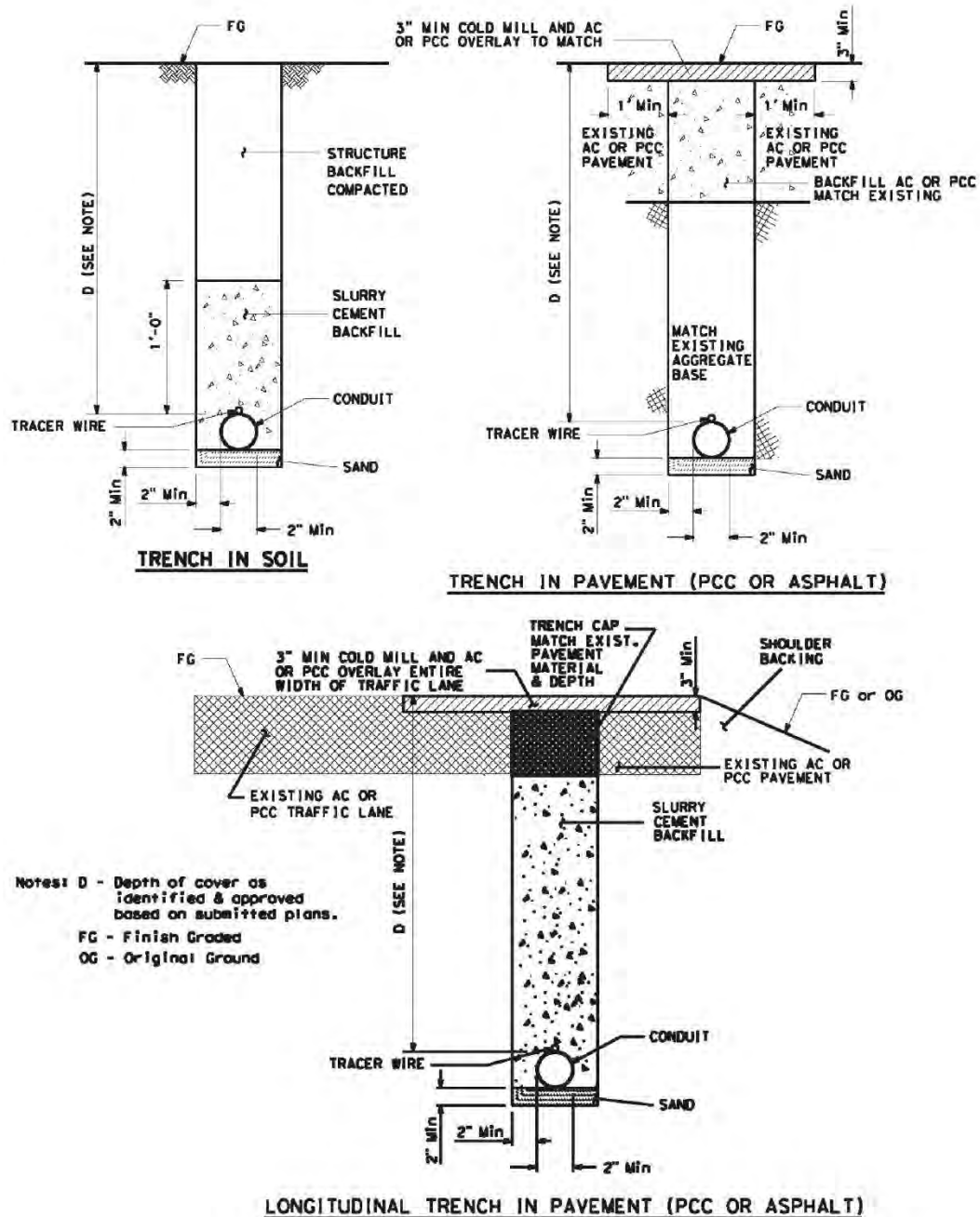


ENCROACHMENT PERMIT SETTLEMENT ROD DETAIL

TR-0152 (REV. 09/2006)



TYPICAL TRENCH DETAIL (NOT TO SCALE)



See page 2 for additional notes.

- All work must be authorized by the encroachment permit, and/or as directed by the State's representative.
- A tracer wire must be placed on top of the conduit unless specified not to.
- Clearance between the trench wall and encroachment work less than 6 inches in width shall be a minimum of 2 inches. Clearance between the trench wall and encroachment work greater than 6 inches width shall be a minimum of 6 inches.
- When the trench width is less than 2' the backfill for subgrade must consist of either slurry cement or Controlled Low-Strength Material (CLSM).
- When trench width is greater than 2' compacted aggregate base may be used for backfill.
- Structure backfill must conform to Section 19-3.02C of the Standard Specifications.
- For trench located under unimproved surface, structure backfill can use the original soil. Soil must be compacted by mechanical means. Ponding, jetting or flooding are not allowed. Slurry cement backfill is optional at the discretion of the Caltrans District.
- Slurry cement backfill must conform to Section 19-3.02E of the Standard Specifications.
- Aggregate base shall conform to Section 26 of the Standard Specifications.
- CLSM must conform to Section 19-3.02G of the Standard Specifications. When CLSM is utilized the mix design and test results must be submitted to the State's representative. See Appendix H of the Encroachment Permits Manual for additional information.
- Cold planed surface and overlay shall be to the nearest lane line for the entire length of the trench/disturbed areas, and/or as directed by the State's representative.
- A paving notch ("T" Cut) shall be cold planed in exist asphalt concrete to a minimum width of 1.0' beyond each side of the trench and to a depth of 3" for the final layer of HMA.
- HMA or PCC to replace pavement section shall match existing pavement depth, unless directed otherwise by the State's representative.
- Hot mix asphalt must conform to Section 39 of the Standard Specifications.
- A tack coat of asphaltic emulsion conforming to Section 39-2.01C (3) (f) shall be applied.
- When the trench is within 4' of curb and gutter, additional cold planing may be required at the discretion of the State's representative.
- Pavement markings and/or striping removed or damaged during construction must be replaced as directed by the State's representative.
- Other trench related details are shown in Chapter 6 of the Encroachment Permits Manual as well as the Trenching and Shoring Manual. Both publications can be found on the State of California, Department of Transportation's website.

ENCROACHMENT PERMIT STEEL PLATE BRIDGING UTILITY

TR -0157 (Rev. 04/2018)

To accommodate excavation work, steel plate bridging may be necessary. All conditions for use of steel plate bridging should be set forth in the special provisions.

Consideration of steel plate bridging should take into account the following factors:

1. Traffic speed.
2. Traffic Volume and Composition.
3. Duration and dimensions (width & daily estimated lengths) of the proposed excavation.
4. Weather conditions.

When backfilling operations of an excavation in the traveled way, whether transverse or longitudinal, cannot be properly completed within a work day, steel plate bridging with a non-skid surface and shoring (see Trenching & Shoring) may be required to preserve unobstructed traffic flow. In such cases, the following conditions shall apply:

1. Steel plate bridging on freeways is not allowed.
2. Steel plates used for bridging must extend a minimum of 12" beyond the edges of the trench.
3. Steel plate bridging shall be installed to operate with minimum noise.
4. The trench shall be adequately shored, (as mentioned in Section 603.6B-2 of the Encroachment Permits Manual) to support the bridging and traffic loads.
5. Temporary paving with cold asphalt concrete shall be used to feather the edges of the plates, if plate installation by Method (2) described below, is used.
6. Bridging shall be secured against displacement by using adjustable cleats, shims, or other devices.

As required by the district, steel plate bridging and shoring shall be installed using either Method (1) or (2):

Method 1 For speeds of 45 MPH or greater:

The pavement shall be cold planed to a depth equal to the thickness of the plate and to a width and length equal to the dimensions of the plate.

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of 2 dowels pre-drilled into the corners of the plate and drilled 2" into the pavement. Subsequent plates are to be butted and tack welded to each other.

Method 2 For Speeds less than 45 mph:

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of 2 dowels pre-drilled into the corners of the plate and drilled 2" into the pavement. Subsequent plates are to be butted and tack welded to each other. Fine graded asphalt concrete shall be compacted to form ramps, maximum slope 8.5 % with a minimum 12" taper to cover all edges of the steel plates. When steel plates are removed, the dowel holes in the pavement shall be backfilled with either graded fines of

asphalt concrete mix, concrete slurry, epoxy or an equivalent that is satisfactory to the Caltrans' representative.

The permittee is responsible for maintenance of the steel plates, shoring, asphalt concrete ramps, and ensuring that they meet minimum specifications. Unless specifically noted or granted in the special provisions, or approved by the State representative, steel plate bridging shall not exceed 4 consecutive working days in any given week. Backfilling of excavations shall be covered with a minimum 3" temporary layer of cold asphalt concrete.

The following table shows the advisory minimal thickness of steel plate bridging required for a given trench width (A-36 grade steel, designed for HS20-44 truck loading per Caltrans Bridge Design Specifications Manual).

Trench Width	Minimum Plate Thickness
10"	½"
1'-11"	¾"
2'-7"	7/8"
3'-5"	1"
5'-3"	1 ¾"

NOTE: For spans greater than 5'-3", a structural design shall be prepared by a California registered civil engineer.

All steel plates within the right of way whether used in or out of the traveled way shall be without deformation. Inspectors can determine the trueness of steel plates by using a straight edge and should reject any plate that is permanently deformed.

Steel plates used in the traveled portion of the highway shall have a surface that was manufactured with a nominal Coefficient Of Friction (COF) of 0.35 as determined by California Test Method 342 (See Appendix H, Encroachment Permits Manual). If a different test method is used, the permittee may utilize standard test plates with known coefficients of friction available from each Caltrans District Materials Engineer to correlate skid resistance results to California Test Method 342. Based on the test data, the permittee shall determine what amount of surface wear is acceptable, and independently ascertain when to remove, test, or resurface an individual plate.

Caltrans Inspectors should not enforce plate removal unless it is permanently deformed or delivered without the required surfacing. However, an inspector should document in a diary all contacts with the contractor.

A "Rough Road" (W8-8) sign and a "Steel Plate Ahead" (W8-24) sign with black lettering on an orange background must be used in advance of steel plate bridging along with the required construction area signs. These signs must be used along with any other construction area signs.

Surfacing requirements are not necessary for steel plates used in parking strips, on shoulders not used for turning movements, or on connecting driveways, etc., not open to the public.

UNCASED HIGH PRESSURE NATURAL GAS PIPELINE

TR-0158 (Rev 04/2018)

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

In accordance with the Department's Project Development Procedures Manual, all new high priority utilities and pressurized facilities are required to be encased on both conventional and access controlled highway rights-of-way.

Based on the Memorandum dated November 9, 1994, "Exception to Policy - Uncased High-pressure Natural Gas Pipelines," the Department may allow the installation of uncased natural gas pipelines crossings in specific circumstances. The Department's primary concerns are for public safety, the integrity of the highway facility and the mechanical protection of the pipeline itself, it is necessary to limit the number of requests for transverse natural gas transmission pipeline crossings without casings to locations where all of the following conditions are met:

UNG 1. The pipeline owner agrees that the crossing will be designed for construction in accordance with the Code of Federal Regulations, Title 49, Part 192, and/or the California Public Utilities Commission General Orders No. 112-D with respect to natural gas pipelines. The crossing design shall be comprehensive in all respects including but not limited to" material specification, pipe wall thickness determination, coating selection, and cathodic protection. Soil conditions at each site shall be analyzed for characteristics that may prove harmful to the protective pipe coating. This analysis shall be used by the pipeline owner in selecting a protective pipe coating sufficient to withstand the potential for gouging or peeling during the boring and jacking operation, or other methods approved by Caltrans. The final condition of the coating will be determined by the pipeline owner through monitoring of the boring and jacking operation, visually inspecting the exiting initial pipe segment, and electrical testing by an engineer or technician with expertise in cathodic protection. The test data shall be noted on the as-built drawings. Remedial action will be taken if the condition of the coating is such that cathodic protection is not practical.

UNG 2. The minimum depth of cover within State highway right of way, from the final ground line (finished grade or original ground) to the top of the proposed gas carrier pipeline, is 7.5 feet. If the location is such that it is not practical to achieve the above depth of cover, then an engineered protective cover (such as a reinforced concrete structure) may be provided outside of pavement areas in lieu of casing.

At no time shall the minimum depth of cover be less than 42 inches.

UNG 3. The permit specifies that the uncased gas carrier pipeline shall, as a minimum, be designed for a Class 3 Location (Code of Federal Regulations referenced above) for hard surfaced roads, highways, public streets, and railroads. (See attached Excerpts from the Code of Federal Regulations, Design Factor to be used for Natural Gas Pipelines.).

UNG 4. The existence of the crossing is adequately identified by signing at the right-of-way line, with at least one identifying sign, which is visible from the roadway in each direction of travel.

UNG 5. The pipeline owner agrees to provide as-built drawings at completion of the pipeline crossing, with a letter certifying that the pipeline was installed properly and in accordance with the permit plans (including approved changes to the permit plans), and meets industry and regulatory standards for such installation.

UNG 6. All other applicable requirements in Chapter 600 of the Encroachment Permits Manual are satisfied.

UNG 7. All submittals requesting installations of such uncased natural gas pipeline crossings greater than 6 inches in diameter or with normal operating pressures greater than 60 psig and meeting all of the above requirements may be approved by the district. Any deviations from the above requirements require an encroachment policy exception.

EXCERPTS FROM CODE OF FEDERAL REGULATIONS

DESIGN FACTORS TO BE UTILIZED FOR NATURAL GAS PIPELINES

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

In the design of steel natural gas pipelines the Minimum Yield Strength for the grade of steel used is reduced by a Design Factor (F). This Design Factor is determined by the type of road being crossed by the pipeline and a Class Location established by Code of Federal Regulations, Title 49, Part 192 (Office of the Federal Register, 1990).

The Class Location depends on the occupancy of buildings or activities within an area that extends 660 feet from either side of the pipeline centerline for a continuous 1 mile segment of the pipeline. There are four Class Locations as follows:

- Class 1. A location that has 10 or less buildings intended for human occupancy.
- Class 2. A location that has more than 10 but less than 46 buildings intended for human occupancy.
- Class 3. a) Any location that has 46 or more buildings intended for human occupancy; or
b) Area where pipeline lies less than 300 feet of either a building or a small well defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. (The days or weeks need not to be consecutive).
- Class 4. A location where buildings of four or more stories are prevalent.

The design factor used for a specific Class Location also depends on the kind of road involved as indicated on the following Table.

DESIGN FACTOR (F)

	CLASS LOCATION			
TYPE OF THOROUGHFARE	1	2	3	4
Privately owned roads	0.72	0.60	0.50	0.40
Unimproved public roads	0.60	0.60	0.50	0.40
Hard surfaced roads, highways public streets, and railroads	0.60	0.50	0.50	0.40

Example: A pipe made of X42 grade of steel which has a Minimum Yield Strength (MYS) of 42,000 psi used in a Class 4 location at a hard surface road crossing would be designed using a reduced Minimum Yield Strength, by applying a Design Factor of 0.4, of 16,800 psi.

TREE PRUNING (TRIMMING) AND CHEMICAL APPLICATION

TR – 0159 (Rev. 01/2018)

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

I. GENERAL (Applies to BOTH Non-Utility and Utility Projects):

1. Scheduled pruning work may be restricted by Caltrans to maintain mobility during special events, commuter traffic, or other periods of projected high traffic volumes.
 - i. Traffic control is generally authorized from 9 a.m. to 3 p.m., Monday through Friday, excluding holidays. Extended traffic control hours may be required by Caltrans.
 - ii. Traffic control must conform to requirements shown in the State Standard Plans. When required, the use of a flashing arrow board is MANDATORY.
 - iii. Suspend work during inclement weather, such as heavy fog, if lane or shoulder closures will be required. Do not perform pruning work during periods of high wind to minimize the spread of debris into the traveled way.
2. Prune trees in compliance with the most recent version of ANSI A300-Pruning Part 1, the American National Standard for Tree Care Operations, Tree, Shrub and Other Woody Plant Maintenance-Standard Practices (Pruning), and the International Society of Arboriculture (ISA) Tree Pruning Best Management Practices.
3. Prune trees in compliance with the seasonal tree pruning restrictions specified in the Migratory Bird Act and meet the seasonal requirements of specific tree species. Perform pruning based upon the age of the tree (newly planted or established), type of tree (evergreen or deciduous), purpose for pruning (maintenance of form, structure, maintaining sight lines, utility clearance), and to minimize the spread of disease (pine pitch canker, eucalyptus psyllid, eucalyptus borer beetles, Dutch elm disease, or mistletoe).
4. Tree trimmers must be licensed by the California State Contractors State License Board and hold a current C61/D49 license.
5. Do not use climbing spurs to prune trees, except when working in the tops of Eucalyptus, Palms, and Conifers.
6. Prune trees to maintain their natural structure and shape. If unbalanced growth already exists, first thin and head prune the tree. Where prior topping or side pruning has resulted in excessive growth over the State right-of-way, prune to restore a balanced, symmetrical shape. Avoid creating large holes in the canopy. Upon completion of work, trees should present a balanced, symmetrical shape that is characteristic of their species.
7. Prune trees to maintain their natural open crown structure. Do not cut young growth year after year at the same fixed distance from the trunk. This technique creates very dense growth at the tree canopy margin, growth called “crow’s nests” or “brooms”. Maintain the natural open crown structure by thinning out dense growth.
8. Prune trees to restore an open crown structure. Remove limbs larger than 2-inches in diameter as necessary to open up dense growth, called “crows’ nests” or “brooms.” Make these cuts at laterals or parent branches in older wood so that the following season’s growth will result in a crown structure free of dense, disfiguring growth.

ENCROACHMENT PERMIT SPECIAL PROVISIONS

9. Prune trees to avoid redirecting growth over the highway. Maintain the terminal bud of the leader. Perform top or center pruning only after these trees have recovered their natural balance and form.
10. Final cuts must not leave stubs. Prune in ways that maximize wound recovery from callus growth. Keep wounds as small as practicable, reasonably flush, within the shoulder ring area, keeping cambial tissues at the cut edge alive and healthy. Do not make extreme flush cuts that produce large wounds and weaken the tree.
11. Remove debris, cuttings, and tree limbs from the State right-of-way at the end of each workday, leaving the work area in a safe and presentable condition. In regions where pruned limbs and bark might harbor pests or disease (such as pine pitch canker, eucalyptus psyllid, eucalyptus borer beetles, Dutch elm disease, or sudden oak death) dispose pruned materials in accordance with Federal, State, and local agency requirements.
12. Topping of trees is not allowed.
13. Prune trees to allow 8' over sidewalks and 17' over vehicular pavement.
14. Pruning must not change the character of the tree.

VIII. ADDITIONAL TREE PRUNING REQUIREMENTS FOR UTILITIES ONLY:

Comply with the requirements under "I. General" above, and the following:

15. Severity of utility tree pruning work may be restricted by the District Landscape Specialist to preserve the appearance of trees that possess high value due to local community significance, historic landscape potential, or documented horticultural value.
16. Limit pruning severity such that required minimum clearances are maintained for no more than two years.
17. Comply with minimum utility clearances as established by the CPUC General Orders, California Public Resources Code and Federal and State laws. Clearances that exceed the established minimum must be agreed upon by Caltrans and the Utility Company. For most locations, pruning should not take place more frequently than once per year. Pruning clearances and pruning frequencies must reflect the species, growth habit, condition, and health of each tree.
18. Prune trees receiving their first pruning, or recently pruned trees with "directional pruning" as defined in the ISA Tree-Pruning Guidelines. Trees that cannot be directionally pruned, such as older trees that have been topped many times may be submitted for consideration of removal.
19. Do not perform initial, severe "V" shaped pruning on trees along any highway, expressway or freeway without approval from the District Landscape Specialist or District Landscape Architect. Do not perform severe "V" pruning on any tree along a state or federally designated scenic highway without approval from the District Landscape Architect.
20. Maintain previously "rounded over" trees consistent with past practices, unless Caltrans and the Electric Utility owner agree that the tree can be directionally pruned or have its crown restored without creating structural defects or growth that presents a liability.

IX. CHEMICAL CONTROL:

21. Do not apply chemicals to trees located on scenic highways.
22. Upon approval by Caltrans to use chemicals, also obtain approval by the County Agricultural Commissioner.

ENCROACHMENT PERMIT SPECIAL PROVISIONS

23. Control resprouting tree species using integrated vegetation management program techniques, including chemical and non-chemical methods.
24. Prior to chemical application, obtain a pest control recommendation from a licensed Pest Control Advisor. Submit a copy of the recommendation to the Caltrans District Landscape Specialist or their designee.
25. Utility Companies must maintain a list of locations, chemical types, and quantities used for treatment in pruning operations. Provide this information upon expiration of your annual permit or upon request of the Department during the annual/biennial permit period.
26. Utility Companies must submit copies of MSDS sheets for all chemical compounds used in tree pruning operations along with their permit application.
27. Utility Companies must notify the District Encroachment Permits Office when they change or modify the chemicals used in their pruning operations. Do not apply chemicals to trees located on scenic highways.

ENCROACHMENT PERMIT ANNUAL UTILITY

TR – 0160 (Rev. 10/2019)

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

Annual utility permits UE are issued to utilities who maintain their facilities within State highway right-of-way. Any utility or public corporation, who lawfully maintains a utility encroachment, or their agent, may perform routine or emergency maintenance on such facility in accordance with the following provisions:

UE1. EXCLUSIONS: These provisions do not authorize any work on freeways and expressways, tree trimming, aerial capacity increases on designated "Scenic Highways", pole replacement / relocation work, or other activities not specifically provided for in this permit.

UE2. EMERGENCY REPAIRS: The permittee may make emergency repairs, alter traffic flow, and excavate through improved surfaces only when breaks in the conduit, cable, or pipeline over or under the pavement presents a definite public hazard or serious interruption of essential services. In such cases, the Department's representative shall be notified immediately.

Replace poles knocked down by vehicles, accidental causes or natural disasters. The entire length of poles and stubs must be removed from the ground and replacement pole must be placed at the exact location. Planned pole replacements/installations are not allowed under this permit.

UE3. OPEN EXCAVATIONS: Excavation must not be left open after daylight hours unless specifically authorized and adequate protection for traffic is provided in accordance with the General Provisions, "Public Traffic Control" And "Minimum Interference with Traffic". Backfill and pavement replacement must be performed in accordance with General Provisions, "Restoration and Repairs in State Highway right-of-way."

UE4. TRAFFIC CONTROL: Work requiring traffic control shall be conducted between Monday-Friday 9:00 a.m. and 3:00 p.m. or as otherwise authorized by the Permit Engineer. Adequate traffic control must be provided in accordance with the General Provisions, "Public Traffic Control", "Minimum Interference with Traffic" and "Suspension of Traffic Control Operation."

Only those maintenance activities that can be performed using a Caltrans Standard Plans for Temporary Traffic Control Systems and Temporary Pedestrian Access Routes are authorized under the annual maintenance permit. Otherwise a separate permit application for the work, along with a traffic control plan designed and signed by a California Registered Civil or Traffic Engineer must be submitted for review and approval.

Advanced notification must be provided to Caltrans Traffic Management Center for any activities that may cause a traffic impact including all lane closures. Adequate notice must be provided in accordance with the General Provisions, "Notification of Closure to Department and Traffic Management Center (TMC)."

UE5. WORK PERMITTED - AERIAL: All permitted activity must not be over the traveled way or within the limits of officially designated scenic highways and/or on Caltrans structures.

1. Maintain, inspect, remove, repair or replace (in the same location) all aerial facilities. Work over the traveled way requires a separate permit and the placement of "H" poles and netting as per form TR-0108, located in Appendix "E" of the Encroachment Permits Manual.

Replace broken pins and/or insulators, repair broken wires, pull slack wires, and replace or pull broken or slack guys.

Replace aerial wires and cross arms on existing poles except where wires cross the highway. Unless otherwise specifically required by the Department, protected cable, tree wire or plastic tree wire guard used for communication lines may be used through trees where necessary, provided the appearance of the tree or the tree itself will not be damaged.

ENCROACHMENT PERMIT SPECIAL PROVISIONS

Perform insulator washing and interconnect splicing of cables.

Install additional capacity (in the same location), install, maintain, remove, repair or replace aerial service connections with potential to ground of 300 volts or less.

2. Installations and clearances must be equal to those required by either the California Public Utilities Commission orders or the Division of Occupational Safety and Health (Cal/OSHA) regulations promulgated in the California Code of Regulations, Title 8, Chapter 4, whichever is more restrictive.

UE6. WORK PERMITTED - UNDERGROUND:

1. Maintain, inspect, remove, repair or replace (in the same location) all underground facilities except those requiring trenching in the traveled way or require uncovering more than 50 feet of line at any one time. The permittee may open existing manholes to repair underground cables. Where the manhole lies within the improved surface of the highway, the permittee will provide adequate protection for traffic in accordance with the General Provisions "Public Traffic Control" and "Minimum Interference with Traffic".
2. Install additional capacity in existing ducts except for facilities not in compliance with the Department's High priority utility policies or on Structures.
3. Install air flow monitoring transducers and piping in existing ducts.
4. Barholing, potholing, cleaning, rodding and placing float ropes.
5. Adjust access cover to grade and replace in kind or with larger size pull boxes.
6. Interconnect splicing of cables.
7. Install service connections (laterals) perpendicular to the highway for the following:
 - i. Natural gas service lines less than 2 inches in pipe diameter that have normal operating pressures of 60 psig or less
 - ii. Subsurface electrical service connections with a potential to ground of 50 volts or less
 - iii. Service connections for water, sewer, telephone, telecommunication, and cable service
8. Permanent pavement patching for work authorized by this permit. The patching must be made within thirty (30) days of completion of backfill unless otherwise specified by the Permit Engineer. See Underground Utility Provision UG 9 (form TR-0163).

UE7. POLE MAINTENANCE & CHEMICAL TREATMENT:

1. Utility Companies are to provide a list of the pole identification, locations, type of chemicals and quantities used for their pole treatment maintenance operations. This information must be provided upon expiration of their annual permit or upon request of the Department as needed.
2. Utility Companies must submit copies of the Safety Data Sheets (SDS) for all chemical compounds to be used in their pole treatment maintenance operations, in conjunction with the permit application submittal.
3. Utility Companies are to notify the District Landscape Specialist or their designee and the District Encroachment Permits Office when there is any change or modification in the type(s) of chemical used in their pole treatment maintenance operations.
4. Prior to any application of Tree Growth Regulators (TGR) approval shall be obtained from the District Landscape Specialist or their designee.

UE8. MISCELLANEOUS:

1. Install new and replace existing transformers on existing poles.
2. Clear grass from around base of poles and excavate around poles for inspection, including tamping and straightening. The use of herbicides or other chemicals is not authorized by this permit. A separate encroachment permit is required for that purpose.

ENCROACHMENT PERMIT OVERHEAD UTILITY PROVISIONS

TR - 0162 (Rev. 10/2019)

OH1. LOCATION POLE LINES, ETC.:

Pole lines must be located as specifically directed in the provisions of the permit.

OH2. INSTALLATIONS AND CLEARANCES:

Horizontal clearances, as measured from the edge of traveled way to the installation must be in accordance with the minimum clearance required for Discretionary Fixed Objects. According to Caltrans' Highway Design Manual (309.1) The installation should be located beyond the clear recovery zone at a minimum of 52 feet horizontally or 8 feet vertically up-slope from the edge of traveled way, unless they are made breakaway or shielded behind existing guardrail, barrier or other safety device. In no case is a pole allowed closer than 1.5' behind a curb face or less than 2' from the edge of a slope catch point or 3' from the curb returns of intersections and near the edges of driveways, or within a drainage ditch. New installations should adhere to setback limits or should be protected. Consideration should be given to placing such encroachments underground in shoulder or parking areas. Also, installations and clearances must comply with applicable orders of the California Public Utilities Commission (CPUC), or the Division of Occupational Safety and Health (Cal/OSHA) Safety Orders, whichever is more restrictive.

OH3. PERMISSION FROM PROPERTY OWNERS:

When necessary, permission must be secured from the abutting property owner(s) in written form by the permittee before starting work.

OH4. CLEARANCE OF TREES:

Unless otherwise specifically required by the Department, protected cables, tree wires or plastic tree wire guards used for communication lines may be used through trees where necessary, provided the installation and any necessary pruning does not damage or affect the appearance of the tree or the tree itself will not be damaged. This allowance does not apply to scenic highways.

OH5. GUY WIRES:

No guy wires are to be attached to trees except as may be specified in the permit and in no event must they be so attached as to girdle the tree or interfere with its growth. Guy wires must be kept to a minimum elevation above ground as directed.

OH6. ANCHOR:

Anchors must not be placed closer to the traveled way than the pole itself.

OH7. REMOVE OLD POLES, STUBS AND GUY RODS:

The entire length of poles and stubs must be removed from the ground and the holes backfilled. Guy rods must be removed to a minimum depth of 3' below original ground.

OH8. AERIAL CROSSING:

Works involving new or additions to existing aerial crossings must not be performed in rainy, foggy or inclement weather which creates hazardous conditions for highway users.

OH9. CLEARANCE FROM CURBS:

The face of poles must not be placed closer than 1.5' from any curb face.

OH10. POLE INSTALLATION OR REMOVAL:

Where poles are to be installed or removed behind the curb in a parkway that is paved with Portland Cement Concrete, the concrete must be saw cut, removed and replaced to the nearest score lines or expansion joints. The hole in the PCC sidewalk created by pole removal must be temporarily backfilled with 2" minimum temporary AC at the time the pole is removed. Poles are not to be installed without prior approval of the final location by the Department's field representative.

OH11. CONTROLLED ACCESS R/W:

Poles, anchors, etc., must not be installed inside of any controlled access right of way. All such requests are "exceptions" to policy.

UNDERGROUND UTILITY

TR - 0163 (Rev. 04/2018)

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

High priority utilities, pressurized facilities, pipes or ducts 6" or larger in diameter, or placement of multiple pipes or ducts, regardless of diameters are required to be encased on both conventional and access-controlled highway rights-of-way.

A "High Priority Utility" is defined as: 1) a natural gas pipeline greater than 6" in diameter, or with normal operating pressures greater than 60 psig, 2) petroleum pipelines, 3) pressurized sanitary sewer pipelines, 4) high-voltage electric supply lines, conductors, or cables that have a potential to ground of greater than or equal to 60 kV, or 5) hazardous materials pipelines that are potentially harmful to workers or the public if damaged.

An exception to this policy may be allowed on a case by case basis for the installation of Uncased High-Pressure Natural Gas Pipelines when in compliance with the TR-0158 Special Provisions.

The pavement or roadway must not be open-cut unless specifically allowed under a separate "UT" permit. Utility installations must not be installed inside of culverts or drainage structures.

For additional details regarding longitudinal utility encroachments on both conventional and access-controlled highway rights-of-way, see Chapter 600.

UG 1. CASINGS: Casings must be steel conduit with a minimum inside diameter sufficiently larger than the outside diameter of the pipe or ducts to accommodate placement and removal. The casing can be either new or used steel pipe, or an approved connector system. Used pipe must be pre-approved by the Department's engineer or representative before installation.

When the method of Horizontal Directional Drilling (HDD) is used to place casing, the use of High Density Polyethylene Pipe (HDPE) as casing is acceptable.

Reinforced Concrete Pipe (RCP) in compliance of State Standard Specifications is an acceptable carrier for storm drain gravity flow or non-pressure flow. RCP when installed by Bore & Jack must have rubber gaskets at the joints, and holes for grouting of voids left by jacking operations, see "E" below.

- A. Minimum wall thickness for steel pipe casing for different lengths and diameters of pipes are as follows:

Minimum Wall Thickness

Casing Pipe (Diameter)	Up to 150 ft (Length)	Over 150 ft (Length)
6" to 28"	1/4"	1/4"
30" to 38"	3/8"	1/2"
40" to 60"	1/2"	3/4"
62" to 72"	3/4"	3/4"

- B. Spiral welded casing is authorized provided the casing is new and the weld is smooth.

- C. The ends of the casing must be plugged with ungrouted bricks or other suitable material approved by the Department's representative.
- D. When required by the Department's representative, the permittee must at his expense, pressure grout the area between the pavement and the casing from within the casing in order to fill any voids caused by the work covered under this permit. The increments for grout holes inside the pipe must be 8' staggered and located 22-1/2 degrees from vertical axis of the casing. Pressure must not exceed 5 psig for a duration sufficient to fill all voids.
- E. There is a spacing requirement when placement of multiple encasements is requested. The distance between multiple encasements must be the greater of either 24" or twice that of the diameter of the larger pipe being installed.
- F. Casings placed within access controlled highway rights-of-way must extend to the right-of-way lines.
- G. Wing cutters, if used, must be a maximum of 1" larger than the casing. Voids caused by the use of wing cutters must be grouted in accordance with "E" above.
- H. A band welded to the leading edge of the casing must be placed square to the alignment. The band must not be placed on the bottom edge. Flaring the lead section on bores over 100' must not be permitted.

ENCROACHMENT PERMIT SPECIAL PROVISIONS

- I. All casing lengths must equal to the auger length.
- J. The casings within conventional highways must extend 5' beyond the back of curb or edge of pavement, or to the right of way line if less. Where PCC cross-gutter exists, the casing must extend at least 5' beyond the back of the cross-gutter, or to the right of way line if less.

Bore and receiving pits must:

- A. be located at least 10' or more from the edge of pavement on conventional highways in rural areas.
- B. be located 5' behind the concrete curb or AC dike on conventional highways in urban areas.
- C. be located 5' outside the toe of slope of embankment areas.
- D. be located outside access controlled highway rights-of-way.
- E. be adequately fenced and/or have a Type-K barrier placed around them.
- F. be adequately shored in accordance with Cal-OSHA requirements. Shoring for jacking and receiving pits located within 15' of traffic lanes on a State highway must not extend more than 36" above the pavement grade unless otherwise authorized by Department's representative. Reflectors must be affixed to the shoring on the sides facing traffic. A 6' chain link fence must be installed around the perimeter of the pits during non-working hours.
- G. have crushed-rock and sump areas to clear groundwater and water used to clean the casing. Where ground water is found and pumping is required, the pits must be lined with filter fabric.

UG 2. HORIZONTAL DIRECTIONAL DRILLING: Bore and receiving pits

When HDD is the approved method for pipe installation, drilling plans must contain information listed as follows:

- 1. Location of: entry and exit point, access pit, equipment, and pipe staging area.
- 2. Proposed drill path alignment (horizontal and vertical).
- 3. Location and clearances of all other facilities.
- 4. Depth of cover.
- 5. Soil analysis.*
- 6. Carrier pipe length, diameter, thickness, and material (HDPE/steel) and ream pipe diameter.
- 7. Detailed carrier pipe calculations confirming ability to withstand installation loads and long-term operational loads including H20.
- 8. Proposed drilling fluid composition, viscosity, and density (based on soils analysis).
- 9. Drilling fluid pumping capacity, pressures, and flow rates
- 10. State right-of-way lines, property, and utility right of way or easement lines.
- 11. Elevations.
- 12. Type of tracking method/system and accuracy used.
- 13. A detailed plan for monitoring ground surface movement (settlement or heave) resulting from the drilling operation.
- * May be waived by the District Permit Engineer for HDD jobs less than 6" in diameter and a traverse crossing less than 150'.

UG 3. LIMIT OF EXCAVATION: No excavation is allowed within 10' from the edge of pavement except in curbed urban areas or as specified in the permit. Where no curb exists and excavations within 10' of the traveled way are to remain open, a temporary Type-K railing must be placed at a 10:1 taper or as otherwise directed by the Department.

UG 4. TUNNELING: Review, requirements of Section 603.6A-6 of the Encroachment Permits Manual, if applicable. In addition to the requirements of "UG1" the following requirements apply:

- A. For the purpose of this provision, a tunnel is defined as any pipe, 30" or larger in diameter placed.
- B. When tunneling is authorized, the permittee must provide full-time inspection of tunneling operations. The Department's representative must monitor projects.
- C. A survey grid must be set and appropriately checked over the centerline of the pipe jacking or tunneling operation. Copies of the survey notes must be submitted to the Department's representative.
- D. Sand shields may be required as ground conditions change.
- E. The method used to check the grade and alignment must be approved by the Department's representative.
- F. Pressure grouting for liner plates, rib and spiling, or rib and lagging tunnels must be at every 8' section or at the end of work shift before the next section is excavated. All grouting must be completed at the end of each workday.
- G. A method for securing the headway at the end of each workday is required. Breastplates must be

installed during working hours for running sand or super-saturated soil.

UG 5. CLEARANCE AND OFFSET

REQUIREMENTS: All installations must comply with Chapter 17, Article 4 of the Project Delivery Procedures Manual (PDPM) for utility clearance and offset requirements.

UG 6. FACILITIES EXEMPT FROM THE HIGH PRIORITY UTILITY REQUIREMENTS:

The following utilities (not including State owned utilities) are exempt from these policies and do not need to be plotted on the plans unless the depiction of the utility is needed for interconnectivity with the proposed work:

- Natural gas service lines less than 2 inches in pipe diameter that have normal operating pressures of 60 psig or less
- Subsurface electrical service connections with a potential to ground of 50 volts or less
- Service connections (laterals) for water, sewer, telephone, telecommunication, and cable service

All State owned utilities must be plotted on the plans.

UG 7. DETECTOR STRIP: A continuous metallic detector strip must be provided with non-metallic main installations. Service connections must be installed at right angles to the centerline of the State highway where possible.

UG 8. BACKFILLING: All backfilling must conform to the applicable sections of the Department's Standard Specifications. Ponding or jetting methods of backfilling are prohibited.

Any required compaction tests must be performed by a certified laboratory at no cost to the Department and the laboratory report furnished to the Department's representative.

UG 9. ROADWAY SURFACING AND BASE MATERIALS: When the permit authorizes installation by the open cut method, surfacing and base materials and thickness thereof must be as specified in the permit.

Temporary repairs to pavements must be made and maintained upon completion of backfill until permanent repairs are made. Permanent repairs to pavements must be made within thirty (30) days of completion of backfill unless otherwise specified by the Department. Temporary pavement patches must be placed and maintained in a smooth riding plane free of humps and/or depressions.

UG 10. DAMAGE TO TREE ROOTS: Tree roots 3" or larger in diameter will not be cut within the tree drip

line when trenching or other underground work is necessary adjacent to roadside trees. If such roots are encountered, they must be tunneled under, wrapped in burlap and kept moist until the trench is backfilled. Trenching machines may not be used under trees if the trunk or limbs will be damaged by their use.

If the trees involved are close together and of such size that it is impractical to protect all roots over 3" in diameter, or when roots are less than 4" in diameter, outside tree drip line, special arrangements may be made whereby pruning of the tree tops to balance the root loss can be done by the permittee under the close supervision of the District Landscape Specialist or District Tree Maintenance Supervisor. Manholes must not be installed within 20' of any trunk.

UG 11. PIPES ALONG ROADWAY: Pipes and conduits paralleling the pavement must be located as shown on the plans or located outside of pavement as close as possible to the right-of-way line.

UG 12. BORROW AND WASTE: Borrow and waste will be allowed within the work limits only as specified in the permit.

UG 13. MARKERS: The permittee must not place any markers that create a safety hazard for the traveling public or departmental employees.

UG 14. CATHODIC PROTECTION: The permittee must perform stray current interference tests on underground utilities under cathodic protection. The permittee must notify the Department prior to the tests. The permittee must perform any necessary corrective measures and advise the Department.

UG 15. DELETED. Provision left blank intentionally

UG 16. INSTALLATION BY OPEN CUT

METHOD: When the permit authorizes installation by the open cut method no more than one lane of the highway pavement must be open-cut at any one time. Any exceptions must be in writing by the Department's representative. After the pipe is placed in the open section, the trench is to be backfilled in accordance with specifications, temporary repairs made to the surfacing and that portion opened to traffic before the pavement is cut for the next section.

If, at the end of the working day, backfilling operations have not been properly completed, steel plate bridging must be required to make the entire highway facility available to the traveling public in accordance with the "Steel Plate Bridging Special Provisions" (TR-0157)

ENCROACHMENT PERMIT SPECIAL PROVISIONS

UG 17. PAVEMENT REMOVAL: PCC pavement to be removed must be saw cut at a minimum depth of 4" to provide a neat and straight pavement break along both sides of the trench. AC pavement must be saw cut to the full depth.

Where the edge of the trench is within 2' of existing curb and gutter or pavement edge, the asphalt concrete pavement between the trench and the curb or pavement edge must be removed.

UG 18. DELETED. Provision left blank intentionally.*

UG 19. SIDES OF OPEN-CUT TRENCHES: Sides of open cut trenches in paved areas must be kept as nearly vertical as possible. Trenches must not be more than 2' wider than the outside diameter of the pipe to be laid therein, plus the necessary width to accommodate shoring.

UG 20. EXCAVATION UNDER FACILITIES:

Where it is necessary to excavate under existing curb and gutter, or underground facilities, the void must be backfilled with two (2) sack cement-sand slurry.

UG 21. PERMANENT REPAIRS TO PCC

PAVEMENT: Repairs to PCC pavement must be made of Portland Cement Concrete containing a minimum of 658 lbs. or 7 sack of cement per cubic yard. Replaced PCC

pavement must equal existing pavement thickness. The concrete must be satisfactorily cured and protected from disturbance for not less than forty-eight (48) hours. Where necessary to open the area to traffic, no more than two (2%) percent by weight of calcium chloride may be added to the mix and the road opened to traffic after six (6) hours.

UG 22. REMOVAL OF PCC SIDEWALKS OR

CURBS: Concrete sidewalks or curbs must be saw cut to the nearest score marks and replaced equal in dimension to that removed with score marks matching existing sidewalk or curb.

UG 23. SPOILS: No earth or construction materials are to be dragged or scraped across the highway pavement, and no excavated earth placed or allowed to remain at a location where it may be tracked onto the highway traveled way, or any public or private approach by the permittee's construction equipment, or by traffic entering or leaving the highway traveled way. Any excavated earth or mud so tracked onto the highway pavement or public or private approach must be immediately removed by the permittee.

*NOTE: Special Provision was deleted since it is already part of the EP General Provisions (TR-0045)

TREE REMOVAL

TR – 0171 (New 01/2018)

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

I. GENERAL (Applies to BOTH Non-Utility and Utility Projects):

1. Scheduled removal work may be restricted by Caltrans to maintain mobility during special events, commuter traffic, or other periods of projected high traffic volumes.
 - i. Traffic control is generally authorized from 9 a.m. to 3 p.m., Monday through Friday, excluding holidays. Extended traffic control hours may be required by Caltrans.
 - ii. Traffic control must conform to requirements shown in the State Standard Plans. When required, the use of a flashing arrow board is MANDATORY.
 - iii. Suspend removal work during inclement weather, such as heavy fog, if lane or shoulder closures will be required. Do not perform removal work during periods of high wind to minimize the spread of debris into the traveled way.
2. Remove trees in compliance with the seasonal restrictions specified in the Migratory Bird Act.
3. Contractors must be licensed by the California State Contractors State License Board and hold a current C61/D49 license.
4. Remove debris, cuttings, and limbs from the State right-of-way at the end of each workday, leaving the work area in a safe and presentable condition. In regions where debris, cuttings, limbs and bark may harbor pests or disease (such as pine pitch canker, eucalyptus psyllid, eucalyptus borer beetles, Dutch elm disease, or sudden oak death) dispose the vegetative materials in accordance with Federal, State, and local agency requirements.
5. Permittee or their contractors may collect woodchips produced by removing trees located both inside and outside Caltrans right-of-way, and dispose of these woodchips by placing them in locations within Caltrans right-of-way, when approved in advance by Caltrans Maintenance. Woodchips must not create a fire hazard, encourage illegal dumping, block traveler sightlines, or obstruct drainage ditches or drain inlets.

X. NON-UTILITY TREE REMOVAL PROJECTS:

When a permit is issued for removal of a tree as an independent operation or as a part of other work, the entire stump must be taken out to a depth of at least 12-inches below the ground surface. All debris must be removed from the right of way. The hole left by the stump must be backfilled and thoroughly tamped and the site left in a safe presentable condition.

XI. UTILITY TREE REMOVAL PROJECTS ONLY:

Removal of trees over sub-surface Gas lines:

After trees are removed, cut trunks flush with the ground, leaving no more than 2-inches exposed above the finished grade. If required by Caltrans, remove the stump to a depth of at least 12-inches, remove all debris from the hole, backfill with clean fill, and thoroughly compact the soil, leaving the area in a safe presentable condition.

1. GENERAL: The purpose of these Special Provisions is to provide the Permittee with specifications for water pollution control to minimize, prevent, or control the discharge of material into the air, surface waters, groundwater, and storm sewers owned by the State or local agencies. These provisions are not intended to take the place of the Caltrans Water Pollution Control Program (WPCP) for projects where soil disturbance from work activities less than one acre, or work activities of one acre or more subject to the preparation of the Caltrans Storm Water Pollution Prevention Plan (SWPPP). The Permittee must comply with the following Special Provisions and the direction of the State Representative. All Stormwater Best Management Practices (BMPs) must conform to Section 13 Water Pollution Control of Caltrans' Standard Specifications.

2. NPDES REQUIREMENTS: The Permittee must be responsible for full compliance with the Caltrans Storm Water Program and the Caltrans National Pollutant Discharge Elimination System (NPDES) Permit requirements (*Order No. 2012-0011-DWQ, NPDES No CAS000003*) and for projects disturbing one acre or more of soil, full compliance with the California Construction General Permit (*Order No. 2009-0009-DWQ, NPDES No CAS000002*) or for projects for projects that have one acre or more of soil disturbance in the Lahontan Region (*Order No. R6T-2016-0010, NPDES No CAG616002*). It is the Permittee's responsibility to install, inspect, and repair or maintain facilities and devices used for water pollution control practices (BMPs) before performing daily work activities. Installation, inspection and maintenance responsibilities on the job site include: 1) soil stabilization materials in work areas that are inactive or prior to storm events, 2) water pollution control devices to control sediment and erosion, 3) implementation of spill and leak prevention procedures for chemical and hazardous substances stored on the job site, 4) material storage, 5) stockpile management, 6) waste management, 7) non-stormwater management, 8) water conservation, 9) tracking controls and 10) illicit connection, illegal discharge detection and reporting. The Permittee must report to the State representative when discharges enter into receiving waters, adjacent property, drainage systems or when discharges could be a cause or a threat for water pollution. The Permittee must also control illicit discharges or illegal dumping prior to start of daily work schedule. Copies of written notices or orders from the Regional Water Quality Control Board or other regulatory agency must be provided to the State representative within 48 hours of reported activity. For additional information on stormwater compliance, visit the State Water Resources Control Boards storm water Website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater

3. RESPONSIBILITY FOR DEBRIS REMOVAL: The Permittee must be responsible for preventing sediment, trash, debris, and other construction waste from entering the street, the storm drains, local creeks, or any other bodies of water.

4. SPOILS AND RESIDUE: The Permittee must vacuum any saw-cut concrete waste material, debris, residue, etc. No spoils, debris, residue, etc. must be washed into a drainage system.

5. SWEEPING: Sweep paved roads at construction entrance and exit locations and surrounding paved areas daily within the job site during: 1) clearing and grubbing, 2) earthwork, 3) trenching, 4) soil disturbance, 5) pavement grinding and/or cutting, and 6) after observing tracking of material onto or off the State property. Keep dust to a minimum during sweeping activities. Use vacuum whenever dust generation is excessive or sediment pickup is ineffective.

Roadways or work areas must not be washed down with water. Street sweeping operations must conform to Section 13 Water Pollution Control of Caltrans' Standard Specifications.

6. VEHICLES AND EQUIPMENT: Permittee must prevent all vehicles, equipment, etc. from leakage or mud tracking onto roadways. If leaks cannot be repaired immediately, remove the vehicle or equipment from the job site.

7. MAINTENANCE AND FUELING OF VEHICLES AND EQUIPMENT: Maintenance and fueling of equipment must not result in any pollution at the job site. The Permittee must immediately clean up spills/leaks, and properly dispose of contaminated soil and materials.

8. CLEANING VEHICLES AND EQUIPMENT: Limit vehicle and equipment cleaning or washing at the job site except what is necessary to control vehicle tracking or hazardous waste. The Permittee must clean all equipment within a bermed area or over a drip pan large enough to prevent run-off. No soaps, solvents, degreasers, etc. must be used in State right-of-way. Any water from this operation must be collected and disposed of at an appropriate site. Containment berms or dikes must be used for fueling, washing, maintaining and washing vehicles or equipment in outside areas. Containment must be performed at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain. Keep adequate quantities of absorbent spill- cleanup material and spill kits in the fueling or maintenance area and on fueling trucks.

9. DIESEL FUELS: The use of diesel fuel from petroleum or other fossil fuel as a form-oil or solvent is not allowed.

10. WEATHER CONDITIONS AT WORKSITE: Any activity that would generate fine particles or dust that could be transported off site by stormwater must be performed during dry weather.

11. WIND EROSION PROTECTION: The use of Wind Erosion BMPs must be deployed year-round in instances where dust or fine particles could be transported off site.

11. HOT MIX ASPHALT: Runoff from washing hot mix asphalt must not enter into any drainage conveyances.

12. PROTECTION OF DRAINAGE FACILITIES: The Permittee must protect/cover gutters, ditches, drainage courses, and inlets with gravel bags, fiber rolls, State approved fabric filters, etc., to the satisfaction of the State representative during grading, paving, saw-cutting, etc. and materials must conform to Section 13-6.02 Materials for Water Pollution Control of Caltrans' Standard Specifications. No such protection measures must cause an obstruction to the traveling public. The Permittee must implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site (including secondary containment requirements) in accordance to section 13-4.03B Spill Prevention and Control, and 14-11 Hazardous Waste and Contamination, Water Pollution Control of Caltrans' Standard Specifications.

13. PAINT: Rinsing of painting equipment and materials is not permitted in State right-of-way. When thoroughly dry, dispose of the following as solid waste: dry latex paint, paint cans, used brushes, rags, gloves, absorbent materials, and drop cloths. Oil based paint sludge and unusable thinner must be disposed of at an approved hazardous waste site.

14. CONSTRUCTION MATERIALS: Stockpile of all construction materials, including, but not limited to; pressure treated wood, asphalt concrete, cold mix asphalt concrete, concrete, grout, cement containing premixes, and mortar, must conform to section 13-4.03C (2) Material Storage & 13-4.03C (3) Stockpile Management of Caltrans' Standard Specifications.

15. CONCRETE EQUIPMENT: Concrete equipment must be washed in a designated washing area in a way that does not contaminate soil, receiving waters, or storm drain systems.

16. EXISTING VEGETATION: Established existing vegetation is the best form of erosion control. Minimize disturbance to existing vegetation. Damaged or removed vegetation must be replaced as directed by the State Representative.

17. SOIL DISTURBANCE: Soil disturbing activities must be avoided during the wet weather season. If construction activities during wet weather are allowed in your permit, all necessary erosion control and soil stabilization measures must be implemented in advance of soil disturbing activity.

18. SLOPE STABILIZATION AND SEDIMENT CONTROL: Consider a certified expert in Erosion and Sediment control in cases where slopes are disturbed during construction. The Permittee is directed to comply with Section 13.5 Temporary Soil Stabilization and Section 21 Erosion Control of Caltrans' Standard Specifications during application of temporary soil stabilization measures to the soil surface. Fiber rolls or silt fences may be required down slope until permanent soil stabilization is established. Remove the accumulated sediment whenever the sediment accumulates to 1/3 of the linear sediment barrier height. The Permittee must limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist or when environmental regulations prohibit their use within the project.

19. STOCKPILES: Stockpiles containing aggregate and/or soil must be stored at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain, and must be covered and protected with a temporary perimeter sediment barrier. Cold mix stockpiles must be stored on an impermeable surface and covered with 9 mil plastic to prevent contact with water. Minimize stockpiling of materials on the job site. Manage stockpiles by implementing the water pollution control practices in Section 13-4.03C (3) Stockpile Management of the State of California standard specifications for construction.

20. DISCOVERY OF CONTAMINATION: The State Representative must be notified in case any unusual discoloration, odor, or texture of ground water, is found in excavated material or if abandoned, underground tanks, pipes, or buried debris are encountered.

21. SANITARY AND SEPTIC WASTE: Do not bury or discharge wastewater from a sanitary or septic system within the highway. Properly connected sewer facilities are free from leaks. With State Representative approval place portable sanitary facility at least 50 feet away from storm drains, receiving waters, and flow lines. Permittee must comply with local health agency provisions when using an on-site disposal system.

22. LIQUID WASTE: Prevent job site liquid waste from entering storm drain systems and receiving waters. Drilling slurries, grease or oil-free waste water or rinse water, dredging, wash water or rinse water running off a surface or other non-storm water liquids not covered under separate waste water permits must be held in structurally sound, leak-proof containers, such as portable bins or portable tanks. Store containers at least 50 feet away from moving vehicles and equipment. Liquid waste may require testing to determine hazardous material content prior to disposal. All measures must conform to section 13-4.03D (5) Liquid Waste, Water Pollution Control of Caltrans' Standard Specifications.

23. WATER CONTROL AND CONSERVATION: Manage water use in a way that will prevent erosion and the discharge of

pollutants into storm drain systems and receiving waters. Direct runoff, including water from water line repair from the job site to areas where it can infiltrate into the ground. Direct water from off-site sources around the job site or from contact with jobsite runoff.

24. PILE DRIVING: Keep spill kits and cleanup materials at pile driving locations. Park pile driving equipment over drip pans, absorbent pads, or plastic sheeting with absorbent material, and away from stormwater run-on when not in use.

25. DEWATERING: Dewatering consists of discharging accumulated storm water, groundwater, or surface water from excavations or temporary containment facilities. All dewatering operations must comply with the latest Caltrans guidelines including the *Field Guide for Construction Site Dewatering*. Contact State representative for approval of dewatering discharge by infiltration or evaporation, otherwise, any effluent discharged into a permitted storm water system requires approval from the Regional Water Quality Control Board. Prior to the start of dewatering, the Permittee must provide the State Representative with a dewatering and discharge work plan that complies with section 13-4.03G Dewatering, Water Pollution Control of Caltrans' Standard Specifications. A copy of the Waste Discharge Permit and a copy of a valid WDI number issued by the Regional Board must be provided to the State representative.

ROLLING TRAFFIC BREAKS

TR-0407 (Rev 10/2017)

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

1. Permittee must arrange a meeting with the California Highway Patrol (CHP) and the Caltrans permit inspector, at least two (2) weeks prior to the start of work in order to determine the appropriate number of CHP vehicles required for planned traffic breaks. A minimum of two (2) CHP vehicles in each direction are required. One CHP vehicle will be conducting the planned traffic break and the second CHP vehicle will be stationed on the shoulder with its rear emergency lights on to caution motorists at the end of the queue. Additional CHP vehicles may be required if determined to be necessary by the CHP. It is the responsibility of the permittee to make arrangements with CHP for providing planned traffic breaks to facilitate the approved work.
2. The duration of a planned traffic break **MUST NOT** exceed five (5) minutes. If additional traffic breaks are required, traffic backup must be cleared before performing another break.
3. The permittee must provide a minimum of one (1) Portable Changeable Message Sign (PCMS). Additional PCMSs must be provided if required by Caltrans permit inspector or CHP. PCMS(s) must be placed at the locations directed by the CHP and be moved or relocated as needed. Each PCMS must comply with section 12-3.32 of the Caltrans Standard Specifications. PCMS(s) must be removed promptly after the planned traffic break is completed.
4. Message to be displayed on the PCMSs must be coordinated with Caltrans permit inspector/representative and CHP.
5. All aerial crossings should be scheduled on Sunday mornings (excluding holidays), from daylight to 10:00 AM, unless otherwise authorized by the District Permit Engineer or authorized Caltrans' representative.
6. No aerial crossings must be performed in rainy, foggy or other inclement weather.


HAZARDOUS MATERIALS AND HAZARDOUS WASTE MANAGEMENT

TR-0408 (New 09/2017)

By acceptance of this encroachment permit, Permittee hereby agrees that:

1. All construction debris/materials/water/excess soil must become the property of the Permittee, and must be transported and disposed of, outside of Caltrans' right-of-way, in accordance with all applicable environmental laws and regulations. The Permittee must be identified as the generator for all construction debris/materials/water/excess soil and must be responsible for proper identification (including sampling and analysis) and management of all construction and contaminated debris/materials/water/excess soil that are removed, and/or excavated, from the work site. If hazardous waste is generated, the Permittee must obtain an Environmental Protection Agency (EPA) Identification Number issued in their name. State Permit Inspector does not sign any manifests or shipping papers. The Permittee must be named as the generator on all Uniform Hazardous Waste Manifests and shipping papers. Caltrans must not be identified or written anywhere on the manifests or shipping papers. Prior to waste disposal, the Permittee should submit the waste generator form(s) to State Permit Inspector for verification. The Permittee must submit to the State Permit Inspector, a copy of all manifests and/or shipping papers generated for materials removed, transported and/or excavated from the state right-of-way.
2. If contaminated material is encountered, Permittee is to stop work and contact the State Permit Inspector immediately. The Permittee must submit a Sampling and Analysis Plan (SAP), and a Health and Safety Plan (HaSP) prepared by a Certified Industrial Hygienist (CIH) and in conformance with California Code of Regulations title 8, section 5192, "Hazardous Waste Operations and Emergency Response" for sampling activity through a separate permit application. Upon the permit review, additional environmental documents may be required prior to resumption of construction activity.
3. Permittee is responsible for any violation, penalty, enforcement action, corrective action, remedial action, and any other type of consequences resulting from cross contamination of groundwater (including perched groundwater), improper handling/managing of hazardous materials and/or placement of contaminated materials inside Caltrans right-of-way.
4. It is the Permittee's responsibility to comply with the Department of Toxic Substances Control (DTSC) ADL requirements for roadway soil management. Reuse of soils containing greater than 80 mg/kg total lead is not allowed without written approval of the DTSC and Caltrans. The Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils between Caltrans and the DTSC does not constitute written approval for the Permittee to reuse soils containing greater than 80 mg/kg total lead.
5. The Permittee must implement the emergency notification requirements established in the California Office of Emergency Management Hazardous Materials, Spill / Release Notification Guidance (<http://www.caloes.ca.gov/>).
6. Any imported material used for backfill must be free of contamination, and a certificate of the material as "clean" with the source area of the material must be provided to Permit Inspector upon request. Importing soils containing greater than 80 mg/kg total lead for use in state right-of-way is not allowed.

Stockpiles of material containing aerially deposited lead shall not be placed where affected by surface run-on or run-off. Stockpiles shall be covered with plastic sheeting 13 mils minimum thickness or with one foot of nonhazardous material. Stockpiles shall not be placed in environmentally sensitive areas. Stockpiled material shall not enter storm drains, inlets, or waters of the State.



WATER DIVERSION GUIDE

WATER DIVERSION GUIDE

FOR THE

**VENTURA COUNTY
MAINTENANCE PROGRAM EIR**

VENTURA, CALIFORNIA

Prepared for:

Ventura County Watershed Protection District

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<u>Section</u>	<u>Page</u>
1.0 INTRODUCTION.....	1-1
1.1 BACKGROUND.....	1-1
1.2 PURPOSE	1-1
1.3 DISTRICT ZONES	1-1
2.0 FACILITY TYPES AND DESCRIPTIONS	2-1
2.1 OPEN CHANNELS	2-1
2.1.1 Channel Types	2-1
2.1.2 Maintenance Activities in Channels	2-1
2.2 DEBRIS AND DETENTION BASINS	2-2
2.2.1 Debris Basins	2-2
2.2.2 Detention Basins	2-2
2.2.3 Maintenance Operations	2-2
3.0 ASSESSING FIELD CONDITIONS.....	3-1
3.1 ASSESSMENT OF FLOW CONDITIONS	3-1
3.1.1 Open Channels.....	3-1
3.1.2 Debris and Detention Basins	3-1
3.2 ASSESSMENT OF POTENTIAL AQUATIC HABITAT.....	3-2
3.3 GROUNDWATER DEWATERING.....	3-3
4.0 WATER DIVERSION METHODS	4-1
4.1 WATER DIVERSION COMPONENTS	4-1
4.2 COFFERDAMS	4-1
4.2.1 Types of Cofferdams	4-1
4.3 BYPASS SYSTEMS.....	4-3
5.0 WATER DIVERSION BEST MANAGEMENT PRACTICES	5-1
5.1 GENERAL WATER DIVERSION BMPS.....	5-1
5.1.1 Maintenance and Repair Planning.....	5-1
5.1.2 Operation and Maintenance.....	5-1
5.1.3 Removal Post-Maintenance	5-1
5.2 COFFERDAMS	5-2
5.2.1 General Design Considerations for Cofferdams.....	5-2
5.2.2 Inspection and Maintenance	5-2
5.2.3 Removal.....	5-2
5.3 BYPASS SYSTEMS.....	5-3
5.3.1 General Considerations for Bypass Systems	5-3
5.3.2 Open Channel Bypass Systems	5-3

5.3.3	Pipeline Bypass Systems	5-3
5.4	SEDIMENT CONTROL ACTIVITIES.....	5-4
5.5	OUTLET PROTECTION	5-4
5.6	AQUATIC LIFE PROTECTION MEASURES	5-5
5.6.1	Prior to Cofferdam Construction	5-5
5.6.2	Protection of Aquatic Life During Bypass Operation	5-5
5.6.3	Dewatering of Work Area	5-5
5.6.4	Maintaining Flow Through Work Site	5-6
5.6.5	Re-establishing Flows Post-construction.....	5-6
5.7	EQUIPMENT AND VEHICLE USE	5-6
5.7.1	Equipment Operation.....	5-6
5.7.2	Equipment Maintenance During Construction	5-6
5.7.3	Spill Prevention, Control, and Containment.....	5-7
6.0	REGULATORY SUMMARY.....	6-1
6.1	FEDERAL AGENCIES	6-1
6.1.1	U.S. Army Corps of Engineers	6-1
6.1.2	U.S. Fish and Wildlife Service and National Marine Fisheries Service (NMFS)	6-1
6.2	STATE AGENCIES.....	6-1
6.2.1	Regional Water Quality Control Board	6-1
6.2.2	California Department of Fish and Wildlife.....	6-2

<u>List of Tables</u>	<u>Page</u>
Table 1-1 Summary of District Zones	1-2
Table 3-1 Watershed Summary of Potential Special Status Species	3-2

List of Figures	Page
Figure 1 District Management Zone	1-3
Figure 2 Cofferdam and Bypass Systems	4-2
Figure 3 Intake Configurations	4-3

1.0 INTRODUCTION

1.1 BACKGROUND

The Ventura County Watershed Protection District's (District) ongoing maintenance program focuses on the proper operation and function of the District's flood control facilities. Routine maintenance and repair activities preserve the engineered flow conveyance and retention capacities of the District's flood control facilities and prevent/remove the accumulation of obstructing vegetation and sediments that could increase existing flood or erosion hazards.

This Water Diversion Guide was developed in conjunction with the 2008 Maintenance Program Environmental Impact Report (Program EIR) to address potential impacts to water quality and aquatic habitat during routine maintenance and repair activities. This guidance provides detailed Best Management Practices (BMPs) for the District and its contractors to use during water diversion activities to reduce environmental impacts to hydrology, water quality, and aquatic habitat.

1.2 PURPOSE

During routine maintenance and repair operations, flowing or ponded water may be present at a flood control facility. Water flowing through work areas can potentially impact downstream water quality through the discharge of sediment, debris, construction materials and other pollutants. Construction activity may also impact water quality or native aquatic life by altering flow channels and hydrology, mechanically damaging aquatic habitat or contributing to siltation and turbidity.

Temporary water diversion is required during a routine maintenance or repair activity when work in flowing or ponded water has the potential to negatively impact water quality or native aquatic life. A water diversion facility must be constructed, operated, maintained, and removed to minimize impacts. BMPs implemented as part of the water diversion reduces water quality impacts by minimizing the discharge of sediments and other pollutants from the work area. BMPs for the protection, removal, and relocation of native aquatic life during water diversion reduce impacts to aquatic life. Water quality monitoring is usually required during the operation and removal of a water diversion. The results of water quality monitoring can be used to assess the performance of BMPs and address any potential impacts to water quality from the water diversion.

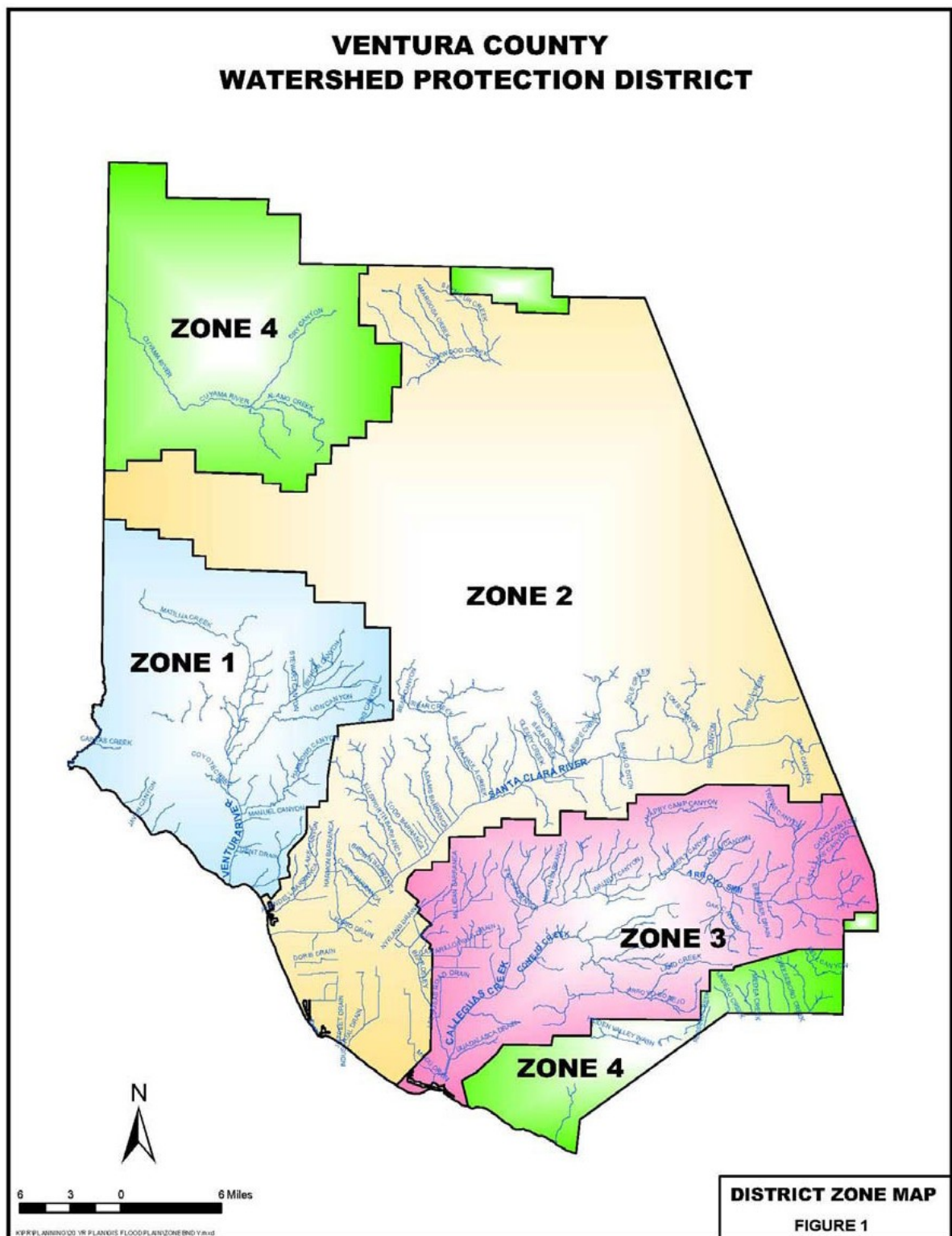
1.3 DISTRICT ZONES

The District operates and maintains projects that have been either constructed by the District or constructed by others and transferred to the District. The District has divided Ventura County into four management zones (Table 1-1 and Figure 1).

**TABLE 1-1
SUMMARY OF DISTRICT ZONES**

Zone No.	Watershed	Major Drainages	Cities and Communities
1	Ventura River Watershed	Ventura River, San Antonio Creek, tributaries in the Ojai Valley	Ojai, Ventura, Oak View, Casitas Springs, Live Oak Acres, Meiners Oaks
2	Santa Clara River Watershed and Oxnard Plain	Santa Clara River and its tributaries, various Oxnard Plain drains	Piru, Fillmore, Santa Paula, Ventura, El Rio, Saticoy, Oxnard, Port Hueneme, Nyeland Acres
3	Calleguas Creek Watershed	Arroyo Conejo, Arroyo Simi, Arroyo Santa Rosa Creek, Conejo Creek, Arroyo Las Posas Calleguas Creek, Revolon Slough	Simi Valley, Moorpark, Camarillo, Thousand Oaks, Newbury Park, Somis
4	Potrero Creek Watershed, Upper Cuyama River Watershed	Potrero Creek, Medea Creek	Agoura Hills, Westlake Village

FIGURE 1
DISTRICT MANAGEMENT ZONES



2.0 FACILITY TYPES AND DESCRIPTIONS

A variety of basin and linear facilities are maintained by the District. A comprehensive list of the District's facilities and their location, dimensions, capacities, and other pertinent information is included in the District's Catalog of Facilities (2008 Environmental Protection Measures for the ongoing Routine Operations and Maintenance Program EIR, Appendix C, periodically updated) and the Debris and Detention Basin Manual (EIR Appendix D, updated December 2017). The main types of linear facilities are Open Channel; Open Channel Inlets, Outlets, and Transitions; Bank Protection and Related Facilities; and Pipe and Box Culverts (Underground Facilities). There are about 216 miles of maintained linear facilities with open channels accounting for one-half of the total. There are 56 debris and detention basins that are maintained by the District.

2.1 OPEN CHANNELS

2.1.1 Channel Types

More than 50 percent of the District's linear facilities are some type of open channel. The most abundant type is the reinforced rectangular or trapezoidal concrete channel. This is a fully lined concrete structure with either a trapezoidal or rectangular (vertical wall) channel geometry. Some of the open channels are graded, earthen channels or unlined channels, while others are grouted (i.e., concreted) riprap channels with earthen bottoms. Channel geometries for earthen channels are usually trapezoidal.

Open channels in the District can be categorized as "improved" or unimproved" channels. Improved channels have been designed for a specific storm flow conveyance capacity, with engineering drawings that specify a certain width and depth. Most "improved" channels are fully or partially lined with concrete. "Improved" earthen channels have design dimensions that must be maintained. "Unimproved" channels are full earthen channels or channels with bank protection (i.e., riprap, gunite) and a soft bottom that do not have engineered design specifications but are maintained to specific configurations as part of the District's ongoing maintenance program.

2.1.2 Maintenance Activities in Channels

Several types of routine maintenance and repair operations are conducted by the District on an annual basis. Any of these activities can occur at a facility with flowing or ponded water that would require a water diversion and appropriate BMPs.

2.1.2.1 Channel Cleanout

The District is the Principal co-permittee of the Ventura Countywide NPDES Permit and responsible for implementation of the Ventura Countywide Stormwater Quality Management Program (VCSQMP)¹. The VCSQMP requires co-permittees to routinely clean catch basins, drainage facilities, detention/retention basins, and reinforced concrete open channels at least once each year prior to the wet season. At most sites, sediments are removed from the channel bottom using an excavator or a crane working from the top of the banks.

¹ The Ventura Countywide Stormwater Quality Management Program (VCSQMP) complies with the requirements of the Ventura Countywide National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit (Order R4-2010-0108; NPDES Permit No. CAS004002) issued by the Los Angeles Regional Water Quality Control Board (RWQCB).

2.1.2.2 Channel Bed and Bank Repair

Repair activities include the re-shaping and compaction of earthen channels to repair erosion damage, replacement of damaged concrete in lined channels and other in-kind replacement bank protection. Minor additions of rock riprap and/or concrete may occur in locations with repetitive scour or erosion damage. These types of repairs do not substantially alter the facility footprint or change the type of construction.

2.2 DEBRIS AND DETENTION BASINS

The District operates and maintains 56 debris and detention basins. The number, location, and capacity of the District's detention basins are provided in the VCWPD Debris and Detention Basin Manual. They are typically located in headwaters above developed areas. The basins are usually formed by the construction of an earthen dam that may or may not have rock facing. If basin volumes or dam designs exceed certain state criteria, they are regulated by the California State Division of Safety of Dams (DSOD). State-size facilities store more than 50 acre-feet of water or have dams that are more than 25 feet high.

2.2.1 Debris Basins

Most of the District basins are "debris basins" which capture large debris (sediment, boulders, trees, etc.) during winter storms. These types of basins function by allowing flood waters to pond in the basin, thereby slowing water velocity so that debris and sediment settle out in the basin.

2.2.2 Detention Basins

The District maintains several "detention basins," which detain large volumes of water during the early phases or peak of a storm event, then slowly release the water over time. These basins reduce the peak downstream flows, which reduces flooding.

2.2.3 Maintenance Operations

Basins require a certain storage volume to perform in accordance with the design criteria. As sediments accumulate, the design storage volume is decreased, and the basin will not function as designed. Hence, sediments must be removed to maintain the design volume. Basins are cleaned on an as-needed rather than annual basis. A debris basin "cleanout" occurs in advance of each upcoming rainy season and/or immediately following the rainy season if any sediment and debris have accumulated to fill approximately 25% of the design capacity. If the watershed upstream of the basin is burned in the preceding five years, the basins will be cleaned in advance of the rainy season and may be cleaned several times per year until the vegetation in the watershed recovers.

3.0 ASSESSING FIELD CONDITIONS

Prior to a maintenance or repair activity in a channel or basin with ponded or flowing water, the District or its contractor will determine the need for a water diversion, the appropriate type of water diversion and appropriate BMPs for the activity. This requires the District or its contractor to perform a pre-construction assessment of field conditions, including the type of facility, flow conditions and the potential for aquatic habitat.

3.1 ASSESSMENT OF FLOW CONDITIONS

3.1.1 Open Channels

Some open channels within the District have year-round or perennial flow. Most substantial flows occur in the channels during and immediately following rain events. However, water can be present year-round due to “nuisance” discharges from storm drains, high ground water seeping from “weepholes” in concrete lined channels and agricultural return flows. Some channels have perennial flows due to permitted discharges from water or wastewater treatment plants.

Although the rainy season runs approximately from October to April, intermittent flows can be present any time of the year due to urban or agricultural discharges or monsoonal storms. Provisions for water diversions should always be incorporated into project planning. For coastal facilities, the influence of tidal flows will need to be taken into consideration.

Water diversion and incorporation of appropriate BMPs during a routine maintenance or repair operation in an open channel is indicated under the following flow conditions:

- The maintenance or repair activity is to be conducted in the rainy season between October and April.
- The channel is normally dry, but intermittent urban or agricultural discharge may occur.
- The channel conveys tidal flows or is tidally influenced,
- The channel conveys perennial flows from either man-made or natural upstream sources.
- Flow or ponded water is present in an earthen bottom channel.
- Flows or ponded water within a concrete-lined channel are 2 inches or deeper. Routine cleaning of dry or nearly dry concrete lined channels with less than 2 inches of water is conducted with downstream BMPs (e.g. wattles) to prevent turbidity.

3.1.2 Debris and Detention Basins

A water diversion is needed in a debris or detention basin when water is either flowing into the basin or ponded within it and the maintenance activity will potentially impact downstream water quality or aquatic habitat. Water may be ponded within a basin due to groundwater seepage or retained storm flows. A water diversion with appropriate BMPs is indicated for routine maintenance under the following flow conditions:

- Water is flowing or may flow into the basin from an upstream source.
- Water is ponded within the basin.

3.2 ASSESSMENT OF POTENTIAL AQUATIC HABITAT

Most District flood control facilities in the District are managed to minimize riparian, wetland, and aquatic habitat. However, measures must be taken during water diversions to protect aquatic habitat and species if they are present. Facilities that convey flows for sensitive species are identified in the Catalog of Facilities (Table 3-1).

A biological survey must be conducted by a qualified biologist for facilities with potential habitat for native aquatic species prior to initiation of the water diversion and any maintenance or repair activity. Prior to initiating work the District must determine if the following conditions that may require a biological survey are present at the facility:

- The facility may support special status species (Table 3-1).
- The facility supports wetland or riparian vegetation, or aquatic wildlife, or these resources occur downstream.
- The facility is an earthen bottom channel or debris basin with ponded or flowing water.
- The facility conveys perennial or intermittent flows from a man-made or natural upstream source.
- The facility conveys tidal flows or flows that are tidally influenced.
- The facility is a concrete-lined channel conveying flows deeper than two inches.

Prior to initiating work, if the District or its contractor observes the above conditions at a facility with flowing or ponded water, the District will assign a qualified biologist to conduct the biological survey.

**TABLE 3-1
WATERSHED SUMMARY OF POTENTIAL SPECIAL STATUS SPECIES**

Watershed	Zone	Aquatic Sensitive Species with Potential to Occur
Ventura River	1	California Red-Legged Frog, Southwestern Pond Turtle, Southern Steelhead, Tidewater Goby
Santa Clara River	2	Arroyo Toad, Southwestern Pond Turtle, Southern Steelhead, Tidewater Goby
Calleguas Creek	3	Arroyo Chub, Southwestern Pond Turtle
Malibu Creek	4	Southwestern Pond Turtle

If the pre-construction biological survey indicates that the facility or reach downstream of the facility has the potential for native aquatic habitat, BMPs for the protection of aquatic life must be implemented as part of the water diversion. BMPs for the protection and relocation of aquatic life are included in Section 5.6 of this document and additional recommendations or requirements may be provided by the qualified biologist as part of the survey.

If the biological survey indicates the potential presence of a threatened, endangered, or sensitive aquatic species, District requirements for the protection of listed species must be implemented as

required under the District's biological opinion and take permit for that species or other appropriate documentation.

3.3 GROUNDWATER DEWATERING

A high-water table is usually associated with a basin but may also occur within channels. Maintenance and repair activities requiring excavation below the water table require groundwater dewatering to maintain a dry work area. The RWQCB prohibits activities involving wet excavations (i.e., excavations below the seasonal high-water table) unless authorized by an NPDES or Waste Discharge Requirement.

To comply with the requirements established by the Los Angeles RWQCB for groundwater dewatering, the following applies to maintenance or repair activities requiring excavation.

- In non-coastal areas, groundwater tables fluctuate seasonally, and high groundwater may be avoided by scheduling maintenance and repair activities in the dry season.
- A minimum 5-foot buffer zone must be maintained above the existing activities, unless authorized by RWQCB.
- If groundwater dewatering is proposed or anticipated, the District will file a Report of Waste Discharge to the RWQCB and obtain any necessary NPDES permits/ Waste Discharge Requirements prior to discharging groundwater to a waterway.
- If groundwater is encountered without the benefit of appropriate permits, the District or District contractor will cease all activities in the areas where groundwater is present until the RWQCB is notified and the necessary NPDES permits/Waste Discharge Requirements are obtained.

4.0 WATER DIVERSION METHODS

4.1 WATER DIVERSION COMPONENTS

The purpose of water diversion is to prevent flowing or tidal waters from entering a work area. In general, the work area may be isolated by the impounding of flows behind a coffer dam or within an in-stream excavated basin. Flows from the coffer dam or excavated basin are routed around or through the work area by a bypass system. The bypass system may consist of a pipeline, excavated channel, lined flume, or a bermed portion of the existing channel. Because of the potential of the water diversion to impact water quality and potential aquatic life, appropriate BMPs must be incorporated into the design and operation of the water diversion. Water diversion design and planning must typically consider the following:

- Design and construction of cofferdam or excavated basin
- Design of bypass system
- Management of sediment
- Bypass outlet
- Water quality monitoring
- Protection of aquatic species and habitat
- Equipment and website use

4.2 COFFERDAMS

4.2.1 Types of Cofferdams

Temporary cofferdams are used to keep flowing or ponded water out of facility work areas. Cofferdams are used with bypass systems to divert water either around or through the work area. Cofferdams can be generally categorized as transverse or longitudinal, and with or without tidal conditions (Figure 2). BMPs for the design and construction of cofferdams are provided in Section 5 of this document.

Coffer dams may be constructed of sandbags or native earthen materials wrapped in visqueen, inflatable dams, compacted earth, brick and mortar, or k-rails. In earthen bottom channels, coffer dams may be constructed from materials excavated from the temporary low-flow channel. Inflatable dams (e.g., bladders) should only be used in channels/waterways that have a relatively flat substrate (i.e., concrete lined channels or similar). Pipes (with or without rubber donuts or sandbags) should not be placed beneath the bladder. In addition, sandbag cofferdams are ineffective at preventing water seepage unless plastic (e.g., visqueen) is placed underneath.

As described in Section 5.7.3, no wet concrete product shall encounter any flowing or standing water at any time to avoid pH water quality impacts. Areas where raw cement or grout are applied or where concrete curing or finishing operations are conducted to construct a cofferdam shall be separated from any ponded or diverted water flows until fully dried/cured. All equipment involved with the concrete or grouting operations shall be located within a contained area while using any slurry or concrete product.

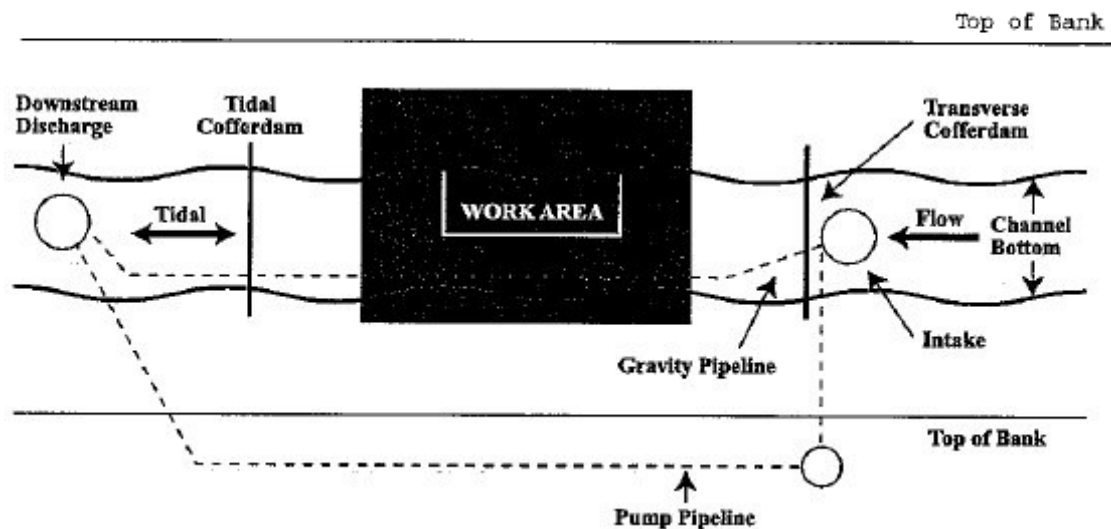
4.2.1.1 Transverse Cofferdam

Transverse cofferdams are used in channels or basins to span the entire cross-section of the facility upstream of the maintenance or repair activity. Water is impounded upstream of the cofferdam and a bypass system is used to route flows through or around the work area.

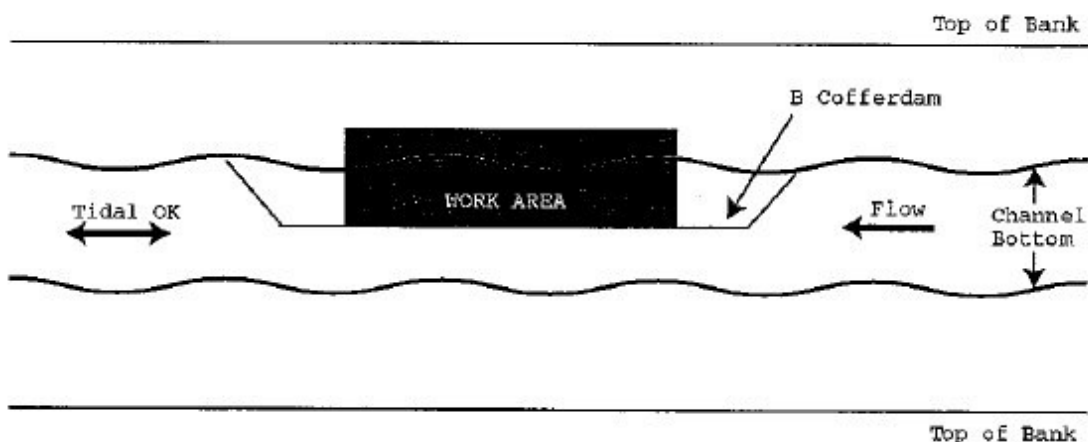
4.2.1.2 Longitudinal Cofferdam

A longitudinal cofferdam allows work to proceed in a portion of the channel while allowing natural flow to continue along the remaining part of the channel. Longitudinal cofferdams are typically constructed parallel to the channel or basin banks. Water quality monitoring is not required when the flow is simply moved to one side of the channel using a longitudinal cofferdam and bypass system as shown below.

FIGURE 2
COFFERDAM AND BYPASS SYSTEMS
Plan View of Transverse Cofferdam and Bypass System



Plan View of Longitudinal Cofferdam and Bypass System



4.2.1.3 Tidal Cofferdams

In channels that convey tidal flows or are tidally influenced, transverse or longitudinal cofferdams may be constructed. A transverse coffer dam in a tidally influenced channel may require a cofferdam both upstream and downstream of the work area. The downstream transverse cofferdam must be constructed at a height adequate to retain tidal flows and must be sturdy enough to withstand tidal surge. If a longitudinal cofferdam is constructed, the bypass channel must have adequate flow capacity to accommodate tides. Tidal cofferdams should be installed and removed at low tide.

4.3 BYPASS SYSTEMS

Bypass systems are used to divert water impounded by an upstream cofferdam around or through the work area. Bypass systems typically consist of pipelines, excavated low-flow channels or constructed channels or flumes. A berm constructed in the channel bottom may also be used to route low flows around the work area. Selection of a bypass system design depends on the type of facility and activity, cofferdam design, flow conditions, and presence of aquatic habitat.

Transverse and tidal cofferdams diversions typically incorporate a pipeline to convey water through the work area. The pipeline may operate by gravity flow or require water to be pumped. Low flow conditions or channel geometry in an earthen bottom channel may require the excavation of an upstream basin and standpipe to facilitate pumping (Figure 3).

**FIGURE 3
INTAKE CONFIGURATIONS**



Bypass systems for longitudinal cofferdams may consist of an open channel formed by the cofferdam or berm, an excavated low-flow channel adjacent to the work area, a constructed open flume, or a pipeline.

Outlet protection may be required as part of a bypass system to reduce the velocity and energy of concentrated flows by placing temporary devices or rock at pipe outlets. Outlet protection helps prevent scour in earthen bottom channels and prevents erosion and reduces turbidity.

5.0 WATER DIVERSION BEST MANAGEMENT PRACTICES

5.1 GENERAL WATER DIVERSION BMPS

5.1.1 Maintenance and Repair Planning

Prior to maintenance and/or repair activities, the District must determine if a water diversion is necessary and incorporate any water diversion into pre-project planning. Planning for water diversions during maintenance and repair activities should incorporate and identify the following:

- A pre-maintenance biological survey must be conducted by a qualified biologist for facilities with potential habitat for native aquatic species prior to initiation of the water diversion and any construction work (Section 3.2).
- Proposed cofferdam construction methods, materials, and installation, maintenance and removal requirements.
- Identification of erosion control BMPs, including methods, materials, and installation, maintenance and removal requirements.
- A map or drawing indicating the location of cofferdams, type and location of bypass system, anticipated water retention depth, cofferdam height, and location of downstream discharge point.
- Location of proposed upstream and downstream water quality monitoring sites.

5.1.2 Operation and Maintenance

- The water diversion and work area dewatering system must be in place and functional before in-channel work can begin.
- While the water diversion is in place, it must be operational 24 hours a day.
- Inspection and maintenance of the water diversion and associated erosion and sediment control BMPs should be conducted daily.
- Maintenance and/or repair activities shall not be conducted during a rainfall event.
- During cofferdam operation, all water from upstream shall always be allowed to pass downstream to maintain aquatic life below the water diversion.

5.1.3 Removal Post-Maintenance

- The cofferdam, bypass system, and erosion control will be removed when the work is completed. Removal normally proceeds downstream in an upstream direction.
- Remove temporary fill as appropriate, such as access ramps diversion structures or earthen cofferdams. Earthen material excavated from the channel bottom for the construction of temporary in-channel berms or channels may be left in place with recontouring to allow proper flows post project.
- Normal flows should be restored to the affected stream immediately upon completion of work.

5.2 COFFERDAMS

5.2.1 General Design Considerations for Cofferdams

- Cofferdams will be designed with adequate height to retain dry weather flows and anticipated storm flows or be removed prior to storms.
 - Cofferdam height for non-tidally influenced channels should generally be higher than the normal high-water mark.
 - Cofferdam height is to be established by the District based on facility dimensions and conditions, existing flow conditions, time of year, and other pertinent factors.
- Cofferdam construction will be adequate to prevent seepage into or out of the work area.
- Cofferdams may be constructed from sandbags wrapped in visqueen, inflatable dams, compacted earth, brick and mortar, k-rails, or other appropriate material.
- Seepage shall be prevented to the extent feasible using plastic (e.g., visqueen) or sealants.
- Cofferdams constructed of earth or other erodible materials will be enclosed by erosion control measures, such as filter fabric, silt-fencing, or other appropriate materials.
- Materials used for the construction of earthen cofferdams will not incorporate contaminated sediments; i.e., concrete, pavement, trash, or debris.
- Longitudinal cofferdams in low-flow channels may be constructed from alluvium excavated from the channel and compacted on-site.

5.2.2 Inspection and Maintenance

- Inspect all system components twice a day.
- Check for water seepage under the dam and general integrity of the dam, repair as needed.
- Repair all leaks immediately.
- In concrete-lined facilities, the upstream water collection pool shall be cleaned and cleared of sediment and debris regularly to prevent water quality deterioration.
- Clean all debris, dust, loose materials from the work area daily.
- Place wattles, filter fabric, and silt fencing across the flow stream downstream of the work area to catch/filter water in case it is unintentionally discharged the work area:
- Clean water intake to prevent/correct clogging.

5.2.3 Removal

- Once project work is complete, reintroduce water into the channel in a manner that avoids turbidity.
- Remove imported construction materials.
- After removal of the cofferdam, dismantle the bypass system and restore disturbed area to pre-construction grades.
- Flows in an earthen bottom channel may be left within the temporary low-flow channel if re-introduction of the flows to the work area would result in excessive discharge of sediment downstream.

5.3 BYPASS SYSTEMS

5.3.1 General Considerations for Bypass Systems

- Flows within the bypass will be maintained to the greatest extent feasible in order to maintain adequate water quality and quantity to support fish and other aquatic life.
- During the water diversion, the following upstream and downstream monitoring will be conducted:
 - pH, temperature, dissolved oxygen, turbidity, and total suspended solids (and/or other constituents as required by current permits) monitoring will be implemented.
 - Monitoring will generally be conducted daily during the first week of diversion activities, and then on a weekly basis, thereafter, until the in-stream work is complete.
 - Results of the analyses will be retained by the District and submitted to regulatory agencies as required.

5.3.2 Open Channel Bypass Systems

- An open channel bypass will be protected from erosion or spillage of material from channel and basin banks and slopes using readily available BMPs.
 - BMPs include the placement of filter fabric, silt fencing, straw bales, sandbags on cofferdam banks, channel banks, and slopes.
- An upstream silt catchment basin may be constructed so that silt or other deleterious materials are not allowed to pass into the open channel. The silt catchment basin should be monitored and cleaned/repared weekly.
- For facilities that support sensitive species or in perennial streams, an open bypass channel or flume may be required in conjunction with a longitudinal cofferdam.

5.3.3 Pipeline Bypass Systems

- Bypass systems with pipelines may be gravity flow or pumped as necessary.
- When using a gravity flow system, the pipeline must slope continuously downgrade and, therefore, may have to pass through or near the work area.
- Intakes and/or excavated basins may be required for gravity flow or pump-fed bypass systems (see Figure 3).
 - Turbulence around the intake and associated turbidity can be reduced by means of ponding water behind the cofferdam or in an excavated sump.
 - In earthen bottom channels or basins, the intake pipe end should be substantially above the bottom of the ponded water or excavated basin as shown in Figure 3 to avoid discharge of sediments.
 - For gravity systems, a standpipe arrangement is very effective (see Figure 3). An intake filter can also be used to screen out sediment but can be easily clogged.
 - All intakes systems with pumps must be fitted with screens.
- Outlet protection should be incorporated at the pipe outlet to prevent generation of turbidity erosion, and scour. Refer to Outlet Protection BMPs in this Section.
- As dry weather flows vary, the contractor may select the proper size pump in the field. A backup pump should be provided.
- Bypass pipes have the potential to heat the water and may require shading to prevent temperature increases in diverted water.

5.4 SEDIMENT CONTROL ACTIVITIES

- Work areas, channel banks, or stockpile areas adjacent to the water diversion area that could be subject to erosion during storm events will be stabilized with erosion control measures.
 - Appropriate erosion control materials include silt fencing, sandbags, filter fabric, coir rolls, or wattles.
 - In low flow channels, an upstream silt basin may be constructed so that silt or other deleterious materials settle out before passing through the water diversion area.
 - Erosion control methods used to prevent siltation should be monitored and cleaned/repared weekly.
- Sediment may be discharged downstream as a result of returning flows to the original low-flow channel:
 - When returning flows, minimize the discharge of sediment by installing filter fabric, wattles, or silt fencing downstream of the work area.
 - Bypass flows should be introduced into the dewatered area at the lowest velocity possible to minimize potential erosion and turbidity.
- Water diversions are not typically used by the District during clean-outs of concrete-lined channels devoid of fish or aquatic life where flows are minimal (less than 2 inches deep) and channel widths are narrow (25 feet or less). In low-flow concrete-lined channels, the District uses small bulldozers or “bobcats” working upstream to downstream within the channel bottom to scrape sediment, trash, and debris into piles for collection. In-stream BMPs typically used by the District for this type of channel clean-out include primary and secondary placement of wattles (net-wrapped coir rolls/wattles) downstream of the work area across the channel width. In low-flow conditions, 6-inch diameter wattles are adequate to contain and filter flows within a concrete-lined channel. Proper placement and removal of the wattles prevents the discharge of sediment and debris downstream of the work area.

5.5 OUTLET PROTECTION

- Place effectively sized outlet protection underneath pipeline outlet of where diverted water is discharged into stream.
- Rock aprons are the most common type of outlet protection for high flows; however, erosion control fabric, wattles, or silt fencing may be installed at the outlet to provide additional velocity reduction.
- Energy dissipation or other protection may not be necessary if the discharge is to an existing hardened structure (culvert, riprap, or concrete), to deep water or a heavily vegetated area.
- When designing the outlet project, consider flow depth roughness, gradient, side slopes, discharge rate, and velocity.
- If the discharge is to a tidal area, it may be necessary to equip the discharge pipe with a flap gate to prevent tidal flows from backing up into the intake.

5.6 AQUATIC LIFE PROTECTION MEASURES

If the results of the pre-construction biological survey indicate that the facility has the potential for native aquatic life, protective measures shall be taken during water diversions to prevent entrapment and mortality of fish and amphibians. If the survey determines that the aquatic life present at the site is and will be only composed of invasive or exotic species, no further action to protect aquatic species during the water diversion is necessary.

The following are minimum measures to be undertaken to protect native aquatic life during the construction, operation, and removal of a water diversion. During construction of the water diversion and during removal, a qualified biologist will be onsite to oversee measures undertaken to prevent entrapment and mortality of native aquatic life. Recovery and replacement of aquatic life may be undertaken by personnel under the supervision of the qualified biologist. For listed and sensitive species, only a qualified biologist with the proper permits may conduct such activities.

5.6.1 Prior to Cofferdam Construction

- Prior to construction of cofferdams, the channel section shall be isolated at the upstream and downstream ends and aquatic organisms removed and relocated by a qualified biologist.
 - Block nets shall be secured upstream and downstream of the channel section fully spanning the cross section of flow.
 - Block nets shall be secured into the substrate in soft channel bottoms or weighted across the channel cross section in hard bottom channel.
 - A seine net shall be used within the isolated area to recover fish, macro-invertebrates, and amphibians under the direction of the biologist.
 - Recovered aquatic life may be placed and transported in water-filled buckets to be released downgradient of the work site.
 - A minimum of three full channel sweeps should be conducted to remove aquatic organisms prior to commencement of dewatering.
 - Alternatives to seine netting, such as electro-shock must be approved by CDFW/NMFS first and then implemented by the site biologist.
 - After initial seine netting and removal of aquatic life, cofferdams may be constructed within the area isolated by the block nets.

5.6.2 Protection of Aquatic Life During Bypass Operation

- Pump inlets and outlets shall be protected using an appropriate mesh screen:
 - Mesh size will be based on protection of smallest native fish or amphibian species as established by field survey.
 - Default mesh size is 5 mm.
- Bypass pipelines will be adequately sized to pass flows and maintain existing water flows downstream of the work area.

5.6.3 Dewatering of Work Area

- Seine nettings of organisms shall continue during dewatering of the dry work space under supervision of the qualified biologist.

- All block nets should be periodically checked for impingement of fish or other wildlife and cleaned of debris to avoid collapse.

5.6.4 Maintaining Flow Through Work Site

- For water diversions where an open flow channel is maintained or an alternative flow channel is excavated, measures shall be taken to ensure that adequate flows are maintained and that aquatic organisms are not trapped or stranded.
- Flow downstream of the work site shall be maintained during construction and operation of the cofferdams.
- A downstream coffer dam shall be constructed in tidal areas for downstream flow protection (water surges upstream of the work area have occurred unexpectedly at times; water may overtop the upstream coffer dam and enter the work area).

5.6.5 Re-establishing Flows Post-construction

- During flows into an existing channel from a temporary channel, the qualified biologist shall survey the de-watered temporary channel to ensure that aquatic organisms are not trapped or stranded.
 - Trapped or stranded organisms will be placed in water-filled buckets for transport and release into the existing flow channel.
 - Applicable to diversions in soft bottom channels: if aquatic life has established itself within a temporary channel during the time of construction, flows may be left within the temporary channel.

5.7 EQUIPMENT AND VEHICLE USE

5.7.1 Equipment Operation

- Stationary equipment such as motors, pumps, generators, and welders located within or adjacent to the channel or basin will be positioned over adequately sized secondary containment.
- Access to the work site via existing roads and access ramps will be shown on the project plans. If no ramps are available in the immediate area, a temporary ramp may be constructed within the flagged work area. Any temporary ramp will be removed upon completion of the project.

5.7.2 Equipment Maintenance During Construction

- Any equipment or vehicles driven and/or operated within or adjacent to the channel or basin should be checked and maintained daily, to prevent leaks of materials that could be deleterious to aquatic life if introduced to water. All maintenance will occur in a designated offsite area. The designated area will include a drain pan or drop cloth and absorbent material to clean up spills.
- Fueling and equipment maintenance will be done in a designated area removed from the area of the channel or basin such that no petroleum products or other pollutants from the equipment may enter these areas via rainfall or runoff. The designated area will include a drain pan or drop cloth and absorbent materials to clean up spills.

5.7.3 Spill Prevention, Control, and Containment

- Prior to maintenance or repair activities, the District or Contractor will identify the methods, materials, and procedures for spill prevention, control, and containment. This information will be incorporated into the contract documents. Spill containment methods should address the types of materials and equipment to be used at the site. Materials for the containment of spills (i.e., absorbent materials, silt fencing, filter fabric, coir rolls) should be identified and be available onsite prior to commencement of maintenance and/or repair activities.
- Any accidental spill of hydrocarbons or coolant that may occur within the work area will be cleaned immediately. Absorbent materials will be maintained within the work area for this purpose.
- No wet concrete product will encounter any flowing or standing water at any time. Areas where raw cement or grout are applied or where concrete curing or finishing operations are conducted will be separated from any ponded or diverted water flows by a cofferdam or silt-free, exclusionary fencing. All equipment involved with the concrete or grouting operations will be located within a contained area while using any slurry or concrete product. The protective berm or other structure will be in place prior to maintenance and/or repair activities.
- Any spill of the grout, concrete curing, or wash water adjacent to or within the work area will be removed immediately.
- During concrete spill clean-up operations and until cessation of maintenance and/or repair activities, pH monitoring will be conducted daily upstream and downstream of the spill site. The results of post-spill pH monitoring will be submitted to the District and kept with the contract documents.
- If vacuum trucks are used to clean up a spill into ponded or diverted water, the vacuum hose should be placed in a 3-to-4 square foot area and protected on all sides by exclusionary fencing to prevent the migration of contaminants. The intake of the vacuum hose should be protected with 5 mm mesh screen to prevent uptake of aquatic life or as determined by regulatory permits.

6.0 REGULATORY SUMMARY

Many of the District's facility maintenance activities occur in watercourses or basins where such activities are regulated by state, federal, or local agencies. The District obtains both individual project permits as well as long-term permits to address routine maintenance and repair activities. This section of the Guidance describes the applicable regulatory authorities and permit requirements for the maintenance program.

6.1 FEDERAL AGENCIES

6.1.1 U.S. Army Corps of Engineers

Activities that result in the discharge of dredged or fill material in natural watercourses (such as bank stabilization and channel shaping) are regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). Most of the District's maintenance and repair activities are permitted under Nationwide Permits (NWP) No. 3, No. 31, and No. 33. Alternatively, maintenance actions in this program may be authorized under a Regional General Permit or Individual Permits.

6.1.2 U.S. Fish and Wildlife Service and National Marine Fisheries Service (NMFS)

The requirements of the Endangered Species Act (ESA) apply to any project permitted under a CWA Section 404. An ESA Section 7 Incidental Take Permit is needed if action taken for a project would have the potential to adversely affect listed species or designated critical habitat, either directly or indirectly. Section 7 consultation process takes place concurrent with the Section 404 permit review process. Facilities that convey flows for sensitive species are identified in the Catalog of Facilities.

6.2 STATE AGENCIES

6.2.1 Regional Water Quality Control Board

The Regional Water Control Board (RWQCB) Los Angeles Region administers both the Section 401 Water Quality Certification Program and programs under Section 402 of the CWA, including the National Pollutant Discharge Elimination System (NPDES) in Ventura County.

6.2.1.1 Section 401 Water Quality Certification

The RWQCB requires a Section 401 Water Quality Certification for any activity undertaken under a Section 404 permit. Projects that require water diversions during maintenance and/or repair activities are required by the RWQCB to submit a separate Water Diversion Plan. This Update to the District's 2007 Water Diversion Guide incorporates measures in compliance with the current Section 401 certification requirements for water diversions undertaken by the District. .

6.2.1.2 Section 402

Section 402 of the Clean Water Act governs the NPDES which regulates point source discharges to waters of the United States. The RWQCB issues both NPDES permits for point source discharges to surface water and groundwater.

A maintenance or repair activity undertaken by the District may require the submittal of a Notice of Intent (NOI) for coverage under the California Construction General Stormwater Permit. This permit requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP). If a water diversion is needed, the appropriate BMPs are incorporated into the SWPPP.

Waste Discharge Requirements (WDRs) can be required for water diversions, dewatering activities or any type of pumping and release of water. Short-term water diversions for District routine maintenance does not normally require WDRs unless there is a need for groundwater dewatering. Groundwater dewatering operations are not covered under this Guidance or the Maintenance Program EIR and will be permitted separately under the following general permit: *Order No.: R4-2018-0125 (Permit No. (CAG 994004), General National Pollutant Discharge Elimination System and Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, adopted by the State Board on September 13, 2018.*

6.2.2 California Department of Fish and Wildlife

The modification to the bed, bank, and/or vegetation in a natural drainage (and certain man-made drainages) is regulated by the California Department of Fish and Wildlife (CDFW) under Section 1600 of the Fish and Game Code. Such modifications require a Streambed Alteration Agreement. A Section 2081 review process for state listed threatened and endangered species will take place concurrent with the Streambed Alteration Agreement permit review process.



PREVAILING RATES OF WAGES

**COUNTY OF VENTURA
PUBLIC WORKS AGENCY**

PREVAILING RATES OF WAGES

As provided in Subsection 7-2.2 of these specifications, and in accordance with Section 1770 (*Amended by Stats. 2017, Ch. 28, Sec. 17. (SB 96) Effective June 27, 2017*), et. seq. of the California Labor Code, determinations of the generally prevailing wages for various classes of workers in Ventura County have been made by the California Director of Industrial Relations as required by the California Labor Code.

As required by California Labor Code Section 1777.5, properly indentured apprentices shall be employed on the work in the minimum ratio of not less than one apprentice for each five journeymen in a craft or trade classification. Travel and subsistence shall be paid in accordance with California Labor Code Section 1773.8.

The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section. The stipulations shall fix the responsibility of compliance with this section for all apprenticeable occupations with the prime contractor.

The determinations made by the State are available on the Internet at

<http://www.dir.ca.gov/DLSR/PWD/Index.htm>

and are on file in the office of the Public Works Agency

The rate fixed for each craft, classification, or type of work shall be not less than the prevailing rate paid in the craft, classification, or type of work.

The Contractor shall post a copy of the wage rates at each jobsite at a location readily available to the workers.

(Rev. 1/29/2020)



FEDERAL WAGE RATES

**COUNTY OF VENTURA
PUBLIC WORKS AGENCY**

FEDERAL PREVAILING RATES OF WAGES

As provided in Subsection 7-2.2 of these specifications, and in accordance with the provisions of Division 2, Part 7, Chapter 1, of the California Labor Code, and the Code of Federal Regulations (Davis-Bacon Act), the California Department of Industrial Relations and the U.S. Secretary of Labor have established the general prevailing rates of wages and benefits for each craft, classification, and type of work needed to execute contracts for public works and improvements. It includes construction, alteration or repair of public buildings and public works. It also requires the contractor or subcontractor to display the relevant wage scale prominently at the work site.

The Prevailing Wage Rates published at the date the contract is advertised for bids shall be applicable. Copies of the prevailing rate of wages are on file in the office of the Public Works Agency at 800 South Victoria Avenue, Ventura, CA 93009, and such copies will be made available to any interested party upon request. A copy will be furnished without cost to the successful bidder. Future effective wage rates which have been predetermined are on file with the California Department of Industrial Relations and are referenced but not printed in said publication. The new wage rates shall become effective on the day following the expiration date and apply to this contract in the same manner as if they had been included or referenced in this contract.

Furthermore, the current Federal General Wage Determinations for this project as predetermined by the Secretary of Labor are set forth in these special provisions. If there is a difference in the Federal minimum wage rates and the California Department of Industrial Relations for similar classifications of labor, the contractor and its subcontractors shall pay not less than the higher wage rate.

The wage rate for any classification not listed by the Federal Department of Labor or the California Department of Industrial Relations, but which may be required to execute the proposed contract, shall be in accord with specified rates for similar or comparable classifications or for those performing similar or comparable duties, within the agencies' determinations.

The State Wage Rate determinations are available on the Internet at:
<http://www.dir.ca.gov/DLSR/PWD/index.htm>

The Federal Wage Rate determinations are available on the internet at:
https://beta.sam.gov/search?index=wd&is_active=true&date_filter_index=0&date_rad_selection=date&wdType=dbra&state=CA&county=16368&page=1

The contractor shall post a copy of both State and Federal wage rates at each job site at a location readily available to the workers.

Rev. 1/29/2020

DAVIS-BACON
ACT WAGE
DETERMINATION
#CA20200015

"General Decision Number: CA20200015 12/25/2020

Superseded General Decision Number: CA20190015

State: California

Construction Types: Building, Heavy (Heavy and Dredging) and Highway

County: Ventura County in California.

BUILDING, DREDGING (does not include hopper dredge work), HEAVY (does not include water well drilling), AND HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
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0	01/03/2020
1	01/10/2020
2	01/31/2020
3	03/06/2020
4	05/08/2020
5	05/15/2020
6	05/29/2020
7	07/03/2020
8	07/17/2020
9	07/24/2020

10	07/31/2020
11	08/07/2020
12	09/04/2020
13	09/25/2020
14	10/02/2020
15	10/09/2020
16	10/16/2020
17	10/23/2020
18	11/13/2020
19	11/27/2020
20	12/04/2020
21	12/11/2020
22	12/25/2020

ASBE0005-002 07/06/2020

	Rates	Fringes
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Asbestos Workers/Insulator (Includes the application of all insulating materials, protective coverings, coatings, and finishes to all types of mechanical systems).....	\$ 45.39	23.74
Fire Stop Technician (Application of Firestopping Materials for wall openings and penetrations in walls, floors, ceilings and curtain walls).....	\$ 28.92	18.73

ASBE0005-004 07/01/2019

	Rates	Fringes
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Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not)....	\$ 20.63	12.17
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BOIL0092-003 03/01/2018

	Rates	Fringes
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BOILERMAKER.....	\$ 44.07	33.52
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* BRCA0004-012 05/01/2020

	Rates	Fringes
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BRICKLAYER; MARBLE SETTER.....	\$ 41.39	18.81
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*The wage scale for prevailing wage projects performed in Blythe, China lake, Death Valley, Fort Irwin, Twenty-Nine Palms, Needles and 1-15 corridor (Barstow to the Nevada State Line) will be Three Dollars (\$3.00) above the standard San Bernardino/Riverside County hourly wage rate

BRCA0018-004 06/01/2019

	Rates	Fringes
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MARBLE FINISHER.....	\$ 33.43	14.11
TILE FINISHER.....	\$ 28.23	12.65
TILE LAYER.....	\$ 40.07	18.36

BRCA0018-010 09/01/2020

	Rates	Fringes
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TERRAZZO FINISHER.....	\$ 33.66	14.20
TERRAZZO WORKER/SETTER.....	\$ 41.60	14.73

CARP0409-001 07/01/2018

	Rates	Fringes
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CARPENTER

(1) Carpenter, Cabinet Installer, Insulation Installer, Hardwood Floor Worker and acoustical installer.....	\$ 41.84	19.17
(2) Millwright.....	\$ 42.91	19.17
(3) Piledrivermen/Derrick Bargeman, Bridge or Dock Carpenter, Heavy Framer, Rock Bargeman or Scowman, Rockslinger, Shingler (Commercial).....	\$ 42.54	19.17
(4) Pneumatic Nailer, Power Stapler.....	\$ 40.09	19.17
(5) Sawfiler.....	\$ 39.83	19.17
(6) Scaffold Builder.....	\$ 31.60	19.17
(7) Table Power Saw Operator.....	\$ 40.93	19.17

FOOTNOTE: Work of forming in the construction of open cut sewers or storm drains, on operations in which horizontal lagging is used in conjunction with steel H-Beams driven or placed in pre- drilled holes, for that portion of a lagged

trench against which concrete is poured, namely, as a substitute for back forms (which work is performed by piledrivers): \$0.13 per hour additional.

 CARP0409-002 07/01/2016

	Rates	Fringes
Diver		
(1) Wet.....	\$ 712.48	17.03
(2) Standby.....	\$ 356.24	17.03
(3) Tender.....	\$ 348.24	17.03
(4) Assistant Tender.....	\$ 324.24	17.03

Amounts in ""Rates' column are per day

 CARP0409-005 07/01/2015

	Rates	Fringes
Drywall		
DRYWALL INSTALLER/LATHER....	\$ 37.35	11.08
STOCKER/SCRAPPER.....	\$ 10.00	7.17

 CARP0409-008 08/01/2010

	Rates	Fringes
Modular Furniture Installer.....	\$ 17.00	7.41

 ELEC0952-001 07/27/2020

	Rates	Fringes
Electricians: (All work within 32 road miles from the nearest base point)		
Cable Splicer.....	\$ 46.20	27.99
Electrician		
Transportation Systems Technician Journeyman		
Wireman - Street Lighting & Traffic Signals.....	\$ 42.00	27.86
Transportation Systems Technician - Street		
Lighting & Traffic Signals..	\$ 31.50	27.55

ALL WORK MORE THAN 32 ROAD MILES FROM NEAREST BASE POINT:
 Add \$5.00 to the basic hourly rate. BASE POINTS: the main Post Office in the cities of Camarillo, Oak View, Oxnard, Santa Paula and Ventura.

COMMUNICATIONS AND SYSTEMS WORK

	Rates	Fringes
Communications System		
Installer.....	\$ 36.97	14.69
Technician.....	\$ 30.10	12.78

SCOPE OF WORK:

Installation, testing, service and maintenance of systems utilizing the transmission and/or transference of voice, sound, vision and digital for commercial, educational, security and entertainment purposes for the following: TV monitoring and surveillance, background-foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, nurse call systems, radio page, school intercom and sound, burglar alarms, fire alarm (see last paragraph below) and low voltage master clock systems in commercial buildings. Communication Systems that transmit or receive information and/or control systems that are intrinsic to the above listed systems; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding all other data systems or multiple systems which include control function or power supply; excluding installation of raceway systems, conduit systems, line voltage work, and energy management systems. Does not cover work performed at China Lake Naval Ordnance Test Station. Fire alarm work shall be performed at the current inside wireman total cost package.

ELEV0018-001 01/01/2020

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 57.40	34.765+a+b

FOOTNOTE:

- a. PAID VACATION: Employer contributes 8% of regular hourly rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.
- b. PAID HOLIDAYS: New Years Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

ENGI0012-003 07/01/2020

	Rates	Fringes
OPERATOR: Power Equipment		

(All Other Work)

GROUP 1.....	\$ 48.25	27.20
GROUP 2.....	\$ 49.03	27.20
GROUP 3.....	\$ 49.32	27.20
GROUP 4.....	\$ 50.81	27.20
GROUP 5.....	\$ 48.96	25.25
GROUP 6.....	\$ 51.03	27.20
GROUP 8.....	\$ 51.14	27.20
GROUP 9.....	\$ 49.29	25.25
GROUP 10.....	\$ 51.26	27.20
GROUP 11.....	\$ 49.41	25.25
GROUP 12.....	\$ 51.43	27.20
GROUP 13.....	\$ 51.53	27.20
GROUP 14.....	\$ 51.56	27.20
GROUP 15.....	\$ 51.64	27.20
GROUP 16.....	\$ 51.76	27.20
GROUP 17.....	\$ 51.93	27.20
GROUP 18.....	\$ 52.03	27.20
GROUP 19.....	\$ 52.14	27.20
GROUP 20.....	\$ 52.26	27.20
GROUP 21.....	\$ 52.43	27.20
GROUP 22.....	\$ 52.53	27.20
GROUP 23.....	\$ 52.64	27.20
GROUP 24.....	\$ 52.76	27.20
GROUP 25.....	\$ 52.93	27.20

OPERATOR: Power Equipment
(Cranes, Piledriving &
Hoisting)

GROUP 1.....	\$ 49.60	27.20
GROUP 2.....	\$ 50.38	27.20
GROUP 3.....	\$ 50.67	27.20
GROUP 4.....	\$ 50.81	27.20
GROUP 5.....	\$ 51.03	27.20
GROUP 6.....	\$ 51.14	27.20
GROUP 7.....	\$ 51.26	27.20
GROUP 8.....	\$ 51.43	27.20
GROUP 9.....	\$ 51.60	27.20
GROUP 10.....	\$ 52.60	27.20
GROUP 11.....	\$ 53.60	27.20
GROUP 12.....	\$ 54.60	27.20
GROUP 13.....	\$ 55.60	27.20

OPERATOR: Power Equipment
(Tunnel Work)

GROUP 1.....	\$ 50.10	27.20
GROUP 2.....	\$ 50.88	27.20
GROUP 3.....	\$ 51.17	27.20
GROUP 4.....	\$ 51.31	27.20
GROUP 5.....	\$ 51.53	27.20
GROUP 6.....	\$ 51.64	27.20
GROUP 7.....	\$ 51.76	27.20

PREMIUM PAY:

\$3.75 per hour shall be paid on all Power Equipment Operator
work on the following Military Bases: China Lake Naval

Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton

Workers required to suit up and work in a hazardous material environment: \$2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.

SEE ZONE DEFINITIONS AFTER CLASSIFICATIONS

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bargeman; Brakeman; Compressor operator; Ditch Witch, with seat or similar type equipment; Elevator operator-inside; Engineer Oiler; Forklift operator (includes loed, lull or similar types under 5 tons; Generator operator; Generator, pump or compressor plant operator; Pump operator; Signalman; Switchman

GROUP 2: Asphalt-rubber plant operator (nurse tank operator); Concrete mixer operator-skip type; Conveyor operator; Fireman; Forklift operator (includes loed, lull or similar types over 5 tons; Hydrostatic pump operator; oiler crusher (asphalt or concrete plant); Petromat laydown machine; PJU side dum jack; Screening and conveyor machine operator (or similar types); Skiploader (wheel type up to 3/4 yd. without attachment); Tar pot fireman; Temporary heating plant operator; Trenching machine oiler

GROUP 3: Asphalt-rubber blend operator; Bobcat or similar type (Skid steer); Equipment greaser (rack); Ford Ferguson (with dragtype attachments); Helicopter radioman (ground); Stationary pipe wrapping and cleaning machine operator

GROUP 4: Asphalt plant fireman; Backhoe operator (mini-max or similar type); Boring machine operator; Boxman or mixerman (asphalt or concrete); Chip spreading machine operator; Concrete cleaning decontamination machine operator; Concrete Pump Operator (small portable); Drilling machine operator, small auger types (Texoma super economatic or similar types - Hughes 100 or 200 or similar types - drilling depth of 30' maximum); Equipment greaser (grease truck); Guard rail post driver operator; Highline cableway signalman; Hydra-hammer-aero stomper; Micro Tunneling (above ground tunnel); Power concrete curing machine operator; Power concrete saw operator; Power-driven jumbo form setter operator; Power sweeper operator; Rock Wheel Saw/Trencher; Roller operator (compacting); Screed operator (asphalt or concrete); Trenching machine operator (up to 6 ft.); Vacuum or much truck

GROUP 5: Equipment Greaser (Grease Truck/Multi Shift).

GROUP 6: Articulating material hauler; Asphalt plant engineer; Batch plant operator; Bit sharpener; Concrete joint machine operator (canal and similar type); Concrete planer operator; Dandy digger; Deck engine operator; Derrickman (oilfield type); Drilling machine operator, bucket or auger types (Calweld 100 bucket or similar types - Watson 1000 auger or similar types - Texoma 330, 500 or 600 auger or similar types - drilling depth of 45' maximum); Drilling machine operator; Hydrographic seeder machine operator (straw, pulp or seed), Jackson track maintainer, or similar type; Kalamazoo Switch tamper, or similar type; Machine tool operator; Maginnis internal full slab vibrator, Mechanical berm, curb or gutter (concrete or asphalt); Mechanical finisher operator (concrete, Clary-Johnson-Bidwell or similar); Micro tunnel system (below ground); Pavement breaker operator (truck mounted); Road oil mixing machine operator; Roller operator (asphalt or finish), rubber-tired earth moving equipment (single engine, up to and including 25 yds. struck); Self-propelled tar pipelining machine operator; Skiploader operator (crawler and wheel type, over 3/4 yd. and up to and including 1-1/2 yds.); Slip form pump operator (power driven hydraulic lifting device for concrete forms); Tractor operator-bulldozer, tamper-scraper (single engine, up to 100 h.p. flywheel and similar types, up to and including D-5 and similar types); Tugger hoist operator (1 drum); Ultra high pressure waterjet cutting tool system operator; Vacuum blasting machine operator

GROUP 8: Asphalt or concrete spreading operator (tamping or finishing); Asphalt paving machine operator (Barber Greene or similar type); Asphalt-rubber distribution operator; Backhoe operator (up to and including 3/4 yd.), small ford, Case or similar; Cast-in-place pipe laying machine operator; Combination mixer and compressor operator (gunite work); Compactor operator (self-propelled); Concrete mixer operator (paving); Crushing plant operator; Drill Doctor; Drilling machine operator, Bucket or auger types (Calweld 150 bucket or similar types - Watson 1500, 2000 2500 auger or similar types - Texoma 700, 800 auger or similar types - drilling depth of 60' maximum); Elevating grader operator; Grade checker; Gradall operator; Grouting machine operator; Heavy-duty repairman; Heavy equipment robotics operator; Kalamazoo balliste regulator or similar type; Kolman belt loader and similar type; Le Tourneau blob compactor or similar type; Loader operator (Athey, Euclid, Sierra and similar types); Mobark Chipper or similar; Ozzie padder or similar types; P.C. slot saw; Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pumpcrete gun operator; Rock Drill or similar types; Rotary drill operator (excluding caisson type); Rubber-tired earth-moving equipment operator (single engine, caterpillar, Euclid, Athey Wagon and similar types with any

and all attachments over 25 yds. up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator (multiple engine up to and including 25 yds. struck); Rubber-tired scraper operator (self-loading paddle wheel type-John Deere, 1040 and similar single unit); Self-propelled curb and gutter machine operator; Shuttle buggy; Skiploader operator (crawler and wheel type over 1-1/2 yds. up to and including 6-1/2 yds.); Soil remediation plant operator; Surface heaters and planer operator; Tractor compressor drill combination operator; Tractor operator (any type larger than D-5 - 100 flywheel h.p. and over, or similar-bulldozer, tamper, scraper and push tractor single engine); Tractor operator (boom attachments), Traveling pipe wrapping, cleaning and bending machine operator; Trenching machine operator (over 6 ft. depth capacity, manufacturer's rating); trenching Machine with Road Miner attachment (over 6 ft depth capacity): Ultra high pressure waterjet cutting tool system mechanic; Water pull (compaction) operator

GROUP 9: Heavy Duty Repairman

GROUP 10: Drilling machine operator, Bucket or auger types (Calweld 200 B bucket or similar types-Watson 3000 or 5000 auger or similar types-Textoma 900 auger or similar types-drilling depth of 105' maximum); Dual drum mixer, dynamic compactor LDC350 (or similar types); Monorail locomotive operator (diesel, gas or electric); Motor patrol-blade operator (single engine); Multiple engine tractor operator (Euclid and similar type-except Quad 9 cat.); Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Pneumatic pipe ramming tool and similar types; Prestressed wrapping machine operator; Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Rubber tired earth moving equipment operator (multiple engine, Euclid, caterpillar and similar over 25 yds. and up to 50 yds. struck), Tower crane repairman; Tractor loader operator (crawler and wheel type over 6-1/2 yds.); Woods mixer operator (and similar Pugmill equipment)

GROUP 11: Heavy Duty Repairman - Welder Combination, Welder - Certified.

GROUP 12: Auto grader operator; Automatic slip form operator; Drilling machine operator, bucket or auger types (Calweld, auger 200 CA or similar types - Watson, auger 6000 or similar types - Hughes Super Duty, auger 200 or similar types - drilling depth of 175' maximum); Hoe ram or similar with compressor; Mass excavator operator less tha 750 cu. yards; Mechanical finishing machine operator; Mobile form traveler operator; Motor patrol operator (multi-engine); Pipe mobile machine operator; Rubber-tired earth- moving equipment operator (multiple engine, Euclid, Caterpillar

and similar type, over 50 cu. yds. struck); Rubber-tired self-loading scraper operator (paddle-wheel-auger type self-loading - two (2) or more units)

GROUP 13: Rubber-tired earth-moving equipment operator operating equipment with push-pull system (single engine, up to and including 25 yds. struck)

GROUP 14: Canal liner operator; Canal trimmer operator; Remote-control earth-moving equipment operator (operating a second piece of equipment: \$1.00 per hour additional); Wheel excavator operator (over 750 cu. yds.)

GROUP 15: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine-up to and including 25 yds. struck)

GROUP 16: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 17: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 50 cu. yds. struck); Tandem tractor operator (operating crawler type tractors in tandem - Quad 9 and similar type)

GROUP 18: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, up to and including 25 yds. struck)

GROUP 19: Rotex concrete belt operator (or similar types); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, up to and including 25 yds. struck)

GROUP 20: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck); Rubber-tired

earth-moving equipment operator, operating in tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 21: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

GROUP 22: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, up to and including 25 yds. struck)

GROUP 23: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating with the tandem push-pull system (multiple engine, up to and including 25 yds. struck)

GROUP 24: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 25: Concrete pump operator-truck mounted; Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

CRANES, PILEDIVING AND HOISTING EQUIPMENT CLASSIFICATIONS

GROUP 1: Engineer oiler; Fork lift operator (includes loed, lull or similar types)

GROUP 2: Truck crane oiler

GROUP 3: A-frame or winch truck operator; Ross carrier operator (jobsite)

GROUP 4: Bridge-type unloader and turntable operator; Helicopter hoist operator

GROUP 5: Hydraulic boom truck; Stinger crane (Austin-Western or similar type); Tugger hoist operator (1 drum)

GROUP 6: Bridge crane operator; Cretor crane operator; Hoist operator (Chicago boom and similar type); Lift mobile operator; Lift slab machine operator (Vagtborg and similar types); Material hoist and/or manlift operator; Polar gantry crane operator; Self Climbing scaffold (or similar type); Shovel, backhoe, dragline, clamshell operator (over 3/4 yd. and up to 5 cu. yds. mrc); Tugger hoist operator

GROUP 7: Pedestal crane operator; Shovel, backhoe, dragline, clamshell operator (over 5 cu. yds. mrc); Tower crane repair; Tugger hoist operator (3 drum)

GROUP 8: Crane operator (up to and including 25 ton capacity); Crawler transporter operator; Derrick barge operator (up to and including 25 ton capacity); Hoist operator, stiff legs, Guy derrick or similar type (up to and including 25 ton capacity); Shovel, backhoe, dragline, clamshell operator (over 7 cu. yds., M.R.C.)

GROUP 9: Crane operator (over 25 tons and up to and including 50 tons mrc); Derrick barge operator (over 25 tons up to and including 50 tons mrc); Highline cableway operator; Hoist operator, stiff legs, Guy derrick or similar type (over 25 tons up to and including 50 tons mrc); K-crane operator; Polar crane operator; Self erecting tower crane operator maximum lifting capacity ten tons

GROUP 10: Crane operator (over 50 tons and up to and including 100 tons mrc); Derrick barge operator (over 50 tons up to and including 100 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 50 tons up to and including 100 tons mrc), Mobile tower crane operator (over 50 tons, up to and including 100 tons M.R.C.); Tower crane operator and tower gantry

GROUP 11: Crane operator (over 100 tons and up to and including 200 tons mrc); Derrick barge operator (over 100 tons up to and including 200 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 100 tons up to and including 200 tons mrc); Mobile tower crane operator (over 100 tons up to and including 200 tons mrc)

GROUP 12: Crane operator (over 200 tons up to and including 300 tons mrc); Derrick barge operator (over 200 tons up to and including 300 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 200 tons, up to and including 300 tons mrc); Mobile tower crane operator (over 200 tons, up to and including 300 tons mrc)

GROUP 13: Crane operator (over 300 tons); Derrick barge operator (over 300 tons); Helicopter pilot; Hoist operator, stiff legs, Guy derrick or similar type (over 300 tons); Mobile tower crane operator (over 300 tons)

TUNNEL CLASSIFICATIONS

GROUP 1: Skiploader (wheel type up to 3/4 yd. without attachment)

GROUP 2: Power-driven jumbo form setter operator

GROUP 3: Dinkey locomotive or motorperson (up to and including 10 tons)

GROUP 4: Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons)

GROUP 5: Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types); Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator; Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons)

GROUP 6: Heavy Duty Repairman

GROUP 7: Tunnel mole boring machine operator

ENGINEERS ZONES

\$1.00 additional per hour for all of IMPERIAL County and the portions of KERN, RIVERSIDE & SAN BERNARDINO Counties as defined below:

That area within the following Boundary: Begin in San Bernardino County, approximately 3 miles NE of the intersection of I-15 and the California State line at that point which is the NW corner of Section 1, T17N,m R14E, San Bernardino Meridian. Continue W in a straight line to that point which is the SW corner of the northwest quarter of Section 6, T27S, R42E, Mt. Diablo Meridian. Continue North to the intersection with the Inyo County Boundary at that point which is the NE corner of the western half of the northern quarter of Section 6, T25S, R42E, MDM. Continue W along the Inyo and San Bernardino County boundary until the intersection with Kern County, as that point which is the SE corner of Section 34, T24S, R40E, MDM. Continue W along the Inyo and Kern County boundary until the intersection with Tulare County, at that point which is the SW corner of the SE quarter of Section 32, T24S, R37E, MDM. Continue W along the Kern and Tulare County boundary, until that point which is the NW corner of T25S,

R32E, MDM. Continue S following R32E lines to the NW corner of T31S, R32E, MDM. Continue W to the NW corner of T31S, R31E, MDM. Continue S to the SW corner of T32S, R31E, MDM. Continue W to SW corner of SE quarter of Section 34, T32S, R30E, MDM. Continue S to SW corner of T11N, R17W, SBM. Continue E along south boundary of T11N, SBM to SW corner of T11N, R7W, SBM. Continue S to SW corner of T9N, R7W, SBM. Continue E along south boundary of T9N, SBM to SW corner of T9N, R1E, SBM. Continue S along west boundary of R1E, SMB to Riverside County line at the SW corner of T1S, R1E, SBM. Continue E along south boundary of T1s, SBM (Riverside County Line) to SW corner of T1S, R10E, SBM. Continue S along west boundary of R10E, SBM to Imperial County line at the SW corner of T8S, R10E, SBM. Continue W along Imperial and Riverside county line to NW corner of T9S, R9E, SBM. Continue S along the boundary between Imperial and San Diego Counties, along the west edge of R9E, SBM to the south boundary of Imperial County/California state line. Follow the California state line west to Arizona state line, then north to Nevada state line, then continuing NW back to start at the point which is the NW corner of Section 1, T17N, R14E, SBM

\$1.00 additional per hour for portions of SAN LUIS OBISPO, KERN, SANTA BARBARA & VENTURA as defined below:

That area within the following Boundary: Begin approximately 5 miles north of the community of Cholame, on the Monterey County and San Luis Obispo County boundary at the NW corner of T25S, R16E, Mt. Diablo Meridian. Continue south along the west side of R16E to the SW corner of T30S, R16E, MDM. Continue E to SW corner of T30S, R17E, MDM. Continue S to SW corner of T31S, R17E, MDM. Continue E to SW corner of T31S, R18E, MDM. Continue S along West side of R18E, MDM as it crosses into San Bernardino Meridian numbering area and becomes R30W. Follow the west side of R30W, SBM to the SW corner of T9N, R30W, SBM. Continue E along the south edge of T9N, SBM to the Santa Barbara County and Ventura County boundary at that point which is the SW corner of Section 34. T9N, R24W, SBM, continue S along the Ventura County line to that point which is the SW corner of the SE quarter of Section 32, T7N, R24W, SBM. Continue E along the south edge of T7N, SBM to the SE corner to T7N, R21W, SBM. Continue N along East side of R21W, SBM to Ventura County and Kern County boundary at the NE corner of T8N, R21W. Continue W along the Ventura County and Kern County boundary to the SE corner of T9N, R21W. Continue North along the East edge of R21W, SBM to the NE corner of T12N, R21W, SBM. Continue West along the north edge of T12N, SBM to the SE corner of T32S, R21E, MDM. [T12N SBM is a think strip between T11N SBM and T32S MDM]. Continue North along the East side of R21E, MDM to the Kings County and Kern County border at the NE corner of T25S, R21E, MDM, continue West along the Kings County and Kern County Boundary until the intersection of San Luis Obispo County. Continue west along the Kings County and San Luis Obispo County boundary until the intersection with Monterey

County. Continue West along the Monterey County and San Luis Obispo County boundary to the beginning point at the NW corner of T25S, R16E, MDM.

\$2.00 additional per hour for INYO and MONO Counties and the Northern portion of SAN BERNARDINO County as defined below:

That area within the following Boundary: Begin at the intersection of the northern boundary of Mono County and the California state line at the point which is the center of Section 17, T10N, R22E, Mt. Diablo Meridian. Continue S then SE along the entire western boundary of Mono County, until it reaches Inyo County at the point which is the NE corner of the Western half of the NW quarter of Section 2, T8S, R29E, MDM. Continue SSE along the entire western boundary of Inyo County, until the intersection with Kern County at the point which is the SW corner of the SE 1/4 of Section 32, T24S, R37E, MDM. Continue E along the Inyo and Kern County boundary until the intersection with San Bernardino County at that point which is the SE corner of section 34, T24S, R40E, MDM. Continue E along the Inyo and San Bernardino County boundary until the point which is the NE corner of the Western half of the NW quarter of Section 6, T25S, R42E, MDM. Continue S to that point which is the SW corner of the NW quarter of Section 6, T27S, R42E, MDM. Continue E in a straight line to the California and Nevada state border at the point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Then continue NW along the state line to the starting point, which is the center of Section 18, T10N, R22E, MDM.

REMAINING AREA NOT DEFINED ABOVE RECIEVES BASE RATE

ENGI0012-004 08/01/2020

	Rates	Fringes
OPERATOR: Power Equipment (DREDGING)		
(1) Leverman.....	\$ 56.40	30.00
(2) Dredge dozer.....	\$ 50.43	30.00
(3) Deckmate.....	\$ 50.32	30.00
(4) Winch operator (stern winch on dredge).....	\$ 49.77	30.00
(5) Fireman-Oiler, Deckhand, Bargeman, Leveehand.....	\$ 49.23	30.00
(6) Barge Mate.....	\$ 49.84	30.00

IRON0433-006 07/01/2020

	Rates	Fringes
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IRONWORKER

Fence Erector.....	\$ 34.58	24.81
Ornamental, Reinforcing and Structural.....	\$ 41.00	33.45

PREMIUM PAY:

\$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland,
Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Seale, Vandenberg AFB

\$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center

\$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

LABO0300-005 03/01/2020

	Rates	Fringes
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Asbestos Removal Laborer.....	\$ 36.13	20.33
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SCOPE OF WORK: Includes site mobilization, initial site cleanup, site preparation, removal of asbestos-containing material and toxic waste, encapsulation, enclosure and disposal of asbestos- containing materials and toxic waste by hand or with equipment or machinery; scaffolding, fabrication of temporary wooden barriers and assembly of decontamination stations.

LABO0345-001 07/01/2020

	Rates	Fringes
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LABORER (GUNITE)

GROUP 1.....	\$ 45.05	19.62
GROUP 2.....	\$ 44.10	19.62
GROUP 3.....	\$ 40.56	19.62

FOOTNOTE: GUNITE PREMIUM PAY: Workers working from a

Bosn'n's Chair or suspended from a rope or cable shall receive 40 cents per hour above the foregoing applicable classification rates. Workers doing gunite and/or shotcrete work in a tunnel shall receive 35 cents per hour above the foregoing applicable classification rates, paid on a portal-to-portal basis. Any work performed on, in or above any smoke stack, silo, storage elevator or similar type of structure, when such structure is in excess of 75'-0"" above base level and which work must be performed in whole or in part more than 75'-0"" above base level, that work performed above the 75'-0"" level shall be compensated for at 35 cents per hour above the applicable classification wage rate.

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Rodmen, Nozzlemen

GROUP 2: Gunmen

GROUP 3: Reboundmen

* LABO0585-001 07/01/2020

	Rates	Fringes
LABORER (TUNNEL)		
GROUP 1.....	\$ 42.54	21.04
GROUP 2.....	\$ 42.86	21.04
GROUP 3.....	\$ 43.32	21.04
GROUP 4.....	\$ 44.01	21.04
LABORER		
GROUP 1.....	\$ 36.39	21.04
GROUP 2.....	\$ 36.94	21.04
GROUP 3.....	\$ 37.49	21.04
GROUP 4.....	\$ 39.04	21.04
GROUP 5.....	\$ 39.39	21.04

LABORER CLASSIFICATIONS

GROUP 1: Cleaning and handling of panel forms; Concrete screeding for rough strike-off; Concrete, water curing; Demolition laborer, the cleaning of brick if performed by a worker performing any other phase of demolition work, and the cleaning of lumber; Fire watcher, limber, brush loader, piler and debris handler; Flag person; Gas, oil and/or water pipeline laborer; Laborer, asphalt-rubber material loader; Laborer, general or construction; Laborer, general clean-up; Laborer, landscaping; Laborer, jetting; Laborer, temporary water and air lines; Material hose operator (walls, slabs, floors and decks); Plugging, filling of shee bolt holes; Dry packing of concrete; Railroad maintenance, repair track person and road beds; Streetcar and railroad

construction track laborers; Rigging and signaling; Scaler; Slip form raiser; Tar and mortar; Tool crib or tool house laborer; Traffic control by any method; Window cleaner; Wire mesh pulling - all concrete pouring operations

GROUP 2: Asphalt shoveler; Cement dumper (on 1 yd. or larger mixer and handling bulk cement); Cesspool digger and installer; Chucktender; Chute handler, pouring concrete, the handling of the chute from readymix trucks, such as walls, slabs, decks, floors, foundation, footings, curbs, gutters and sidewalks; Concrete curer, impervious membrane and form oiler; Cutting torch operator (demolition); Fine grader, highways and street paving, airport, runways and similar type heavy construction; Gas, oil and/or water pipeline wrapper - pot tender and form person; Guinea chaser; Headerboard person - asphalt; Laborer, packing rod steel and pans; Membrane vapor barrier installer; Power broom sweeper (small); Riprap stonepaver, placing stone or wet sacked concrete; Roto scraper and tiller; Sandblaster (pot tender); Septic tank digger and installer(lead); Tank scaler and cleaner; Tree climber, faller, chain saw operator, Pittsburgh chipper and similar type brush shredder; Underground laborer, including caisson bellow

GROUP 3: Buggymobile person; Concrete cutting torch; Concrete pile cutter; Driller, jackhammer, 2-1/2 ft. drill steel or longer; Dri-pak-it machine; Gas, oil and/or water pipeline wrapper, 6-in. pipe and over, by any method, inside and out; High scaler (including drilling of same); Hydro seeder and similar type; Impact wrench multi-plate; Kettle person, pot person and workers applying asphalt, lay-kold, creosote, lime caustic and similar type materials ("applying" means applying, dipping, brushing or handling of such materials for pipe wrapping and waterproofing); Operator of pneumatic, gas, electric tools, vibrating machine, pavement breaker, air blasting, come-alongs, and similar mechanical tools not separately classified herein; Pipelayer's backup person, coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services; Rock slinger; Rotary scarifier or multiple head concrete chipping scarifier; Steel headerboard and guideline setter; Tamper, Barko, Wacker and similar type; Trenching machine, hand-propelled

GROUP 4: Asphalt raker, lute person, ironer, asphalt dump person, and asphalt spreader boxes (all types); Concrete core cutter (walls, floors or ceilings), grinder or sander; Concrete saw person, cutting walls or flat work, scoring old or new concrete; Cribber, shorer, lagging, sheeting and trench bracing, hand-guided lagging hammer; Head rock slinger; Laborer, asphalt- rubber distributor boot person; Laser beam in connection with laborers' work; Oversize concrete vibrator operator, 70 lbs. and over; Pipelayer

performing all services in the laying and installation of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, metallic or non-metallic, conduit and any other stationary type of tubular device used for the conveying of any substance or element, whether water, sewage, solid gas, air, or other product whatsoever and without regard to the nature of material from which the tubular material is fabricated; No-joint pipe and stripping of same; Prefabricated manhole installer; Sandblaster (nozzle person), water blasting, Porta Shot-Blast

GROUP 5: Blaster powder, all work of loading holes, placing and blasting of all powder and explosives of whatever type, regardless of method used for such loading and placing; Driller: All power drills, excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and any and all other types of mechanical drills without regard to the form of motive power; Toxic waste removal

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Batch plant laborer; Changehouse person; Dump person; Dump person (outside); Swamper (brake person and switch person on tunnel work); Tunnel materials handling person; Nipper; Pot tender, using mastic or other materials (for example, but not by way of limitation, shotcrete, etc.)

GROUP 2: Chucktender, cabletender; Loading and unloading agitator cars; Vibrator person, jack hammer, pneumatic tools (except driller); Bull gang mucker, track person; Concrete crew, including rodder and spreader

GROUP 3: Blaster, driller, powder person; Chemical grout jet person; Cherry picker person; Grout gun person; Grout mixer person; Grout pump person; Jackleg miner; Jumbo person; Kemper and other pneumatic concrete placer operator; Miner, tunnel (hand or machine); Nozzle person; Operating of troweling and/or grouting machines; Powder person (primer house); Primer person; Sandblaster; Shotcrete person; Steel form raiser and setter; Timber person, retimber person, wood or steel; Tunnel Concrete finisher

GROUP 4: Diamond driller; Sandblaster; Shaft and raise work

LABO0585-003 07/01/2020

	Rates	Fringes
Brick Tender.....	\$ 34.00	19.77

LABO1184-001 07/01/2020

Rates Fringes

Laborers: (HORIZONTAL DIRECTIONAL DRILLING)

(1) Drilling Crew Laborer...	\$ 37.85	15.99
(2) Vehicle Operator/Hauler.	\$ 38.02	15.99
(3) Horizontal Directional Drill Operator.....	\$ 39.87	15.99
(4) Electronic Tracking Locator.....	\$ 41.87	15.99

Laborers: (STRIPING/SLURRY SEAL)

GROUP 1.....	\$ 39.06	19.01
GROUP 2.....	\$ 40.36	19.01
GROUP 3.....	\$ 42.37	19.01
GROUP 4.....	\$ 44.11	19.01

LABORERS - STRIPING CLASSIFICATIONS

GROUP 1: Protective coating, pavement sealing, including repair and filling of cracks by any method on any surface in parking lots, game courts and playgrounds; carstops; operation of all related machinery and equipment; equipment repair technician

GROUP 2: Traffic surface abrasive blaster; pot tender - removal of all traffic lines and markings by any method (sandblasting, waterblasting, grinding, etc.) and preparation of surface for coatings. Traffic control person: controlling and directing traffic through both conventional and moving lane closures; operation of all related machinery and equipment

GROUP 3: Traffic delineating device applicator: Layout and application of pavement markers, delineating signs, rumble and traffic bars, adhesives, guide markers, other traffic delineating devices including traffic control. This category includes all traffic related surface preparation (sandblasting, waterblasting, grinding) as part of the application process. Traffic protective delineating system installer: removes, relocates, installs, permanently affixed roadside and parking delineation barricades, fencing, cable anchor, guard rail, reference signs, monument markers; operation of all related machinery and equipment; power broom sweeper

GROUP 4: Striper: layout and application of traffic stripes and markings; hot thermo plastic; tape traffic stripes and markings, including traffic control; operation of all related machinery and equipment

Rates Fringes

LABORER

PLASTER CLEAN-UP LABORER....	\$ 36.03	21.01
PLASTER TENDER.....	\$ 38.58	21.01

Work on a swing stage scaffold: \$1.00 per hour additional.

PAIN0036-007 07/01/2019

Rates Fringes

Painters:

(1) Repaint Including Lead Abatement.....	\$ 25.40	15.87
(2) High Iron & Steel.....	\$ 32.12	16.03
(3) Journeyman Painter including Lead Abatement....	\$ 30.04	16.03
(4) Industrial.....	\$ 34.02	16.49
(5) All other work.....	\$ 30.04	16.03

REPAINT of any previously painted structure. Exceptions: work involving the aerospace industry, breweries, commercial recreational facilities, hotels which operate commercial establishments as part of hotel service, and sports facilities.

HIGH IRON & STEEL:

Aerial towers, towers, radio towers, smoke stacks, flag poles (any flag poles that can be finished from the ground with a ladder excluded), elevated water towers, steeples and domes in their entirety and any other extremely high and hazardous work, cooning steel, bos'n chair, or other similar devices, painting in other high hazardous work shall be classified as high iron & steel

PAIN0036-008 10/01/2020

Rates Fringes

DRYWALL FINISHER/TAPER.....	\$ 43.18	20.92
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PAIN0036-015 01/01/2020

Rates Fringes

GLAZIER.....	\$ 43.45	23.39
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FOOTNOTE: Additional \$1.25 per hour for work in a condor, from the third (3rd) floor and up Additional \$1.25 per hour for work on the outside of the building from a swing stage or any suspended contrivance, from the ground up

PAIN1247-002 01/01/2020

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 37.55	13.78

PLAS0200-009 08/07/2019

	Rates	Fringes
PLASTERER.....	\$ 43.73	16.03

PLAS0500-002 07/01/2020

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 38.50	25.91

PLUM0016-001 09/01/2020

	Rates	Fringes
PLUMBER/PIPEFITTER		
Work ONLY on new additions and remodeling of bars, restaurant, stores and commercial buildings not to exceed 5,000 sq. ft. of floor space.....	\$ 50.70	23.73
Work ONLY on strip malls, light commercial, tenant improvement and remodel work.....	\$ 38.73	22.06
All other work except work on new additions and remodeling of bars, restaurant, stores and commercial buildings not to exceed 5,000 sq. ft. of floor space and work on strip malls, light commercial, tenant improvement and remodel work.....	\$ 52.28	24.71

PLUM0345-001 09/01/2020

	Rates	Fringes
PLUMBER		
Landscape/Irrigation Fitter.	\$ 35.30	24.10
Sewer & Storm Drain Work....	\$ 39.39	21.48

ROOF0036-002 09/15/2020

	Rates	Fringes
ROOFER.....	\$ 40.77	18.22

FOOTNOTE: Pitch premium: Work on which employees are exposed to pitch fumes or required to handle pitch, pitch base or pitch impregnated products, or any material containing coal tar pitch, the entire roofing crew shall receive \$1.75 per hour ""pitch premium"" pay.

SFCA0669-010 04/01/2019

DOES NOT INCLUDE PORT HUENEME, PORT MUGU, THE CITY OF SANTA PAULA, AND THAT PART OF VENTURA COUNTY WITHIN 25 MILES OF THE CITY LIMITS OF LOS ANGELES:

	Rates	Fringes
SPRINKLER FITTER..... (FIRE)	\$ 38.85	23.85

SFCA0709-001 09/01/2020

PORT HUENEME, PORT MUGU, THE CITY OF SANTA PAULA, AND THAT PART OF VENTURA COUNTY WITHIN 25 MILES OF THE CITY LIMITS OF LOS ANGELES:

	Rates	Fringes
SPRINKLER FITTER (Fire).....	\$ 48.71	28.63

SHEE0273-002 08/01/2019

	Rates	Fringes
SHEET METAL WORKER.....	\$ 45.48	30.05

HOLIDAYS: New Year's Day, Martin Luther King Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Veterans Day,Thanksgiving Day & Friday after, Christmas Day

TEAM0011-002 07/01/2020

	Rates	Fringes
TRUCK DRIVER		

GROUP 1.....	\$ 32.59	30.59
GROUP 2.....	\$ 32.74	30.59
GROUP 3.....	\$ 32.87	30.59
GROUP 4.....	\$ 33.06	30.59
GROUP 5.....	\$ 33.09	30.59
GROUP 6.....	\$ 33.12	30.59
GROUP 7.....	\$ 33.37	30.59
GROUP 8.....	\$ 33.62	30.59
GROUP 9.....	\$ 33.82	30.59
GROUP 10.....	\$ 34.12	30.59
GROUP 11.....	\$ 34.62	30.59
GROUP 12.....	\$ 35.05	30.59

WORK ON ALL MILITARY BASES:

PREMIUM PAY: \$3.00 per hour additional.

[29 palms Marine Base, Camp Roberts, China Lake, Edwards AFB,
El Centro Naval Facility, Fort Irwin, Marine Corps
Logistics Base at Nebo & Yermo, Mountain Warfare Training
Center, Bridgeport, Point Arguello, Point Conception,
Vandenberg AFB]

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Truck driver

GROUP 2: Driver of vehicle or combination of vehicles - 2
axles; Traffic control pilot car excluding moving heavy
equipment permit load; Truck mounted broom

GROUP 3: Driver of vehicle or combination of vehicles - 3
axles; Boot person; Cement mason distribution truck; Fuel
truck driver; Water truck - 2 axle; Dump truck, less than
16 yds. water level; Erosion control driver

GROUP 4: Driver of transit mix truck, under 3 yds.; Dumpcrete
truck, less than 6-1/2 yds. water level

GROUP 5: Water truck, 3 or more axles; Truck greaser and tire
person (\$0.50 additional for tire person); Pipeline and
utility working truck driver, including winch truck and
plastic fusion, limited to pipeline and utility work;
Slurry truck driver

GROUP 6: Transit mix truck, 3 yds. or more; Dumpcrete truck,
6-1/2 yds. water level and over; Vehicle or combination of
vehicles - 4 or more axles; Oil spreader truck; Dump truck,
16 yds. to 25 yds. water level

GROUP 7: A Frame, Swedish crane or similar; Forklift driver;
Ross carrier driver

GROUP 8: Dump truck, 25 yds. to 49 yds. water level; Truck

repair person; Water pull - single engine; Welder

GROUP 9: Truck repair person/welder; Low bed driver, 9 axles or over

GROUP 10: Dump truck - 50 yds. or more water level; Water pull - single engine with attachment

GROUP 11: Water pull - twin engine; Water pull - twin engine with attachments; Winch truck driver - \$1.25 additional when operating winch or similar special attachments

GROUP 12: Boom Truck 17K and above

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local),

a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"



EXCERPTS FROM THE CALIFORNIA LABOR CODE

Excerpts from the California Labor Code

These excerpts from the Labor Code include the sections listed in specification Section 7.2.2.2 that are required by Labor Code 1775(b)(1) to be included in all subcontracts. These excerpts also include sections recommended by the CA Department of Industrial Relations that contain information on the contractor registration requirements. These sections are furnished for the convenience of the contractor and in no way limit the required compliance with all laws.

1725.5. A contractor shall be registered pursuant to this section to be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code or engage in the performance of any public work contract that is subject to the requirements of this chapter. For the purposes of this section, "contractor" includes a subcontractor as defined by Section 1722.1.

(a) To qualify for registration under this section, a contractor shall do all of the following:

(1) (A) Register with the Department of Industrial Relations in the manner prescribed by the department and pay an initial nonrefundable application fee of four hundred dollars (\$400) to qualify for registration under this section and an annual renewal fee on or before July 1 of each year thereafter. The annual renewal fee shall be in a uniform amount set by the Director of Industrial Relations, and the initial registration and renewal fees may be adjusted no more than annually by the director to support the costs specified in Section 1771.3.

(B) Beginning June 1, 2019, a contractor may register or renew according to this subdivision in annual increments up to three years from the date of registration. Contractors who wish to do so will be required to prepay the applicable nonrefundable application or renewal fees to qualify for the number of years for which they wish to preregister.

(2) Provide evidence, disclosures, or releases as are necessary to establish all of the following:

(A) Workers' compensation coverage that meets the requirements of Division 4 (commencing with Section 3200) and includes sufficient coverage for any worker whom the contractor employs to perform work that is subject to prevailing wage requirements other than a contractor who is separately registered under this section. Coverage may be evidenced by a current and valid certificate of workers' compensation insurance or certification of self-insurance required under Section 7125 of the Business and Professions Code.

(B) If applicable, the contractor is licensed in accordance with Chapter 9 (commencing with Section 7000) of the Business and Professions Code.

(C) The contractor does not have any delinquent liability to an employee or the state for any assessment of back wages or related damages, interest, fines, or penalties pursuant to any final judgment, order, or determination by a court or any federal, state, or local administrative agency, including a confirmed arbitration award. However, for purposes of this paragraph, the contractor shall not be disqualified for any judgment, order, or determination that is under appeal, provided that the contractor has secured the payment of any amount eventually found due through a bond or other appropriate means.

(D) The contractor is not currently debarred under Section 1777.1 or under any other federal or state law providing for the debarment of contractors from public works.

(E) The contractor has not bid on a public works contract, been listed in a bid proposal, or engaged in the performance of a contract for public works without being lawfully registered in accordance with this section, within the preceding 12 months or since the effective date of the requirements set forth in subdivision (e), whichever is earlier. If a contractor is found to be in violation of the requirements of this paragraph, the period of disqualification shall be waived if both of the following are true:

(i) The contractor has not previously been found to be in violation of the requirements of this paragraph within the preceding 12 months.

(ii) The contractor pays an additional nonrefundable penalty registration fee of two thousand dollars (\$2,000).

(b) Fees received pursuant to this section shall be deposited in the State Public Works Enforcement Fund established by Section 1771.3 and shall be used only for the purposes specified in that section.

(c) A contractor who fails to pay the renewal fee required under paragraph (1) of subdivision (a) on or before the expiration of any prior period of registration shall be prohibited from bidding on or engaging in the performance of any contract for public work until once again registered pursuant to this section. If the failure to pay the renewal fee was inadvertent, the contractor may renew its registration retroactively by paying an additional nonrefundable penalty renewal fee equal to the amount of the renewal fee within 90 days of the due date of the renewal fee.

(d) If, after a body awarding a contract accepts the contractor's bid or awards the contract, the work covered by the bid or contract is determined to be a public work to which Section 1771 applies, either as the result of a determination by the director pursuant to Section 1773.5 or a court decision, the requirements of this section shall not apply, subject to the following requirements:

(1) The body that awarded the contract failed, in the bid specification or in the contract documents, to identify as a public work that portion of the work that the determination or decision subsequently classifies as a public work.

(2) Within 20 days following service of notice on the awarding body of a determination by the Director of Industrial Relations pursuant to Section 1773.5 or a decision by a court that the contract was for public work as defined in this chapter, the contractor and any subcontractors are registered under this section or are replaced by a contractor or subcontractors who are registered under this section.

(3) The requirements of this section shall apply prospectively only to any subsequent bid, bid proposal, contract, or work performed after the awarding body is served with notice of the determination or decision referred to in paragraph (2).

(e) The requirements of this section shall apply to any bid proposal submitted on or after March 1, 2015, to any contract for public work, as defined in this chapter, executed on or after April 1, 2015, and to any work performed under a contract for public work on or after January 1, 2018, regardless of when the contract for public work was executed.

(f) This section does not apply to work performed on a public works project of twenty-five thousand dollars (\$25,000) or less when the project is for construction, alteration, demolition, installation, or repair work or to work performed on a public works project of fifteen thousand dollars (\$15,000) or less when the project is for maintenance work.

(Amended by Stats. 2017, Ch. 28, Sec. 15. (SB 96) Effective June 27, 2017.)

1771. Except for public works projects of one thousand dollars (\$1,000) or less, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the public work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in this chapter, shall be paid to all workers employed on public works.

This section is applicable only to work performed under contract, and is not applicable to work carried out by a public agency with its own forces. This section is applicable to contracts let for maintenance work.

(Amended by Stats. 1981, Ch. 449, Sec. 1.)

1771.1. (a) A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

(b) Notice of the requirement described in subdivision (a) shall be included in all bid invitations and public works contracts, and a bid shall not be accepted nor any contract or subcontract entered into without proof of the contractor or subcontractor's current registration to perform public work pursuant to Section 1725.5.

(c) An inadvertent error in listing a subcontractor who is not registered pursuant to Section 1725.5 in a bid proposal shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive, provided that any of the following apply:

(1) The subcontractor is registered prior to the bid opening.

(2) Within 24 hours after the bid opening, the subcontractor is registered and has paid the penalty registration fee specified in subparagraph (E) of paragraph (2) of subdivision (a) of Section 1725.5.

(3) The subcontractor is replaced by another registered subcontractor pursuant to Section 4107 of the Public Contract Code.

(d) Failure by a subcontractor to be registered to perform public work as required by subdivision

(a) shall be grounds under Section 4107 of the Public Contract Code for the contractor, with the consent of the awarding authority, to substitute a subcontractor who is registered to perform public work pursuant to Section 1725.5 in place of the unregistered subcontractor.

(e) The department shall maintain on its Internet Web site a list of contractors who are currently registered to perform public work pursuant to Section 1725.5.

(f) A contract entered into with any contractor or subcontractor in violation of subdivision (a) shall be subject to cancellation, provided that a contract for public work shall not be unlawful, void, or voidable solely due to the failure of the awarding body, contractor, or any subcontractor to comply with the requirements of Section 1725.5 or this section.

(g) If the Labor Commissioner or his or her designee determines that a contractor or subcontractor engaged in the performance of any public work contract without having been registered in accordance with this section, the contractor or subcontractor shall forfeit, as a civil penalty to the state, one hundred dollars (\$100) for each day of work performed in violation of the registration requirement, not to exceed an aggregate penalty of eight thousand dollars (\$8,000) in addition to any penalty registration fee assessed pursuant to clause (ii) of subparagraph (E) of paragraph (2) of subdivision (a) of Section 1725.5.

(h) (1) In addition to, or in lieu of, any other penalty or sanction authorized pursuant to this chapter, a higher tiered public works contractor or subcontractor who is found to have entered into a subcontract with an unregistered lower tier subcontractor to perform any public work in violation of the requirements of Section 1725.5 or this section shall be subject to forfeiture, as a civil penalty to the state, of one hundred dollars (\$100) for each day the unregistered lower tier subcontractor performs work in violation of the registration requirement, not to exceed an aggregate penalty of ten thousand dollars (\$10,000).

(2) The Labor Commissioner shall use the same standards specified in subparagraph (A) of paragraph (2) of subdivision (a) of Section 1775 when determining the severity of the violation and what penalty to assess, and may waive the penalty for a first time violation that was unintentional and did not hinder the Labor Commissioner's ability to monitor and enforce compliance with the requirements of this chapter.

(3) A higher tiered public works contractor or subcontractor shall not be liable for penalties assessed pursuant to paragraph (1) if the lower tier subcontractor's performance is in violation of the requirements of Section 1725.5 due to the revocation of a previously approved registration.

(4) A subcontractor shall not be liable for any penalties assessed against a higher tiered public works contractor or subcontractor pursuant to paragraph (1). A higher tiered public works contractor or subcontractor may not require a lower tiered subcontractor to indemnify or otherwise be liable for any penalties pursuant to paragraph (1).

(i) The Labor Commissioner or his or her designee shall issue a civil wage and penalty assessment, in accordance with the provisions of Section 1741, upon determination of penalties pursuant to subdivision (g) and subparagraph (B) of paragraph (1) of subdivision (h). Review of a civil wage and penalty assessment issued under this subdivision may be requested in accordance with the provisions of Section 1742. The regulations of the Director of Industrial Relations, which govern proceedings for review of civil wage and penalty assessments and the withholding of contract payments under Article 1 (commencing with Section 1720) and Article 2 (commencing with Section 1770), shall apply.

(j) (1) Where a contractor or subcontractor engages in the performance of any public work contract without having been registered in violation of the requirements of Section 1725.5 or this section, the Labor Commissioner shall issue and serve a stop order prohibiting the use of the unregistered contractor or the unregistered subcontractor on all public works until the unregistered contractor or unregistered subcontractor is registered. The stop order shall not apply to work by registered contractors or subcontractors on the public work.

(2) A stop order may be personally served upon the contractor or subcontractor by either of the following methods:

(A) Manual delivery of the order to the contractor or subcontractor personally.

(B) Leaving signed copies of the order with the person who is apparently in charge at the site of the public work and by thereafter mailing copies of the order by first class mail, postage prepaid to the contractor or subcontractor at the address on file with either of the following:

(i) The Contractors' State License Board.

(ii) The Secretary of State.

(3) The stop order shall be effective immediately upon service and shall be subject to appeal by the party contracting with the unregistered contractor or subcontractor, by the unregistered contractor or subcontractor, or both. The appeal, hearing, and any further review of the hearing decision shall be governed by the procedures, time limits, and other requirements specified in subdivision (a) of Section 238.1.

(k) Failure of a contractor or subcontractor, owner, director, officer, or managing agent of the contractor or subcontractor to observe a stop order issued and served upon him or her pursuant to subdivision (j) is guilty of a misdemeanor punishable by imprisonment in county jail not exceeding 60 days or by a fine not exceeding ten thousand dollars (\$10,000), or both.

(l) This section shall apply to any bid proposal submitted on or after March 1, 2015, and any contract for public work entered into on or after April 1, 2015. This section shall also apply to the performance of any public work, as defined in this chapter, on or after January 1, 2018, regardless of when the contract for public work was entered.

(m) Penalties received pursuant to this section shall be deposited in the State Public Works Enforcement Fund established by Section 1771.3 and shall be used only for the purposes specified in that section.

(n) This section shall not apply to work performed on a public works project of twenty-five thousand dollars (\$25,000) or less when the project is for construction, alteration, demolition, installation, or repair work or to work performed on a public works project of fifteen thousand dollars (\$15,000) or less when the project is for maintenance work.

(Amended by Stats. 2018, Ch. 455, Sec. 2. (SB 877) Effective September 17, 2018.)

1775. (a) (1) The contractor and any subcontractor under the contractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit not more than two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates as determined by the director for the work or craft in which the worker is employed for any public work done under the contract by the contractor or, except as provided in subdivision (b), by any subcontractor under the contractor.

(2) (A) The amount of the penalty shall be determined by the Labor Commissioner based on consideration of both of the following:

(i) Whether the failure of the contractor or subcontractor to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily corrected when brought to the attention of the contractor or subcontractor.

(ii) Whether the contractor or subcontractor has a prior record of failing to meet its prevailing wage obligations.

(B) (i) The penalty may not be less than forty dollars (\$40) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, unless the failure of the contractor or subcontractor to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily corrected when brought to the attention of the contractor or subcontractor.

(ii) The penalty may not be less than eighty dollars (\$80) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, if the contractor or subcontractor has been assessed penalties within the previous three years for failing to meet its prevailing wage obligations on a separate contract, unless those penalties were subsequently withdrawn or overturned.

(iii) The penalty may not be less than one hundred twenty dollars (\$120) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, if the Labor Commissioner determines that the violation was willful, as defined in subdivision (c) of Section 1777.1.

(C) If the amount due under this section is collected from the contractor or subcontractor, any outstanding wage claim under Chapter 1 (commencing with Section 1720) of Part 7 of Division 2 against that contractor or subcontractor shall be satisfied before applying that amount to the penalty imposed on that contractor or subcontractor pursuant to this section.

(D) The determination of the Labor Commissioner as to the amount of the penalty shall be reviewable only for abuse of discretion.

(E) The difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the contractor or subcontractor, and the body awarding the contract shall cause to be inserted in the contract a stipulation that this section will be complied with.

(b) If a worker employed by a subcontractor on a public works project is not paid the general prevailing rate of per diem wages by the subcontractor, the prime contractor of the project is not liable for any penalties under subdivision (a) unless the prime contractor had knowledge of that failure of the subcontractor to pay the specified prevailing rate of wages to those workers or unless the prime contractor fails to comply with all of the following requirements:

(1) The contract executed between the contractor and the subcontractor for the performance of work on the public works project shall include a copy of the provisions of this section and Sections **1771, 1776, 1777.5, 1813, and 1815**.

(2) The contractor shall monitor the payment of the specified general prevailing rate of per diem wages by the subcontractor to the employees, by periodic review of the certified payroll records of the subcontractor.

(3) Upon becoming aware of the failure of the subcontractor to pay his or her workers the specified prevailing rate of wages, the contractor shall diligently take corrective action to halt or rectify the failure, including, but not limited to, retaining sufficient funds due the subcontractor for work performed on the public works project.

(4) Prior to making final payment to the subcontractor for work performed on the public works project, the contractor shall obtain an affidavit signed under penalty of perjury from the subcontractor that the subcontractor has paid the specified general prevailing rate of per diem wages to his or her employees on the public works project and any amounts due pursuant to Section 1813.

(c) The Division of Labor Standards Enforcement shall notify the contractor on a public works project within 15 days of the receipt by the Division of Labor Standards Enforcement of a complaint of the failure of a subcontractor on that public works project to pay workers the general prevailing rate of per diem wages.

(Amended by Stats. 2011, Ch. 677, Sec. 1. (AB 551) Effective January 1, 2012.)

1776 (a) Each contractor and subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

(1) The information contained in the payroll record is true and correct.

(2) The employer has complied with the requirements of Sections 1771, 1811, and 1815 for any work performed by his or her employees on the public works project.

(b) The payroll records enumerated under subdivision (a) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the contractor on the following basis:

(1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.

(2) A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body awarding the contract and the Division of Labor Standards Enforcement of the Department of Industrial Relations.

(3) A certified copy of all payroll records enumerated in subdivision (a) shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through either the body awarding the contract or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (2), the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the contractor, subcontractors, and the entity through which the request was made. The public may not be given access to the records at the principal office of the contractor.

(C) Unless required to be furnished directly to the Labor Commissioner in accordance with paragraph (3) of subdivision (a) of Section 1771.4, the certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the division. The payroll records may consist of printouts of payroll data that are maintained as computer records, if the printouts contain the same information as the forms provided by the division and the printouts are verified in the manner specified in subdivision (a).

(d) A contractor or subcontractor shall file a certified copy of the records enumerated in subdivision (a) with the entity that requested the records within 10 days after receipt of a written request.

(e) Except as provided in subdivision (f), any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the awarding body or the Division of Labor Standards Enforcement shall be marked or obliterated to prevent disclosure of an individual's name, address, and social security number. The name and address of the contractor awarded the contract or the subcontractor performing the contract shall not be marked or obliterated. Any copy of records made available for inspection by, or furnished to, a multiemployer Taft-Hartley trust fund (29 U.S.C. Sec. 186(c)(5)) that requests the records for the purposes of allocating contributions to participants shall be marked or obliterated only to prevent disclosure of an individual's full social security number, but shall provide the last four digits of the social security number. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (29 U.S.C. Sec. 175a) shall be marked or obliterated only to prevent disclosure of an individual's social security number.

(f) (1) Notwithstanding any other provision of law, agencies that are included in the Joint Enforcement Strike Force on the Underground Economy established pursuant to Section 329 of the Unemployment Insurance Code and other law enforcement agencies investigating violations of law shall, upon request, be provided nonredacted copies of certified payroll records. Any copies of records or certified payroll made available for inspection and furnished upon request to the public by an agency included in the Joint Enforcement Strike Force on the Underground Economy or to a law enforcement agency investigating a violation of law shall be marked or redacted to prevent disclosure of an individual's name, address, and social security number.

(2) An employer shall not be liable for damages in a civil action for any reasonable act or omission taken in good faith in compliance with this subdivision.

(g) The contractor shall inform the body awarding the contract of the location of the records enumerated under subdivision (a), including the street address, city, and county, and shall, within five working days, provide a notice of a change of location and address.

(h) The contractor or subcontractor has 10 days in which to comply, subsequent to receipt of a written notice requesting the records enumerated in subdivision (a). In the event that the contractor or subcontractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit one hundred dollars (\$100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. A contractor is not subject to a penalty assessment pursuant to this section due to the failure of a subcontractor to comply with this section.

(i) The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section.

(j) The director shall adopt rules consistent with the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code) and the Information Practices Act of 1977 (Title 1.8 (commencing with Section 1798) of Part 4 of Division 3 of the Civil Code) governing the release of these records, including the establishment of reasonable fees to be charged for reproducing copies of records required by this section.
(Amended by Stats. 2014, Ch. 28, Sec. 71. (SB 854) Effective June 20, 2014.)

1777.5. (a) (1) This chapter does not prevent the employment upon public works of properly registered apprentices who are active participants in an approved apprenticeship program.

(2) For purposes of this chapter, "apprenticeship program" means a program under the jurisdiction of the California Apprenticeship Council established pursuant to Section 3070.

(b) (1) Every apprentice employed upon public works shall be paid the prevailing rate of per diem wages for apprentices in the trade to which he or she is registered and shall be employed only at the work of the craft or trade to which he or she is registered.

(2) Unless otherwise provided by a collective bargaining agreement, when a contractor requests the dispatch of an apprentice pursuant to this section to perform work on a public works project and requires the apprentice to fill out an application or undergo testing, training, an examination, or other preemployment process as a condition of employment, the apprentice shall be paid for the time spent on the required preemployment activity, including travel time to and from the required activity, if any, at the prevailing rate of per diem wages for apprentices in the trade to which he or she is registered. Unless otherwise provided by a collective bargaining agreement, a contractor is not required to compensate an apprentice for the time spent on preemployment activities if the apprentice is required to take a preemployment drug or alcohol test and he or she fails to pass that test.

(c) Only apprentices, as defined in Section 3077, who are in training under apprenticeship standards that have been approved by the Chief of the Division of Apprenticeship Standards and who are parties to written apprentice agreements under Chapter 4 (commencing with Section 3070) of Division 3 are eligible to be employed at the apprentice wage rate on public works. The employment and training of each apprentice shall be in accordance with either of the following:

(1) The apprenticeship standards and apprentice agreements under which he or she is training.

(2) The rules and regulations of the California Apprenticeship Council.

(d) If the contractor to whom the contract is awarded by the state or any political subdivision, in performing any of the work under the contract, employs workers in any apprenticeable craft or trade, the contractor shall employ apprentices in at least the ratio set forth in this section and may apply to any apprenticeship program in the craft or trade that can provide apprentices to the site of the public work for a certificate approving the contractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected. However, the decision of the apprenticeship program to approve or deny a certificate shall be subject to review by the Administrator of Apprenticeship. The apprenticeship program or programs, upon approving the contractor, shall arrange for the dispatch of apprentices to the contractor. A contractor covered by an apprenticeship program's standards shall not be required to submit any additional application in order to include additional public works contracts under that program. "Apprenticeable craft or trade," as used in this section, means a craft or trade determined as an apprenticeable occupation in accordance with rules and regulations prescribed by the California Apprenticeship Council. As used in this section, "contractor" includes any subcontractor under a contractor who performs any public works not excluded by subdivision (o).

(e) Before commencing work on a contract for public works, every contractor shall submit contract award information to an applicable apprenticeship program that can supply apprentices to the site of the public work. The information submitted shall include an estimate of journeyman hours to be performed under the contract, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall also be submitted to the awarding body, if requested by the awarding body. Within 60 days after concluding work on the contract, each contractor and subcontractor shall submit to the awarding body, if requested, and to the apprenticeship program a verified statement of the journeyman and apprentice hours performed on the contract. The information under this subdivision shall be public. The apprenticeship programs shall retain this information for 12 months.

(f) The apprenticeship program supplying apprentices to the area of the site of the public work shall ensure equal employment and affirmative action in apprenticeship for women and minorities.

(g) The ratio of work performed by apprentices to journeymen employed in a particular craft or trade on the public work may be no higher than the ratio stipulated in the apprenticeship standards under which the apprenticeship program operates if the contractor agrees to be bound by those standards. However, except as otherwise provided in this section, in no case shall the ratio be less than one hour of apprentice work for every five hours of journeyman work.

(h) This ratio of apprentice work to journeyman work shall apply during any day or portion of a day when any journeyman is employed at the jobsite and shall be computed on the basis of the hours worked during the day by journeymen so employed. Any work performed by a journeyman in excess of eight hours per day or 40 hours per week shall not be used to calculate the ratio. The contractor shall employ apprentices for the number of hours computed as above before the end of the contract or, in the case of a subcontractor, before the end of the subcontract. However, the contractor shall endeavor, to the greatest extent possible, to employ apprentices during the same time period that the journeymen in the same craft or trade are employed at the jobsite. When an hourly apprenticeship ratio is not feasible for a particular craft or trade, the Administrator of Apprenticeship, upon application of an apprenticeship program, may order a minimum ratio of not less than one apprentice for each five journeymen in a craft or trade classification.

(i) A contractor covered by this section who has agreed to be covered by an apprenticeship program's standards upon the issuance of the approval certificate, or who has been previously approved for an apprenticeship program in the craft or trade, shall employ the number of apprentices or the ratio of apprentices to journeymen stipulated in the applicable apprenticeship standards, but in no event less than the 1-to-5 ratio required by subdivision (g).

(j) Upon proper showing by a contractor that he or she employs apprentices in a particular craft or trade in the state on all of his or her contracts on an annual average of not less than one hour of apprentice work for every five hours of labor performed by journeymen, the Administrator of Apprenticeship may grant a certificate exempting the contractor from the 1-to-5 hourly ratio, as set forth in this section for that craft or trade.

(k) An apprenticeship program has the discretion to grant to a participating contractor or contractor association a certificate, which shall be subject to the approval of the Administrator of Apprenticeship, exempting the contractor from the 1-to-5 ratio set forth in this section when it finds that any one of the following conditions is met:

(1) Unemployment for the previous three-month period in the area exceeds an average of 15 percent.

(2) The number of apprentices in training in the area exceeds a ratio of 1 to 5.

(3) There is a showing that the apprenticeable craft or trade is replacing at least one-thirtieth of its journeymen annually through apprenticeship training, either on a statewide basis or on a local basis.

(4) Assignment of an apprentice to any work performed under a public works contract would create a condition that would jeopardize his or her life or the life, safety, or property of fellow employees or the public at large, or the specific task to which the apprentice is to be assigned is of a nature that training cannot be provided by a journeyman.

(l) If an exemption is granted pursuant to subdivision (k) to an organization that represents contractors in a specific trade from the 1-to-5 ratio on a local or statewide basis, the member contractors shall not be required to submit individual applications for approval to local joint apprenticeship committees, if they are already covered by the local apprenticeship standards.

(m) (1) A contractor to whom a contract is awarded, who, in performing any of the work under the contract, employs journeymen or apprentices in any apprenticeable craft or trade shall contribute to the California Apprenticeship Council the same amount that the director determines is the prevailing amount of apprenticeship training contributions in the area of the public works site. A contractor may take as a credit for payments to the council any amounts paid by the contractor to an approved apprenticeship program that can supply apprentices to the site of the public works project. The contractor may add the amount of the contributions in computing his or her bid for the contract.

(2) (A) At the conclusion of the 2002–03 fiscal year, and each fiscal year thereafter, the California Apprenticeship Council shall distribute training contributions received by the council under this subdivision, less the expenses of the Department of Industrial Relations for administering this subdivision, by making grants to approved apprenticeship programs for the purpose of training apprentices. The grant funds shall be distributed as follows:

(i) If there is an approved multiemployer apprenticeship program serving the same craft or trade and geographic area for which the training contributions were made to the council, a grant to that program shall be made.

(ii) If there are two or more approved multiemployer apprenticeship programs serving the same craft or trade and county for which the training contributions were made to the council, the grant shall be divided among those programs based on the number of apprentices from that county registered in each program.

(iii) All training contributions not distributed under clauses (i) and (ii) shall be used to defray the future expenses of the Department of Industrial Relations for the administration and enforcement of apprenticeship standards and requirements under this code.

(B) An apprenticeship program shall only be eligible to receive grant funds pursuant to this subdivision if the apprenticeship program agrees, prior to the receipt of any grant funds, to keep adequate records that document the expenditure of grant funds and to make all records available to the Department of Industrial Relations so that the Department of Industrial Relations is able to verify that grant funds were used solely for training apprentices. For purposes of this subparagraph, adequate records include, but are not limited to, invoices, receipts, and canceled checks that account for the expenditure of grant funds. This subparagraph shall not be deemed to require an apprenticeship program to provide the Department of Industrial Relations with more documentation than is necessary to verify the appropriate expenditure of grant funds made pursuant to this subdivision.

(C) The Department of Industrial Relations shall verify that grants made pursuant to this subdivision are used solely to fund training apprentices. If an apprenticeship program is unable to demonstrate how grant funds are expended or if an apprenticeship program is found to be using grant funds for purposes other than training apprentices, then the apprenticeship program shall not be eligible to receive any future grant pursuant to this subdivision and the Department of Industrial Relations may initiate the process to rescind the registration of the apprenticeship program.

(3) All training contributions received pursuant to this subdivision shall be deposited in the Apprenticeship Training Contribution Fund, which is hereby created in the State Treasury. Upon appropriation by the Legislature, all moneys in the Apprenticeship Training Contribution Fund shall be used for the purpose of carrying out this subdivision and to pay the expenses of the Department of Industrial Relations.

(n) The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section. The stipulations shall fix the responsibility of compliance with this section for all apprenticeable occupations with the prime contractor.

(o) This section does not apply to contracts of general contractors or to contracts of specialty contractors not bidding for work through a general or prime contractor when the contracts of general contractors or those specialty contractors involve less than thirty thousand dollars (\$30,000).

(p) An awarding body that implements an approved labor compliance program in accordance with subdivision (b) of Section 1771.5 may, with the approval of the director, assist in the enforcement of this section under the terms and conditions prescribed by the director. *(Amended by Stats. 2018, Ch. 704, Sec. 17. (AB 235) Effective September 22, 2018.)*

1813. The contractor or subcontractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars (\$25) for each worker employed in the execution of the contract by the respective contractor or subcontractor for each calendar day during which the worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of this article. In awarding any contract for public work, the awarding body shall cause to be inserted in the contract a stipulation to this effect. The awarding body shall take cognizance of all violations of this article committed in the course of the execution of the contract, and shall report them to the Division of Labor Standards Enforcement.

(Amended (as added by Stats. 1997, Ch. 757, Sec. 6) by Stats. 2002, Ch. 28, Sec. 3. Effective January 1, 2003.)

1815. Notwithstanding the provisions of Sections 1810 to 1814, inclusive, of this code, and notwithstanding any stipulation inserted in any contract pursuant to the requirements of said sections, work performed by employees of contractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon public work upon compensation for all hours worked in excess of 8 hours per day at not less than 1¹/₂ times the basic rate of pay.

(Amended by Stats. 1963, Ch. 964.)

EXCERPTS FROM
PCC 9204
JANUARY 1, 2017

EXCERPTS FROM PUBLIC CONTRACT CODE 9204

EFFECTIVE DATE JANUARY 1, 2017

Please note section 9204 of the Public Contract Code, set forth in full below. Contractor must follow the contractual dispute resolution process specified in the Ventura County Standard Specifications, which is consistent with section 9204.

* * *

(a) The Legislature finds and declares that it is in the best interests of the state and its citizens to ensure that all construction business performed on a public works project in the state that is complete and not in dispute is paid in full and in a timely manner.

(b) Notwithstanding any other law, including, but not limited to, Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2, Chapter 10 (commencing with Section 19100) of Part 2, and Article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3, this section shall apply to any claim by a contractor in connection with a public works project.

(c) For purposes of this section:

(1) "Claim" means a separate demand by a contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:

(A) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project.

(B) Payment by the public entity of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.

(C) Payment of an amount that is disputed by the public entity.

(2) "Contractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.

(3)(A) "Public entity" means, without limitation, except as provided in subparagraph (B), a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit corporation wholly owned by a public agency and formed to carry out the purposes of the public agency.

(B) "Public entity" shall not include the following:

(i) The Department of Water Resources as to any project under the jurisdiction of that department.

(ii) The Department of Transportation as to any project under the jurisdiction of that department.

(iii) The Department of Parks and Recreation as to any project under the jurisdiction of that department.

(iv) The Department of Corrections and Rehabilitation with respect to any project under its jurisdiction pursuant to Chapter 11 (commencing with Section 7000) of Title 7 of Part 3 of the Penal Code.

(v) The Military Department as to any project under the jurisdiction of that department.

(vi) The Department of General Services as to all other projects.

(vii) The High-Speed Rail Authority.

(4) "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.

(5) "Subcontractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a contractor or is a lower tier subcontractor.

(d)(1)(A) Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a contractor may, by mutual agreement, extend the time period provided in this subdivision.

(B) The claimant shall furnish reasonable documentation to support the claim.

(C) If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the public entity shall have up to three days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.

(D) Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, paragraph (3) shall apply.

(2)(A) If the claimant disputes the public entity's written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(B) Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public

entity and the claimant sharing the associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

(C) For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

(D) Unless otherwise agreed to by the public entity and the contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

(E) This section does not preclude a public entity from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

(3) Failure by the public entity to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

(4) Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.

(5) If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the public entity and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

(e) The text of this section or a summary of it shall be set forth in the plans or specifications for any public works project that may give rise to a claim under this section.

(f) A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a

public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

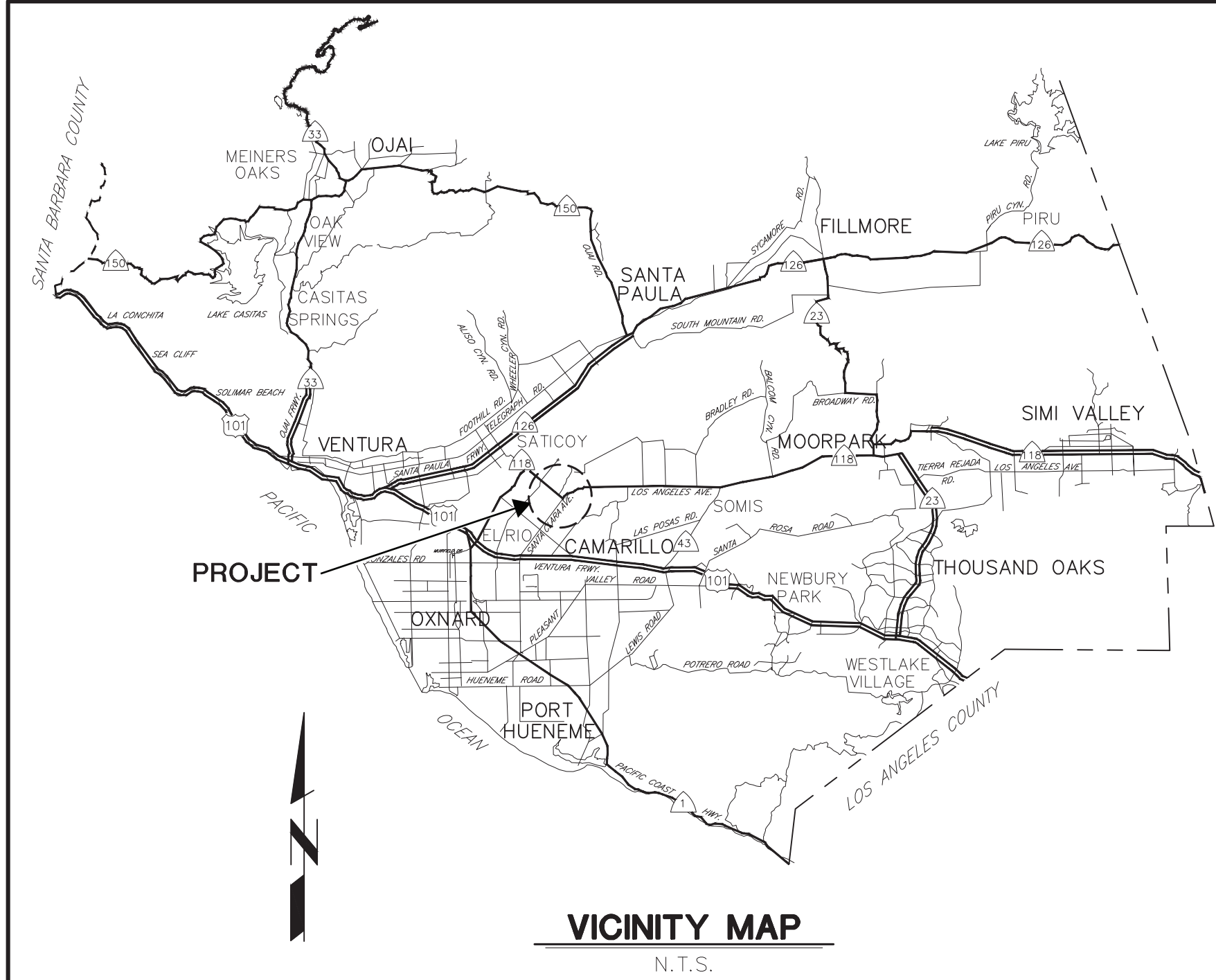
(g) This section applies to contracts entered into on or after January 1, 2017.




(h) Nothing in this section shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

(i) This section shall remain in effect only until January 1, 2027, and as of that date is repealed, unless a later enacted statute that is enacted before January 1, 2027, deletes or extends that date.




PLANS



- GENERAL NOTES**
- ELEVATIONS SHOWN ARE IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988, NGS PUB 1995.
 - STATIONS SHOWN ON DRAWINGS ARE ALONG CENTERLINE OF STRUCTURE AND/OR SURVEY CONTROL LINE.
 - NUMBERS IN $\#$ INDICATE BID ITEMS FOR WHICH PAYMENT WILL BE MADE.
 - LETTER AND NUMBER IN $\frac{X}{XX}$ INDICATE THE DETAIL CALL-OUT AND SHEET ON WHICH REFERENCE DETAIL IS SHOWN.
 - NUMBERS IN ΔXX REFER TO NOTES ON SAME SHEET UNLESS OTHERWISE NOTED.
 - TREES DESIGNATED BY  SHALL BE REMOVED. ALL OTHER TREES SHALL BE PROTECTED IN PLACE UNLESS INDICATED OTHERWISE.
 -  DELINEATES LIMITS OF VCWPD RIGHT OF WAY.
 -  DELINEATES LIMITS OF TEMPORARY WORK AREA.
 - TOPOGRAPHY AND CROSS SECTIONS FOR THIS PROJECT ARE BASED AN AERIAL AND FIELD SURVEYS PERFORMED IN APRIL 2018.
 - SYMBOL Δ INDICATES THE LOCATION OF HORIZONTAL AND VERTICAL CONTROL POINTS WHICH WILL BE FURNISHED BY THE AGENCY FOR CONSTRUCTION USE.

SURVEY CONTROL POINTS

PT 1301	NORTHING/Y: 1,918,806.12	EASTING/X: 6,226,675.06	ELEV/Z: 124.69
PT 1302	NORTHING/Y: 1,917,923.85	EASTING/X: 6,225,952.40	ELEV/Z: 119.10
PT 1304	NORTHING/Y: 1,918,145.76	EASTING/X: 6,225,562.40	ELEV/Z: 119.06
PT 1003	NORTHING/Y: 1,919,629.16	EASTING/X: 6,226,961.39	ELEV/Z: 178.25
PT 1009	NORTHING/Y: 1,919,521.31	EASTING/X: 6,227,183.69	ELEV/Z: 179.95

- SOIL TEST BORINGS SHOWN FOR THE PROJECT WERE MADE ON OCTOBER, 2018 AND THEIR LOCATION IS MARKED BY THE SYMBOL  REFER TO THE SPECIFICATIONS FOR ADDITIONAL GEOTECHNICAL REPORT INFORMATION. SUBSURFACE SOIL INVESTIGATION RESULTS ARE FURNISHED FOR INFORMATION ONLY IN ACCORDANCE WITH SUBSECTION 2-7 OF THE STANDARD SPECIFICATIONS, AND NO WARRANTY IS MADE THERE OF.
- EXISTING IMPROVEMENTS WITHIN THE RIGHT OF WAY AND WORK AREAS SHALL REMAIN AND SHALL BE PROTECTED UNLESS OTHERWISE NOTED. DAMAGED IMPROVEMENTS SHALL BE REPLACED IN KIND TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION.
- UTILITIES ARE SHOWN AS KNOWN TO EXIST AT TIME OF SURVEY. UTILITIES MAY HAVE BEEN OMITTED, MISPLACED, AND/OR RELOCATED. CONTRACTOR SHALL EXERCISE CARE IN EXCAVATION AND SHALL PROTECT ALL UTILITIES.
- CONTRACTOR SHALL NOTIFY UTILITY OWNERS A MINIMUM OF 48 HOURS PRIOR TO STARTING WORK IN AREAS AFFECTING THEIR FACILITIES.

VERIZON
SOUTHERN CALIFORNIA EDISON COMPANY
SOUTHERN CALIFORNIA GAS COMPANY
CRIMSON MIDSTREAM LLC

TEL. NO. (805) 388-2220 TOM SMITH
TEL. NO. (805) 654-7315 DOUG FROST
TEL. NO. (805) 701-3324 TERRY ESKRIDGE
TEL. NO. (805) 791-0028 TIM EGGLESTON

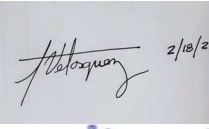
UNDERGROUND SERVICE ALERT
1-800-422-4133
CALL USA/SC
FOR UNDERGROUND LOCATION
2 WORKING DAYS BEFORE YOU DIG



**United States
Department of
Agriculture**

Natural Resources Conservation Service

RECOMMENDED BY:



Teresa Velasquez

STATE DESIGN ENGINEER

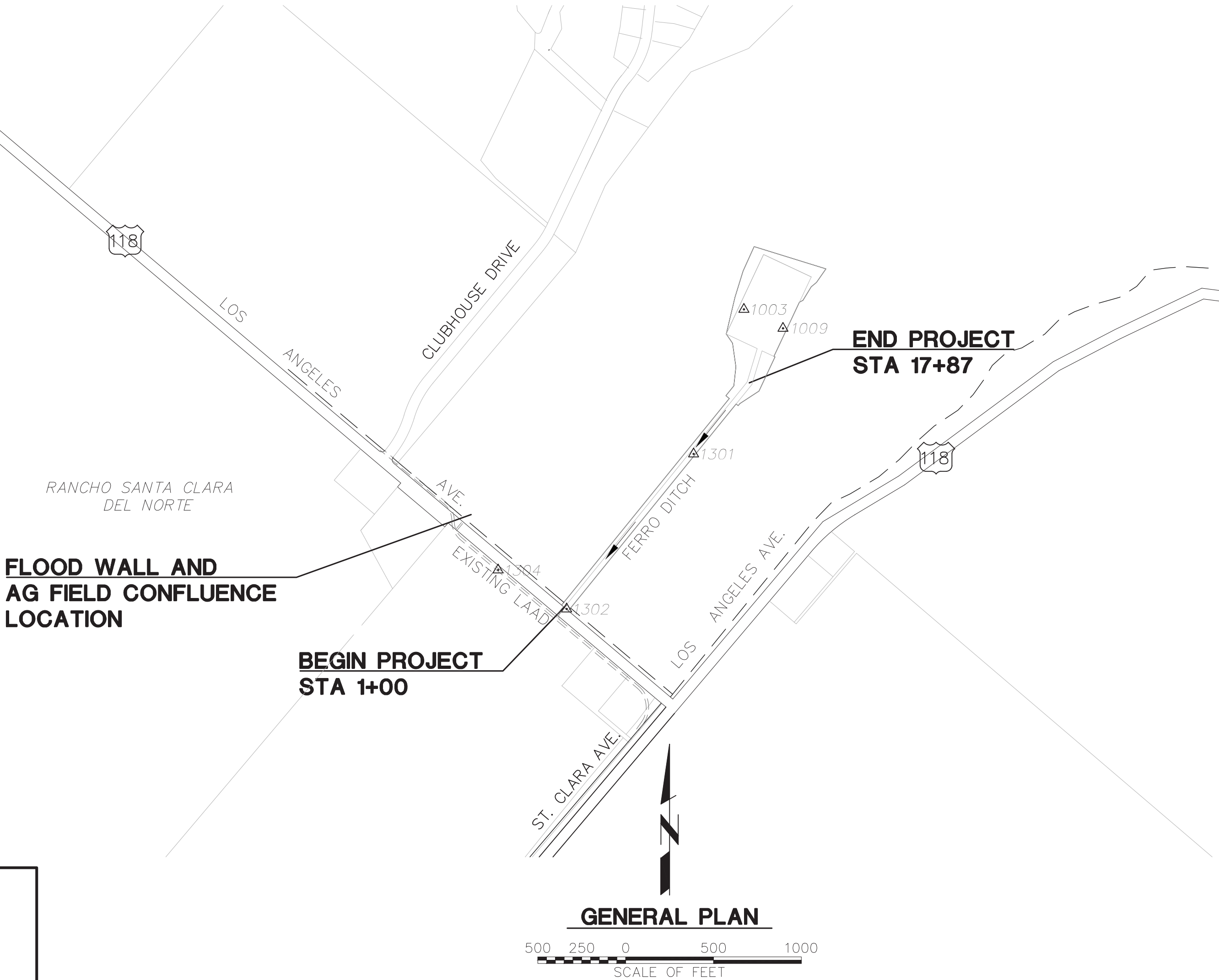
APPROVED BY:

02/19/2021



Gregory R. Norris, P.E.

STATE CONSERVATION ENGINEER



GENERAL PLAN

500 250 0 500 1000
SCALE OF FEET

INDEX TO SHEETS

SHEET NO.	TITLE
1.	GENERAL PLAN
2.	SITE INDEX, SOILS BORINGS, HYDROLOGY.
3.	PLAN AND PROFILE STA 1+00 TO 5+00
4.	PLAN AND PROFILE STA 5+00 TO 10+00
5.	PLAN AND PROFILE STA 10+00 TO 15+00
6.	PLAN AND PROFILE STA 15+00 TO 17+87
7.	FLOOD WALL PLAN, PROFILE AND DETAILS
8.	MISCELLANEOUS DETAILS - 1
9.	MISCELLANEOUS DETAILS - 2
10.	MISCELLANEOUS DETAILS - 3
11.	RC RECT CHANNEL - STRUCTURAL DETAILS
12.	WARPED SECTION - STRUCTURAL DETAILS
13.	SUBDRAIN SYSTEM DETAILS
14.	FENCE DETAILS
15.	CROSS SECTION - 1+00 to 6+00 FERRO DITCH
16.	CROSS SECTION - 7+00 to 14+00 FERRO DITCH
17.	CROSS SECTION - 15+00 to 17+50 FERRO DITCH
	1+00 to 1+40 FLOOD CONTROL WALL
18.	RIGHT OF WAY MAP - 1
19.	RIGHT OF WAY MAP - 2
20.	TEMPORARY WATER POLLUTION CONTROL PLAN

**INDEX OF STANDARD PLANS
USED BY REFERENCE**

CALTRANS STANDARD PLANS, 2018 EDITION:

D80	CAST IN PLACE REINFORCED CONCRETE - SINGLE BOX CULVERT
D82	CAST-IN-PLACE - BOX CULVERT - MISCELLANEOUS DETAILS
D88	CONSTRUCTION LOADS ON CULVERTS
D94B	CONCRETE FLARED END SECTIONS

REFERENCE DOCUMENTS

VENTURA COUNTY WATERSHED
PROTECTION DISTRICT DRAWINGS

FERRO DEBRIS BASIN
BEARDSLEY WATERSHED PROTECTION PROJECT
DRAWING NOS.
Y-2-3360 TO 3363
Y-2-3429
Y-2-3442

SANTA CLARA DRAIN UNIT ID AND
LOS ANGELES AVENUE DRAIN - UNIT I
DRAWING NOS.:
Y-2-2747 TO 2766

LOS ANGELES AVENUE DRAIN - UNIT II
DRAWING NOS.:
Y-2-2778 TO 2797



REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			
Δ			

RECOMMENDED BY:		Teresa Velasquez
		STATE DESIGN ENGINEER
APPROVED BY:		Gregory R. Norris, P.E.
		STATE CONSERVATION ENGINEER

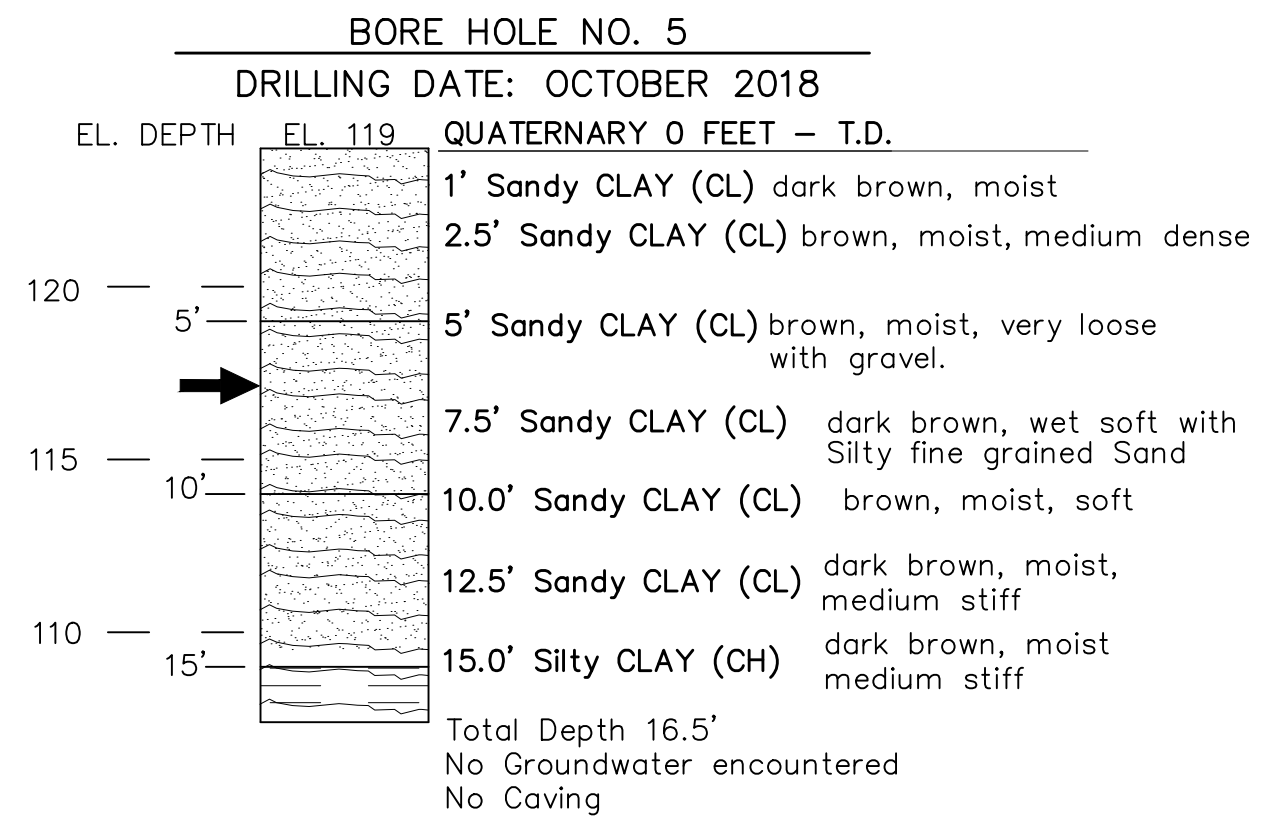
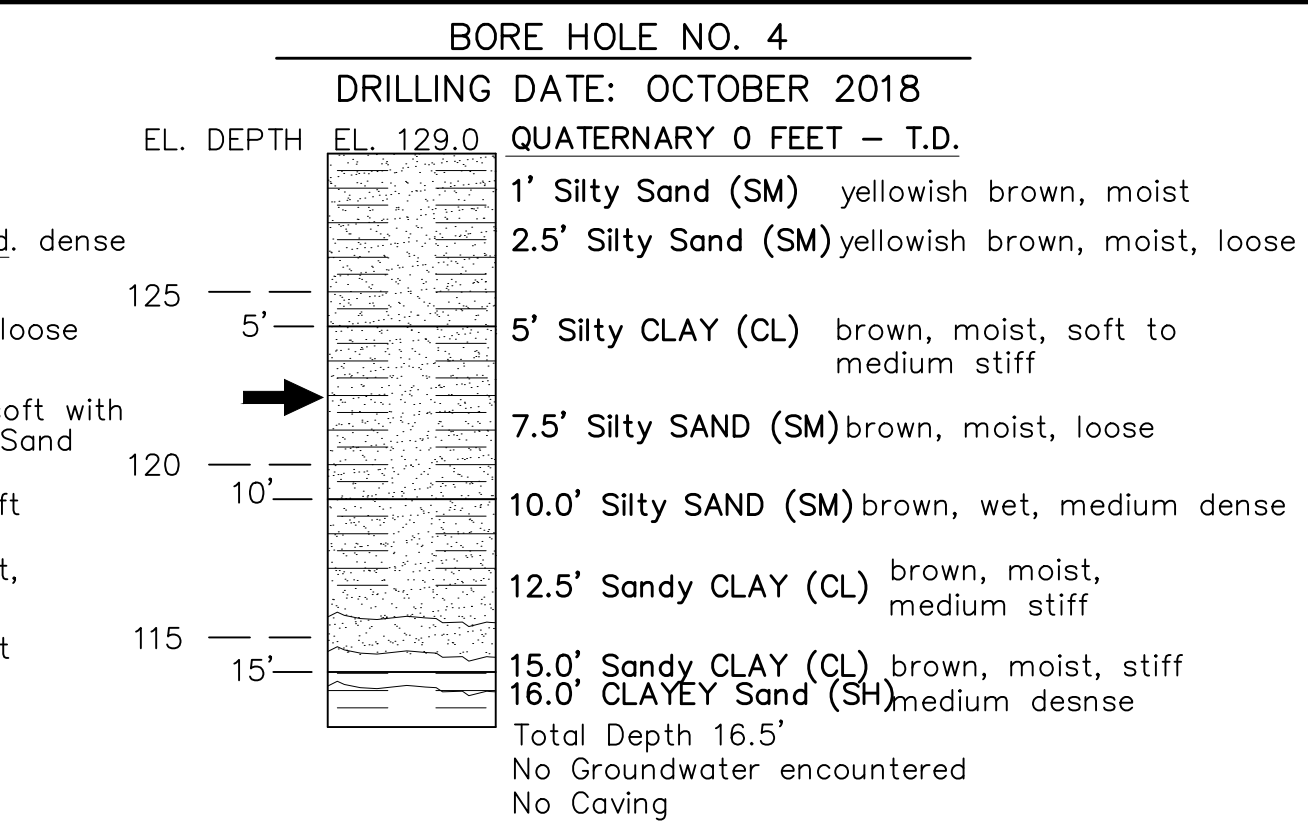
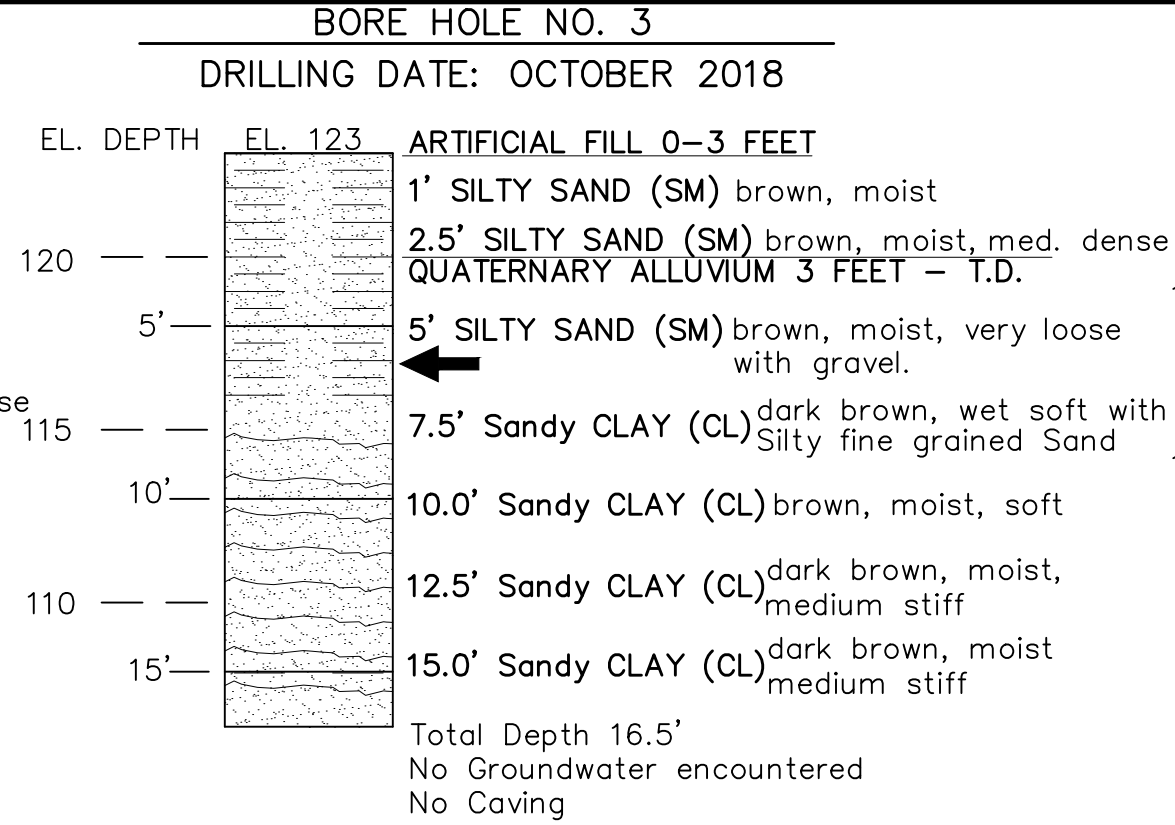
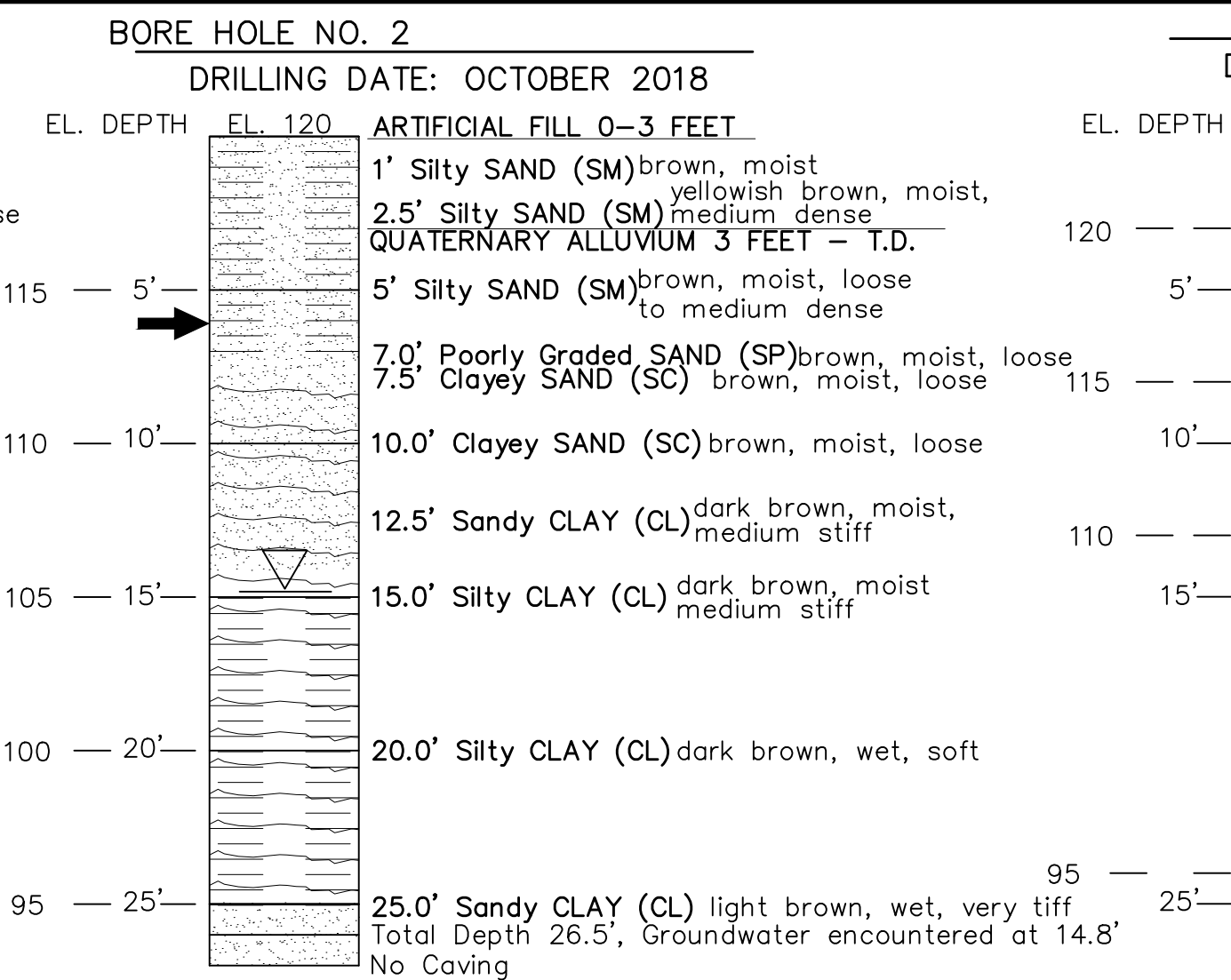
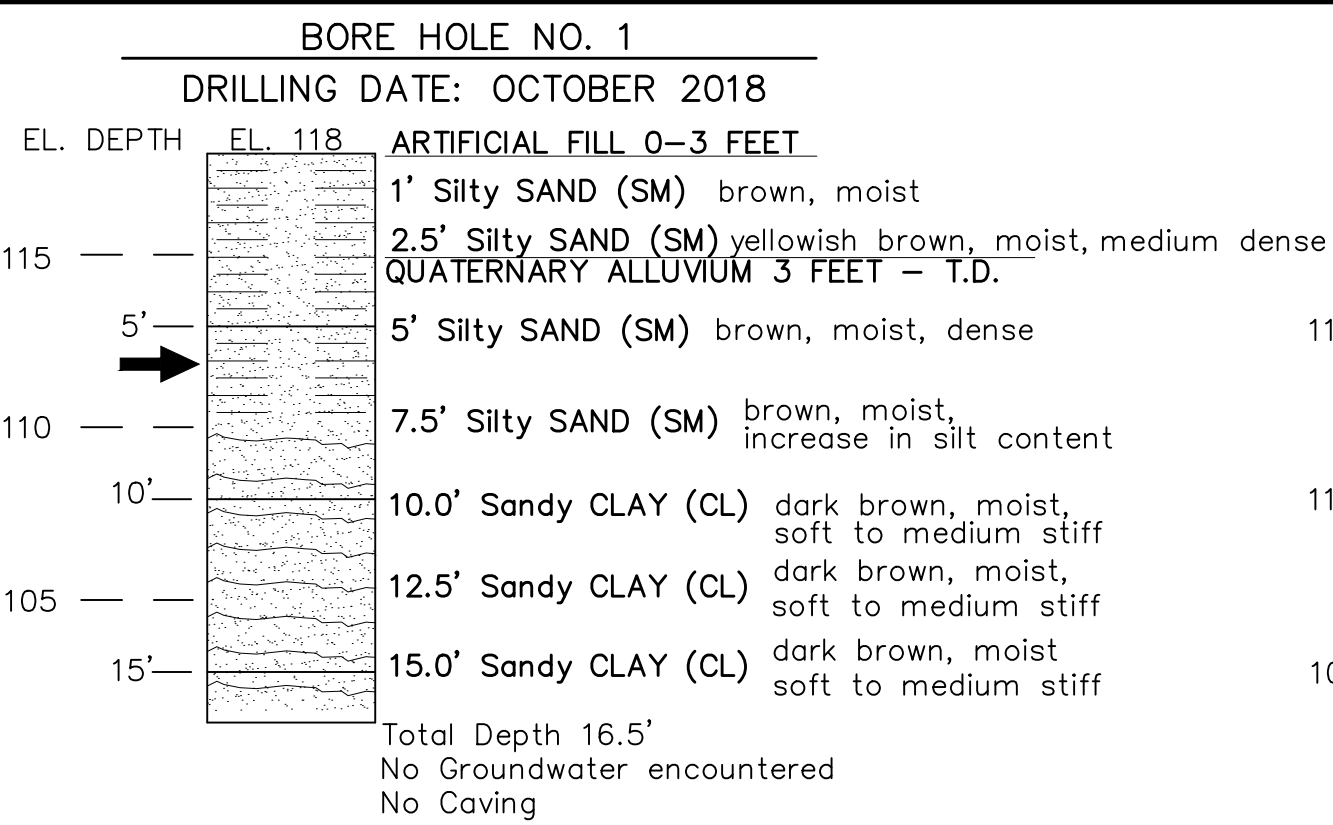
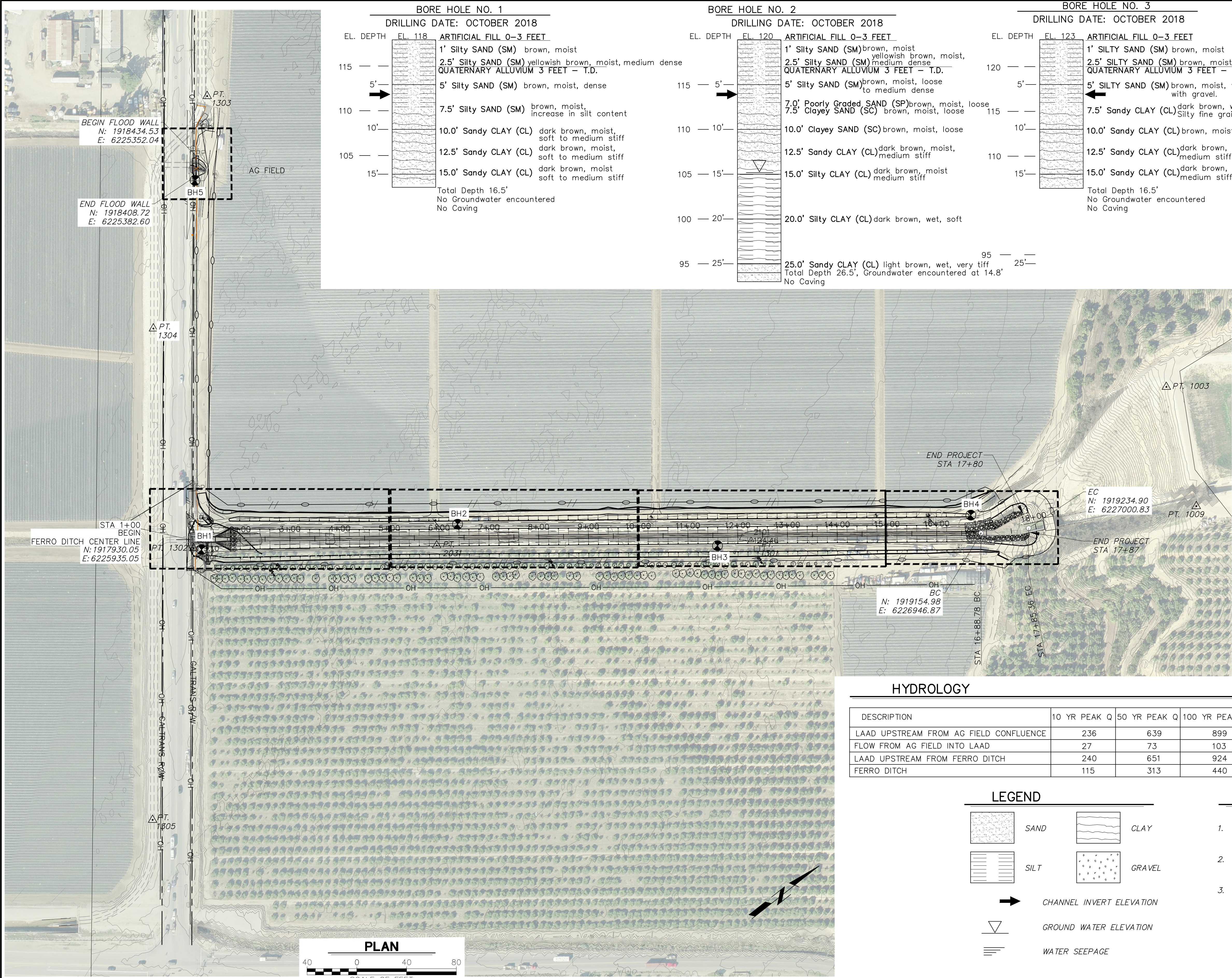
WATERSHED DEPUTY DIRECTOR	3/5/21
DATE	3/11/21
WATERSHED DIRECTOR	DATE
3/12/21	
AGENCY DIRECTOR	DATE

**VENTURA COUNTY
PUBLIC WORKS AGENCY
WATERSHED PROTECTION**

SPEC. NO.
WP21-05
PROJ. NO.
85301

**FERRO DITCH
CHANNEL IMPROVEMENTS**
GENERAL PLAN

SHEET	1
OF	20
DRAWING NO.	WP-3-512



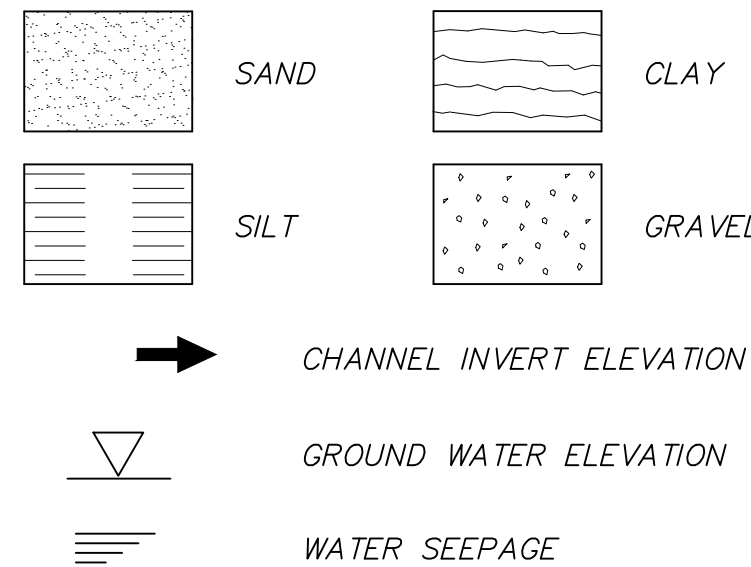
UNIFIED SOIL CLASSIFICATION SYSTEM

- GW - WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES
GP - POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES
GM - SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
GC - CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
SW - WELL GRADED SANDS, SAND-GRAVEL MIXTURES
SP - POORLY GRADED SANDS, GRAVELLY SANDS
SM - SILTY SANDS, SAND-SILT MIXTURES
SC - CLAYEY SANDS, SAND-CLAY MIXTURES
ML - SILTS AND VERY FINE SANDS, LIQUID LIMITS LESS THAN 50
MH - SILTS WITH LIQUID LIMIT ABOVE 50
CL - CLAYS WITH LIQUID LIMIT OF 50 OR LESS
CH - CLAYS WITH LIQUID LIMIT ABOVE 50
OL - ORGANIC SILTS AND CLAYS WITH LIQUID LIMIT OF 50 OR LESS
OH - ORGANIC SILTS AND CLAYS WITH LIQUID LIMIT ABOVE 50

HYDROLOGY

DESCRIPTION	10 YR PEAK Q	50 YR PEAK Q	100 YR PEAK Q
LAAD UPSTREAM FROM AG FIELD CONFLUENCE	236	639	899
FLOW FROM AG FIELD INTO LAAD	27	73	103
LAAD UPSTREAM FROM FERRO DITCH	240	651	924
FERRO DITCH	115	313	440

LEGEND



NOTES

- SOIL CLASSIFICATIONS ARE BASED ON THE UNIFIED SOIL CLASSIFICATION SYSTEM.
- LOCATIONS OF BORINGS ARE SHOWN ON THE PLAN AND PROFILE SHEETS.
- ELEVATIONS OF BORINGS REPRESENT THE GROUND SURFACE ELEVATION AT THE SITE OF THE TEST HOLE.



REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			
△			

JM	DESIGNED	3/4/21	DATE
JM	DRAWN	3/5/21	DATE
K. ROUSSEV	CHECKED	3/11/21	DATE

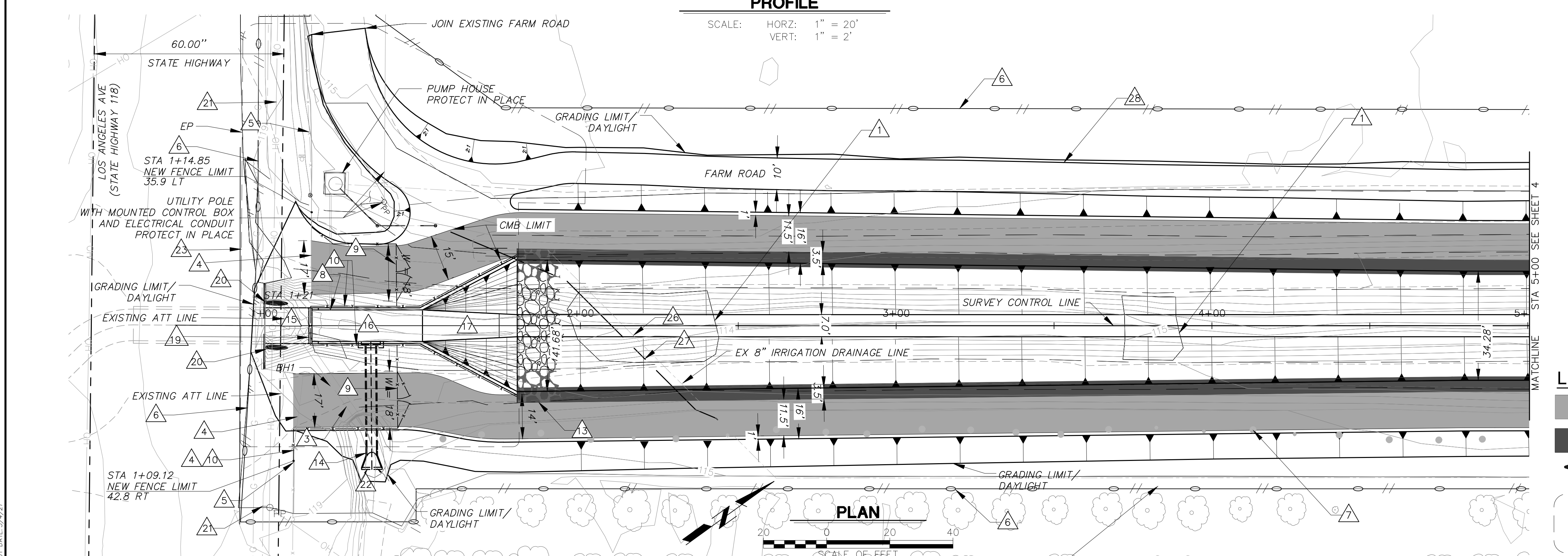
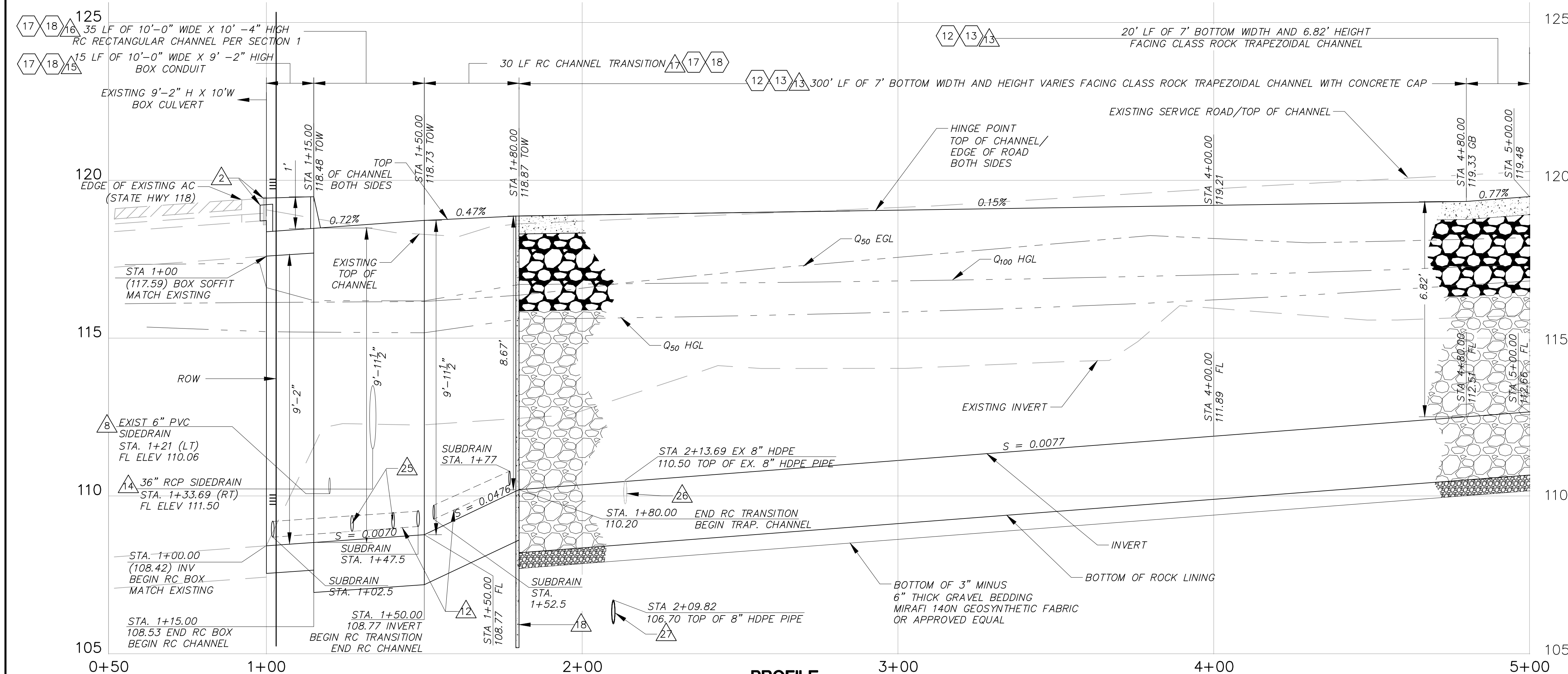
Kirk R. Norman
WATERSHED PROJECT MANAGER
K. Roussev
WATERSHED DEPUTY DIRECTOR
John Mueller
WATERSHED DIRECTOR

VENTURA COUNTY
PUBLIC WORKS AGENCY
WATERSHED PROTECTION

SPEC. NO.
WP21-05
PROJ. NO.
85301

FERRO DITCH
CHANNEL IMPROVEMENTS
SITE INDEX, SOIL BORINGS, HYDROLOGY.

SHEET	2
OF	20
DRAWING NO.	WP-3-512



- NOTES:**
- REMOVE AND DISPOSE OF EXISTING CONCRETE/ROCK CHANNEL IMPROVEMENTS WITHIN THE PROJECT LIMITS UNLESS SHOWN OTHERWISE. (8)
 - REMOVE PARAPET AND HEADWALLS FLUSH TO TOP OF EXISTING RCB. ADD RC REINFORCEMENT PER 2018 CALTRANS STANDARD PLAN D82 DETAIL B. (8)
 - REMOVE INTERFERING PORTIONS OF EXISTING 24" CMP, ABANDON IN PLACE THE REMAINDER PER SSPWC STD. 306-3.3. (8)
 - REMOVE AND DISPOSE OF INTERFERING PORTIONS OF EXISTING CHAIN LINK FENCE AND OR GATE. (8)
 - EXISTING CHAIN LINK FENCE, PROTECT IN PLACE (9)
 - TEMPORARY WORK AREA, SEE SHEET 18 FOR COORDINATES. INSTALL TEMPORARY FENCING. (9)
 - REMOVE AND DISPOSE OF ALL EXISTING TREE STUMPS AND ROOTBALLS WITHIN PROJECT LIMITS. (7)
 - EXISTING 6" PVC SIDEDRAIN, DISPOSE OF INTERFERING PORTION AND RECONNECT TO RC CHANNEL PER DETAIL (W 9) (8)
 - INSTALL 5' HIGH 18' WIDE PLAN DOUBLE LEAF GATE PER DETAIL (OO 14) (16)
 - INSTALL 5' HIGH CHAIN LINK FENCE WITH TOP RAIL PER DETAIL (LL 14) (15)
 - CONSTRUCT 6" CMB SERVICE ROAD PER DETAIL (E 9) (20)
 - INSTALL SUBDRAIN PER DETAIL (N 13) (19)
 - INSTALL FACING CLASS ROCK TO 6" BELOW SERVICE ROAD ELEVATION & CONCRETE TOP 3' TO FULL PENETRATION PER DETAIL (E 9) (12) (13)
 - INSTALL RC FLARED END SECTION AND 36" RCP (D=1000) SIDEDRAIN AND JUNCTION STRUCTURE PER DETAIL (I 10) (23) (24) (25) (26)
 - CONSTRUCT RC BOX CONDUIT EXTENSION WITH PARAPET PER 2018 CALTRANS STANDARD PLAN D80, RSP D82, D88. (17) (18)
 - CONSTRUCT RC RECTANGULAR CHANNEL PER DETAIL (J 11) (17) (18)
 - CONSTRUCT RC WARPED SECTION PER DETAIL (M 12) (17) (18)
 - CONSTRUCT RC CUT-OFF WALL PER DETAIL (L 12) (17) (18)
 - INSTALL 5' HIGH CHAINLINK FENCE WITH TOP RAIL ALONG PARAPET PER DETAIL (K 11) (15)
 - POTHOLE FOR EXISTING ATT LINE TO A DEPTH OF 16'. (33)
 - EXISTING OVERHEAD UTILITY.
 - GRADE TO DRAIN.
 - SEE GRADING DETAIL-PROJECT ENTRANCE. (R 9) (10) (11)
 - CONSTRUCT TRANSITION FROM BOX PARAPET TO TOP OF WALL PER DETAIL (S 11) (17) (18)
 - CLEANOUT AND INLET LOCATIONS FOR SUBDRAIN SYSTEM ON SOUTHEAST SIDE OF CHANNEL, ADJACENT TO 36" RCP OUTLET STRUCTURE PER DETAIL (V 13) (19)
 - SEE DETAIL (T 10) FOR EXISTING 8" HDPE IRRIGATION DRAINAGE LINE REMOVAL. (8)
 - INSTALL 8" HDPE IRRIGATION DRAINAGE LINE PER DETAIL (T 10) (31)
 - GRADE 10' WIDE EARTHEN FARM ROAD PER DETAIL (E 9) (10)

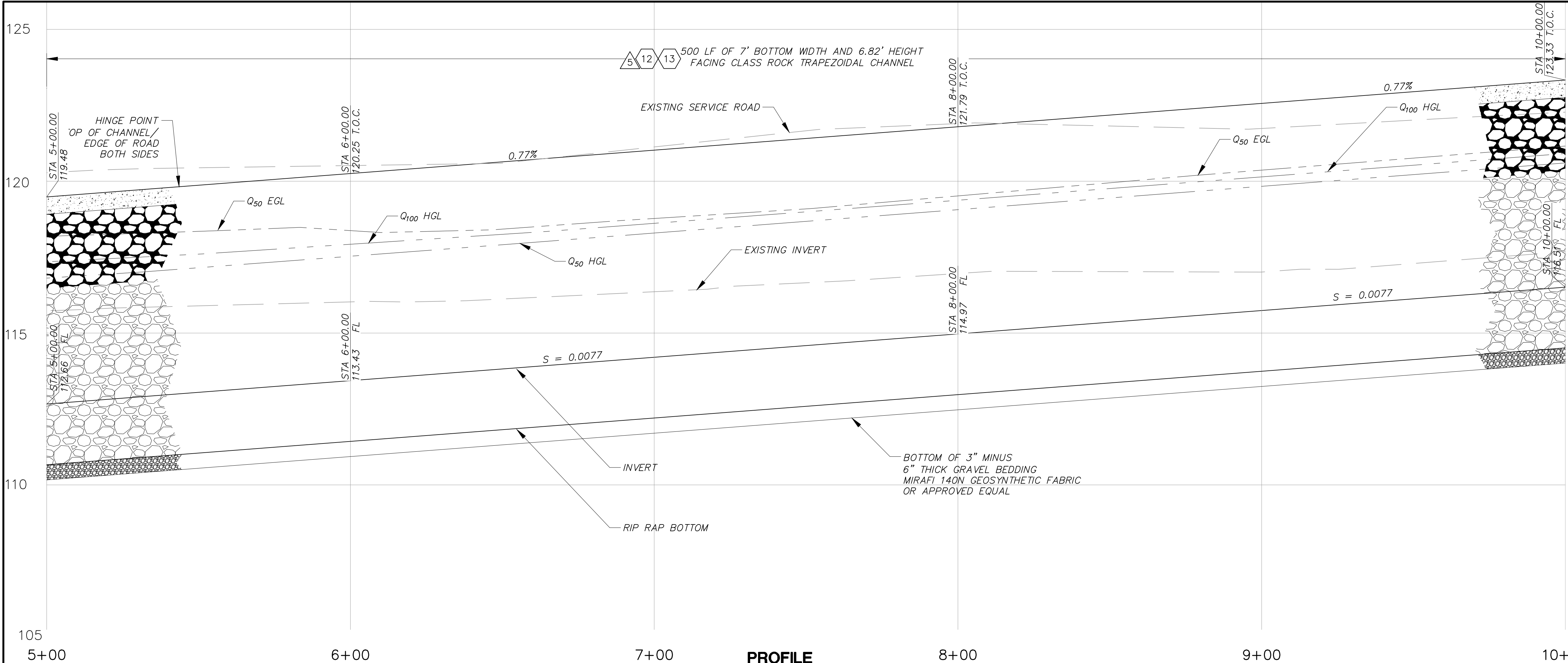
LEGEND

- CMB SERVICE ROAD
- 6" CONCRETE CAP
- POTHOLE LOCATION

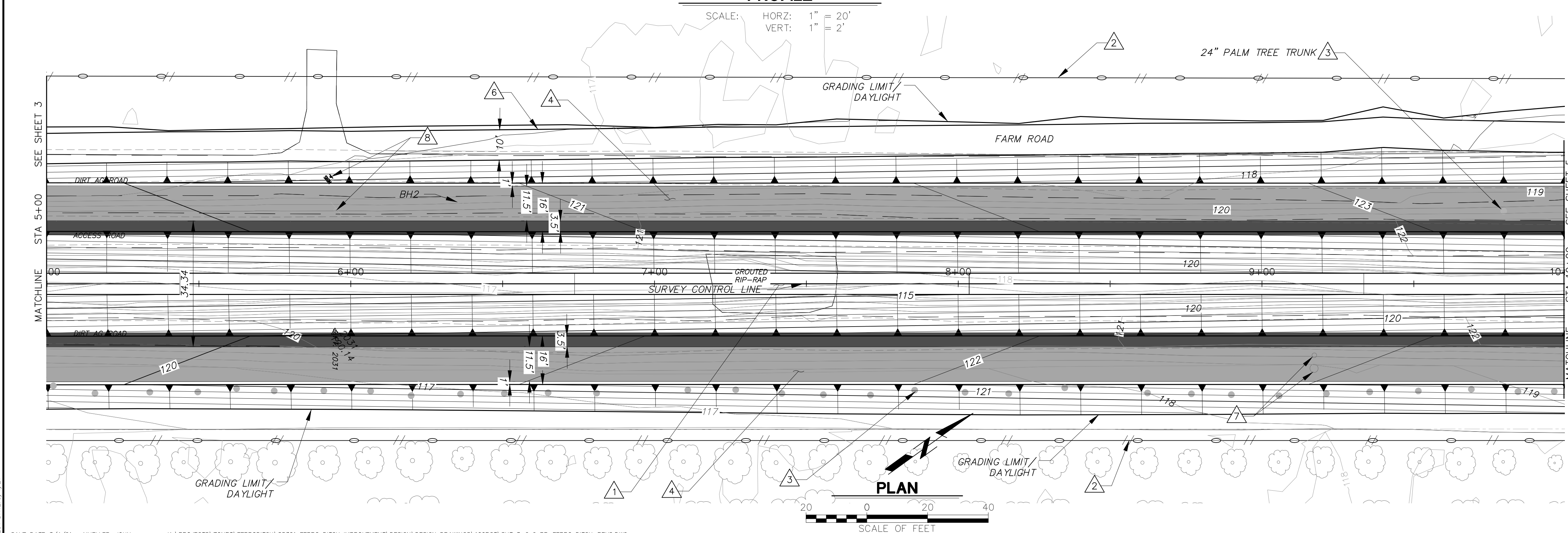
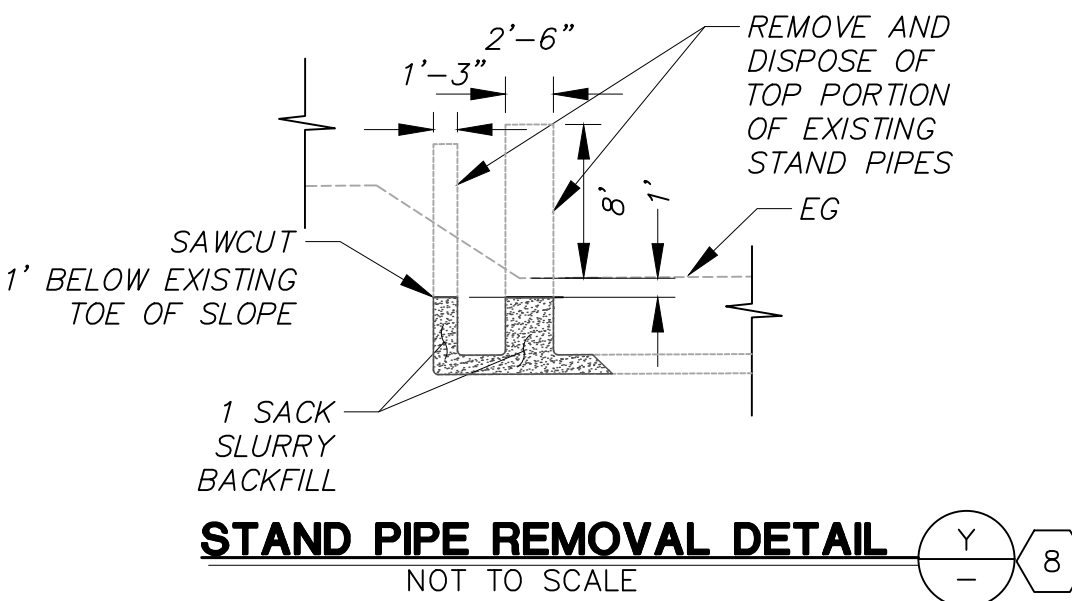
LIMITS OF GRADING DETAIL PROJECT ENTRANCE. (R 9)



DESIGNED JM /ND DRAWN K. ROUSSEV CHECKED	DATE 3/5/21 3/5/21 3/11/21 DATE	WATERSHED PROJECT MANAGER WATERSHED DEPUTY DIRECTOR WATERSHED DIRECTOR	DATE 3/5/21 3/11/21 DATE	VENTURA COUNTY PUBLIC WORKS AGENCY WATERSHED PROTECTION	SPEC. NO. WP21-05 PROJ. NO. 85301	FERRO DITCH CHANNEL IMPROVEMENTS PLAN AND PROFILE STA 1+00 TO 5+00	SHEET 3 OF 20 DRAWING NO. WP-3-512
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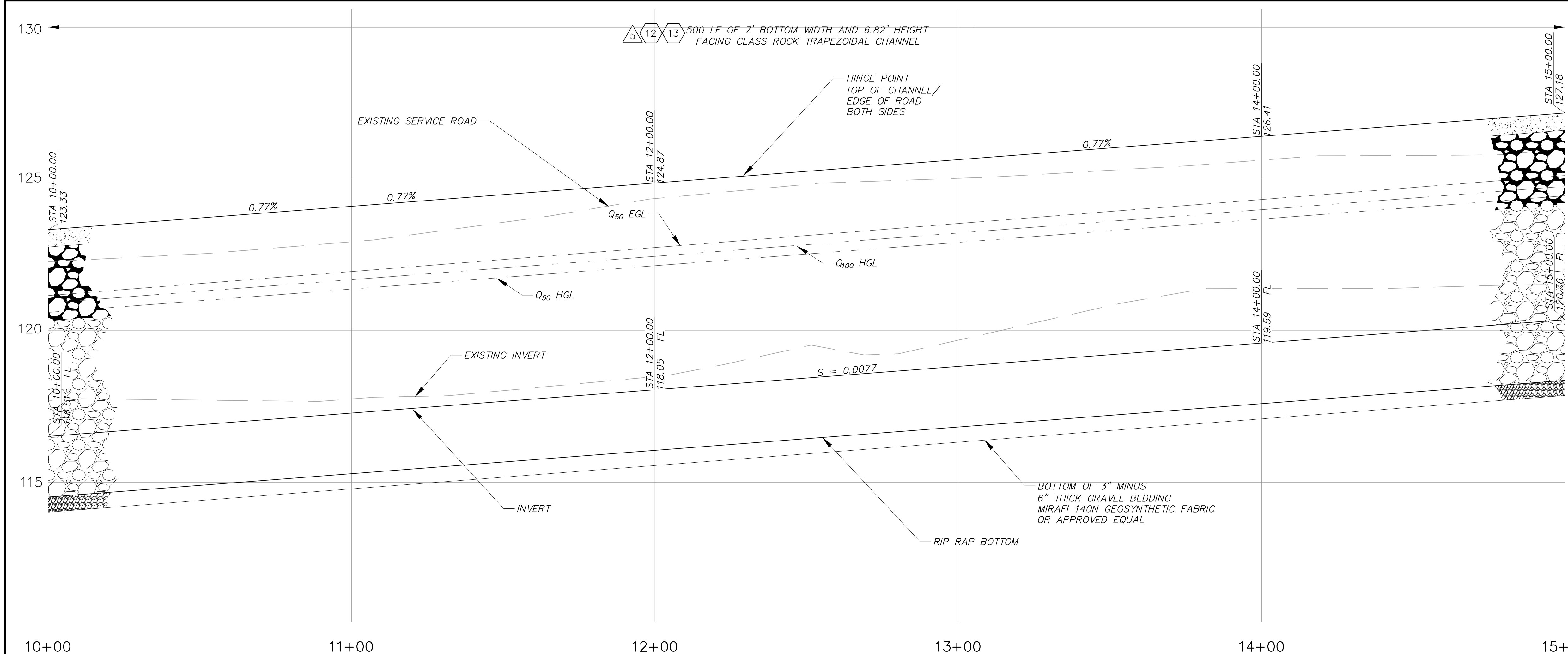
- NOTES:
1. REMOVE AND DISPOSE EXISTING CONCRETE/ROCK CHANNEL IMPROVEMENTS WITHIN THE PROJECT LIMITS (8)
 2. INSTALL TEMPORARY FENCING (9)
 3. REMOVE AND DISPOSE OF ALL EXISTING TREE TRUNKS AND ROOTBALLS WITHIN PROJECT LIMITS. (2) (7)
 4. CONSTRUCT 6" CMB SERVICE ROAD PER DETAIL (E 9) (20)
 5. INSTALL FACING CLASS ROCK TO 6" BELOW SERVICE ROAD ELEVATION & CONCRETE TOP 2.5' TO FULL PENETRATION PER DETAIL (E 9) (12) (13)
 6. GRADE 10' WIDE EARTHEN FARM ROAD PER DETAIL (E 9) (10)
 7. SAWCUT, REMOVE, DISPOSE OF TOP PORTION OF CONCRETE STANDPIPE AND ABANDON PER DETAIL (Y 4) (8)
 8. RELOCATE SIGN PER PLAN. (8)



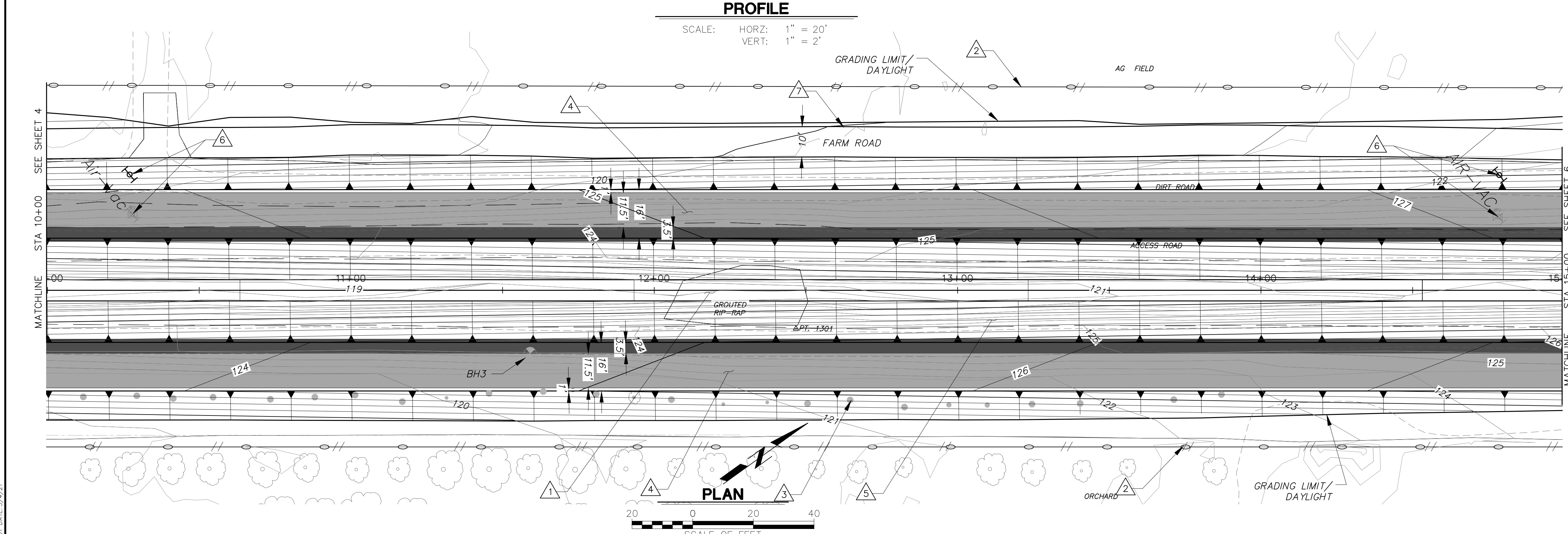
- LEGEND
- CMB SERVICE ROAD
 - 6" CONCRETE CAP



SAV: DATE: 3/24/21 MUELER, JOHN R:\PROJECTS\2008-STA FERRO DITCH IMPROVEMENTS\LOG SIGN DRAWINGS\LOG CKS\ST 3-B 9 PP FERRO DITCH BE-2.DWG																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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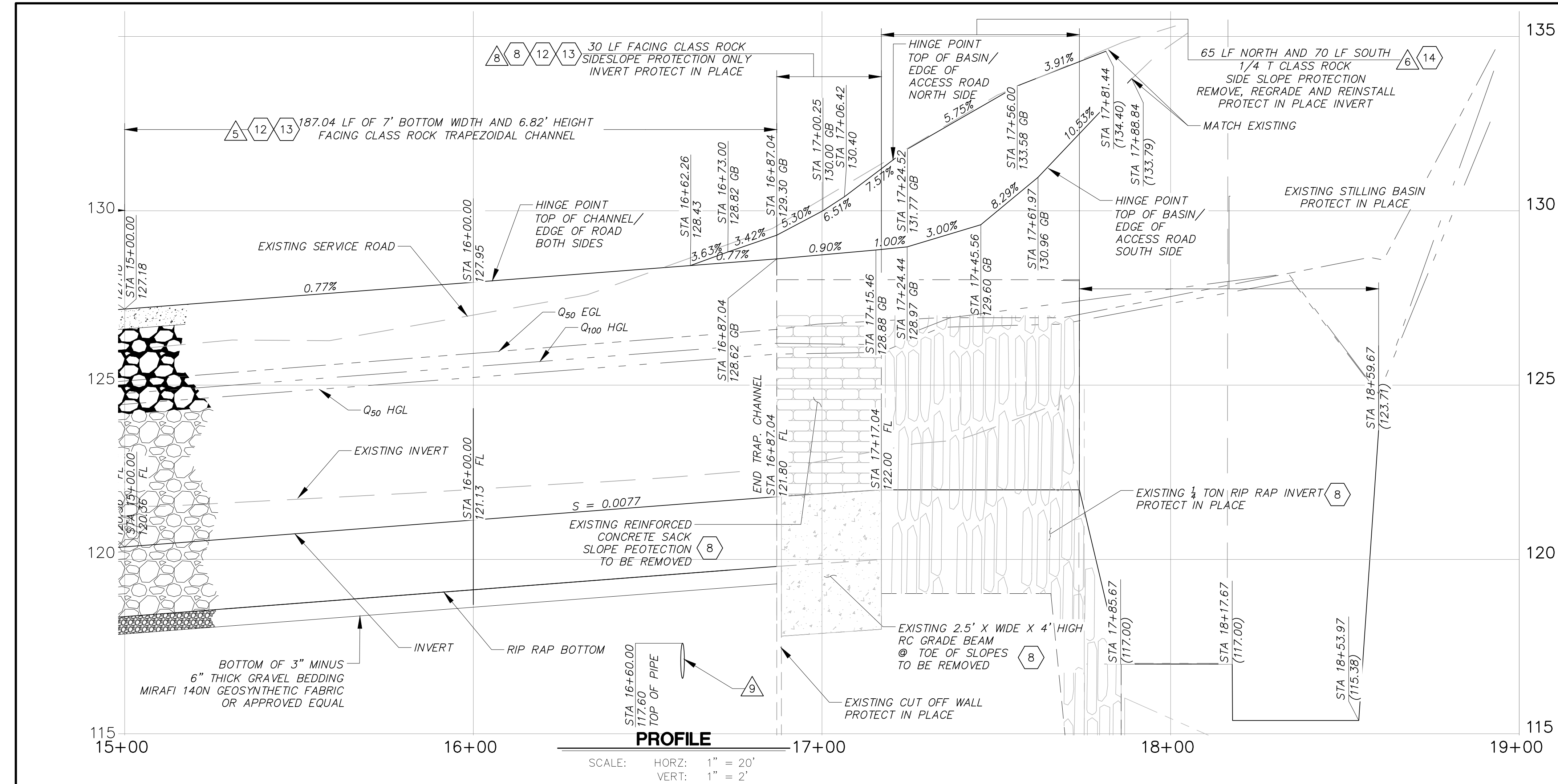
- NOTES:
1. REMOVE AND DISPOSE EXISTING CONCRETE/ROCK CHANNEL IMPROVEMENTS WITHIN THE PROJECT LIMITS (8)
 2. INSTALL TEMPORARY FENCING (9)
 3. REMOVE AND DISPOSE OF ALL EXISTING TREE TRUNKS AND ROOTBALLS WITHIN PROJECT LIMITS. (7) (7)
 4. CONSTRUCT 6" CMB SERVICE ROAD PER DETAIL (E 9) (20)
 5. INSTALL FACING CLASS ROCK TO 6" BELOW SERVICE ROAD ELEVATION & CONCRETE TOP 2.5' TO FULL PENETRATION PER DETAIL (E 9) (12) (13)
 6. RELOCATE AG IRRIGATION AIR VAC PER PLAN AND PER DETAIL (W 8) PROTECT IN PLACE RELOCATED AIR VAC.
 7. GRADE 10' WIDE EARTHEN FARM ROAD PER DETAIL (E 9) (10)



- LEGEND
- CMB SERVICE ROAD
 - 6" CONCRETE CAP



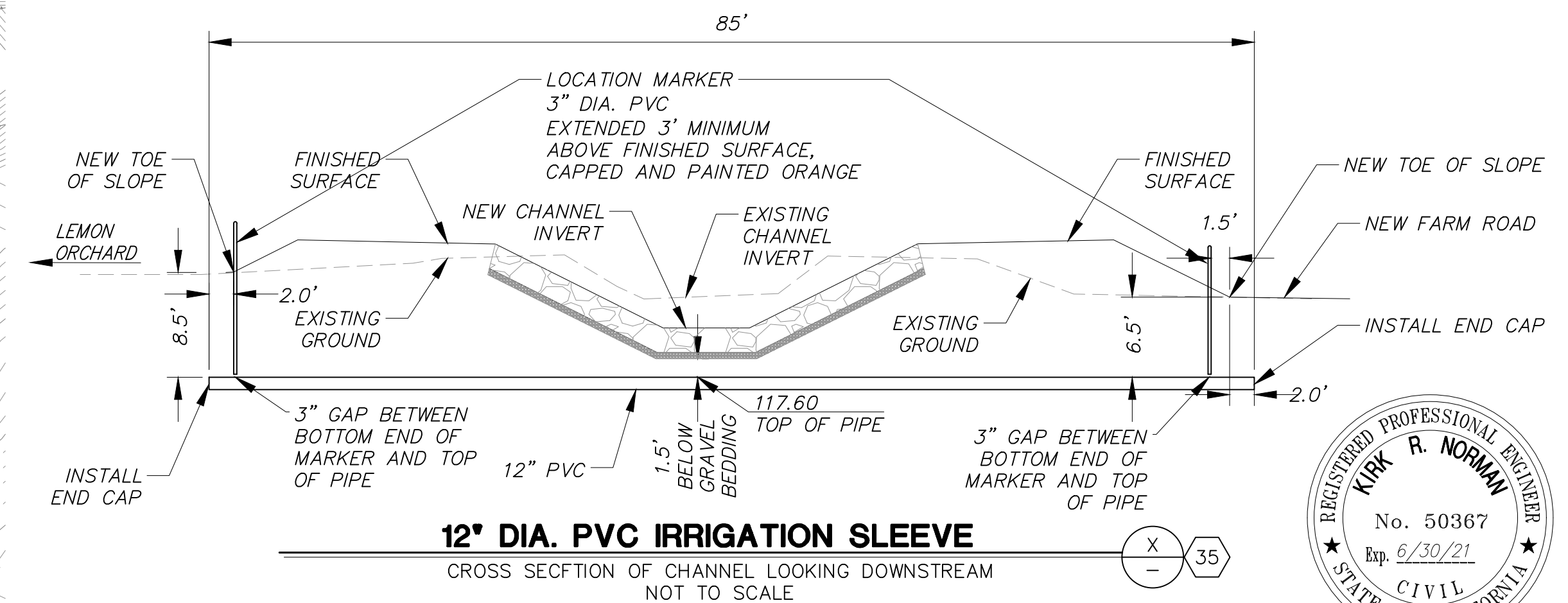
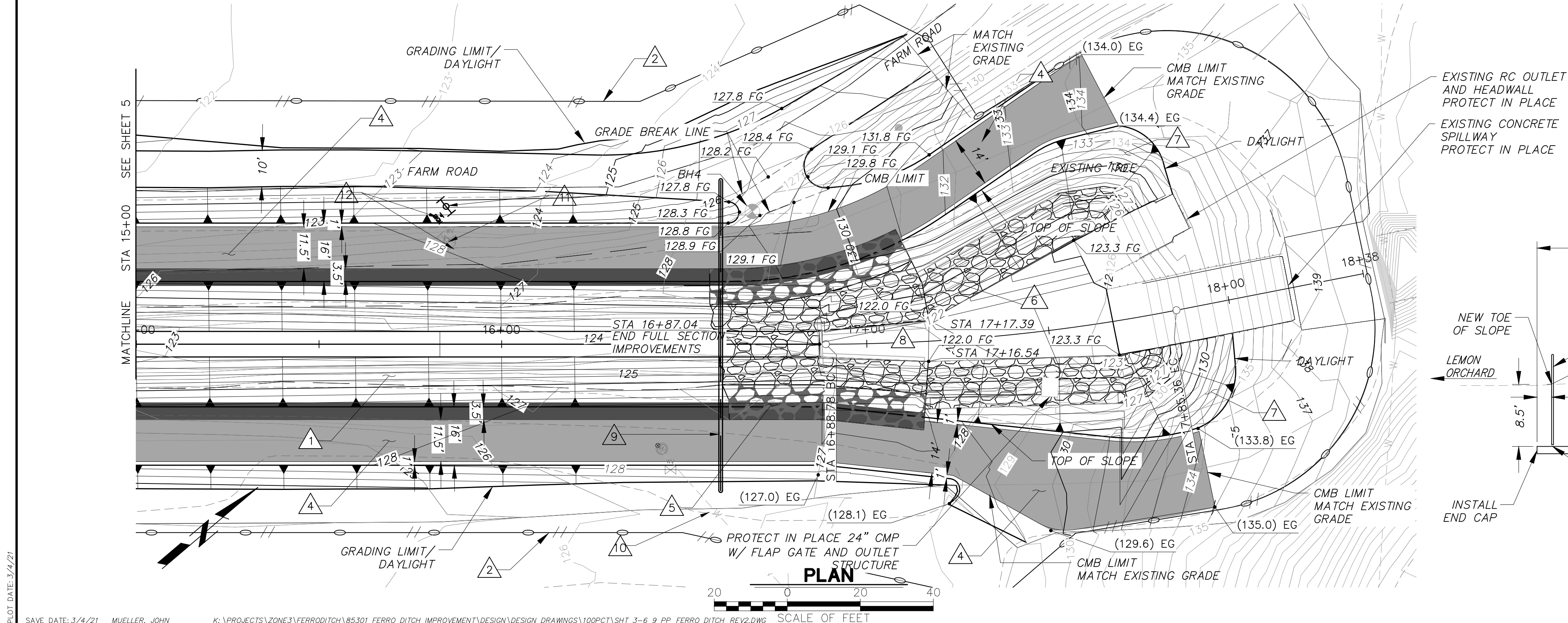
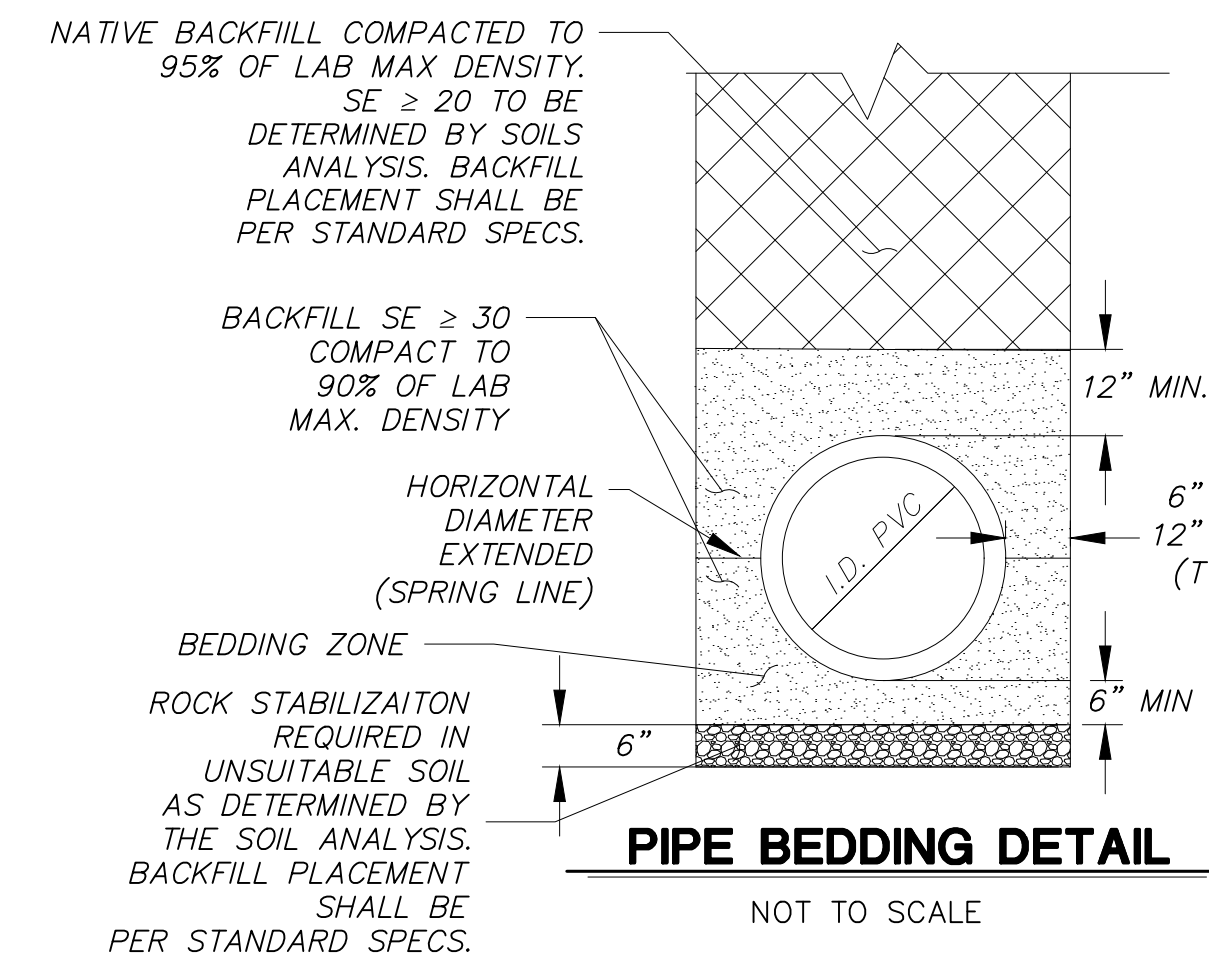
SAVE DATE: 3/4/21 MUJELLER, JOHN K:\PROJECTS\ZONE3\FERRODITCH\85301 FERRO DITCH IMPROVEMENT\DESIGN\DESIGN DRAWINGS\100PCT\SHI 3-6 9 PP FERRO DITCH REV2.DWG										SCALE OF FEET											
D								JM	3/4/21	<div>VENTURA COUNTY PUBLIC WORKS AGENCY WATERSHED PROTECTION</div> <div>SPEC. NO. WP21-05 PROJ. NO. 85301</div> <div>FERRO DITCH CHANNEL IMPROVEMENTS PLAN AND PROFILE STA 10+00 TO 15+00</div>										SHEET 5	
C								DESIGNED	DATE											OF 20	
B								JM /ND	3/5/21											DRAWING NO.	
A								DRAWN	DATE											WP-3-512	
△	REVISION	DESCRIPTION	APP.	DATE				K ROUSSEV	3/11/21												
								CHECKED	DATE												



- NOTES:**
1. REMOVE AND DISPOSE EXISTING CONCRETE/ROCK CHANNEL IMPROVEMENTS WITHIN THE PROJECT LIMITS (8)
 2. INSTALL TEMPORARY FENCING (9)
 3. REMOVE AND DISPOSE OF ALL EXISTING TREES WITHIN PROJECT LIMITS. (7)
 4. CONSTRUCT 6" CMB SERVICE ROAD PER DETAIL (E 9) (21)
 5. INSTALL FACING CLASS ROCK TO 6" BELOW SERVICE ROAD ELEVATION & CONCRETE TOP 2.5' TO FULL PENETRATION INCLUDE 6" THICK CONCRETE CAP SLOPED 2% AWAY FROM CHANNEL PER DETAIL. (E 9) (12) (13)
 6. REMOVE AND REPLACE 1/4 TON CLASS ROCK SLOPE PROTECTION PER DETAIL. PROTECT IN PLACE LOOSE ROCK INVERT (F 9) (14)
 7. GRADE 2:1 TO DAYLIGHT (10) (11)
 8. INSTALL FACING CLASS ROCK TO 6" BELOW SERVICE ROAD ELEVATION & CONCRETE TOP 2.5' TO FULL PENETRATION, INCLUDE 6" THICK CONCRETE CAP, SLOPED 2% AWAY FROM BASIN. PER DETAIL (E 9). PROTECT IN PLACE LOOSE ROCK INVERT. (12) (13) (8)
 9. INSTALL 12" PVC SCHEDULE 40 PER PLAN, PROFILE, DETAIL AND PER "PIPE BEDDING DETAIL" HERE ON. (X 6) (35)
 10. PROTECT IN PLACE TRUCK WATER SUPPLY. (8)
 11. RELOCATE AG IRRIGATION AIR-VAC PER (W 8) (8)
 12. RELOCATE SIGN PER PLAN. (8)

LEGEND

- CMB SERVICE ROAD
- 6" CONCRETE CAP



D				JM		3/4/21		VENTURA COUNTY		SPEC. NO.		FERRO DITCH		SHEET	
C				DESIGNED		DATE		PUBLIC WORKS AGENCY		WP21-05		CHANNEL IMPROVEMENTS		OF	
B				JM/ND		3/5/21		WATERSHED PROTECTION		PROJ. NO.		PLAN AND PROFILE 15+00 TO 17+87		DRAWING NO.	
A				DRAWN		DATE				85301				WP-3-512	
Δ				CHECKED		DATE									
REVISION				DESCRIPTION		APP.		DATE							



PLOT DATE: 3/4/21

SAVE DATE: 3/4/21				K:\PROJECTS\ZONE3\FERRODITCH\85301 FERRO DITCH IMPROVEMENT\DESIGN\DESIGN DRAWINGS\100PCT\SH3-6-9 PP FERRO DITCH REV2.DWG				SCALE OF FEET			
D									JM	<i>Art Roussev</i>	3/4/21
C									DESIGNED	WATERSHED PROJECT MANAGER	DATE
B									JM/ND	<i>Art Roussev</i>	3/5/21
A									DRAWN	WATERSHED DEPUTY DIRECTOR	DATE
△	REVISION DESCRIPTION			APP.	DATE				K ROUSSEV	<i>Art Roussev</i>	3/11/21
									CHECKED	WATERSHED DIRECTOR	DATE

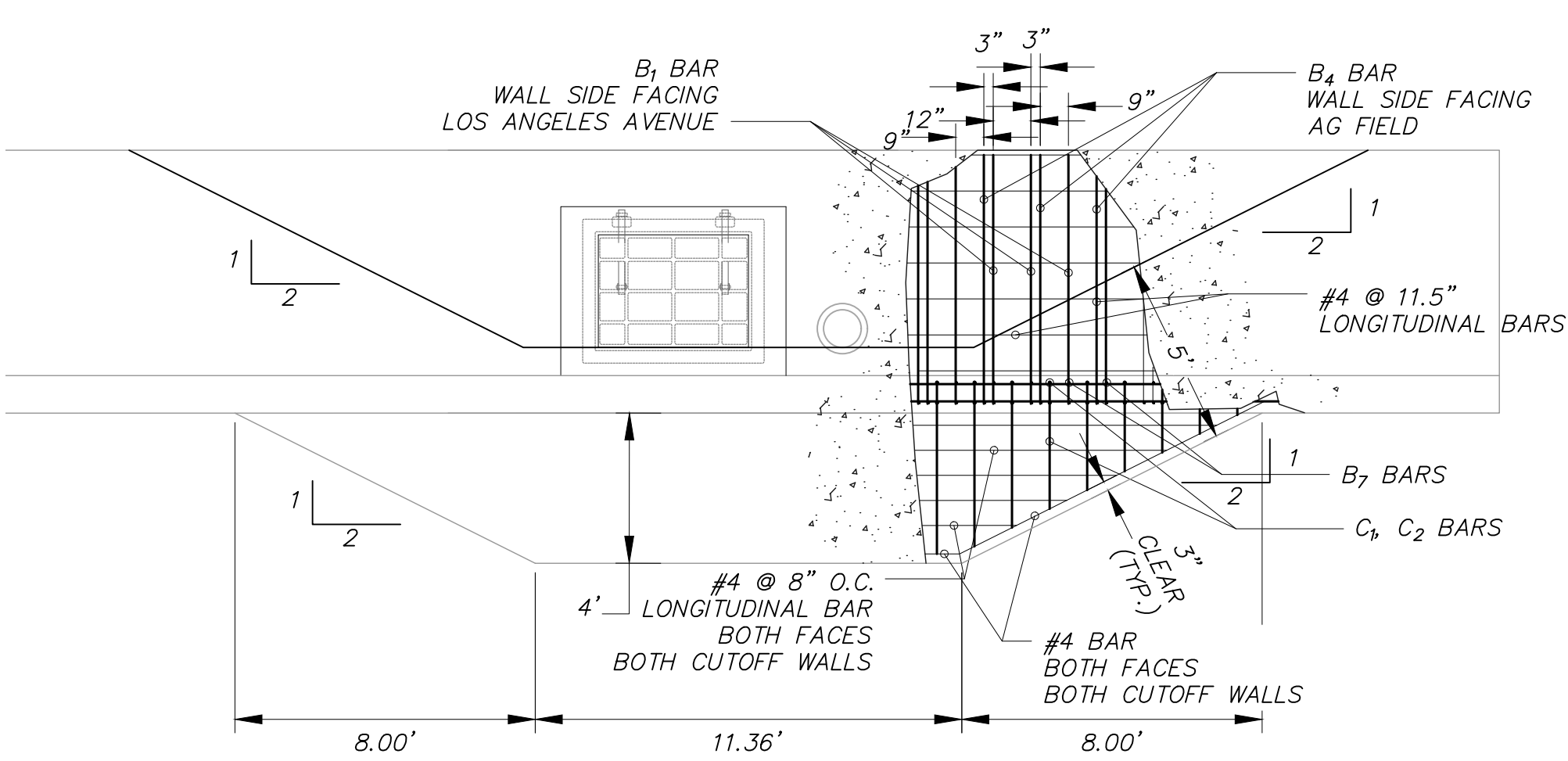
STRUCTURAL NOTES

GENERAL:

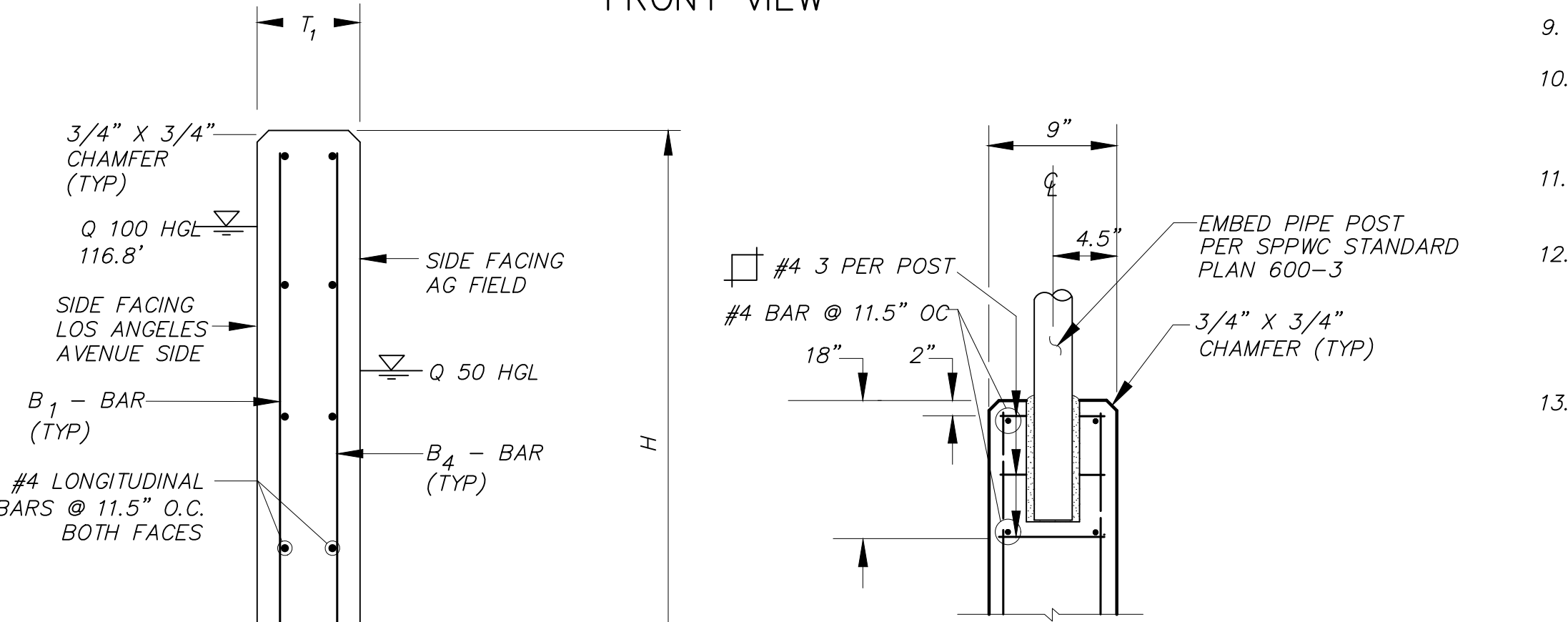
- DIMENSIONS FROM FACE OF CONCRETE TO STEEL ARE TO THE NEAREST EDGE OF BAR AND SHALL BE TWO INCHES UNLESS OTHERWISE SHOWN.
- CONCRETE DIMENSIONS SHALL BE MEASURED HORIZONTALLY OR VERTICALLY ON THE PROFILE, AND PARALLEL TO OR AT RIGHT ANGLES (OR RADIALY) TO LAYOUT LINE OF THE WALL ON THE PLAN EXCEPT AS OTHERWISE SHOWN.
- ALL BAR BENDS AND HOOKS SHALL CONFORM TO THE 2014 EDITION OF THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-14), SECTION 7.3
- PLACING OF REINFORCEMENT SHALL CONFORM TO THE 2014 EDITION OF THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-14), SECTION 7.5.
- TRANSVERSE CONSTRUCTION JOINTS IN WALLS AND SLABS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED. TRANSVERSE CONSTRUCTION JOINTS SHALL BE NORMAL OR RADIAL TO THE CENTERLINE OF CONSTRUCTION UNLESS OTHERWISE SHOWN.
- THE TRANSVERSE REINFORCING STEEL SHALL TERMINATE ONE AND ONE-HALF INCHES FROM THE CONCRETE SURFACES UNLESS OTHERWISE SHOWN ON THE PLANS.
- EXPOSED EDGES OF CONCRETE MEMBERS SHALL BE CHAMFERED 3/4" X 3/4".
- NO SPLICES IN TRANSVERSE STEEL REINFORCEMENT WILL BE PERMITTED OTHER THAN SHOWN IN THE DRAWING WITHOUT APPROVAL OF THE ENGINEER. NO MORE THAN ONE SPlice SHALL BE PERMITTED IN ANY LONGITUDINAL BAR BETWEEN TRANSVERSE JOINTS. SPLICES SHALL BE STAGGERED.

ADDITIONAL NOTES FOR FLOOD WALL SECTIONS:

- ALL LAP SPLICES SHALL CONFORM TO THE 2014 EDITION OF THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-14), SECTION 12.15. LONGITUDINAL STEEL SHALL BE LAPPED 24 BAR DIAMETER AT SPLICES. TRANSVERSE STEEL SHALL BE LAPPED USING THE FOLLOWING TABLE:
- | BAR SIZE | #4 | #5 |
|----------------------|-----|-----|
| LENGTH OF LAP SPLICE | 25" | 31" |
- LONGITUDINAL STEEL SHALL TERMINATE TWO INCHES FROM TRANSVERSE CONSTRUCTION JOINTS UNLESS OTHERWISE NOTED.
 - THE MAXIMUM SPACING OF BARS IN CURVED SECTIONS SHALL NOT EXCEED THAT SHOWN ON THE TYPICAL SECTIONS, UNLESS OTHERWISE SHOWN ON THE DRAWINGS. STEEL SHALL BE PLACED RADIALY FROM THE MAXIMUM SPACING.
 - ALL TRANSVERSE JOINTS SHALL BE PROVIDED WITH 1 1/2" X 3/4" FORMED GROOVE IN THE INSIDE FACE AND TOP OF WALLS AND WITH 3/4" TOOLED JOINT IN THE BOTTOM SLAB. LONGITUDINAL JOINTS SHALL NOT BE CHAMFERED.
 - THE BAR LENGTHS TABULATED FOR TRANSITIONS ARE APPLICABLE TO THE LARGER SECTION ONLY. THE BARS REQUIRING ADJUSTMENT ARE THOSE TABULATED IN THE TABLE HERON AND SHALL BE ADJUSTED AS NECESSARY WITHIN THE TRANSITION.
 - B₁ BARS MAY BE SPLICED ABOVE THE LONGITUDINAL CONSTRUCTION JOINT. USE LAP SHOWN IN THE TABLE HEREON. THE LONGITUDINAL CONSTRUCTION JOINTS SHALL BE CONTINUOUS.
 - THE LONGITUDINAL CONSTRUCTION JOINTS SHALL BE CONTINUOUS.
 - THE SPACING OF THE LONGITUDINAL BARS IN THE SLAB SHALL BE BASED ON THE DISTANCE BETWEEN THE LONGITUDINAL CORNER BARS NEAREST THE INSIDE FACE OF THE STRUCTURE AND THE NUMBER OF BARS SPECIFIED IN THE TABLE. THE SPACING IN THE WALLS SHALL BE BASED ON THE WALL HEIGHT AND THE NUMBER OF BARS IN THE TABLE.
 - CONTRACTOR SHALL INSTALL ADDITIONAL REINFORCEMENT AT SUBDRAIN INLET AND CLEANOUT END LOCATIONS AND SHALL ONLY CUT THE REBARS ON EXPOSED FACE OF THE RC CHANNEL WALL AS SHOWN ON THE "REINFORCEMENT AT SUBDRAIN PIPE" DETAIL. SEE DETAIL HEREON. ADDITIONAL REINFORCEMENT SHALL ALSO BE INSTALLED AT UNEXPOSED FACE OF THE RC CHANNEL WALL; THIS REINFORCEMENT SHALL CONSIST OF THE SAME REINFORCEMENT CONFIGURATION AS SHOWN ON THE



FRONT VIEW



FLOOD WALL CHAIN LINK FENCE DETAILS

DESIGN DATA

DEAD LOAD

WEIGHT OF CONCRETE = 150
SOIL DENSITY = N/A

LATERAL LOADS

BOTH SIDES = 62.4 psf (EFP)

ALLOWABLE STRESSES

f_c = 4,000 psi

f_c = 1,800 psi

f_s = 24,000 psf

n = 8

SHEAR AND BOND STRESSES
PER ACI CODE 318-05



SIDE VIEW

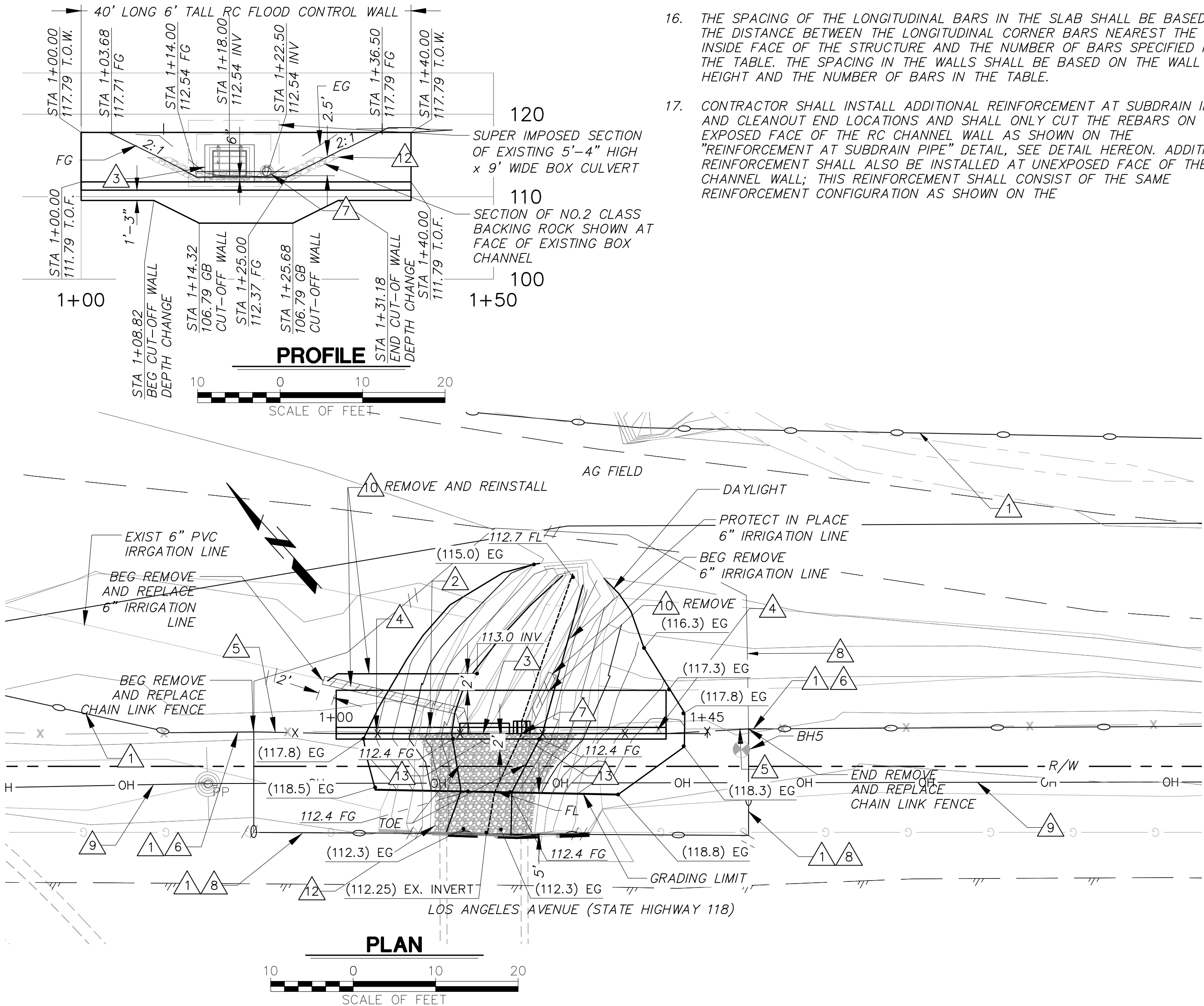
FLOOD WALL AND CUTOFF WALL DETAIL

NOT TO SCALE

NOTES:

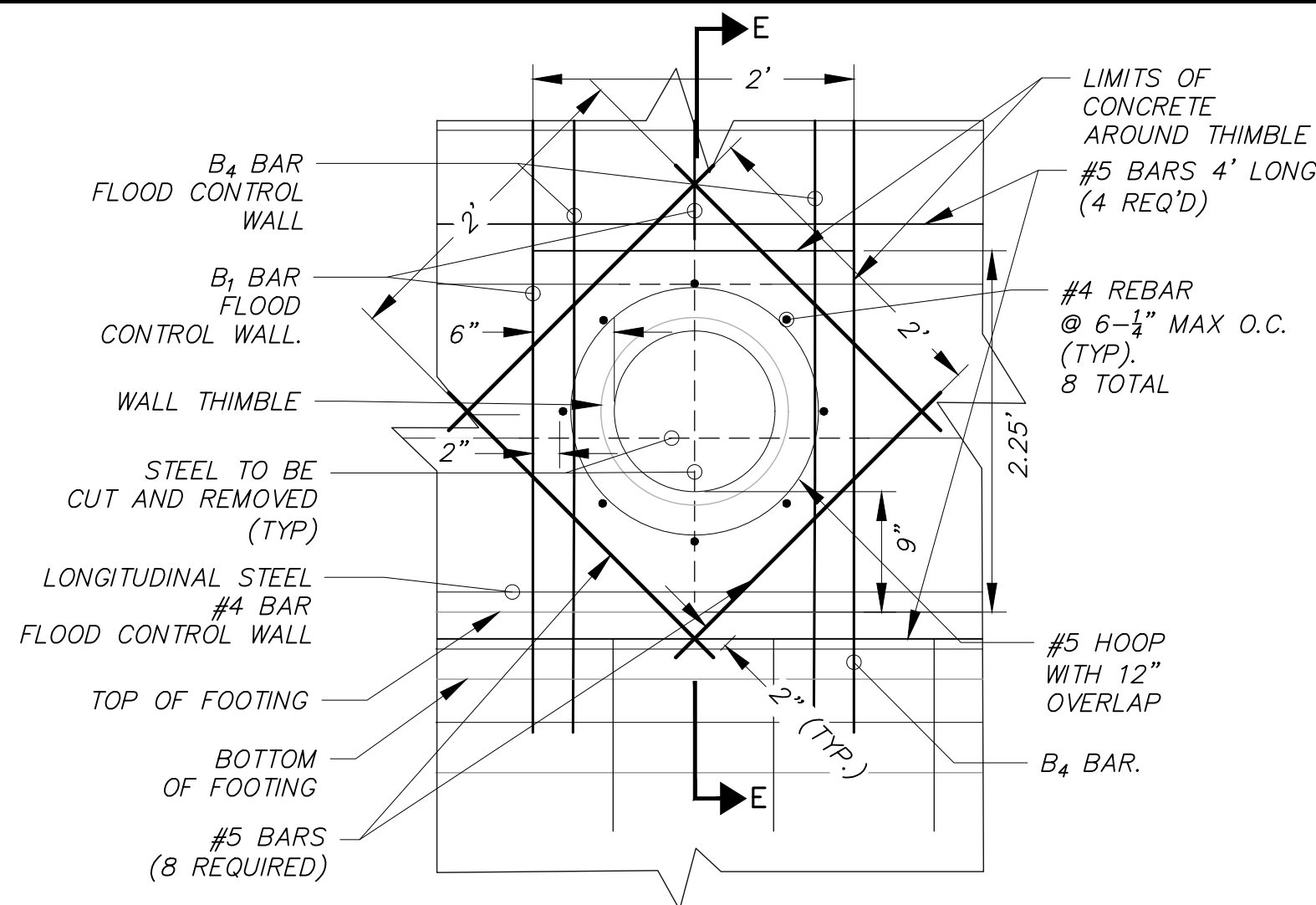
- TEMPORARY WORK AREA LIMITS SHALL BE STAKED AND ALL EQUIPMENT SHALL BE OPERATED WITHIN THE TEMPORARY WORK AREA LIMITS. COORDINATES FOR TEMPORARY WORK AREA AVAILABLE ON SHEET 18.
- INSTALL FLOOD CONTROL WALL AND CUTOFF WALL PER DETAIL (A) 7 (29)
- INSTALL 48"W X 36"H AUTOMATIC DRAINAGE FLAP GATE WATERMAN F-20 MEDIUM DUTY OR APPROVED EQUAL PER DETAIL. (C) 8 (27)
- INSTALL CHAINLINK FENCE ON TOP OF FLOOD CONTROL WALL PER (B) 7 (15)
- REMOVE AND REPLACE CHAINLINK FENCE PER (LL) 14 (15)
- EXISTING CHAINLINK FENCE PROTECT IN PLACE.
- INSTALL 12" DIAMETER AUTOMATIC DRAINAGE FLAP GATE WATERMAN F-25 MEDIUM DUTY OR EQUAL WITH 12" DIAMETER THIMBLE PER DETAIL. (D) 8 (28)
- INSTALL TEMPORARY FENCE. (9)
- EXISTING OVERHEAD UTILITY.
- REMOVE INTERFERING PORTION 6" PVC IRRIGATION LINE TO 2' CLEAR OF NEW WALL FOOTING, REPLACE PER PLAN. (8) 30
- COORDINATES FOR TEMPORARY WORK AREA AVAILABLE ON SHEET 18.
- EXCAVATE 6" BELOW EXISTING GRADE AND PLACE NO.2 CLASS ROCK 1.25' THICK ALONG THE BOTTOM AND 2.5' VERTICALLY ABOVE THE TOE ALONG THE SLOPE. SEE DETAIL (Y) 8 (34)
- PLACE NO.2 CLASS ROCK SO THAT IT DOES NOT INTERFERE WITH THE OPENING OF THE FLAPGATES. (34)

RC FLOOD WALL TABLE		
SECTION NUMBER		1
WIDTH	W	5'-8"
HEIGHT	H	6'
THICKNESS (INCHES)	TOP OF WALL	T ₁ 9"
	BASE OF WALL	T ₂ 9"
	FOOTING	T ₃ 12"
	CUT OFF WALL	T ₄ 12"
B ₁ BAR	BAR # AND SPACING	#5 @ 12"
	HORIZONTAL LENGTH	4'-5.5"
	VERTICAL LENGTH	6'-7"
B ₄ BAR	BAR # AND SPACING	#5 @ 18"
	HORIZONTAL LENGTH	1'-1.5"
	VERTICAL LENGTH	6'-7"
C ₁ BAR	BAR # AND SPACING	#4 @ 12"
	HORIZONTAL LENGTH	4'-5.5"
	VERTICAL LENGTH	1'-10" to 4'-7"
C ₂ BAR	BAR # AND SPACING	#4 @ 12"
	HORIZONTAL LENGTH	3'-6.5"
	VERTICAL LENGTH	1'-6.25" to 4'-0.25"
LONGITUDINAL BAR SIZE AND QUANTITY		
FLOOD CONTROL WALL	BOTH FACES	#4
	NUMBER OF BARS TOTAL	14 @ 11.5" MAX
FOOTING	TOP	#4 @ 8.5" MAX
	NUMBER OF BARS TOTAL	5
	BOTTOM	#4 @ 8.5" MAX
	NUMBER OF BARS TOTAL	5
HEEL & CORNER	SIZE	#4
	NUMBER OF BARS TOTAL	10
CUTOFF WALL	SIZE	#4
	NUMBER OF BARS TOTAL	24
#4 CARRIER BARS IN BOTTOM SLAB		2
CONCRETE QUANTITY: AVG CY/LINEAR FT		.51
STEEL QUANTITY: AVG LBS/LINEAR FT		62.8



NOTES:

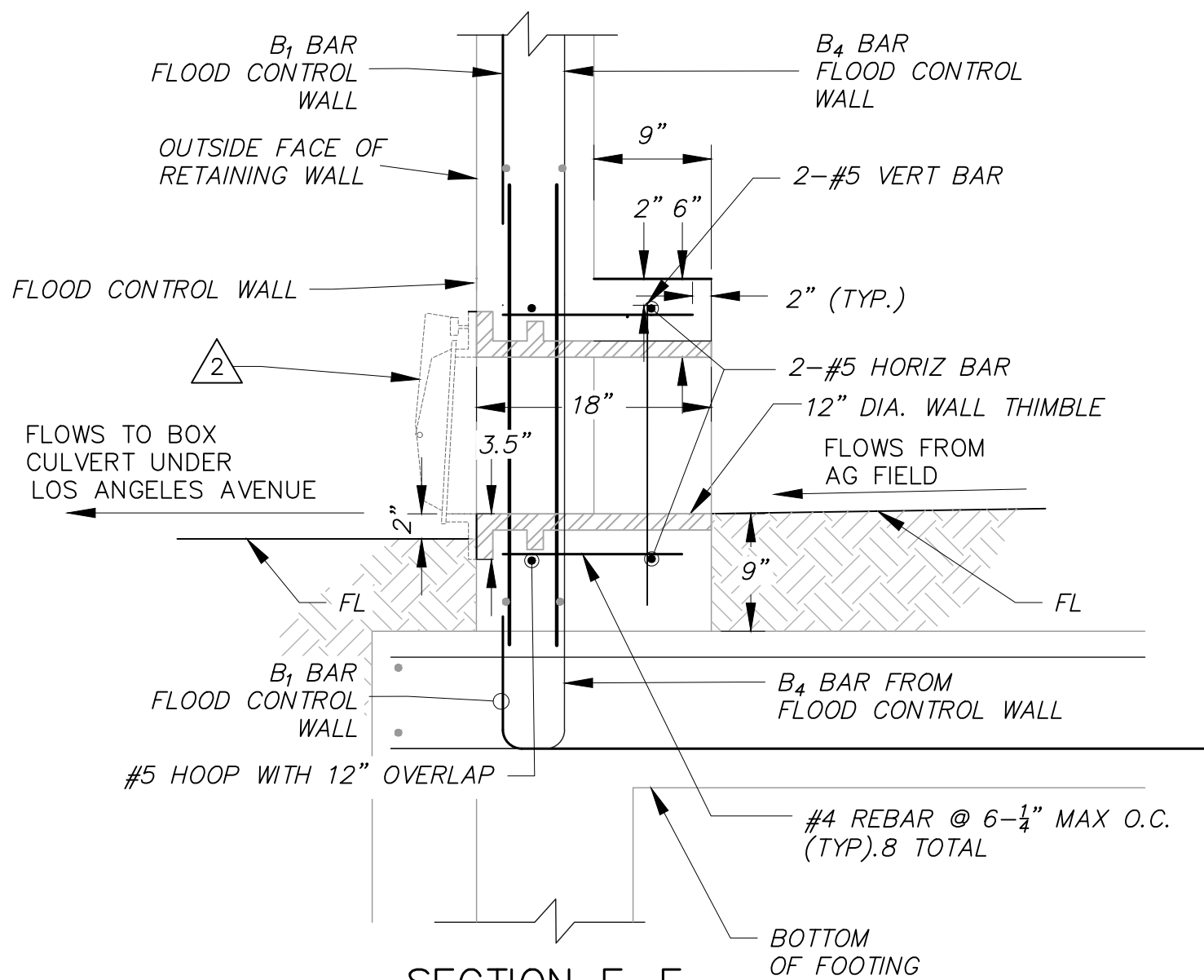
1. INSTALL 48"W X 36"H AUTOMATIC DRAINAGE FLAP GATE WATERMAN F-20 MEDIUM DUTY OR APPROVED EQUAL. (27)
2. INSTALL 12" DIAMETER AUTOMATIC DRAINAGE FLAP GATE WATERMAN F-25 MEDIUM DUTY OR APPROVED EQUAL WITH 12" DIAMETER THIMBLE. (28)



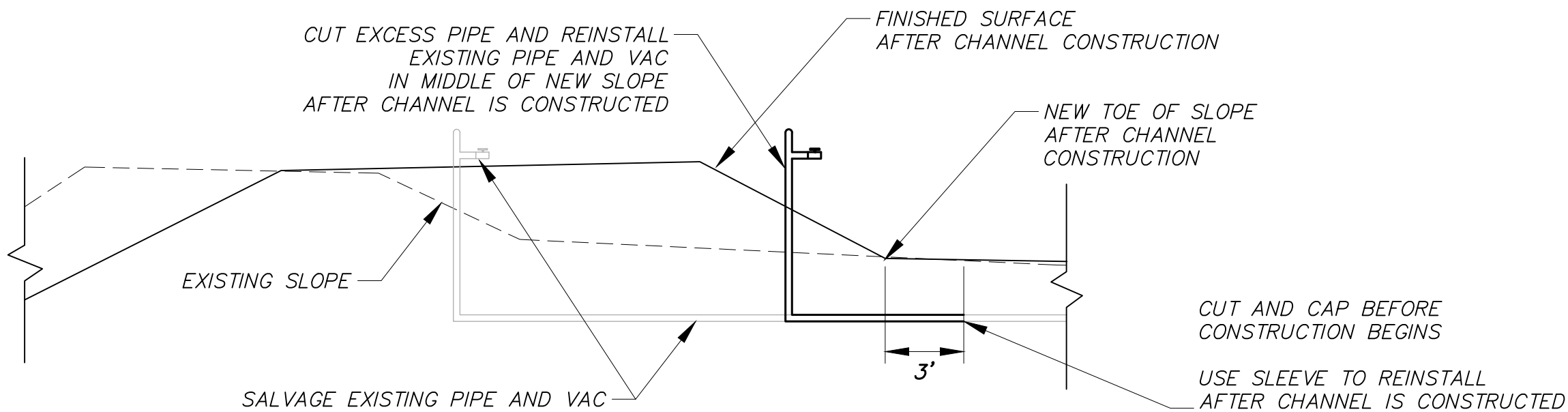
FRONT VIEW
NOT TO SCALE

WALL CONNECTION NOTES:

1. INSTALL WALL THIMBLE FLUSH WITH FACE OF WALL.
2. CUT TRANSVERSE AND LONGITUDINAL WALL STEEL AS SHOWN IN DETAIL.
3. OPENING SHALL BE LOCATED SO THAT NO B4 BARS ARE REQUIRED TO BE CUT.



SECTION E-E
NOT TO SCALE

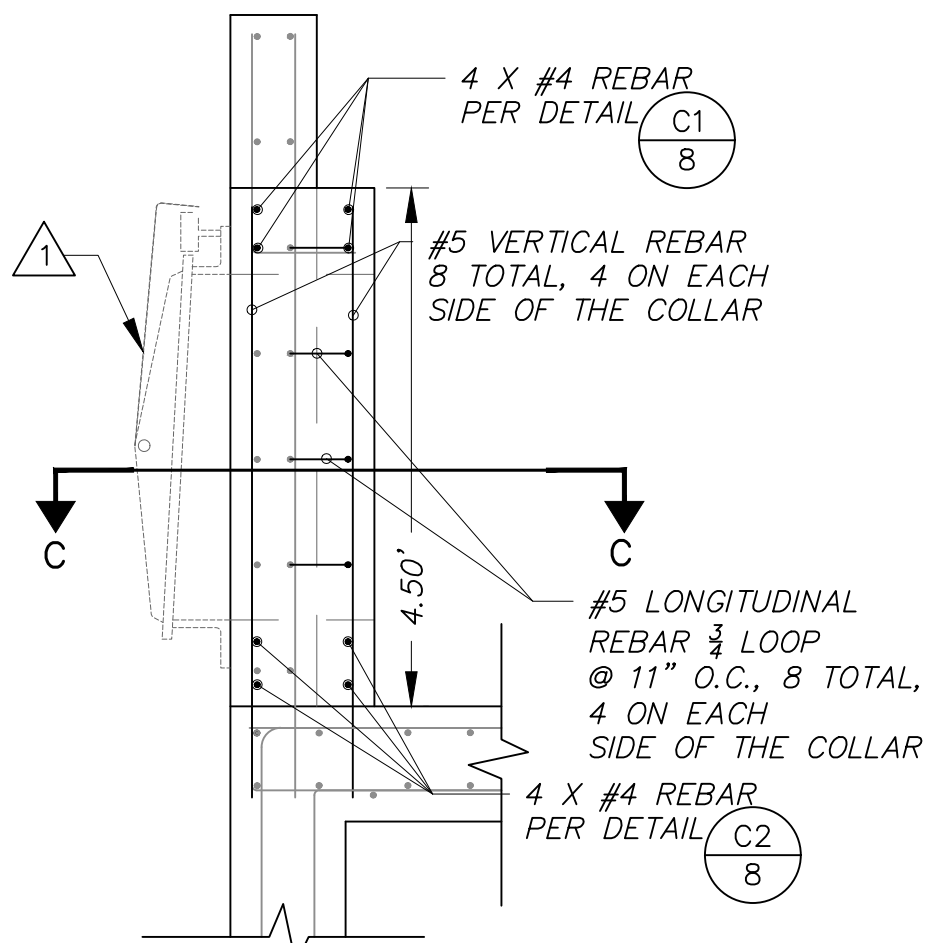


PVC IRRIGATION LINE VAC RELOCATION DETAIL

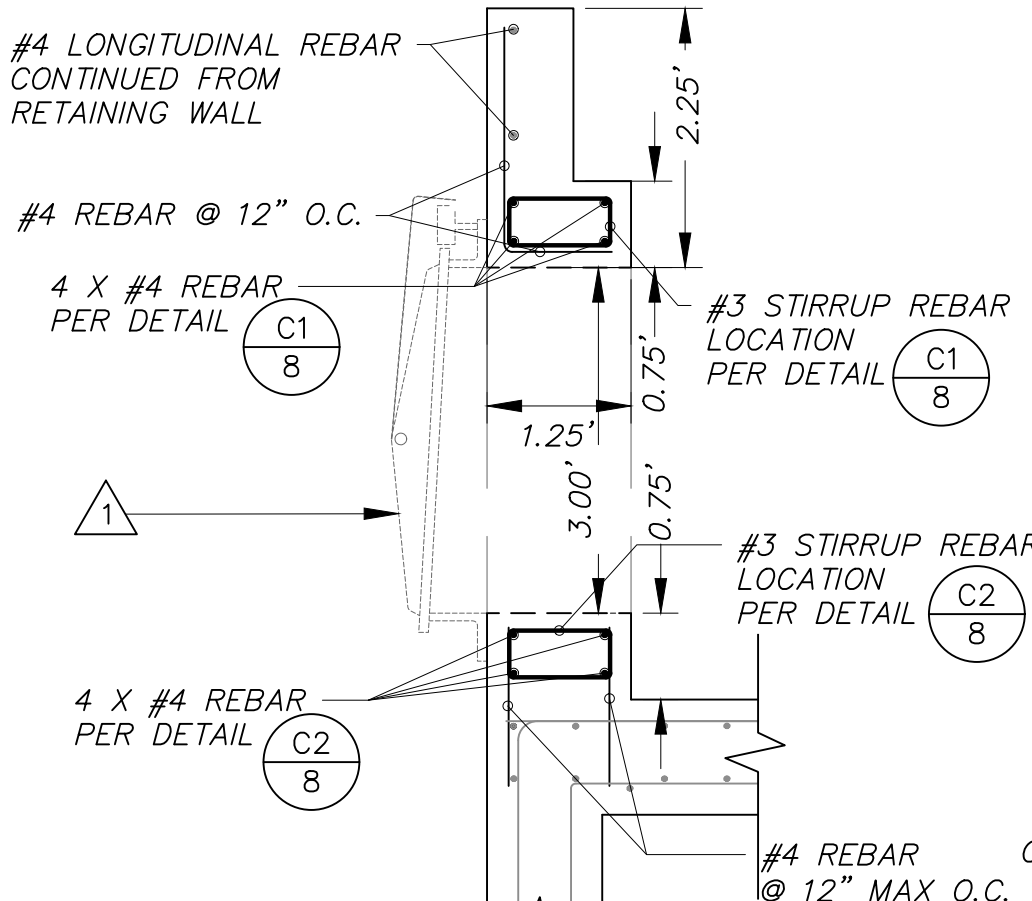
NOT TO SCALE

12" DRAINAGE GATE WALL CONNECTION DETAIL

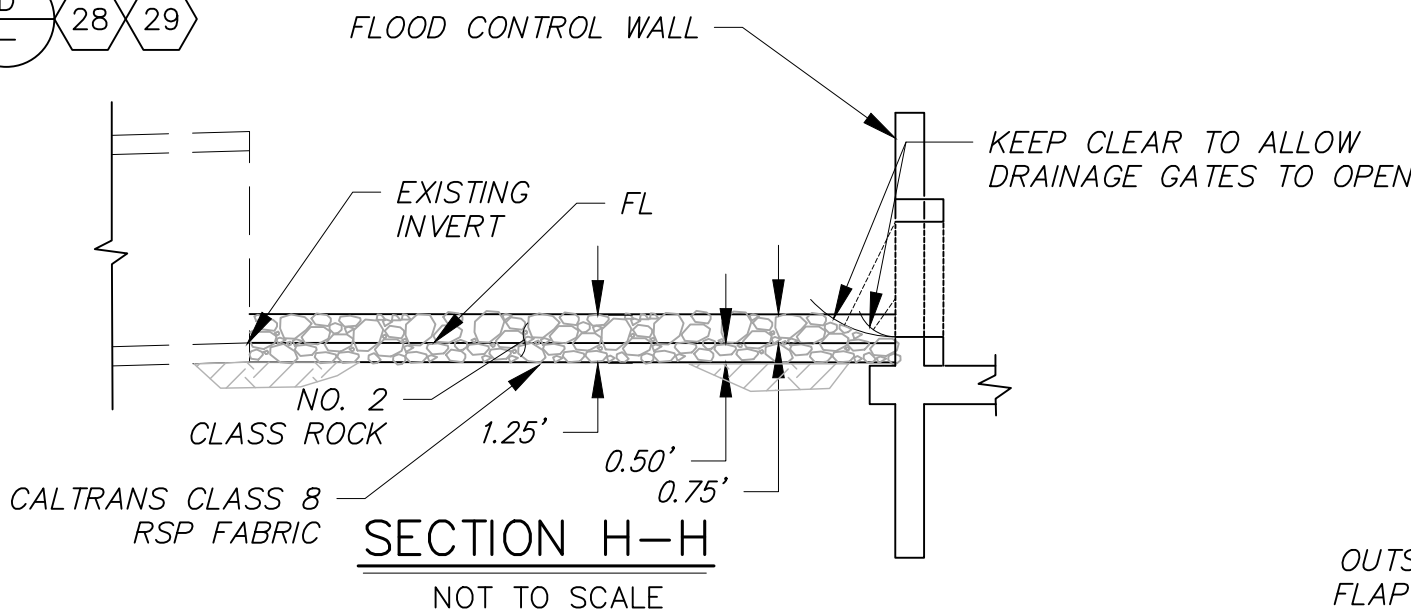
NOT TO SCALE



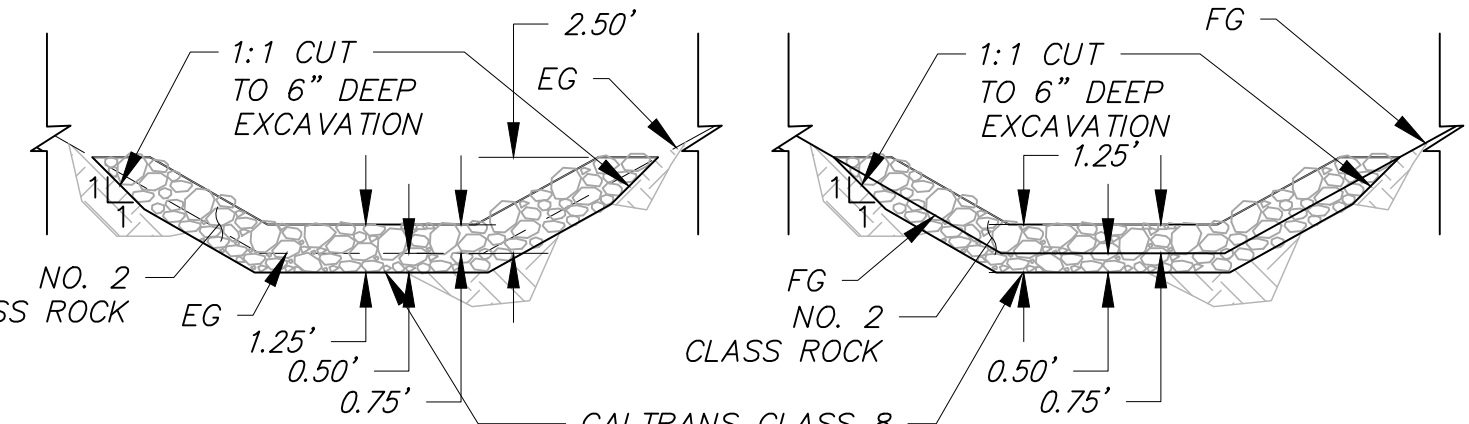
SECTION A-A
NOT TO SCALE



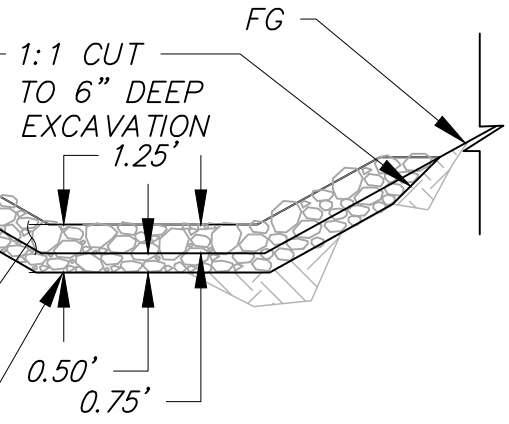
SECTION B-B
NOT TO SCALE



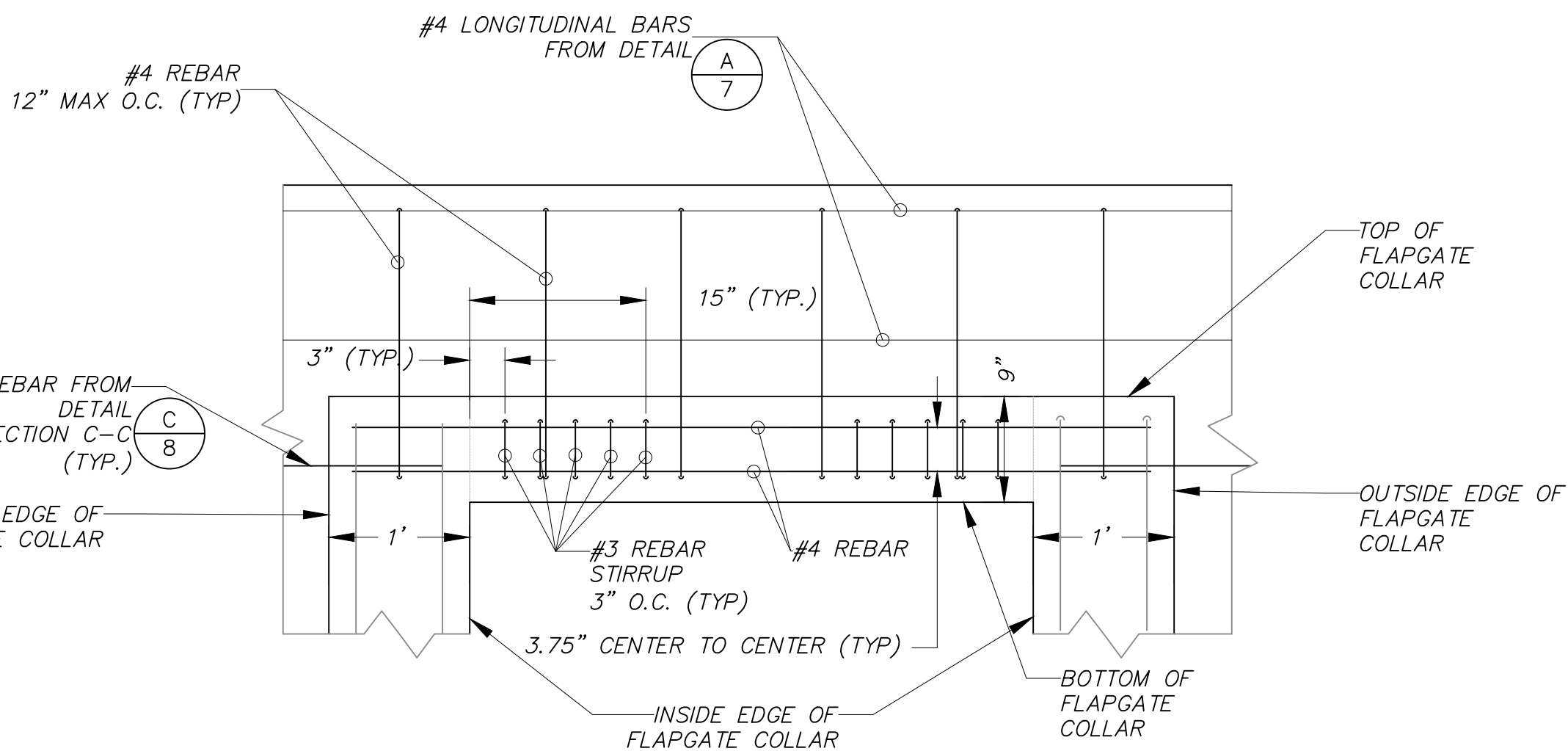
SECTION H-H
NOT TO SCALE



SECTION F-F
NOT TO SCALE

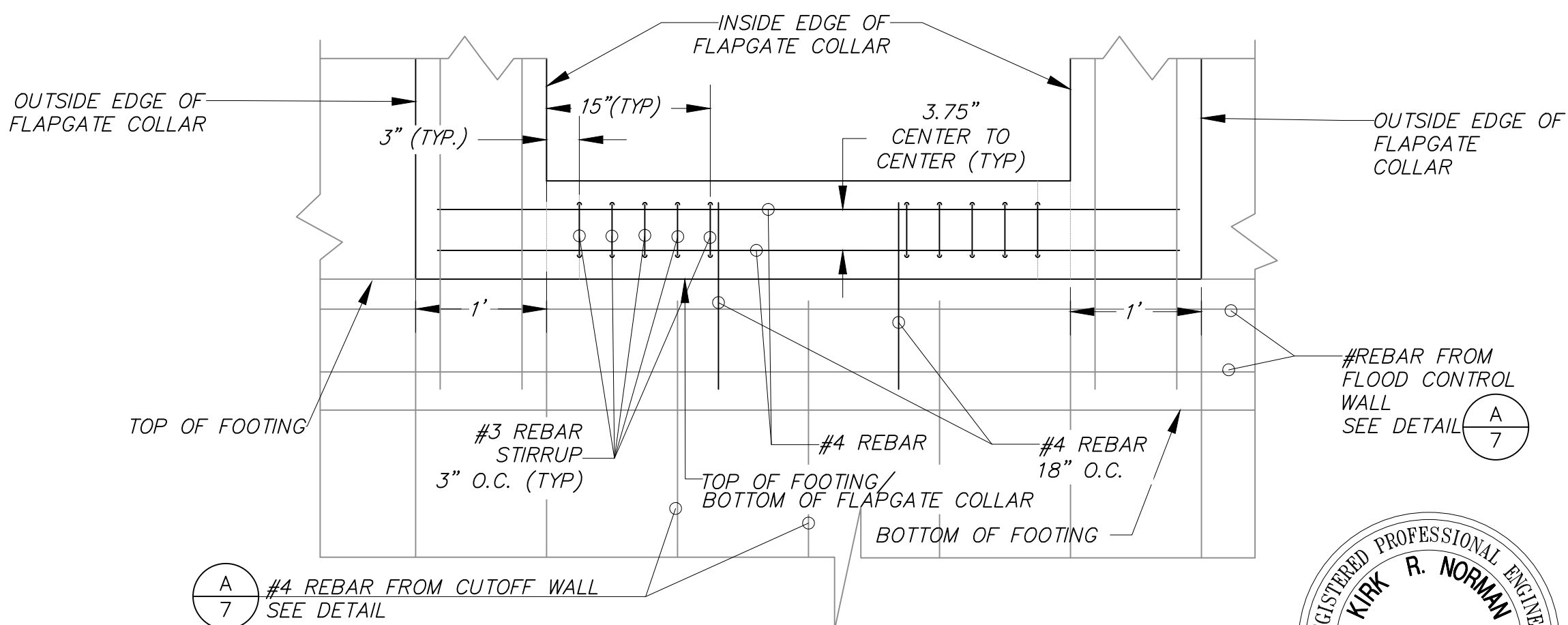


SECTION G-G
NOT TO SCALE



36" H X 48" W DRAINAGE GATE CONNECTION DETAIL 1

NOT TO SCALE



36" H X 48" W DRAINAGE GATE CONNECTION DETAIL 2

NOT TO SCALE

NO. 2 ROCK CHANNEL LINING DETAILS

Y 34

DRAINAGE GATE CONNECTION DETAILS DIRECTORY

NOT TO SCALE

C 27 28 29

REVISION	DESCRIPTION	APP.	DATE

JM	DESIGNED
JM/ND	DRAWN
K. ROUSSEV	CHECKED

Kirk R. Norman	WATERSHED PROJECT MANAGER
	WATERSHED DEPUTY DIRECTOR
	WATERSHED DIRECTOR

3/4/21	DATE
3/5/21	DATE
3/11/21	DATE

VENTURA COUNTY
PUBLIC WORKS AGENCY
WATERSHED PROTECTION

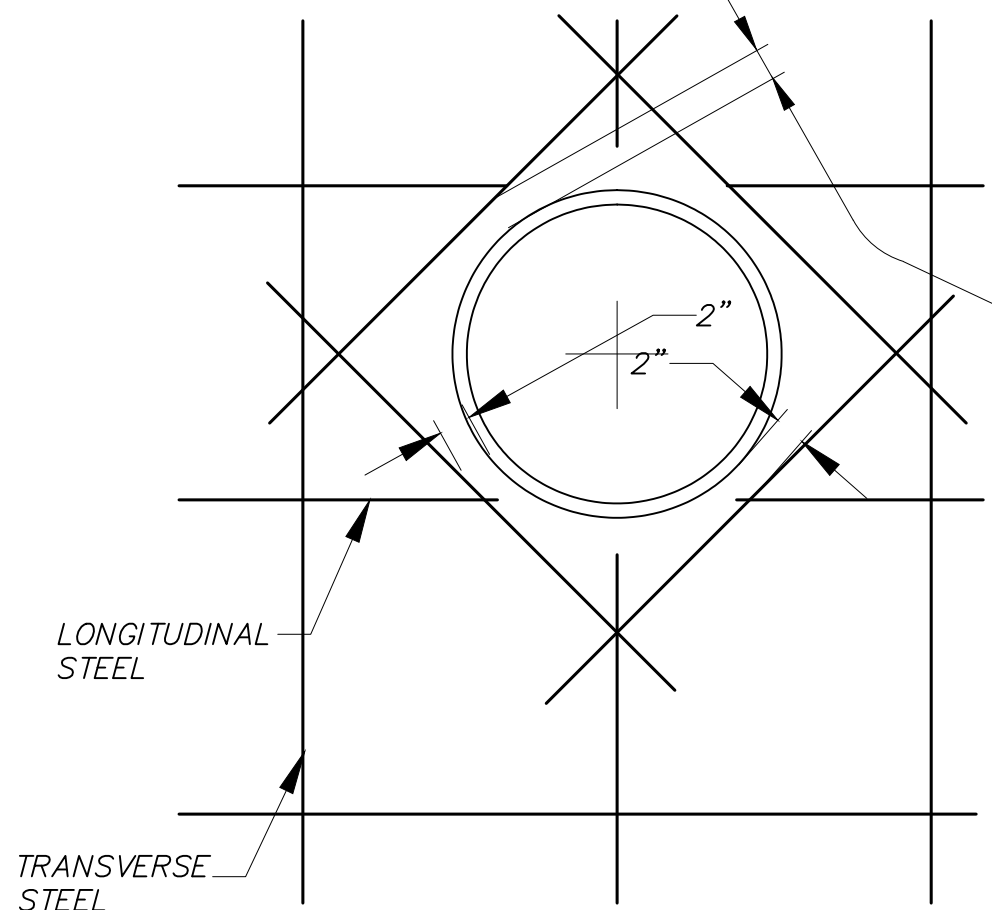
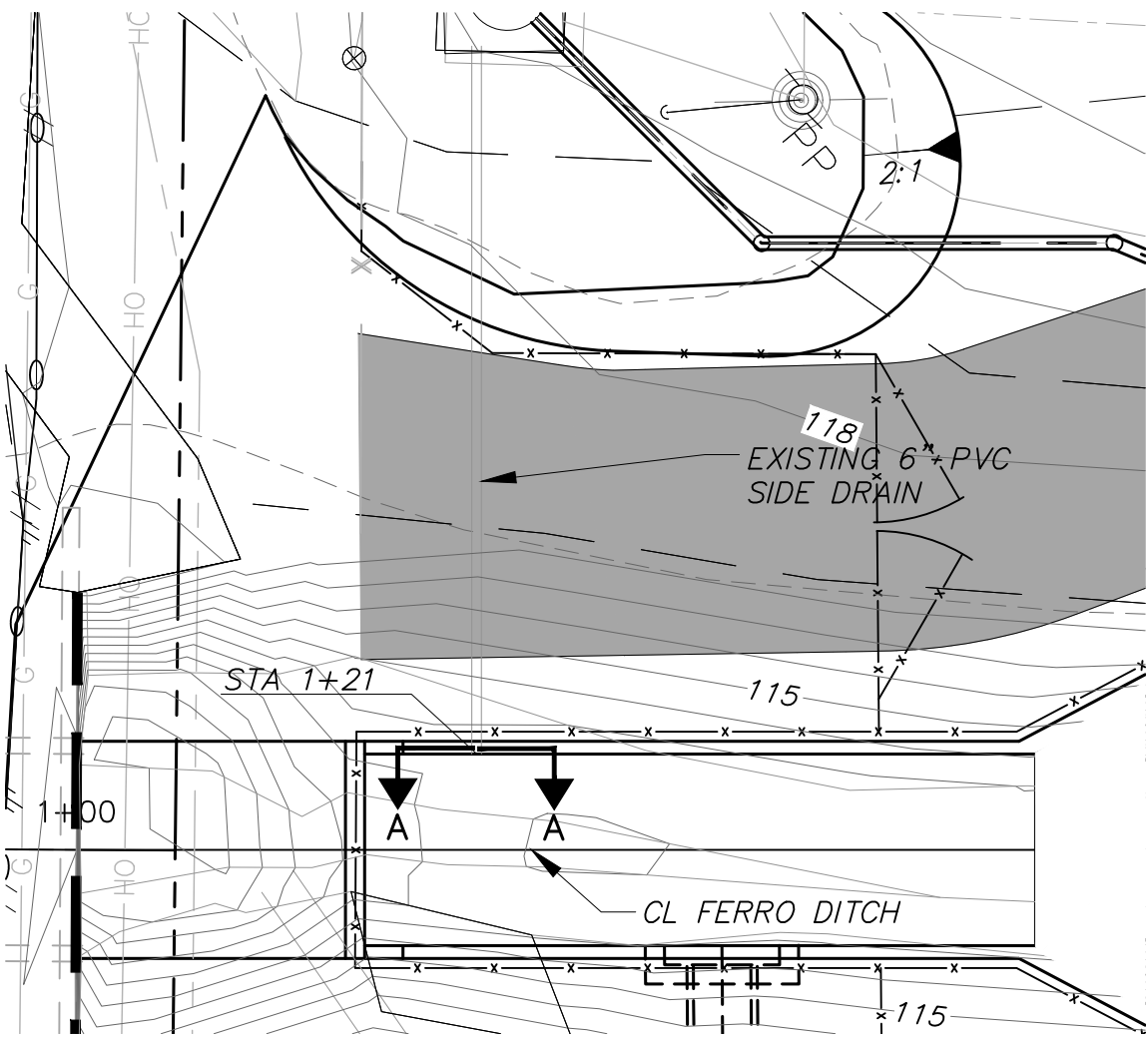
SPEC. NO.
WP21-05
PROJ. NO.
85301

FERRO DITCH
CHANNEL IMPROVEMENTS
MISCELLANEOUS DETAILS 1

SHEET	8
OF	20
DRAWING NO.	WP-3-512



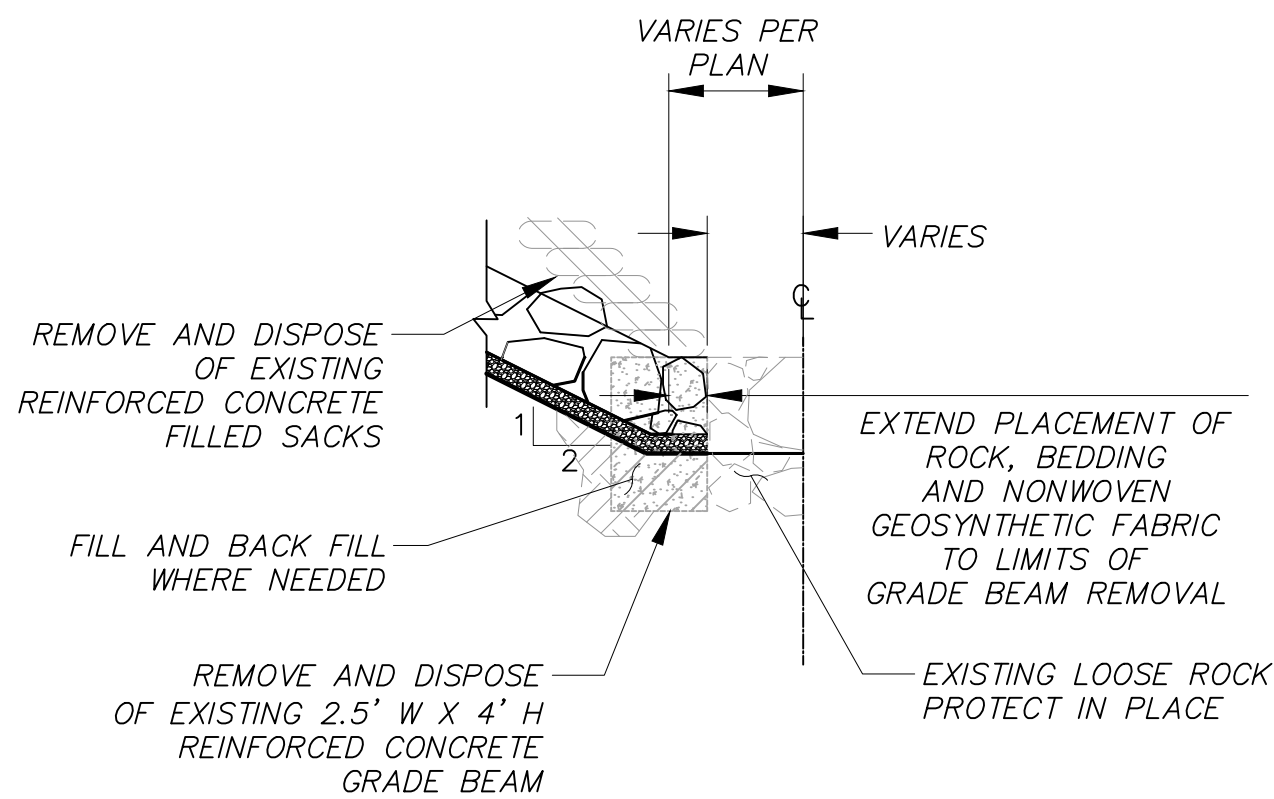
PLOT DATE: 3/4/21



CUT INTERFERING STEEL 2" CLEAR (TYP) PROVIDE 4 #4 L=30" BARS IN EACH FACE (8 TOTAL) CROSSING A MINIMUM OF 2 BARS

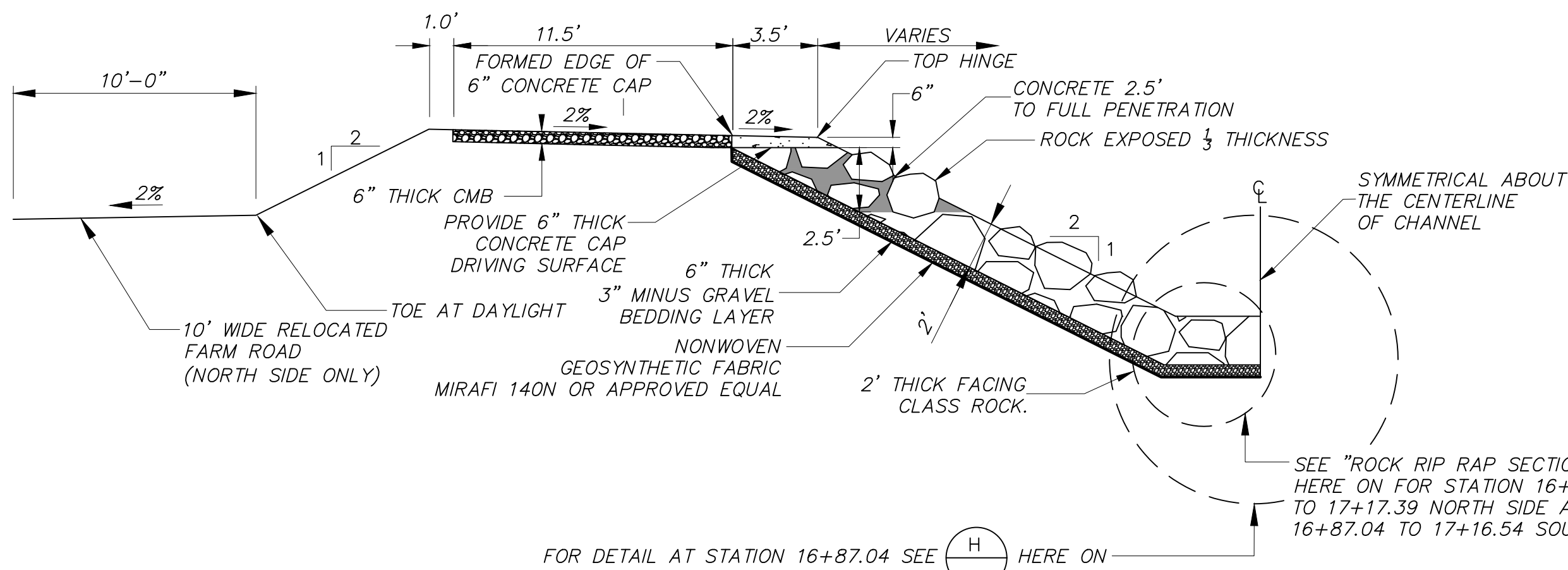
WALL CONNECTION FOR EXISTING 6" PVC PIPE

SCALE 1" = 10'



ROCK RIP RAP SECTION DETAIL

STATION 16+87.04 TO 17+17.39 NORTH SIDE
STATION 16+87.04 TO 17+16.54 SOUTH SIDE
NOT TO SCALE

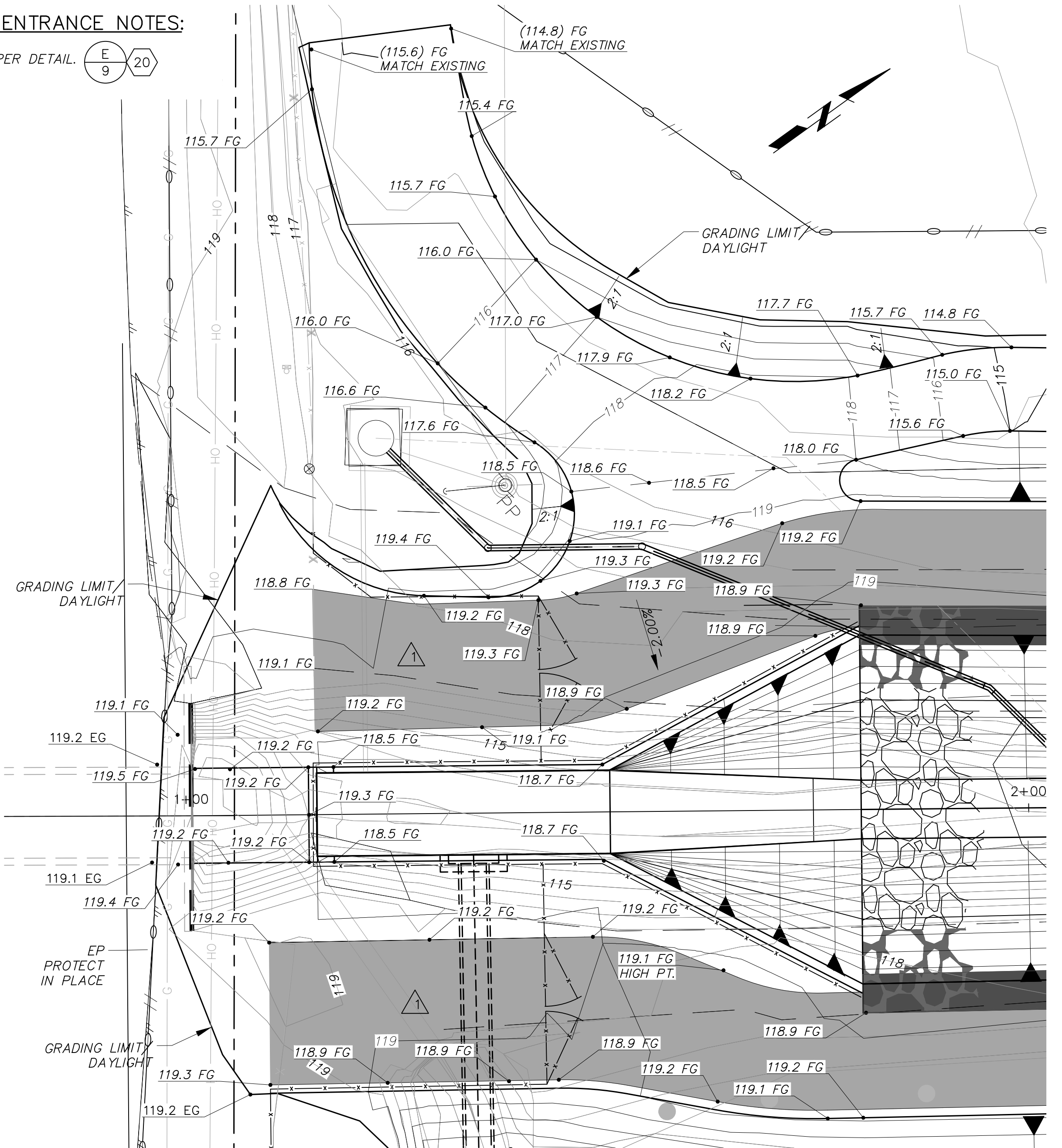


CMB ACCESS ROAD AND ROCK RIP RAP SECTION

STA 1+80.00 TO STA 16+87.04
NOT TO SCALE

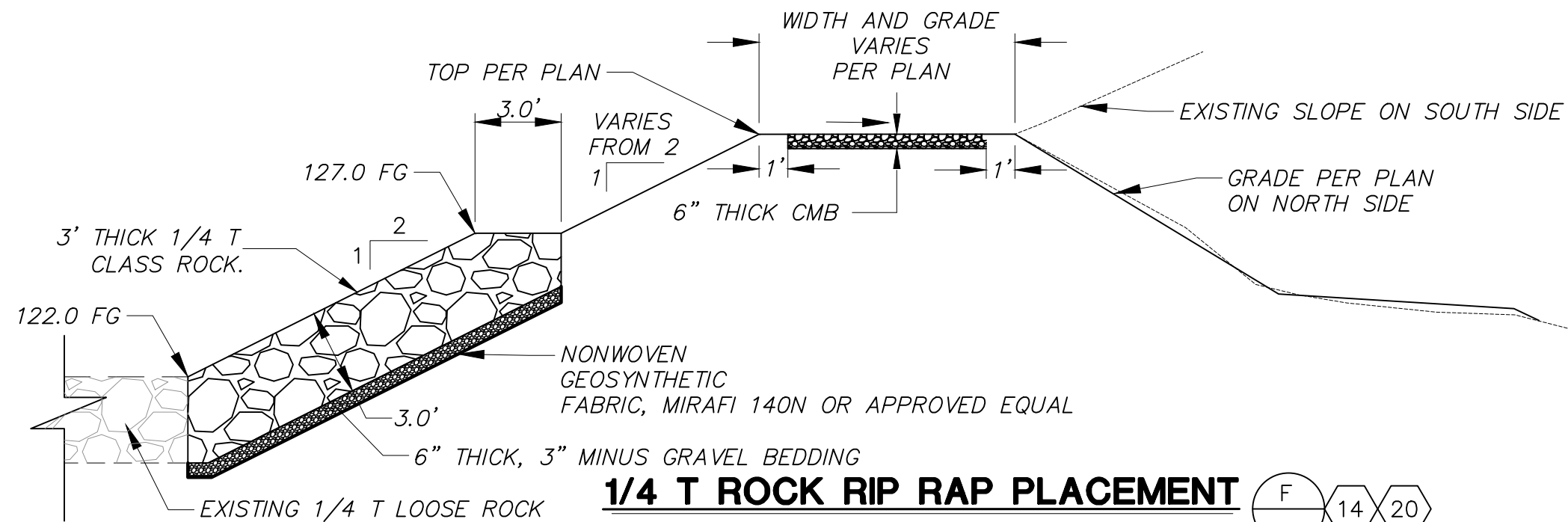
GRADING DETAIL -PROJECT ENTRANCE NOTES:

1. CONSTRUCT 6" CMB SERVICE ROAD PER DETAIL.



GRADING DETAIL - PROJECT ENTRANCE

SCALE 1" = 10'



1/4 T ROCK RIP RAP PLACEMENT

STA 17+17.39 NORTH SIDE TO 17+87
STA 17+16.54 SOUTH SIDE TO 17+87
NOT TO SCALE

PLOT DATE: 3/4/21

SAVE DATE: 3/4/21 MUELLER, JOHN K:\PROJECTS\ZONE3\FERRO DITCH\85301 FERRO DITCH IMPROVEMENT\DESIGN\DESIGN DRAWINGS\100PCT\SH1 3-6 9 PP FERRO DITCH REV2.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			
△			

JM	DESIGNED	3/4/21	DATE
JM/ND	DRAWN	3/5/21	DATE
K ROUSSEV	CHECKED	3/11/21	DATE

Kirk R. Norman
WATERSHED PROJECT MANAGER
Kirk R. Norman
WATERSHED DEPUTY DIRECTOR
Kirk R. Norman
WATERSHED DIRECTOR

VENTURA COUNTY
PUBLIC WORKS AGENCY
WATERSHED PROTECTION

SPEC. NO.	WP21-05
PROJ. NO.	85301

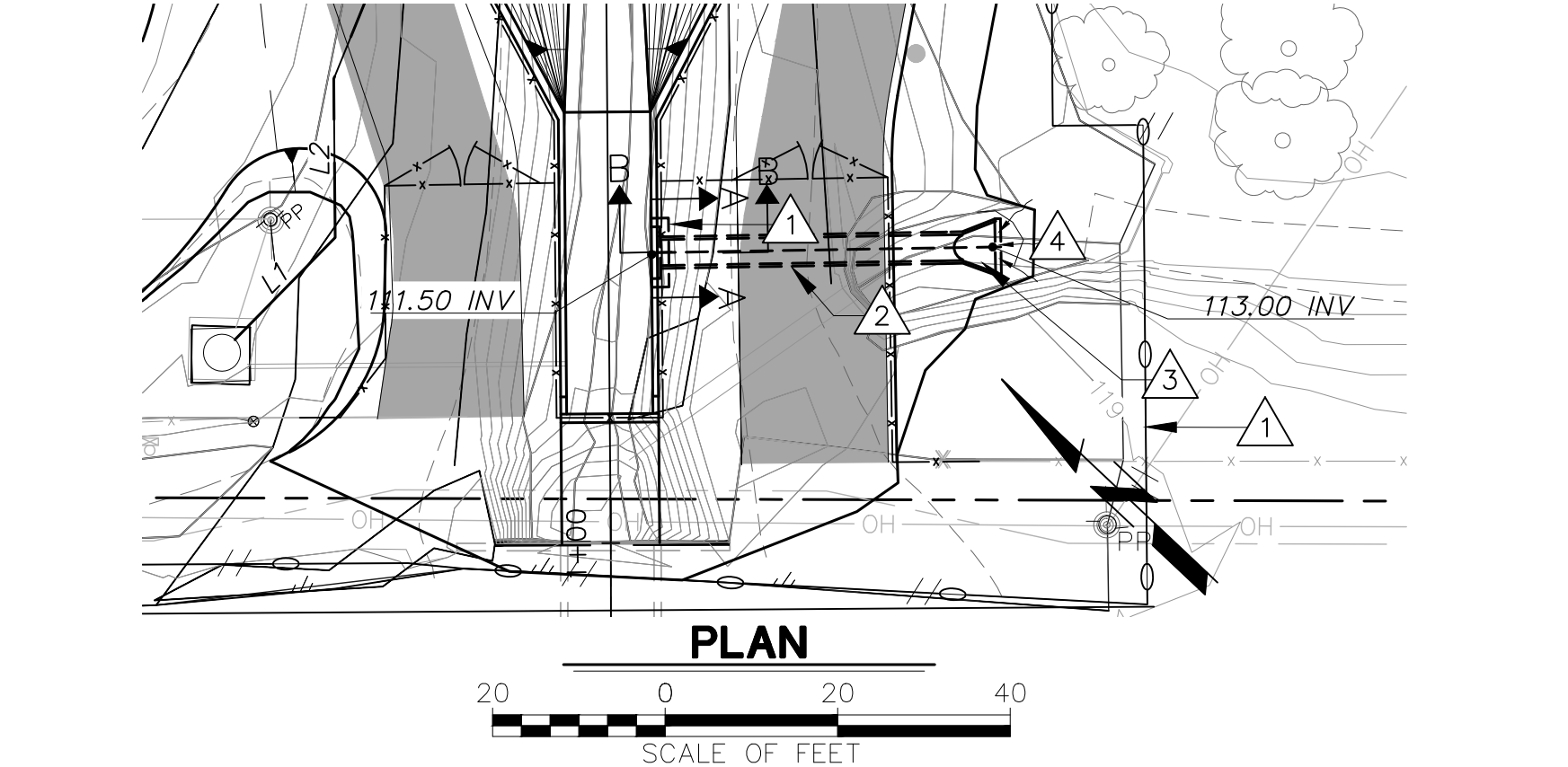
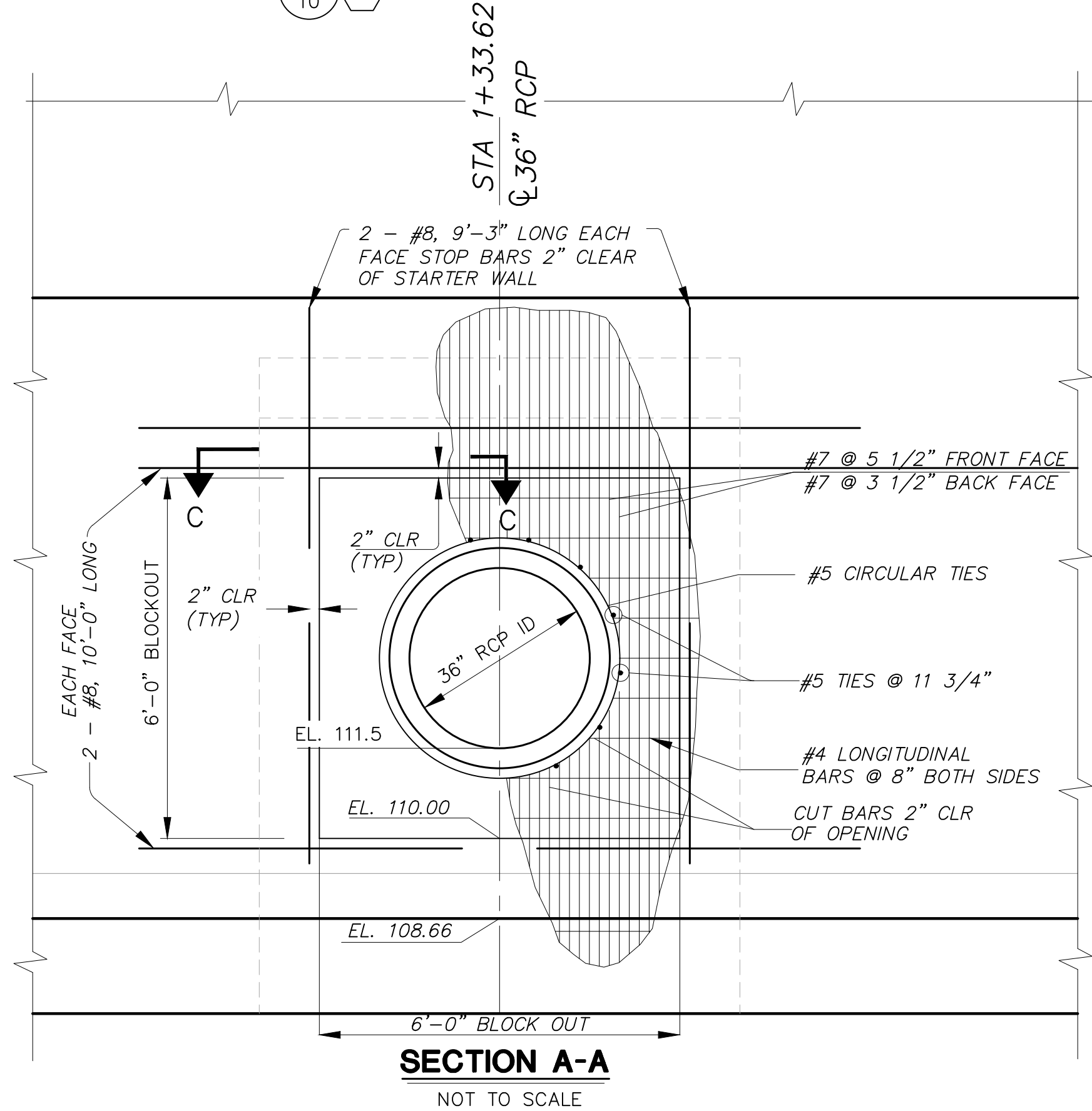
FERRO DITCH
CHANNEL IMPROVEMENTS
MISCELLANEOUS DETAILS 2

SHEET 9
OF 20
DRAWING NO.
WP-3-512



RCP, RCP TO CHANNEL WALL, AND
FLARED END SECTION NOTES:

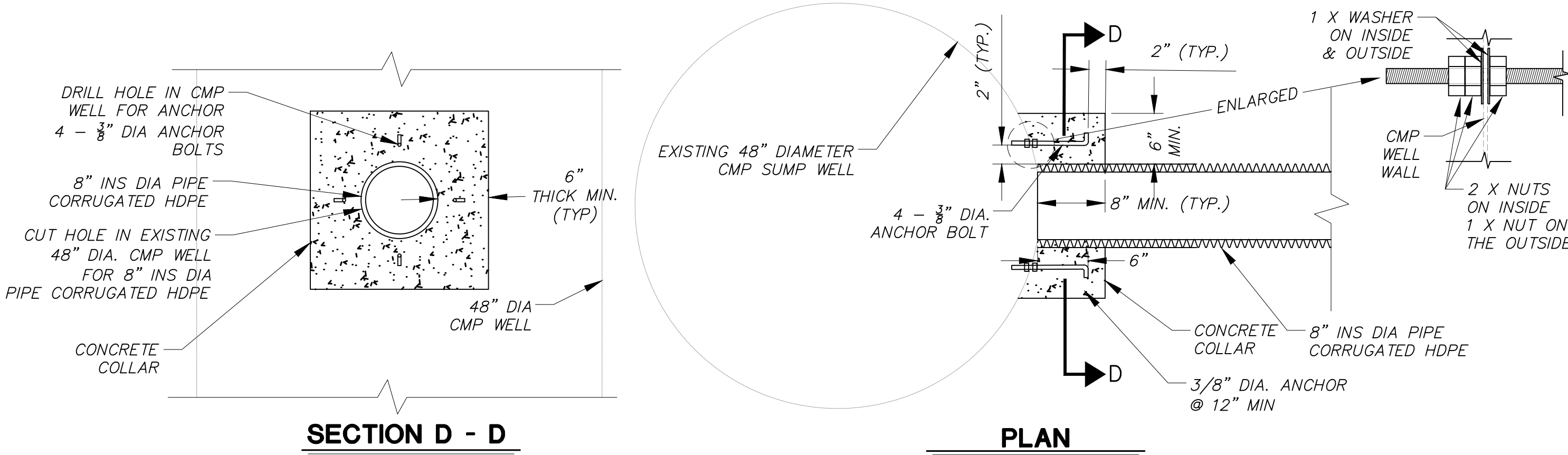
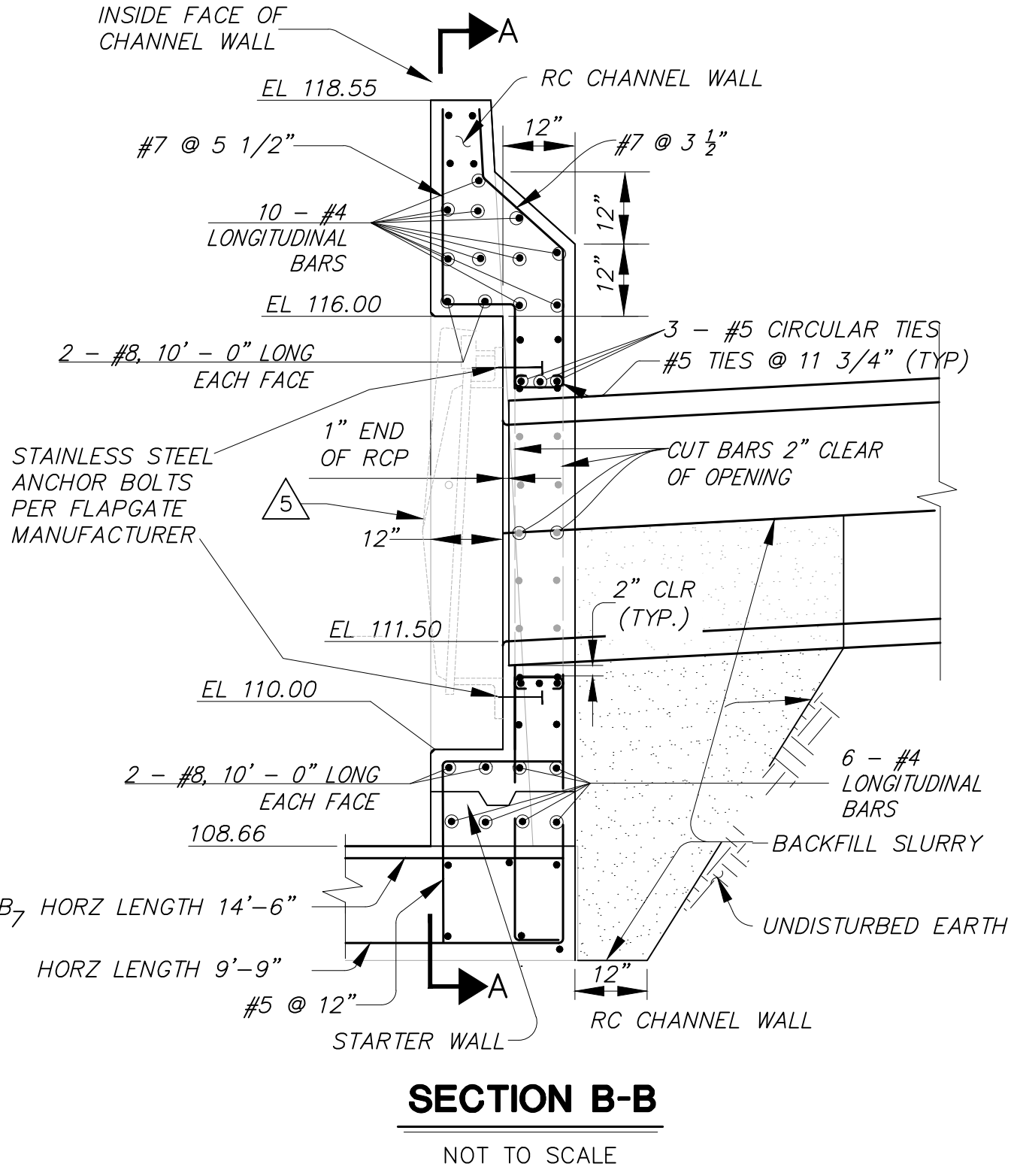
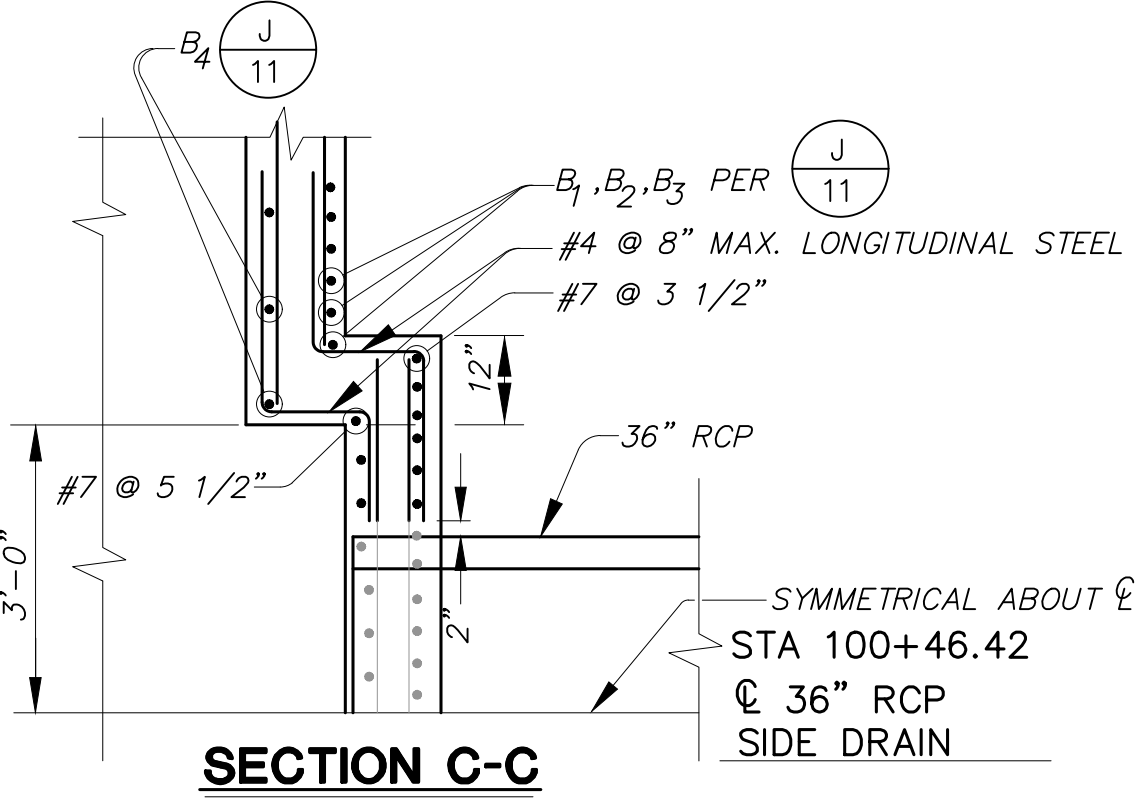
1. TEMPORARY WORK AREA LIMITS SHALL BE STAKED AND ALL EQUIPMENT SHALL BE OPERATED WITHIN THE TEMPORARY WORK AREA LIMITS.
2. INSTALL 34 LF OF 36" CLASS II RCP (D-1000) PER PLAN HEREON AND DETAIL
3. INSTALL PRECAST FLARED END SECTION PER 2015 CALTRANS STANDARD PLAN D94B AND PER DETAIL
4. GRADE TO DRAIN.
5. INSTALL 36" DRAINAGE GATE
6. CONSTRUCT 36" RCP TO CHANNEL WALL JUNCTION STRUCTURE PER DETAIL



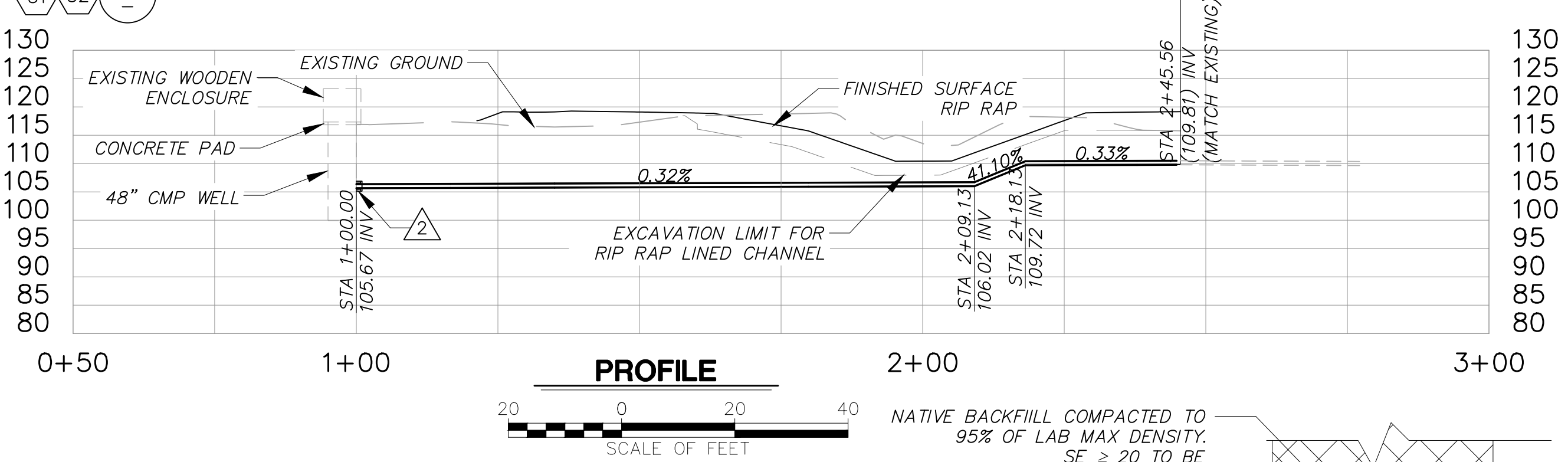
36" RCP, RCP TO CHANNEL WALL JUNCTION STRUCTURE,
AND FLARED END SECTION INSTALLATION DETAIL

8" CORRUGATED HDPE INSTALLATION
AND WELL CONNECTION NOTES:

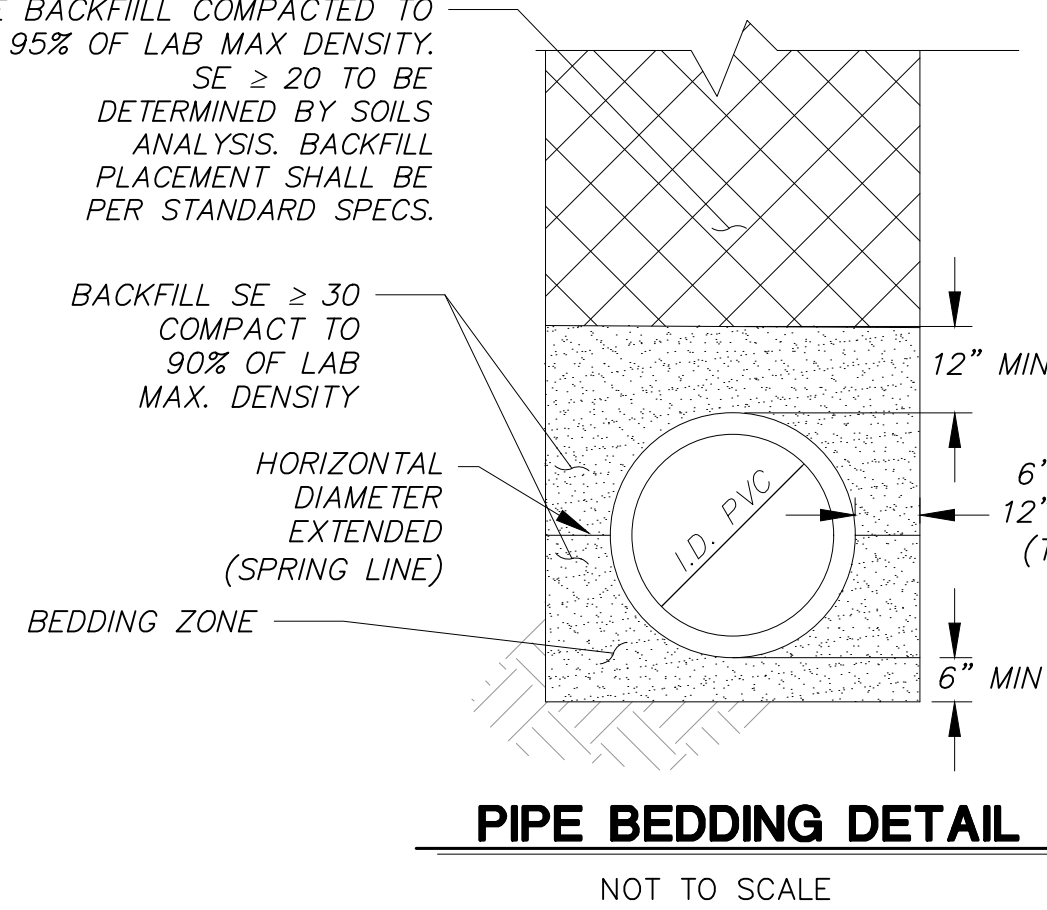
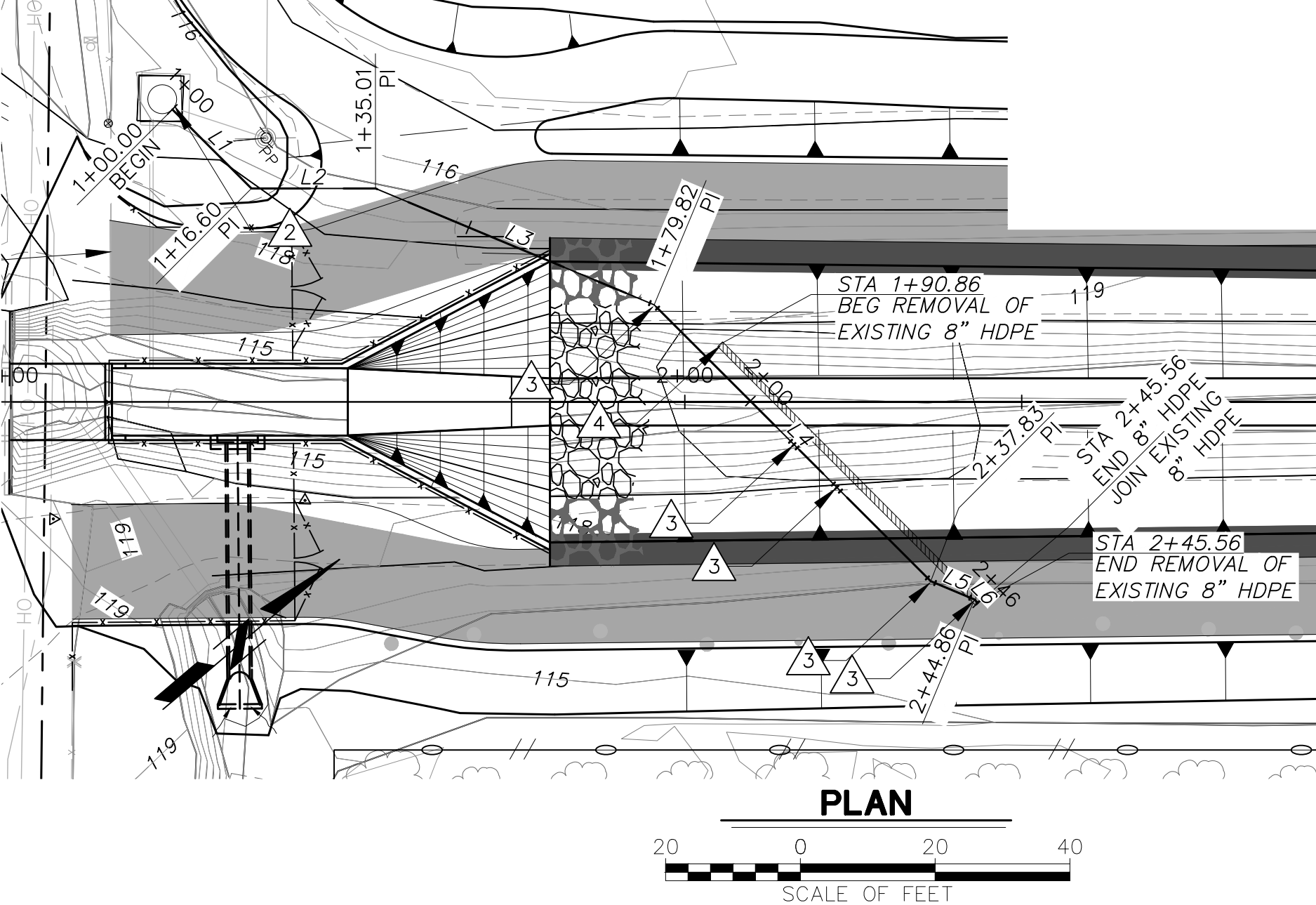
1. INSTALL 8" CORRUGATED HDPE PER DETAIL AND PER "PIPE BEDDING DETAIL" HERE ON.
2. INSTALL 8" HDPE TO CMP WELL JUNCTION STRUCTURE PER DETAIL
3. INSTALL 8" 22.5' CORRUGATED HDPE ELBOW.
4. INSTALL CAP AT END OF ABANDONED EXISTING 8" HDPE.



8" HDPE IRRIGATION DRAINAGE LINE CONNECTION TO WELL DETAILS



LINE DATA			
TAG NO.	ALIGNMENT	LENGTH	BEARING
L1	8" CORRUGATED HDPE DRAINAGE LINE	16.6'	N84°31'11"E
L2	8" CORRUGATED HDPE DRAINAGE LINE	18.4'	N39°31'11"E
L3	8" CORRUGATED HDPE DRAINAGE LINE	44.8'	N62°13'54"E
L4	8" CORRUGATED HDPE DRAINAGE LINE	58.0'	N84°31'11"E
L5	8" CORRUGATED HDPE DRAINAGE LINE	7.0'	N62°13'54"E
L6	8" CORRUGATED HDPE DRAINAGE LINE	0.7'	N84°31'11"E



EXISTING 8" CORRUGATED HDPE IRRIGATION DRAINAGE LINE REMOVAL
AND 8" HDPE IRRIGATION DRAINAGE LINE INSTALLATION DETAILS

VENTURA COUNTY
PUBLIC WORKS AGENCY
WATERSHED PROTECTION

FERRO DITCH
CHANNEL IMPROVEMENTS
MISCELLANEOUS DETAILS 3

REGISTERED PROFESSIONAL ENGINEER
KIRK R. NORMAN
No. 50367
Exp. 6/30/21
CIVIL
STATE OF CALIFORNIA

SHEET 10
OF 20
DRAWING NO.
WP-3-512

PLOT DATE: 3/4/21

SAVE DATE: 3/4/21 MUJELLER, JOHN K:\PROJECTS\ZONE3\FERRODITCH\85301_FERRO_DITCH_IMPROVEMENT\DESIGN\DESIGN_DRAWINGS\100PCT\SH1-10-12_CHANNEL_DETAILS_REV1.DWG

D					
C					
B					
A					
△	REVISION	DESCRIPTION	APP.	DATE	

JM	DESIGNED
JM/ND	DRAWN
K ROUSSEV	CHECKED

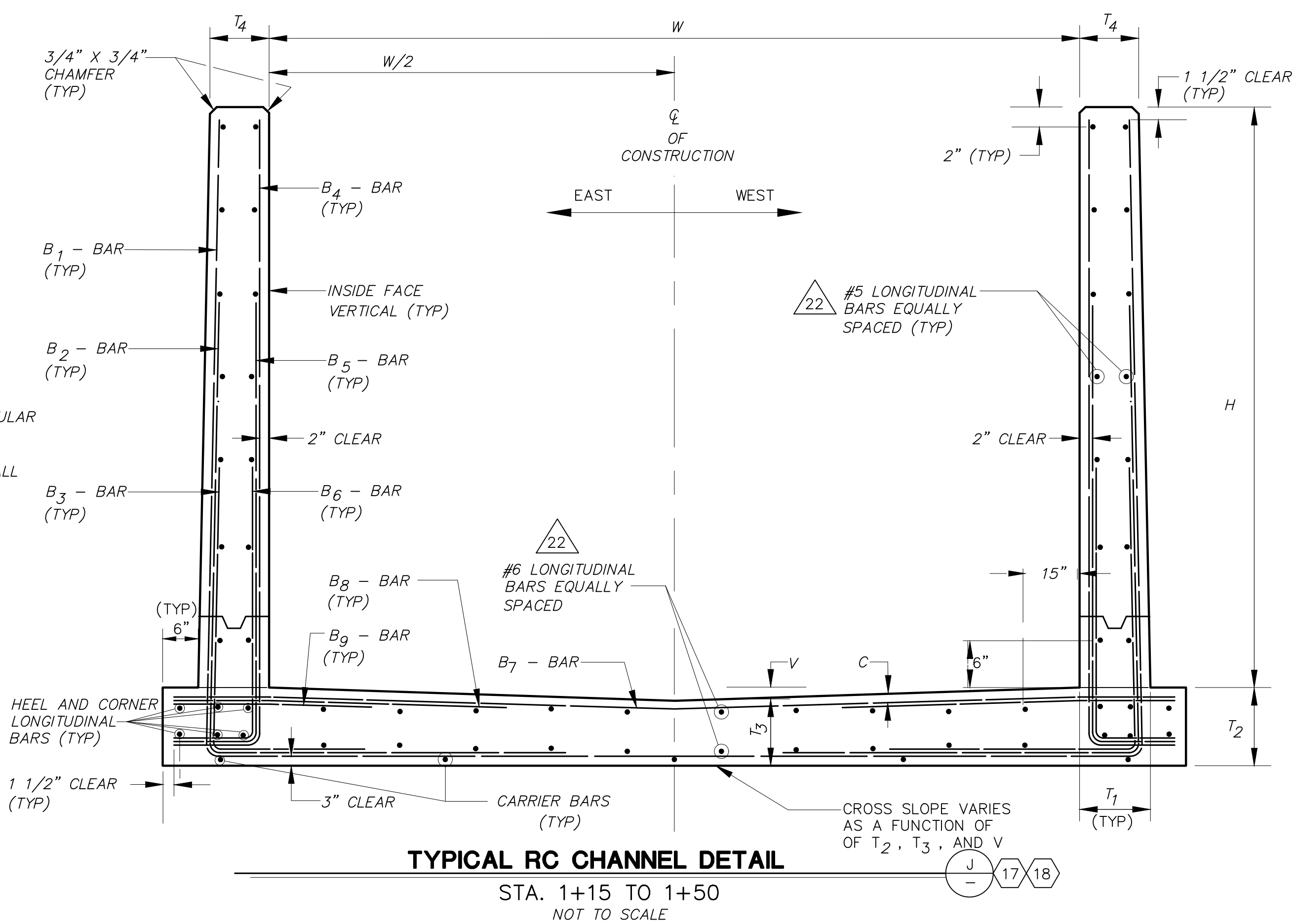
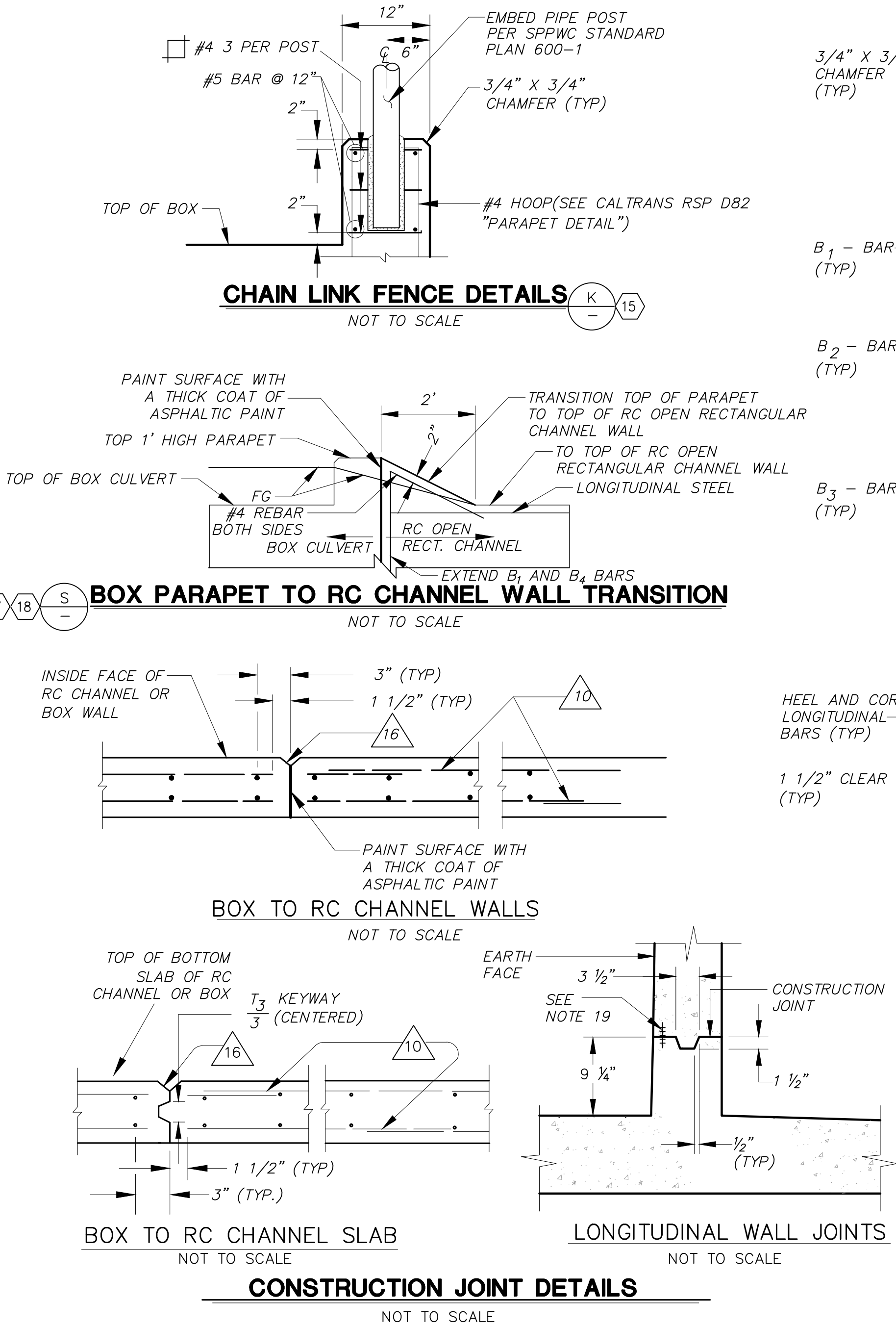
<i>Kirk R. Norman</i>	3/4/21
WATERSHED PROJECT MANAGER	DATE
<i>Paul S. Roussev</i>	3/5/21
WATERSHED DEPUTY DIRECTOR	DATE
<i>Samuel M. ...</i>	3/11/21
WATERSHED DIRECTOR	DATE

VENTURA COUNTY
PUBLIC WORKS AGENCY
WATERSHED PROTECTION

SPEC. NO.
WP21-05
PROJ. NO.
85301

FERRO DITCH
CHANNEL IMPROVEMENTS
RC RECT SECTION – STRUCTURAL DETAILS

SHEET	11
OF	20
DRAWING NO.	WP-3-512



ADDITIONAL NOTES FOR R.C. OPEN CHANNEL SECTIONS:

- EXPOSED EDGES OF CONCRETE MEMBERS SHALL BE CHAMFERED 3/4" X 3/4".
 - NO SPLICES IN TRANSVERSE STEEL REINFORCEMENT WILL BE PERMITTED OTHER THAN SHOWN IN THE DRAWING WITHOUT APPROVAL OF THE ENGINEER. NO MORE THAN ONE SPlice SHALL BE PERMITTED IN ANY LONGITUDINAL BAR BETWEEN TRANSVERSE JOINTS. SPLICES SHALL BE STAGGERED.
 - ALL LAP SPLICES SHALL CONFORM TO THE 2014 EDITION OF THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-14), SECTION 12.15. LONGITUDINAL STEEL SHALL BE LAPPED 24 BAR DIAMETER AT SPLICES. TRANSVERSE STEEL SHALL BE LAPPED USING THE FOLLOWING TABLE:
- | BAR SIZE | #4 | #5 | #6 | #7 | #8 | #9 | #10 | #11 | #14 | #18 |
|----------------------|-----|-----|-----|-----|-----|------|------|------|------------------------------------|-----|
| LENGTH OF LAP SPlice | 25" | 31" | 37" | 62" | 81" | 103" | 130" | 160" | TENSION LAP SPlicing NOT PERMITTED | |
- LONGITUDINAL STEEL SHALL TERMINATE TWO INCHES FROM TRANSVERSE CONSTRUCTION JOINTS.
 - TRANSVERSE CONSTRUCTION JOINTS SHALL BE SPACED NOT TO EXCEED 50 FEET NOR BE LESS THAN 10 FEET, MEASURED ALONG THE CENTERLINE OF CONSTRUCTION, EXCEPT AS OTHERWISE SHOWN ON THE DRAWINGS.
 - TRANSVERSE CONSTRUCTION JOINTS SHALL BE PLACED AT THE JUNCTION OF RECTANGULAR OPEN CHANNEL SECTIONS WITH CLOSED CONDUIT SECTIONS.
 - THE MAXIMUM SPACING OF BARS IN CURVED SECTIONS SHALL NOT EXCEED THAT SHOWN ON THE TYPICAL SECTIONS, UNLESS OTHERWISE SHOWN ON THE DRAWINGS. STEEL SHALL BE PLACED RADially FROM THE MAXIMUM SPACING.
 - AT THE BEGINNING AND ENDING OR POURS, A COMPLETE CURTAIN OF REINFORCEMENT COMPOSED OF B₁, B₄, AND B₇ BARS SHALL BE PLACED THREE INCHES FROM THE TRANSVERSE CONSTRUCTION JOINT.
 - ALL TRANSVERSE JOINTS SHALL BE PROVIDED WITH 1 1/2" X 3/4" FORMED GROOVE IN THE INSIDE FACE AND TOP OF WALLS AND WITH 3/4" TOOLED JOINT IN THE BOTTOM SLAB. LONGITUDINAL JOINTS SHALL NOT BE CHAMFERED.
 - THE BAR LENGTHS TABULATED FOR TRANSITIONS ARE APPLICABLE TO THE LARGER SECTION ONLY. THE BARS REQUIRING ADJUSTMENT ARE THOSE TABULATED IN THE TABLE HERON AND SHALL BE ADJUSTED AS NECESSARY WITHIN THE TRANSITION.
 - TRANSVERSE WALL JOINTS SHALL HAVE A 6" POLYVINYL CHLORIDE WATERSTOP, AS MANUFACTURED BY "SIKA / GREENSTREAK" (MODEL NO. 724 – SPLIT FLANGE) OR AN APPROVED EQUAL.
 - CONSTRUCTION JOINTS SHALL HAVE A 6" PVC WATERSTOP, AS MANUFACTURED BY "SIKA / GREENSTREAK" (MODEL NO. 783 – FLAT RIBBED) OR AN APPROVED EQUAL. THE WATERSTOP SHALL BE TIED TO THE OUTSIDE OF THE REINFORCING STEEL AT THE TOP AND BOTTOM WITH ONE PIECE OF WIRE AT APPROXIMATELY 1'-0" SPACING, PUNCHING SHALL NOT BE ALLOWED. THE WATERSTOP SHALL BE CONTINUOUS FOR EACH WALL SECTION.

- B₁ BARS MAY BE SPLICED ABOVE THE LONGITUDINAL CONSTRUCTION JOINT. USE LAP SHOWN IN THE TABLE HERON. THE LONGITUDINAL CONSTRUCTION JOINTS SHALL BE CONTINUOUS.
- HE LONGITUDINAL CONSTRUCTION JOINTS SHALL BE CONTINUOUS.
- THE SPACING OF THE LONGITUDINAL BARS IN THE SLAB SHALL BE BASED ON THE DISTANCE BETWEEN THE LONGITUDINAL CORNER BARS NEAREST THE INSIDE FACE OF THE STRUCTURE AND THE NUMBER OF BARS SPECIFIED IN THE TABLE. THE SPACING IN THE WALLS SHALL BE BASED ON THE WALL HEIGHT AND THE NUMBER OF BARS IN THE TABLE.
- CONTRACTOR SHALL INSTALL ADDITIONAL REINFORCEMENT AT SUBDRAIN INLET AND CLEANOUT END LOCATIONS AND SHALL CUT THE REBARS ON EACH FACE OF THE RC CHANNEL WALL AS SHOWN ON THE "REINFORCEMENT AT SUBDRAIN PIPE" DETAIL ON SHEET 12. THIS REINFORCEMENT SHALL CONSIST OF THE SAME REINFORCEMENT CONFIGURATION AS SHOWN ON THE "REINFORCEMENT AT SUBDRAIN PIPE" DETAIL. CONTRACTOR WILL NOT BE ALLOWED TO POUR CONCRETE AT THE FOOTING OF THE RC CHANNEL WALL UNTIL THE ADDITIONAL REINFORCEMENT HAS BEEN INSTALLED AND INSPECTED BY THE DISTRICT'S INSPECTOR.



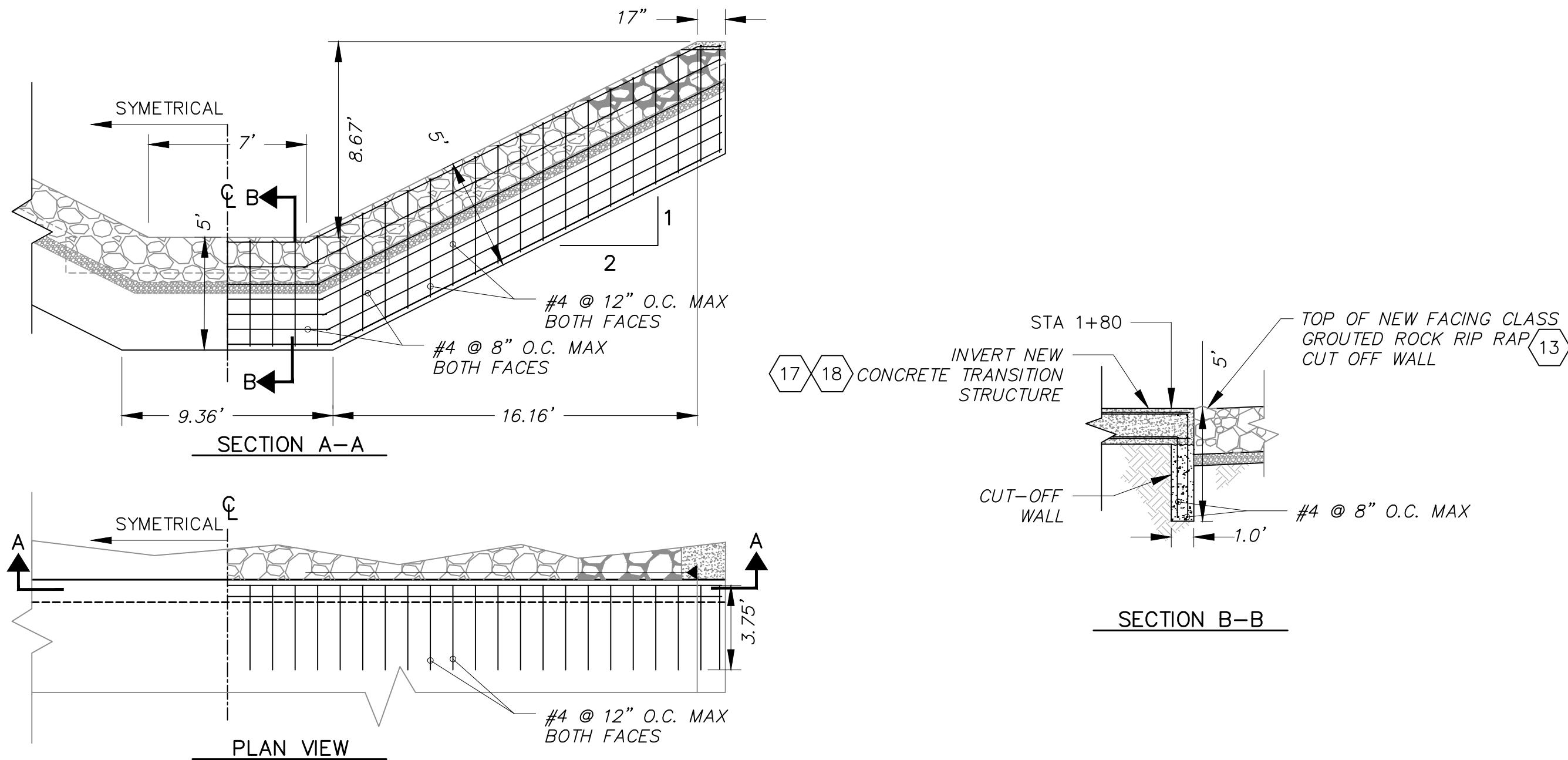
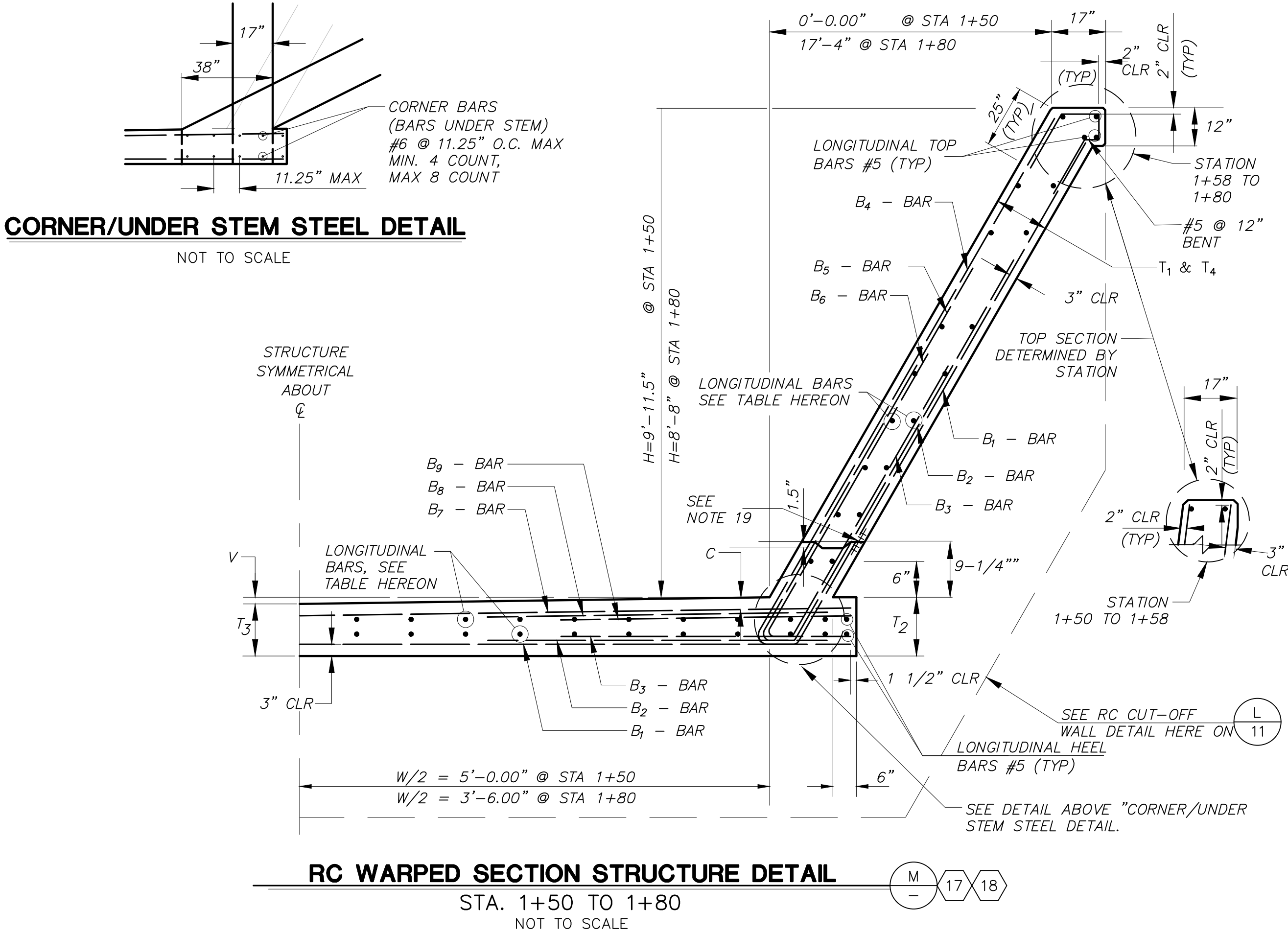
RC CHANNEL TABLE		
SECTION NUMBER		1
WIDTH	W	10'
HEIGHT	H	9'-11.5"
THICKNESS (INCHES)	BASE OF WALL	T ₁ 17"
	SLAB AT FACE OF WALL	T ₂ 19"
	SLAB AT C	T ₃ 19"
	TOP OF WALL	T ₄ 10"
INVERT DROP		V 0"
STEEL CLEARANCE INVERT		C 2"
B ₁ BAR	BAR # AND SPACING	#5 @ 9"
	HORIZONTAL LENGTH	7'-9"
	VERTICAL LENGTH	11'-1.5"
B ₂ BAR	BAR # AND SPACING	#6 @ 9"
	HORIZONTAL LENGTH	7'-9"
	VERTICAL LENGTH	9'-8.5"
B ₃ BAR	BAR # AND SPACING	#7 @ 9"
	HORIZONTAL LENGTH	8'-9.5'
	VERTICAL LENGTH	7'-10.5"
B ₄ BAR	BAR # AND SPACING	#5 @ 12"
	HORIZONTAL LENGTH	1'-7"
	VERTICAL LENGTH	11'-1.5"
B ₅ BAR	BAR # AND SPACING	-
	HORIZONTAL LENGTH	-
	VERTICAL LENGTH	-
B ₆ BAR	BAR # AND SPACING	-
	HORIZONTAL LENGTH	-
	VERTICAL LENGTH	-
B ₇ BAR	BAR # AND SPACING	#6 @ 18"
	HORIZONTAL LENGTH	13'-7"
B ₈ BAR	BAR # AND SPACING	-
	HORIZONTAL LENGTH	-
B ₉ BAR	BAR # AND SPACING	-
	HORIZONTAL LENGTH	-
LONGITUDINAL BAR SIZE AND QUANTITY		
WALLS	BOTH FACES	#4
	NUMBER OF BARS TOTAL	52 @ 10" MAX
INVERT	TOP/EXPOSED FACE	#4 @ 10" MAX
	NUMBER OF BARS TOTAL	13
	BOTTOM/UNEXPOSED FACE	#4 @ 10" MAX
HEEL AND CORNER	NUMBER OF BARS TOTAL	13
	SIZE	#4
	NUMBER OF BARS TOTAL	6+6
#4 CARRIER BARS IN BOTTOM SLAB		
CONCRETE QUANTITY: AVG CY/LINEAR FT		1.64
STEEL QUANTITY: AVG LBS/LINEAR FT		316

STRUCTURAL NOTES: RC CHANNEL TRANSITION STRUCTURE

1. DIMENSIONS FROM FACE OF CONCRETE TO STEEL ARE TO THE NEAREST EDGE OF BAR AND SHALL BE TWO INCHES UNLESS OTHERWISE SHOWN.
2. CONCRETE DIMENSIONS SHALL BE MEASURED HORIZONTALLY OR VERTICALLY ON THE PROFILE, AND PARALLEL TO OR AT RIGHT ANGLES (OR RADIALLY) TO CENTERLINE OF CHANNEL ON THE PLAN EXCEPT AS OTHERWISE SHOWN.
3. ALL BAR BENDS AND HOOKS SHALL CONFORM TO THE 2018 EDITION OF THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-11), SECTION 7.3.
4. PLACING OF REINFORCEMENT SHALL CONFORM TO THE 2011 EDITION OF THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-11), SECTION 7.5.
5. TRANSVERSE CONSTRUCTION JOINTS SHALL NOT BE PLACED WITHIN 30 INCHES OF MANHOLE OR JUNCTION STRUCTURE OPENING, OR SIDE INLETS.
6. TRANSVERSE CONSTRUCTION JOINTS IN WALLS AND SLABS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED. TRANSVERSE CONSTRUCTION JOINTS SHALL BE NORMAL OR RADIAL TO THE CENTERLINE OF CONSTRUCTION UNLESS OTHERWISE SHOWN.
7. THE TRANSVERSE REINFORCING STEEL SHALL TERMINATE ONE AND ONE-HALF INCHES FROM THE CONCRETE SURFACES UNLESS OTHERWISE SHOWN ON THE PLANS.
8. EXPOSED EDGES OF CONCRETE MEMBERS SHALL BE CHAMFERED 3/4" X 3/4".
9. NO SPLICES IN TRANSVERSE STEEL REINFORCEMENT WILL BE PERMITTED OTHER THAN SHOWN IN THE DRAWING WITHOUT APPROVAL OF THE ENGINEER. NO MORE THAN ONE SPLICE SHALL BE PERMITTED IN ANY LONGITUDINAL BAR BETWEEN TRANSVERSE JOINTS. SPLICES SHALL BE STAGGERED.
10. ALL LAP SPLICES SHALL CONFORM TO THE 2011 EDITION OF THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-11), SECTION 12.15. LONGITUDINAL STEEL SHALL BE LAPPED 24 BAR DIAMETER AT SPLICES. TRANSVERSE STEEL SHALL BE LAPPED USING THE FOLLOWING TABLE:

BAR SIZE	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18
LENGTH OF LAP SPLICE	25"	31"	37"	62"	81"	103"	130"	160"	TENSION LAP SPLICING NOT PERMITTED	

11. LONGITUDINAL STEEL SHALL TERMINATE TWO INCHES FROM TRANSVERSE CONSTRUCTION JOINTS.
12. TRANSVERSE CONSTRUCTION JOINTS SHALL BE SPACED NOT TO EXCEED 50 FEET NOR BE LESS THAN 10 FEET, MEASURED ALONG THE CENTERLINE OF CONSTRUCTION, EXCEPT AS OTHERWISE SHOWN ON THE DRAWINGS.
13. TRANSVERSE CONSTRUCTION JOINTS SHALL BE PLACED AT THE JUNCTION OF RC CHANNEL SECTIONS WITH THE RC WARPED SECTION.
14. THE MAXIMUM SPACING OF BARS IN CURVED SECTIONS SHALL NOT EXCEED THAT SHOWN ON THE TYPICAL SECTIONS, UNLESS OTHERWISE SHOWN ON THE DRAWINGS. STEEL SHALL BE PLACED RADIALLY FROM THE MAXIMUM SPACING.
15. AT THE BEGINNING AND ENDING OF ALL POURS, A COMPLETE CURTAIN OF REINFORCEMENT COMPOSED OF B₁, B₂, AND B₇ BARS SHALL BE PLACED THREE INCHES FROM THE TRANSVERSE CONSTRUCTION JOINT.
16. ALL TRANSVERSE JOINTS SHALL BE PROVIDED WITH 1 1/2" x 3/4" FORMED GROOVE IN THE INSIDE FACE AND TOP OF WALLS AND WITH 3/4" TOOLED JOINT IN THE BOTTOM SLAB.
17. THE BAR LENGTHS TABULATED FOR TRANSITIONS ARE APPLICABLE TO THE LARGER SECTION ONLY. THE BARS REQUIRING ADJUSTMENT ARE THOSE TABULATED IN THE TABLE HEREON AND SHALL BE ADJUSTED AS NECESSARY WITHIN THE TRANSITION.
18. TRANSVERSE WALL JOINTS SHALL HAVE A 6" POLYVINYL CHLORIDE WATERSTOP RIBBED SPLIT FLANGE CENTER BULB TYPE, AS MANUFACTURED BY "SIKA / GREENSTREAK" (MODEL NO. 724 - SPLIT FLANGE) OR AN APPROVED EQUAL.
19. CONSTRUCTION JOINTS SHALL HAVE A 6" PVC WATERSTOP, AS MANUFACTURED BY "SIKA / GREENSTREAK" (MODEL NO. 783 - FLAT RIBBED) OR AN APPROVED EQUAL. THE WATERSTOP SHALL BE TIED TO THE OUTSIDE OF THE REINFORCING STEEL AT THE TOP AND BOTTOM WITH ONE PIECE OF WIRE AT APPROXIMATELY 1'-0" SPACING, PUNCHING SHALL NOT BE ALLOWED. THE WATERSTOP SHALL BE CONTINUOUS FOR EACH WALL SECTION.
20. B₁ BARS MAY BE SPLICED ABOVE THE LONGITUDINAL CONSTRUCTION JOINT. USE LAP SHOWN IN THE TABLE HEREON.
21. THE LONGITUDINAL CONSTRUCTION JOINTS SHALL BE CONTINUOUS.
22. THE SPACING OF THE LONGITUDINAL BARS IN THE SLAB SHALL BE BASED ON THE DISTANCE BETWEEN THE LONGITUDINAL CORNER BARS NEAREST THE INSIDE FACE OF THE STRUCTURE AND THE NUMBER OF BARS SPECIFIED IN THE TABLE. THE SPACING IN THE WALLS SHALL BE BASED ON THE WALL HEIGHT AND THE NUMBER OF BARS IN THE TABLE.



RC CUT-OFF WALL DETAILS
STA. 1+79 TO 1+80
NOT TO SCALE

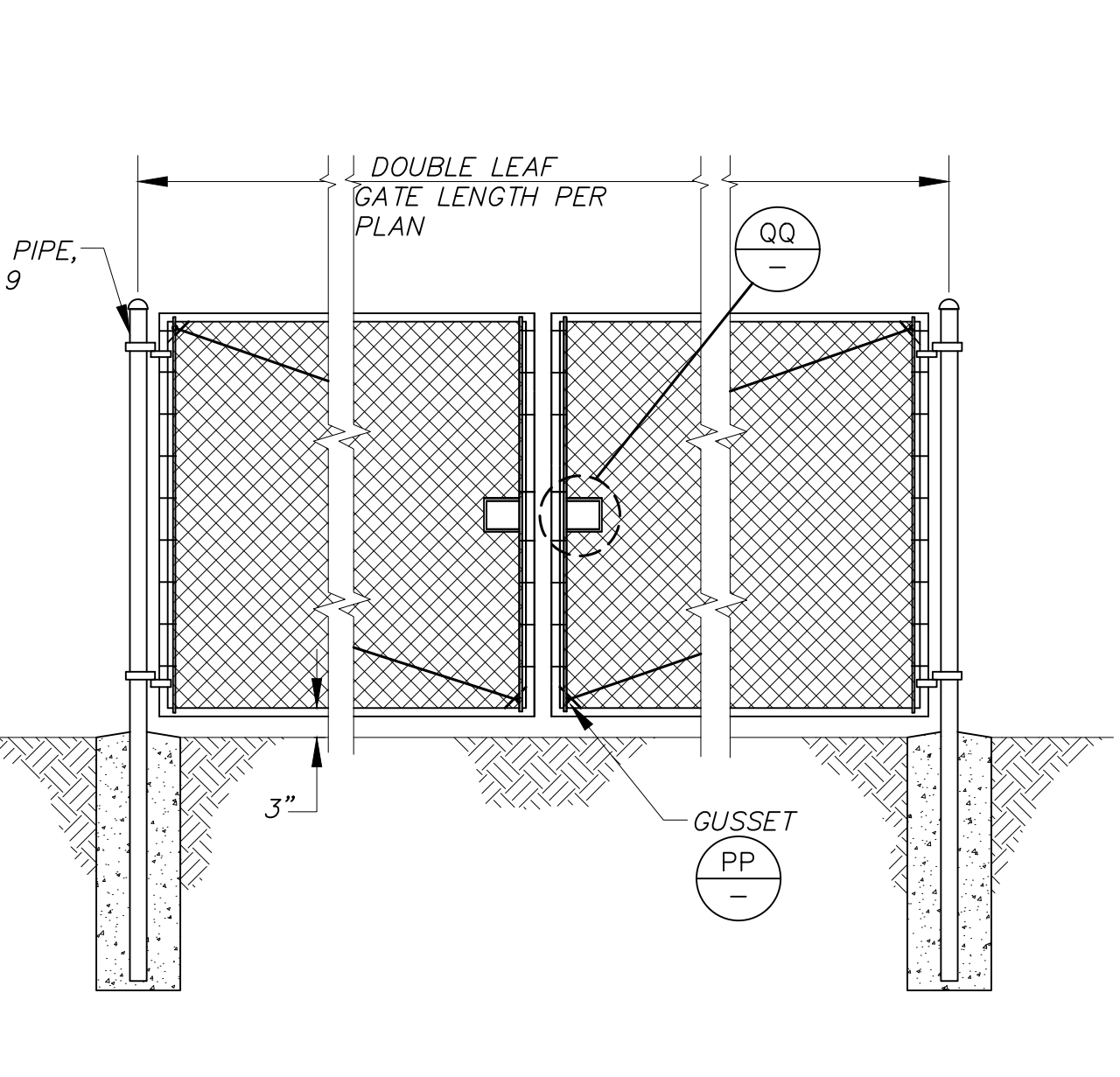
RC TRANSITIONAL CHANNEL TABLE		
SECTION NUMBER		1
WIDTH		W 7.0' TO 10'
HEIGHT (NORTH WALL)		H 8'-8" TO 9'-11.5"
THICKNESS (INCHES)	BASE OF WALL	T ₁ 17"
	SLAB AT FACE OF WALL	T ₂ 19"
	SLAB AT CL	T ₃ 19"
	TOP OF WALL	T ₄ 17.0"
INVERT DROP		V 0"
STEEL CLEARANCE INVERT		C 2"
B ₁ BAR	BAR # AND SPACING	#5 @ 9"
	HORIZONTAL LENGTH	6'-8" TO 7'-9"
	VERT/DIAG. LENGTH	11'-1.5" TO 20'-11'
B ₂ BAR	BAR # AND SPACING	#6 @ 9"
	HORIZONTAL LENGTH	6'-8" TO 7'-9"
	VERT/DIAG LENGTH	9'-11" TO 19'-3.5'
B ₃ BAR	BAR # AND SPACING	#7 @ 9"
	HORIZONTAL LENGTH	6'-8" TO 8-9.5"
	VERT/DIAG LENGTH	7'-10.5" TO 15'-4"
B ₄ BAR	BAR # AND SPACING	#5 @ 12"
	HORIZONTAL LENGTH	1'-7" TO 5'-10"
	VERTICAL/DIAG. LENGTH	11'-1.5" TO 23'-5"
B ₅ BAR	BAR # AND SPACING	N/A
	HORIZONTAL LENGTH	N/A
	VERTICAL LENGTH	N/A
B ₆ BAR	BAR # AND SPACING	N/A
	HORIZONTAL LENGTH	N/A
	VERTICAL LENGTH	N/A
B ₇ BAR	BAR # AND SPACING	#6 @ 18"
	HORIZONTAL LENGTH	13'-7" TO 14'-1"
B ₈ BAR	BAR # AND SPACING	N/A
	HORIZONTAL LENGTH	N/A
B ₉ BAR	BAR # AND SPACING	N/A
	HORIZONTAL LENGTH	N/A
BENT BAR	BAR # AND SPACING	#5 @ 12"
	HORIZONTAL LENGTH	5'-3" AND VARIES
LONGITUDINAL BAR SIZE AND QUANTITY		
WALLS	BOTH FACES	#4 @ 10" MAX
	NUMBER OF BARS TOTAL	52 TO 96
INVERT	BOTH FACES	#4 @ 10" MAX
	NUMBER OF BARS TOTAL	VARIES 20 TO 26
CORNER/UNDER STEM	BOTH FACES	#4 @ 11.25" MAX
	NUMBER OF BARS TOTAL	VARIES 8 TO 16
HEEL	SIZE	#4
	NUMBER OF BARS TOTAL	2+2
TOP	SIZE	#4
	NUMBER OF BARS TOTAL	4+4
#4 CARRIER BARS IN BOTTOM SLAB		5
CONCRETE QUANTITY: AVG CY/LINEAR FT		2.21
STEEL QUANTITY: AVG LBS/LINEAR FT		387
RC CHANNEL LOCATION		
CHANNEL SECTION NUMBER	STATIONS	
	FROM	TO
1	1+50	1+80
BARS TO BE ADJUSTED		
VERTICAL LEG	HORIZONTAL LEG	
B ₁ , B ₂ , B ₃ , & B ₄	B ₄ & B ₇	



PLOT DATE: 3/4/21

SAVE DATE: 3/4/21 MJUELLER JOHN K:\PROJECTS\ZONE3\FERRDITCH\85301 FERRO DITCH IMPROVEMENT\DESIGN\DESIGN DRAWINGS\10DPCT\SH1-12 CHANNEL DETAIL S REV1.DWG

D				JM	DESIGNED	3/24/21	DATE	VENTURA COUNTY PUBLIC WORKS AGENCY WATERSHED PROTECTION	SPEC. NO.	FERRO DITCH CHANNEL IMPROVEMENTS WARPED SECTION - STRUCTURAL DETAILS	SHEET 12 OF 20 DRAWING NO. WP-3-512
C				JM/ ND	DATE	3/5/21	PROJ. NO.		85301		
B				DRAWN	DATE	3/11/21					
A				K. ROUSSEV	CHECKED	DATE					
△	REVISION	DESCRIPTION	APP.	DATE							



TYPICAL ACCESS ROAD DOUBLE LEAF GATE DETAIL

NOT TO SCALE

-

1 7/8" SCH 40
PIPE W/ CAP,
SEE NOTE 2

1 7/8" GATE HOLDBACK
ASSEMBLY W/ U-BOLT
AND NUTS

VARIABLE
12" MIN

18"

12"

NOTE: ASSEMBLY
INCLUDES A TWO
U-BOLT UNIVERSAL
HOLDING, GATE
HOLDBACK AND A
SLOTTED CENTER STOP,
MUSHROOM TYPE.

Diagram illustrating the assembly of a chain link fence. The diagram shows a cross-section of the fence structure. A horizontal line represents the **TOP RAIL**. Below it, a layer of **FABRIC GALV** (galvanized fabric) is shown, with a dimension of **1" TO TOP OF FABRIC** indicated. The chain link mesh is attached to the fabric. The mesh is labeled **9 GA CHAIN LINK**.

9 GA TIE WIRES

TENSION BARS

GATE FRAME

6"

6"

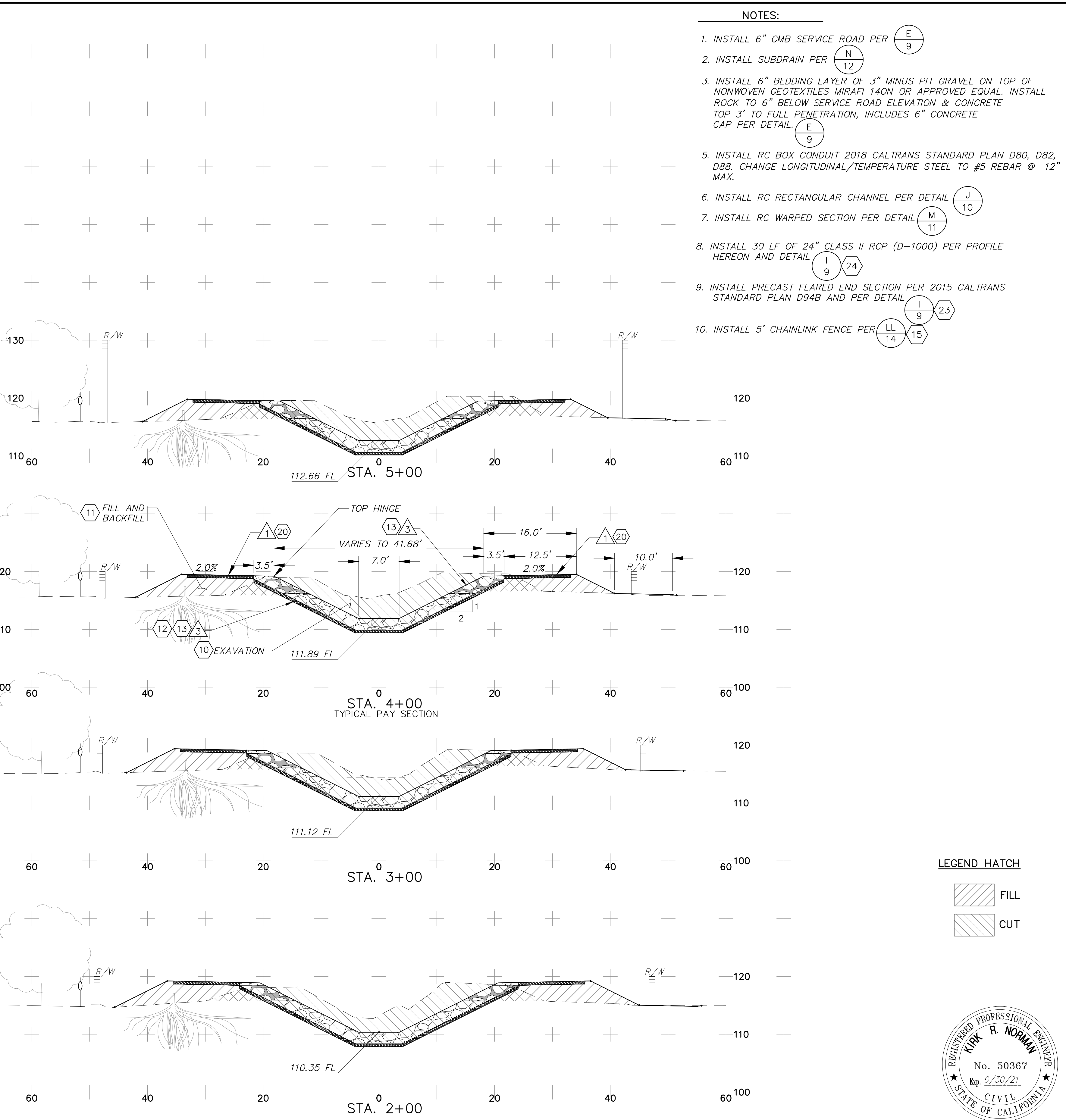
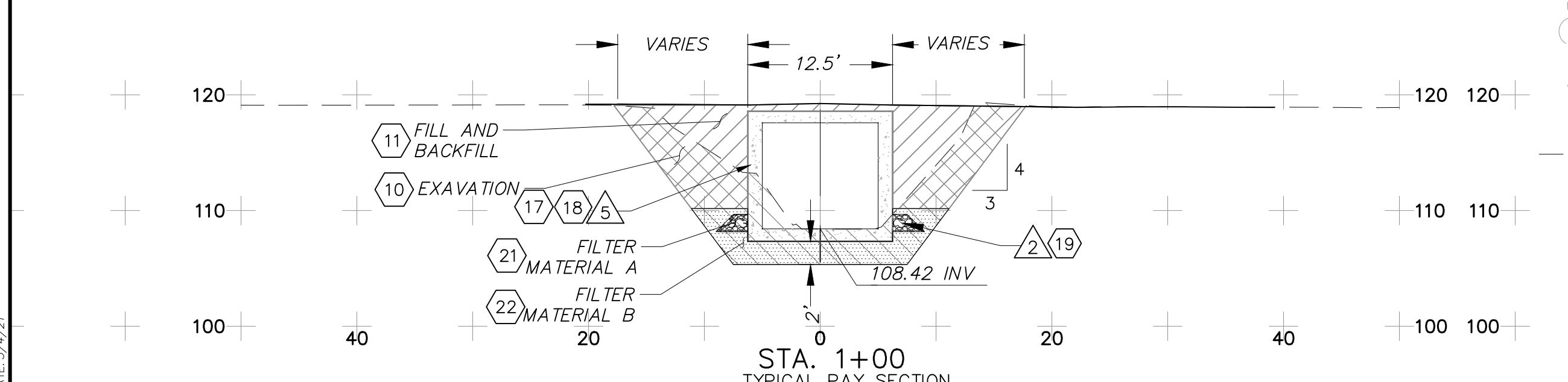
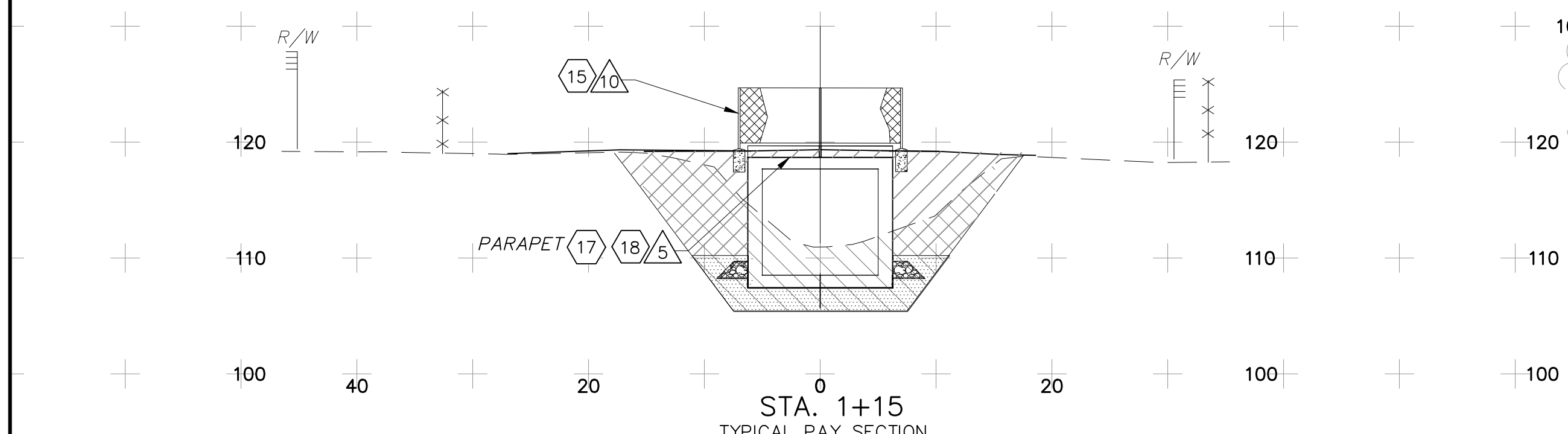
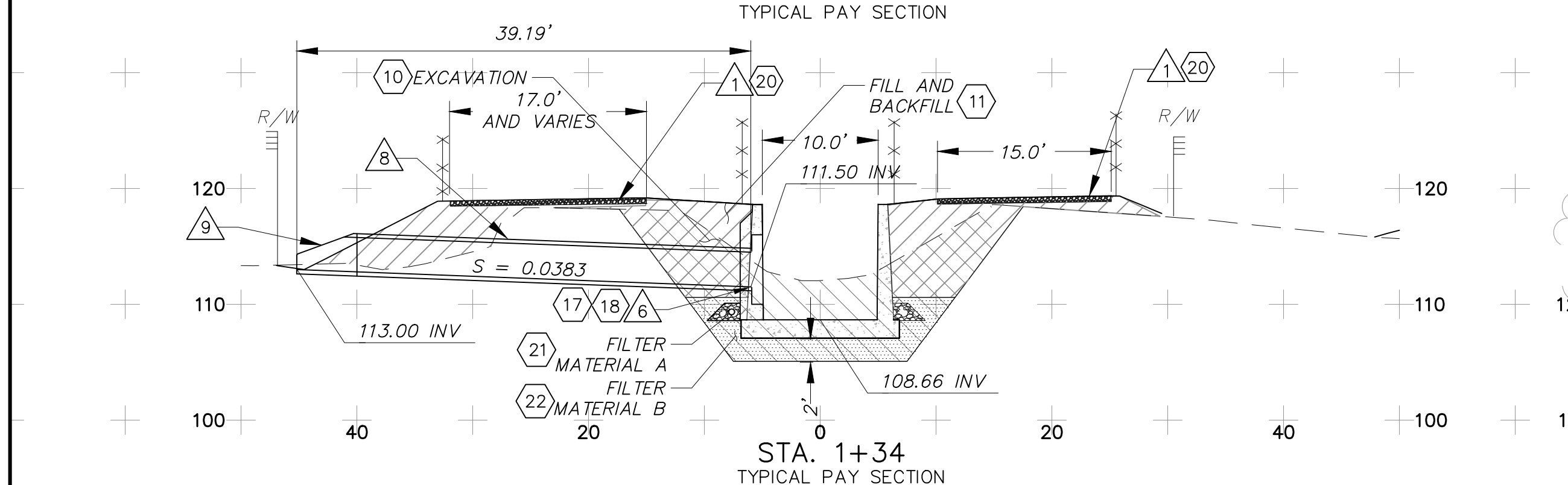
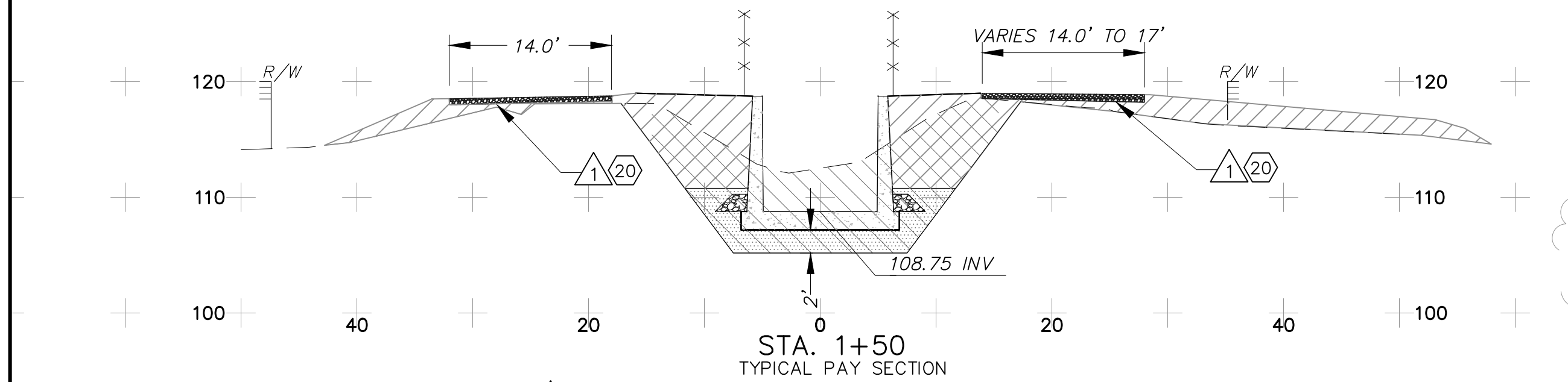
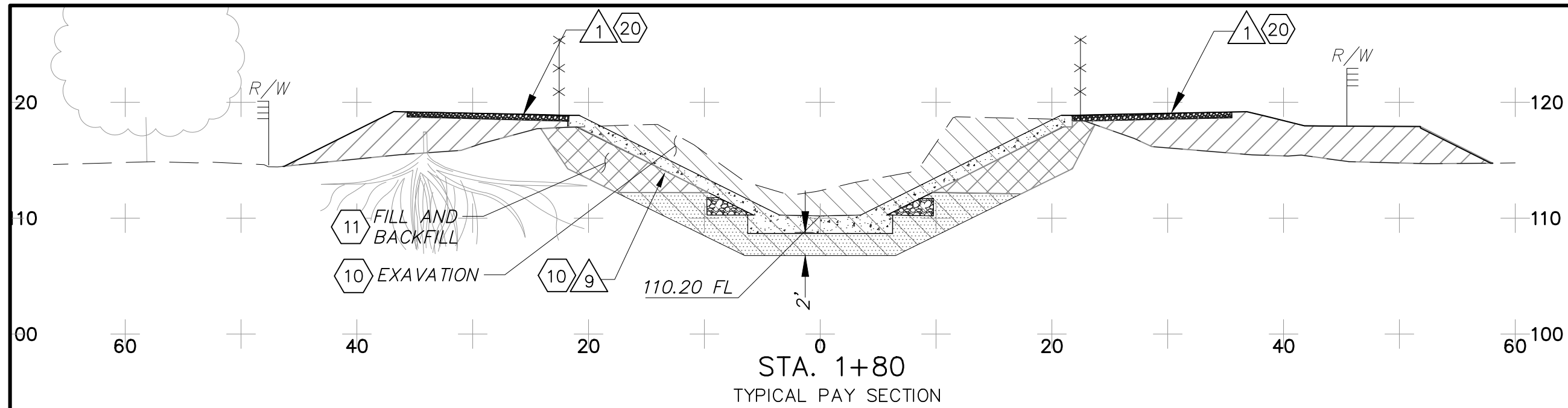
11

12

1" x 3 1/2" BRONZE BOLT SNAF

1/8"

1 7/8" x 1 5/8"
GALVANIZED STEEL
CAST TOP ONLY
SEE NOTE 2



- NOTES:
1. INSTALL 6" CMB SERVICE ROAD PER
 2. INSTALL SUBDRAIN PER
 3. INSTALL 6" BEDDING LAYER OF 3" MINUS PIT GRAVEL ON TOP OF NONWOVEN GEOTEXTILES MIRAFI 140N OR APPROVED EQUAL. INSTALL ROCK TO 6" BELOW SERVICE ROAD ELEVATION & CONCRETE TOP 3' TO FULL PENETRATION, INCLUDES 6" CONCRETE CAP PER DETAIL
 5. INSTALL RC BOX CONDUIT 2018 CALTRANS STANDARD PLAN D80, D82, D88. CHANGE LONGITUDINAL/TEMPERATURE STEEL TO #5 REBAR @ 12" MAX.
 6. INSTALL RC RECTANGULAR CHANNEL PER DETAIL
 7. INSTALL RC WARPED SECTION PER DETAIL
 8. INSTALL 30 LF OF 24" CLASS II RCP (D-1000) PER PROFILE HEREON AND DETAIL
 9. INSTALL PRECAST FLARED END SECTION PER 2015 CALTRANS STANDARD PLAN D94B AND PER DETAIL
 10. INSTALL 5' CHAINLINK FENCE PER

LEGEND HATCH

FILL

CUT



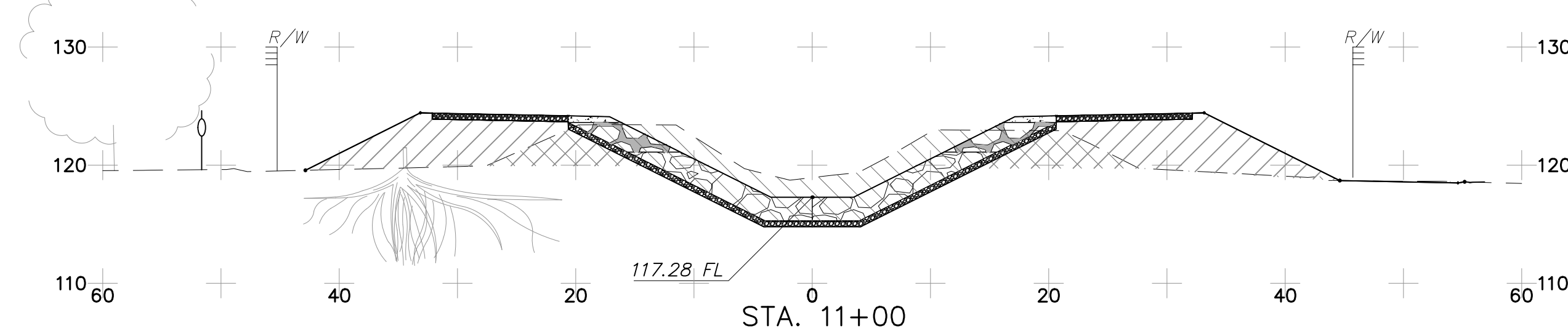
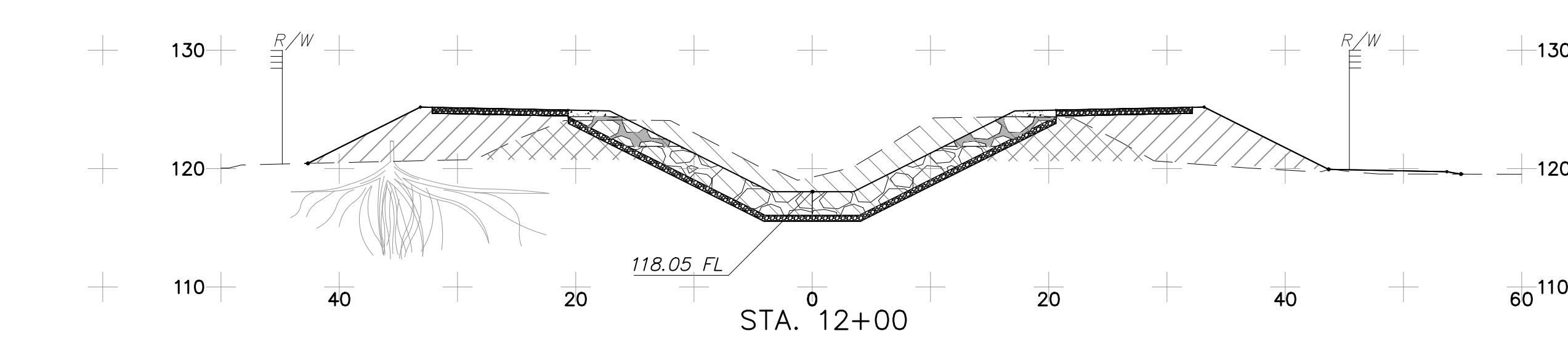
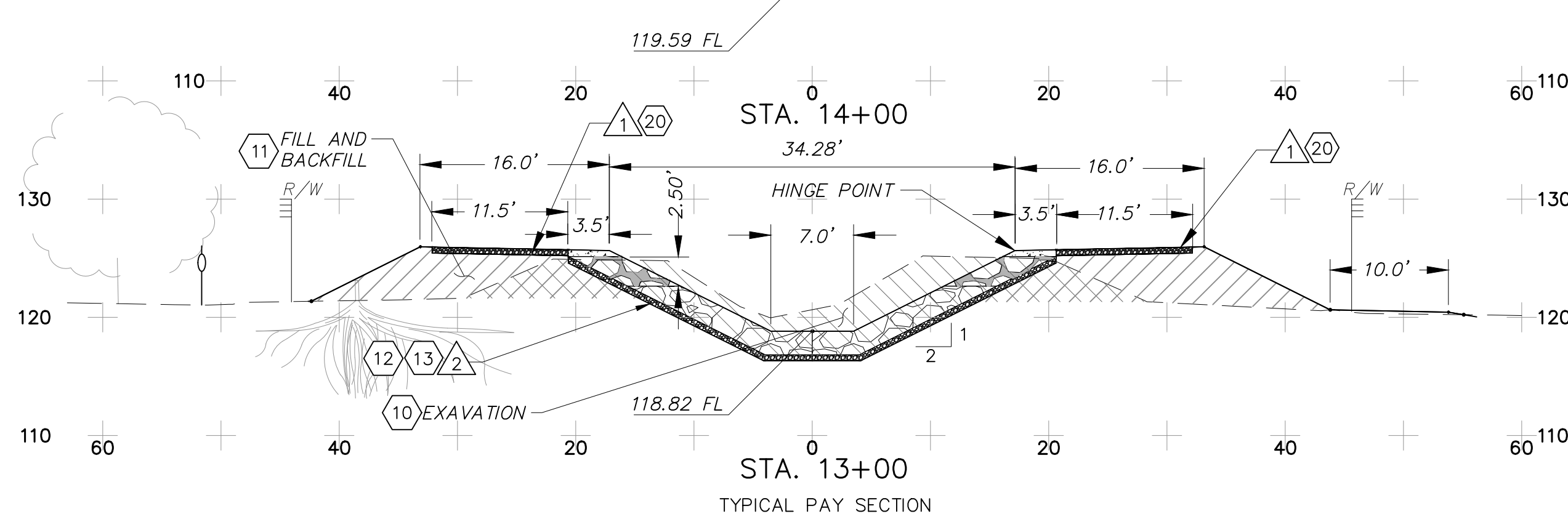
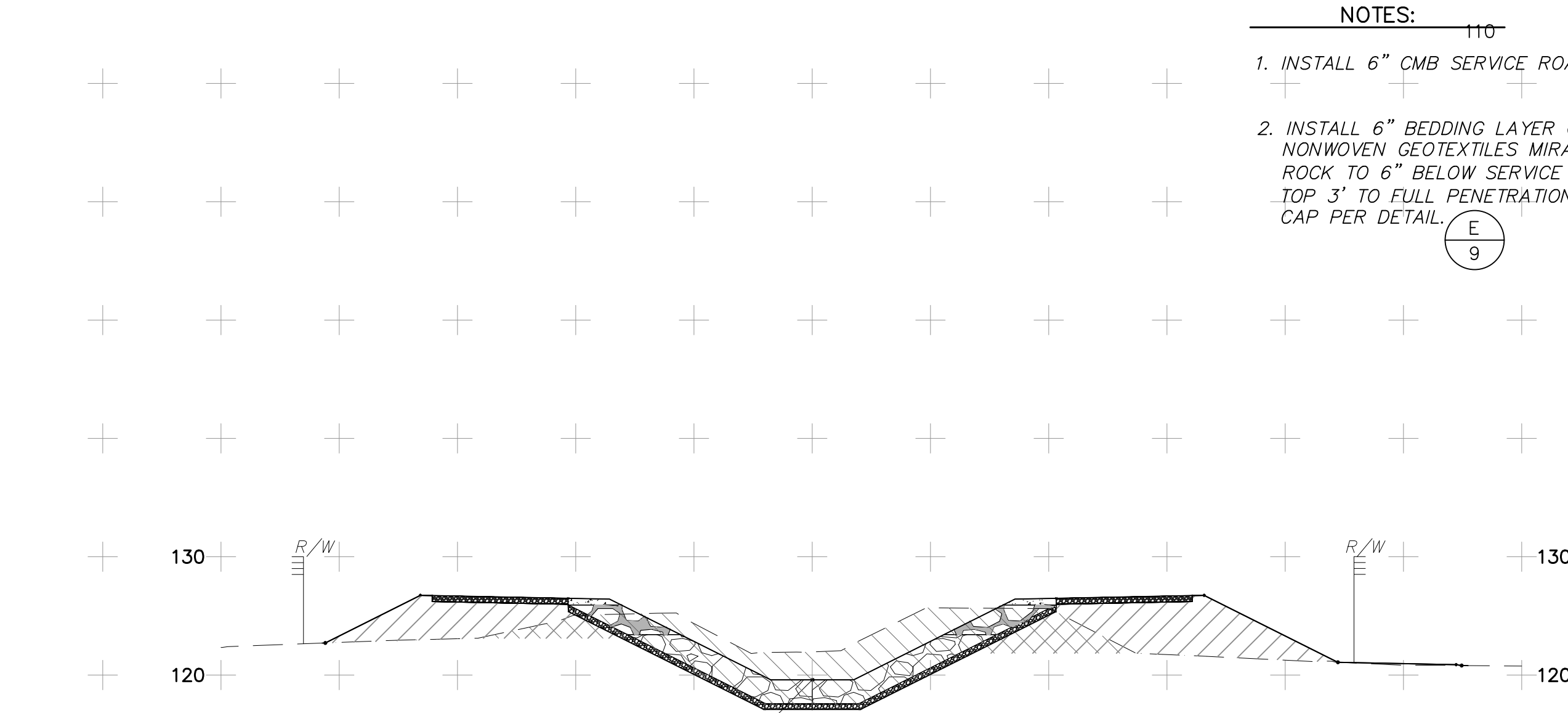
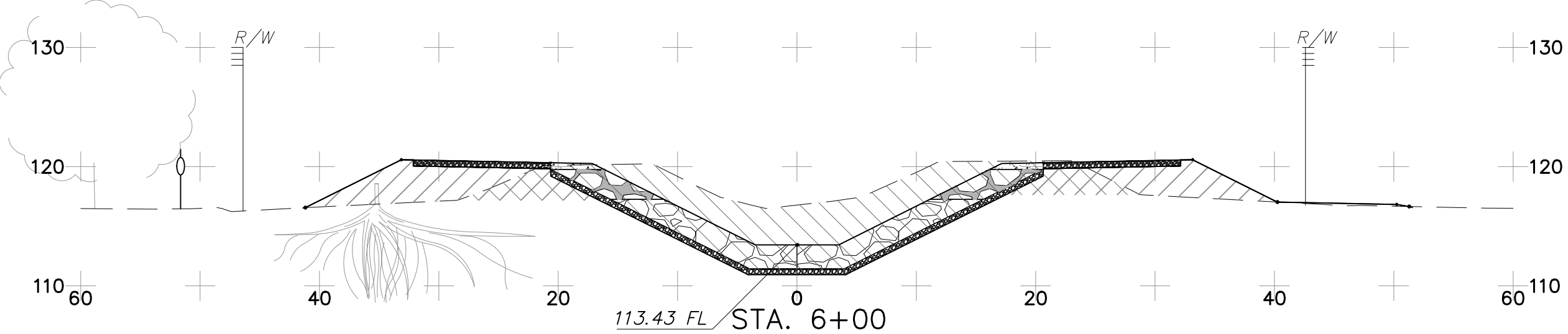
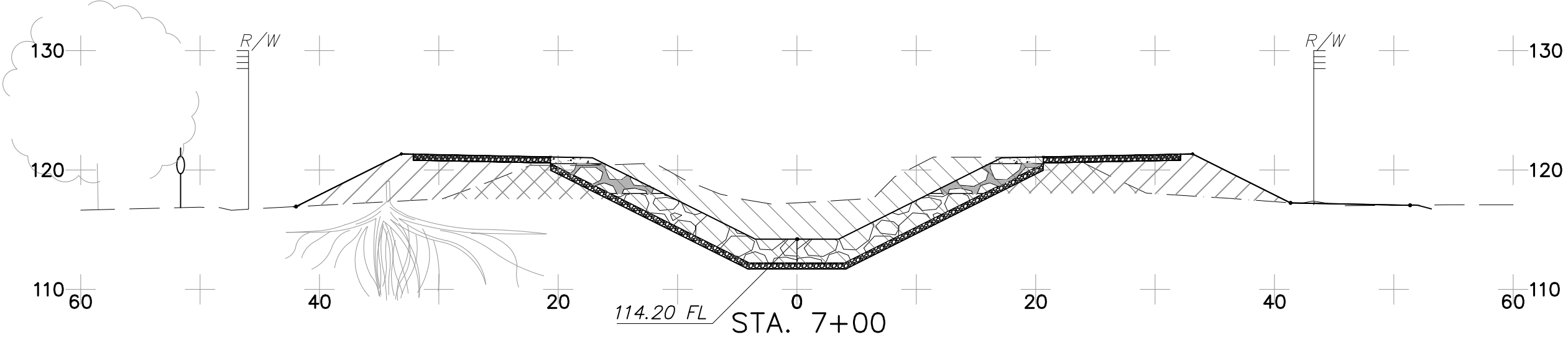
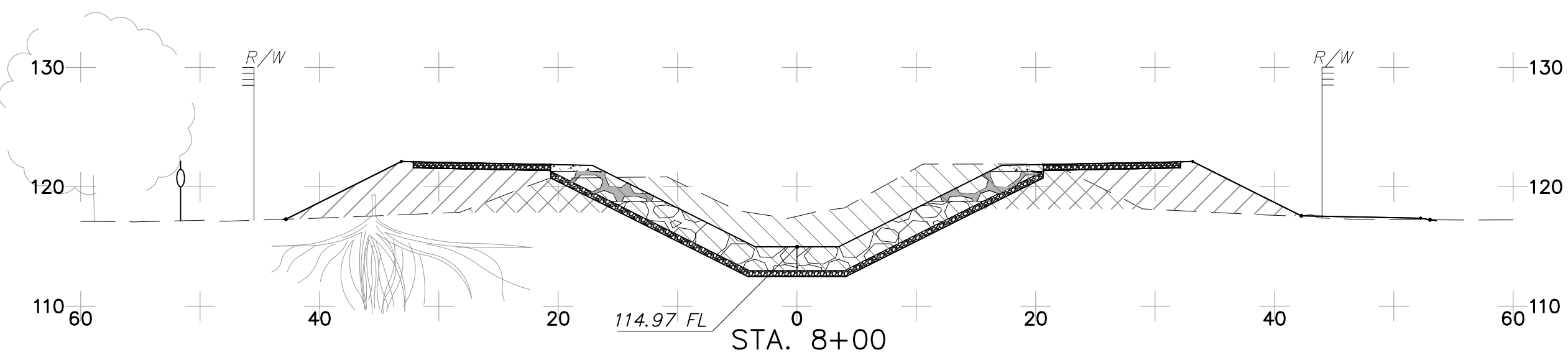
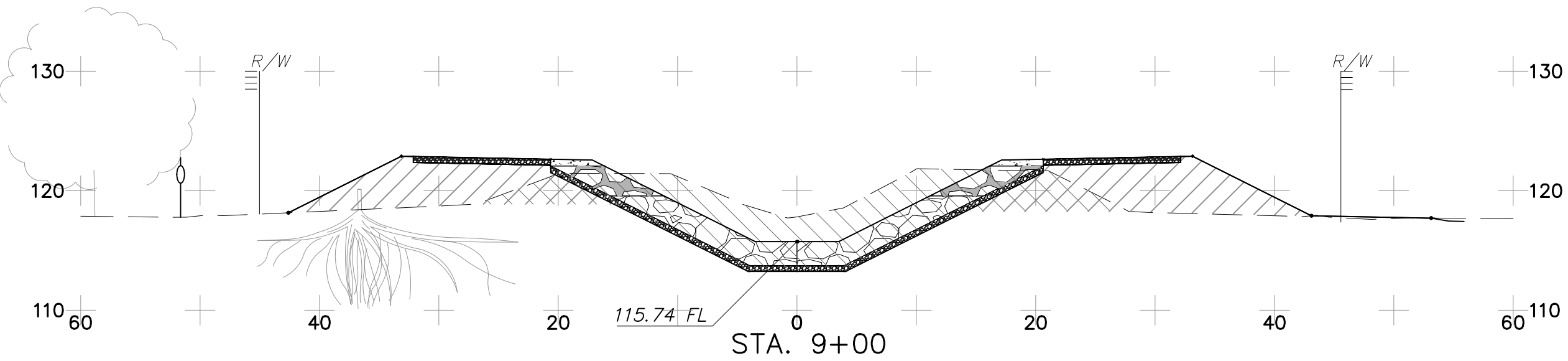
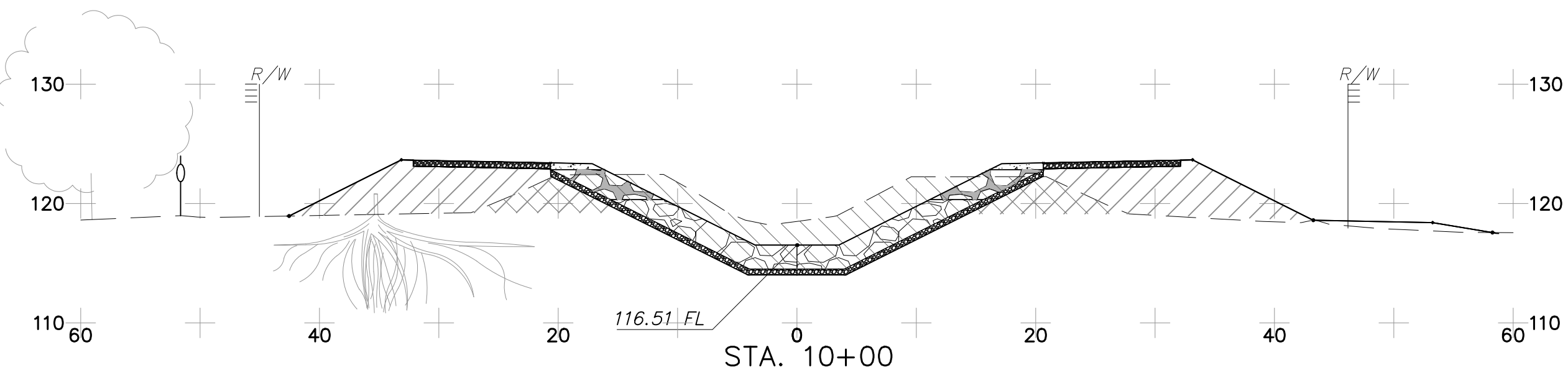
D				JM				3/4/21				DESIGNED				DATE				VENTURA COUNTY				SPEC. NO.				FERRO DITCH				SHEET			
C				JM/ND				3/5/21				DRAWN				DATE				PUBLIC WORKS AGENCY				WP21-05				CHANNEL IMPROVEMENTS				OF			
B				K ROUSSEV				3/11/21				CHECKED				DATE				WATERSHED PROTECTION				PROJ. NO.				CROSS SECTIONS 1+00 TO 6+00 FERRO DITCH				DRAWING NO.			
A																								85301								WP-3-512			
REVISION				DESCRIPTION				APP.				DATE																							

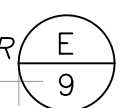
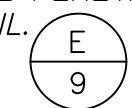
PLOT DATE: 3/4/21

SAVE DATE: 2/4/21 MUJELLER, JOHN K:\PROJECTS\ZONE3\FERRODITCH\85301 FERRO DITCH IMPROVEMENT\DESIGN\DESIGN DRAWINGS\100PCT\SH1 14 -16 CROSS SECTION 1-REV2.DWG

ALL CROSS SECTIONS ARE LOOKING DOWNSTREAM

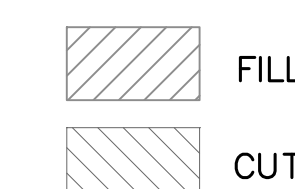
EXHIBIT 3



- NOTES:
1. INSTALL 6" CMB SERVICE ROAD PER 
 2. INSTALL 6" BEDDING LAYER OF 3" MINUS PIT GRAVEL ON TOP OF NONWOVEN GEOTEXTILES MIRAFI 140N OR APPROVED EQUAL. INSTALL ROCK TO 6" BELOW SERVICE ROAD ELEVATION & CONCRETE TOP 3" TO FULL PENETRATION, INCLUDES 6" CONCRETE CAP PER DETAIL. 

ALL CROSS SECTIONS ARE LOOKING DOWNSTREAM

LEGEND HATCH



PLOT DATE: 3/4/21

SAVE DATE: 2/4/21 MUJELLER, JOHN K:\PROJECTS\ZONE3\FERRODITCH\85301 FERRO DITCH IMPROVEMENT\DESIGN\DESIGN DRAWINGS\100PCT\SH1 14 -16 CROSS SECTION 1-REV2.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			
△			

JM	DESIGNED	3/4/21	DATE
JM/ND	WATERSHED PROJECT MANAGER	3/5/21	DATE
K ROUSSEV	DRAWN	3/11/21	DATE
	CHECKED		

Kirk R. Norman	WATERSHED PROJECT MANAGER	3/4/21	DATE
Kirk R. Norman	WATERSHED PROJECT MANAGER	3/5/21	DATE
Kirk R. Norman	WATERSHED PROJECT MANAGER	3/11/21	DATE
	WATERSHED DIRECTOR		

VENTURA COUNTY
PUBLIC WORKS AGENCY
WATERSHED PROTECTION

SPEC. NO.	WP21-05
PROJ. NO.	85301

FERRO DITCH
CHANNEL IMPROVEMENTS
CROSS SECTIONS 7+00 TO 14+00 FERRO DITCH

SHEET	16
OF	20
DRAWING NO.	WP-3-512

PLOT DATE: 3/4/21

SAVE DATE: 2/4/21 MUJELLER, JOHN K:\PROJECTS\ZONE3\FERRODITCH\85301 FERRO DITCH IMPROVEMENT\DESIGN\DESIGN DRAWINGS\100PCT\SH1 14 -16 CROSS SECTION 1-REV2.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			
△			

JM	DESIGNED	3/4/21	DATE
JM/ND	DRAWN	3/5/21	DATE
K ROUSSEV	CHECKED	3/11/21	DATE

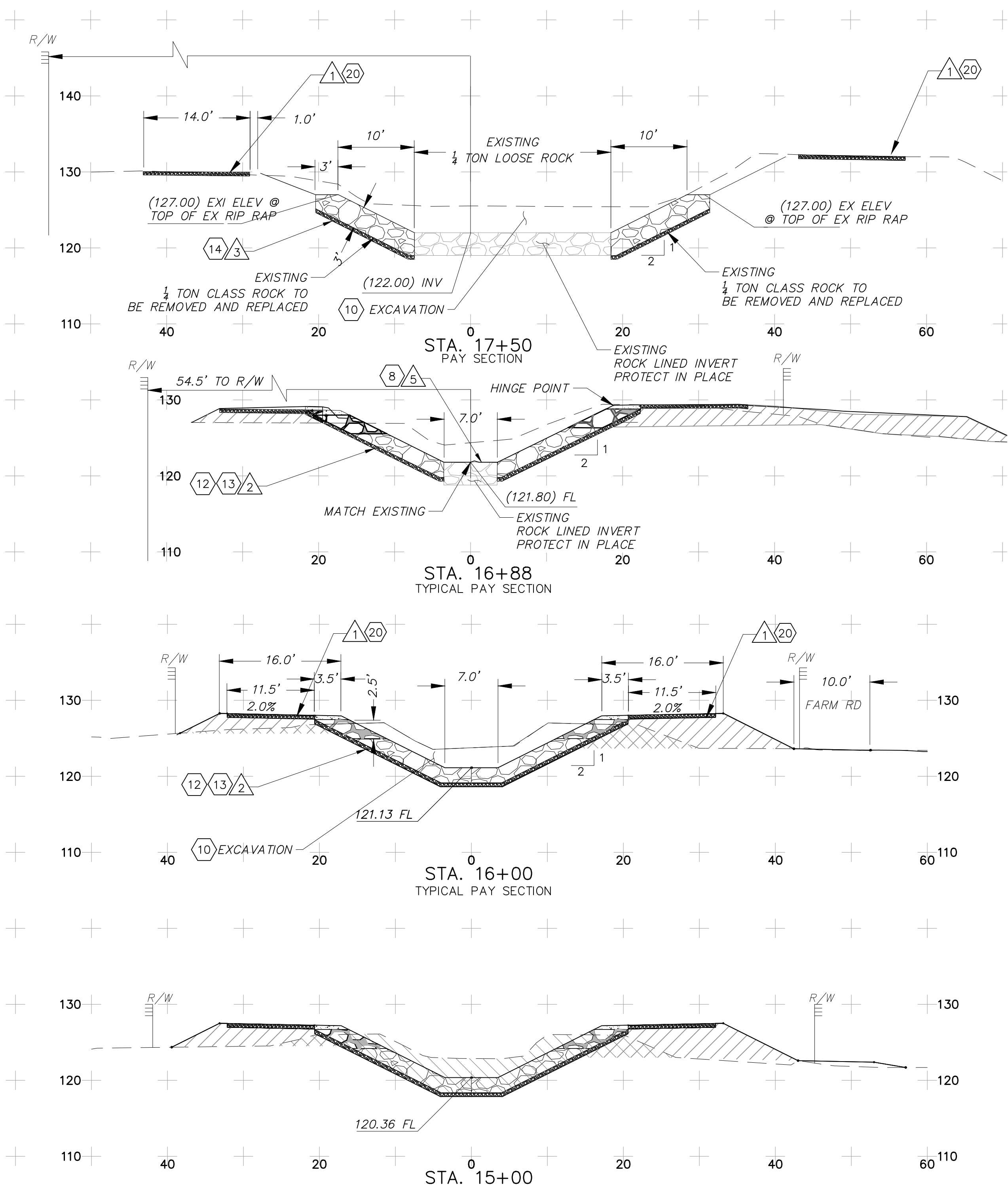
<i>Kirk R. Norman</i>	WATERSHED PROJECT MANAGER	3/4/21	DATE
<i>Kirk R. Norman</i>	WATERSHED PROJECT MANAGER	3/5/21	DATE
<i>Kirk R. Norman</i>	WATERSHED PROJECT MANAGER	3/11/21	DATE

VENTURA COUNTY
PUBLIC WORKS AGENCY
WATERSHED PROTECTION

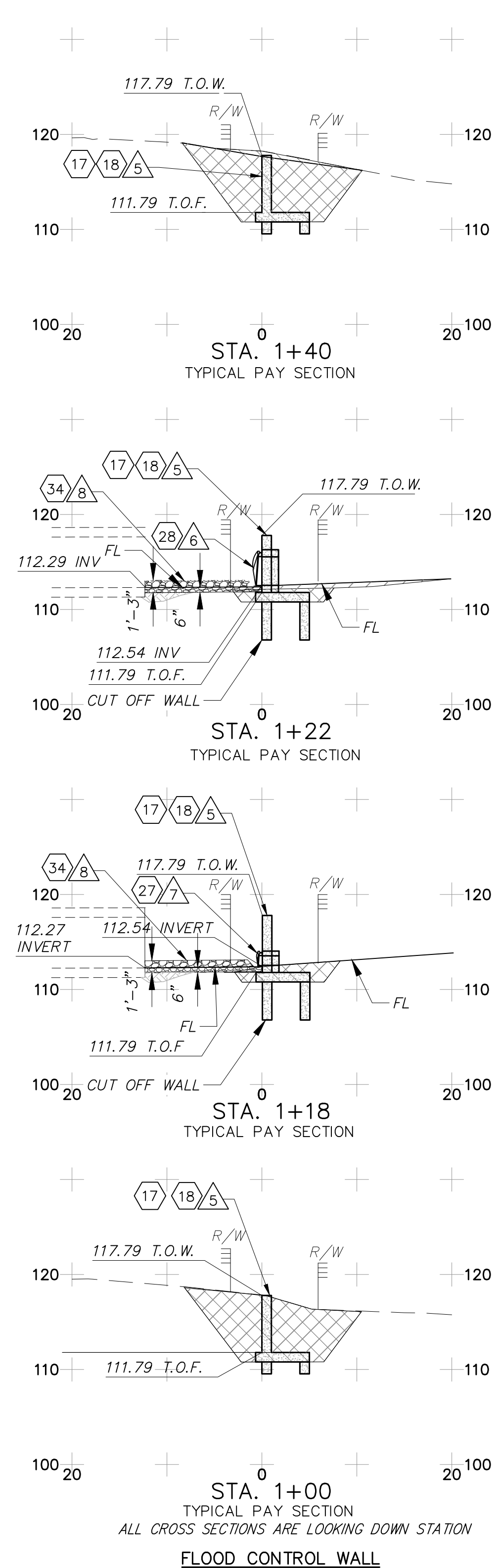
SPEC. NO.	WP21-05
PROJ. NO.	85301

FERRO DITCH
CHANNEL IMPROVEMENTS
CROSS SECTIONS 15+00 TO 17+50 FERRO DITCH
1+00 TO 1+40 FLOOD CONTROL WALL

SHEET	17
OF	20
DRAWING NO.	WP-3-512

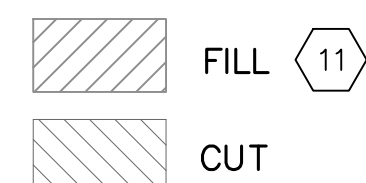


ALL CROSS SECTIONS ARE LOOKING DOWNSTREAM
FERRO DITCH



STA. 1+00
TYPICAL PAY SECTION
ALL CROSS SECTIONS ARE LOOKING DOWN STATION
FLOOD CONTROL WALL

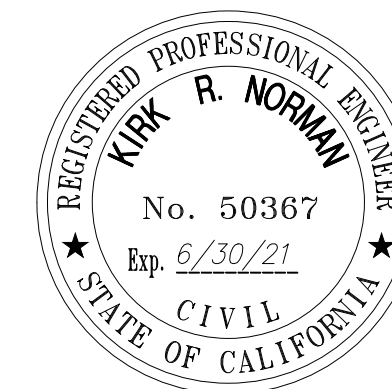
LEGEND HATCH



FILL (11)
CUT

NOTES:

1. INSTALL 6" CMB SERVICE ROAD PER (G/9)
2. INSTALL 6" BEDDING LAYER OF 3" MINUS PIT GRAVEL ON TOP OF NONWOVEN GEOTEXTILES MIRAFI 140N OR APPROVED EQUAL. INSTALL ROCK TO 6" BELOW SERVICE ROAD ELEVATION & CONCRETE TOP 3' TO FULL PENETRATION, INCLUDES 6" CONCRETE CAP PER DETAIL (E/9)
3. INSTALL 6" BEDDING LAYER OF 3" MINUS PIT GRAVEL ON TOP OF NONWOVEN GEOTEXTILES MIRAFI 140N OR APPROVED EQUAL, INSTALL 1/4 TON ROCK PER DETAIL (F/9)
4. PROTECT IN PLACE EXISTING ROCK LINED BOTTOM.
5. CONSTRUCT 6'H FLOOD WALL AND CUT-OFF WALL PER DETAIL (A/7)
6. INSTALL 36"H X 48"W AUTOMATIC DRAINAGE FLAP GATE, WATERMAN F-20 MEDIUM DUTY OR APPROVED EQUAL PER DETAIL (C/8)
7. INSTALL 12" DIAMETER AUTOMATIC DRAINAGE FLAP GATE, WATERMAN F-25 MEDIUM DUTY OR APPROVED EQUAL WITH COMPATIBLE WALL THIMBLE PER DETAIL (D/8)
8. INSTALL 1'-3" THICK LAYER OF CLASS 2 BACKING ROCK. EXCAVATE TO 6" BELOW FLOWLINE.



PROJECT DATE: 3/4/21

SAVE DATE: 2/4/21 MUELLER, JOHN K:\PROJECTS\ZONE3\FERRODITCH\85301_FERRO_DITCH_IMPROVEMENT\DESIGN\DESIGN_DRAWINGS\100PCT\SH17-RIGHT-OF-WAY.DWG

D			
C			
B			
A			
△	REVISION	DESCRIPTION	APP. DATE

HORIZONTAL DATUM: NAD83(2007) CCS ZONE 5 (US FEET)
VERTICAL DATUM: NGVD 29, SCRP PUB. 1980 (US FEET)
DATE OF SURVEY: APRIL 2018
FIELD BOOK: VCFB 2018-020

JM
DESIGNED
JM
DRAWN
K ROUSSEV
CHECKED

<i>Kirk R. Norman</i>	3/4/21
WATERSHED-PROJECT MANAGER	DATE
<i>K. Roussev</i>	3/5/21
WATERSHED DEPUTY DIRECTOR	DATE
<i>John Mueller</i>	3/11/21
WATERSHED DIRECTOR	DATE

VENTURA COUNTY
PUBLIC WORKS AGENCY
WATERSHED PROTECTION

SPEC. NO.
WP 21-05
PROJ. NO.
85301

FERRO DITCH
CHANNEL IMPROVEMENTS
RIGHT OF WAY MAP - 1

SHEET	18
OF	20
DRAWING NO.	WP-3-512
EXHIBIT	3

FERRO DITCH R.O.W.			FERRO DITCH R.O.W.		
TAG NO.	LENGTH	DIRECTION	TAG NO.	LENGTH	DIRECTION
L1	31.65	N25° 47' 39"E	L11	77.00	N50° 24' 59"W
L2	659.96	N39° 35' 01"E	L12	15.82	S39° 35' 01"W
L3	751.01	N39° 22' 24"E	L13	21.09	S57° 27' 01"W
L4	75.66	N41° 18' 58"E	L14	34.15	N37° 55' 34"E
L5	76.47	S49° 47' 59"E			
L6	30.63	S39° 35' 01"W			
L7	51.11	S20° 42' 49"W			
L8	322.87	S40° 26' 41"W			
L9	332.47	S38° 50' 19"W			
L10	780.49	S39° 35' 01"W			

SURVEY CONTROL POINTS					
Point	Northing	Easting	Elevation	Description	STA
1003	1919629.16	6226961.39	178.25	REBAR	NA
1009	1919521.29	6226961.39	179.95	REBAR	NA
1301	1918806.10	6226675.09	124.71	REBAR	NA
1302	1917923.84	6225952.43	119.14	REBAR	1+00 ±
1303	1918528.98	6225274.29	120.05	REBAR	NA
1304	1918145.76	6225562.40	119.06	60D_RBF_WSHR	NA
1305	1917509.57	6226317.45	116.67	60D_RBF_WSHR	NA
1306	1917954.38	6225974.09	118.34	60D	NA
2031	1918301.38	6226262.42	120.14	-	4+89 ±

NOTES.

THE BOUNDARIES OF THE PARCELS OF LAND SHOWN
HEREON ARE GRAPHIC REPRESENTATION FOR GENERAL
INFORMATION PURPOSES ONLY.

LEGEND:

VCWPD = VENTURA COUNTY WATERSHED PROTECTION
DISTRICT

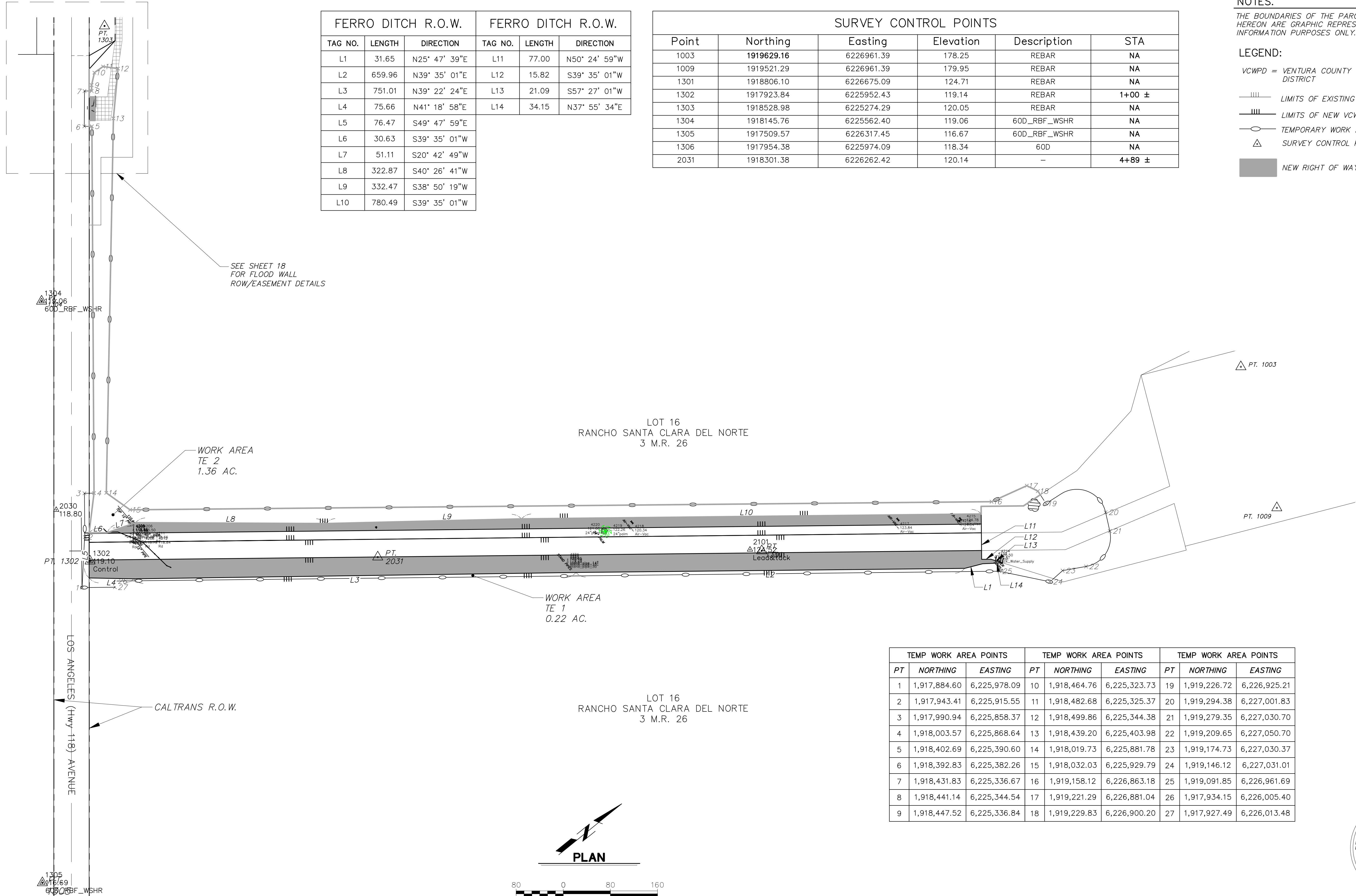
—|||— LIMITS OF EXISTING VCWPD RIGHT OF WAY

—|||— LIMITS OF NEW VCWPD RIGHT OF WAY

○ TEMPORARY WORK AREA LIMITS

△ SURVEY CONTROL POINT

NEW RIGHT OF WAY AREA



TEMP WORK AREA POINTS			TEMP WORK AREA POINTS			TEMP WORK AREA POINTS		
PT	NORTHING	EASTING	PT	NORTHING	EASTING	PT	NORTHING	EASTING
1	1,917,884.60	6,225,978.09	10	1,918,464.76	6,225,323.73	19	1,919,226.72	6,226,925.21
2	1,917,943.41	6,225,915.55	11	1,918,482.68	6,225,325.37	20	1,919,294.38	6,227,001.83
3	1,917,990.94	6,225,858.37	12	1,918,499.86	6,225,344.38	21	1,919,279.35	6,227,030.70
4	1,918,003.57	6,225,868.64	13	1,918,439.20	6,225,403.98	22	1,919,209.65	6,227,050.70
5	1,918,402.69	6,225,390.60	14	1,918,019.73	6,225,881.78	23	1,919,174.73	6,227,030.37
6	1,918,392.83	6,225,382.26	15	1,918,032.03	6,225,929.79	24	1,919,146.12	6,227,031.01
7	1,918,431.83	6,225,336.67	16	1,919,158.12	6,226,863.18	25	1,919,091.85	6,226,961.69
8	1,918,441.14	6,225,344.54	17	1,919,221.29	6,226,881.04	26	1,917,934.15	6,226,005.40
9	1,918,447.52	6,225,336.84	18	1,919,229.83	6,226,900.20	27	1,917,927.49	6,226,013.48



THE BOUNDARIES OF THE PARCELS OF LAND SHOWN
HEREON ARE GRAPHIC REPRESENTATION FOR GENERAL
INFORMATION PURPOSES ONLY.

The diagrams show three stages of a chromosome:

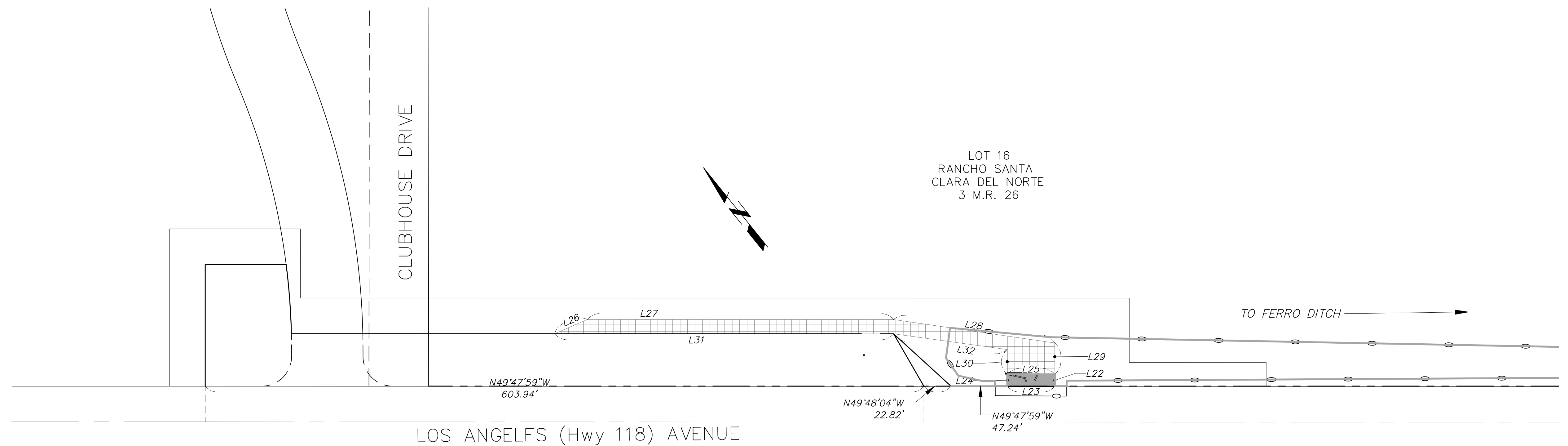
- Top: A single horizontal line with three vertical tick marks, representing a single chromatid.
- Middle: Two horizontal lines, one above the other, with three vertical tick marks on each, representing two sister chromatids.
- Bottom: A horizontal line with an oval loop in the center, representing a loop structure.

 SURVEY CONTROL POINT



FLOATING ACCESS EASEMENT

FLOOD WALL R.O.W.			FERRO DITCH FLOATING ACCESS EASEMENT		
TAG NO.	LENGTH	DIRECTION	TAG NO.	LENGTH	DIRECTION
L22	10.00	S40° 12' 01"W	L26	30.09	S73° 18' 07"E
L23	40.00	N49° 47' 59"W	L27	257.33	S49° 47' 59"E
L24	10.00	N40° 12' 01"E	L28	136.88	S41° 32' 30"E
L25	40.00	S49° 47' 59"E	L29	26.34	S40° 01' 58"W
			L30	20.82	N39° 59' 18"E
			L31	284.99	N49° 48' 02"W
			L32	96.30	N41° 55' 49"W



FLOOD WALL AREA DETAIL



SAVE DATE: 2/4/21 MUELLER, JOHN K:\PROJECTS\ZONE5\FERRODITCH\65301 FERRO DITCH IMPROVEMENT\DESIGN\DESIGN DRAWINGS\10PROJECT\17-RIGHT-OF-WAY.DWG																																																	
D					HORIZONTAL DATUM: NAD83(2007) CCS ZONE 5 (US FEET)					JM		3/4/21		<div>VENTURA COUNTY PUBLIC WORKS AGENCY WATERSHED PROTECTION</div>										SPEC. NO.		<div>FERRO DITCH CHANNEL IMPROVEMENTS RIGHT OF WAY MAP - 2</div>										SHEET 19													
C					VERTICAL DATUM: NGVD 29, SCRP PUB. 1980 (US FEET)					DESIGNED		DATE												WP21-05												OF 20													
B					DATE OF SURVEY: APRIL 2018					JM		3/5/21												PROJ. NO.												DRAWING NO.													
A					FIELD BOOK: VCFB 2018-020					DRAWN		DATE												85301												EXHIBIT 3													
△	REVISION	DESCRIPTION		APP.	DATE	K ROUSSEV					WATERSHED REPUTY DIRECTOR		3/11/21																																				
						CHECKER					WATERSHED DIRECTOR		DATE																																				


GENERAL WATER POLLUTION CONTROL NOTES

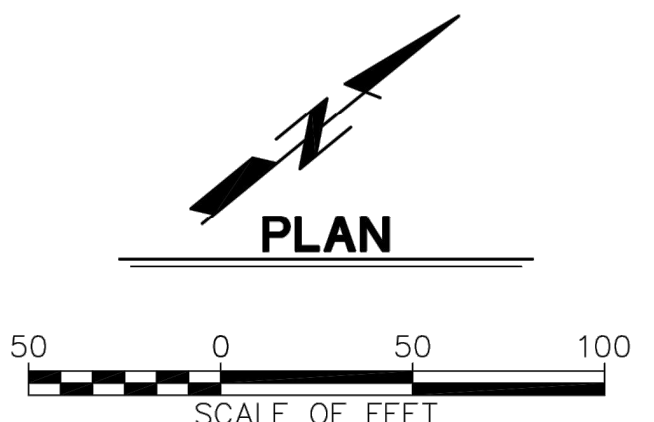
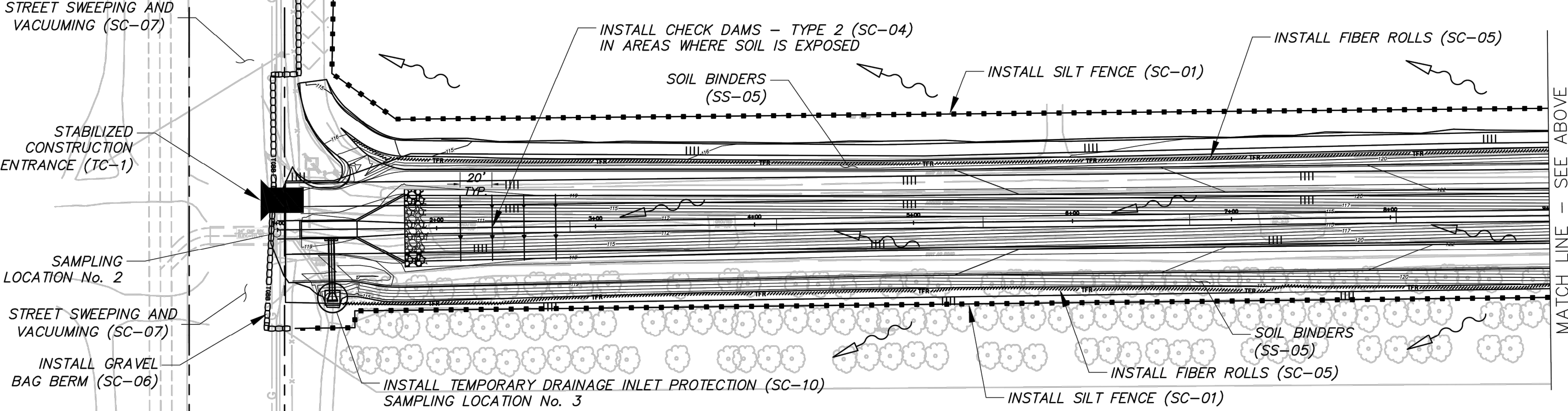
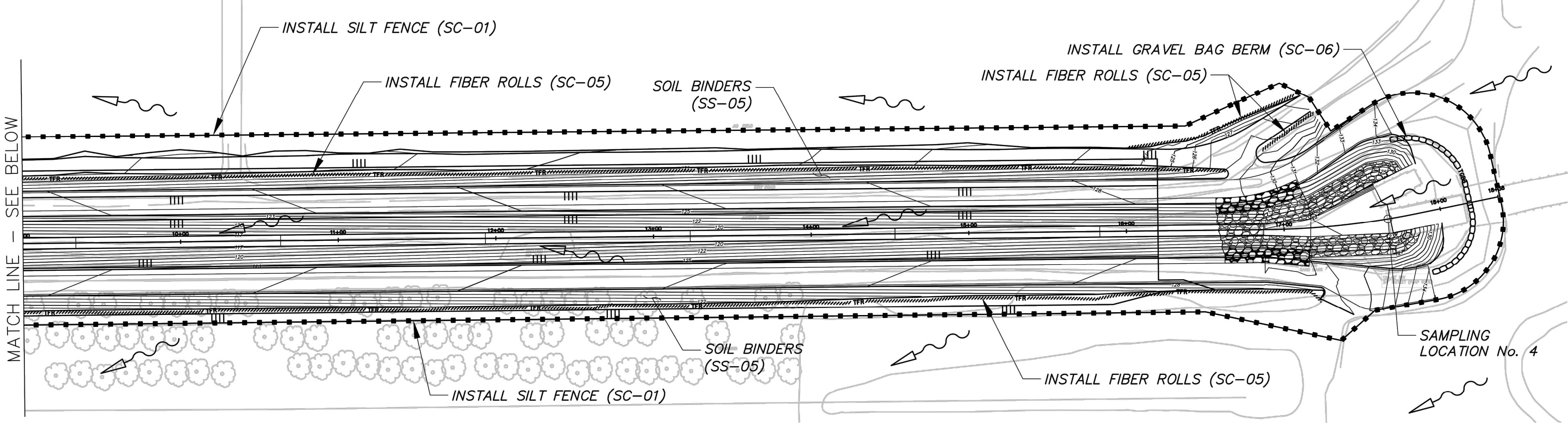
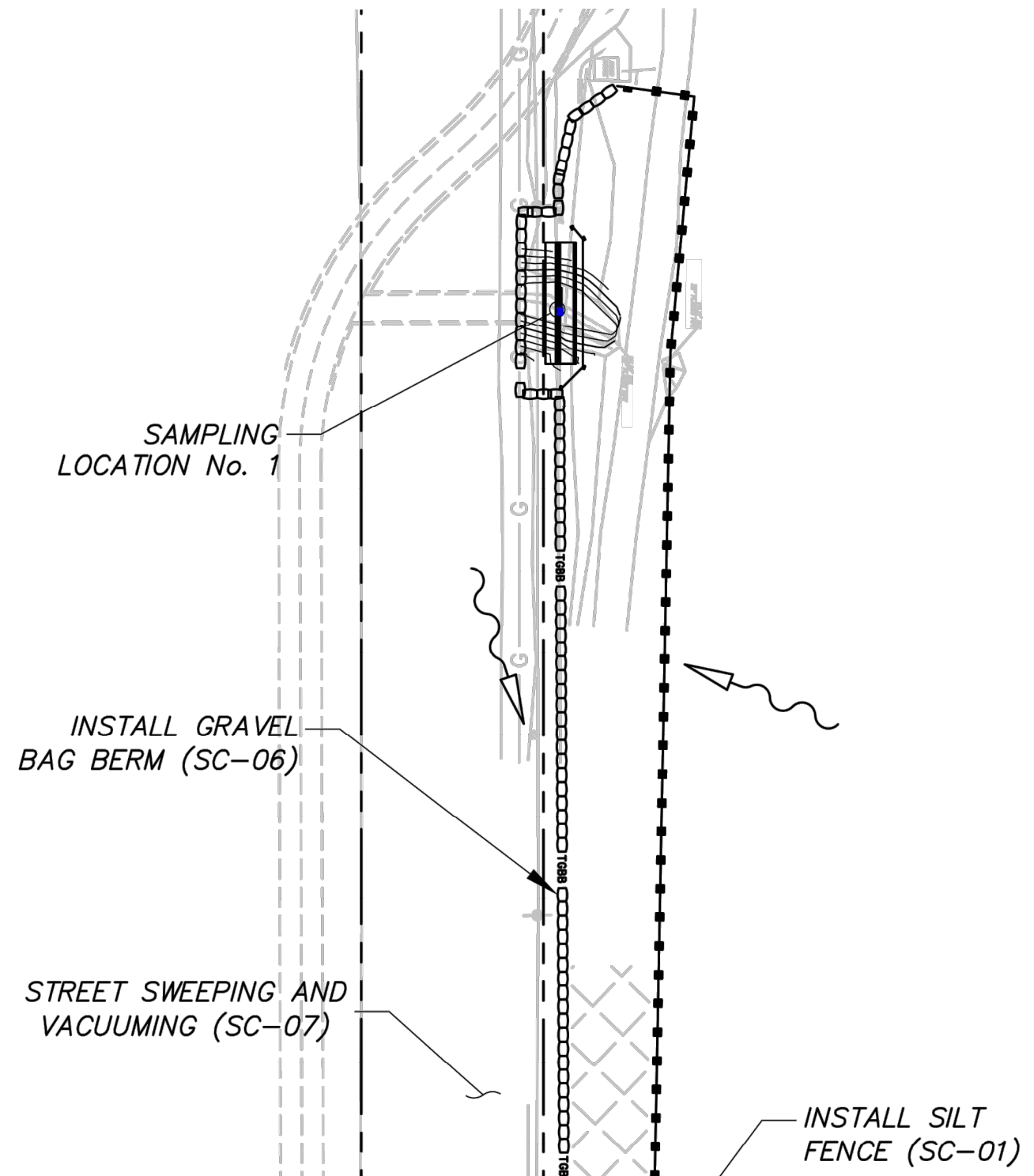
1. THE FOLLOWING PLANS ARE ACCURATE FOR STORM WATER POLLUTION CONTROL PURPOSES ONLY
2. THE INFORMATION ON THIS PLAN IS INTENDED TO BE USED AS A GUIDELINE FOR THE CONTRACTOR AND SUBCONTRACTORS TO COMPLY WITH THE REQUIREMENTS OF THE STATE WATER RESOURCES CONTROL BOARD
3. USE IN CONJUNCTION WITH THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP)
4. SEE CALTRANS CONSTRUCTION SITE BMP MANUAL FOR DETAILS
5. SEE CALTRANS STANDARD PLANS T62 TO T64 FOR BMP DETAILS
6. SEE SWPPP VICINITY MAP FOR OFF-SITE DRAINAGE AREA

APPLICABLE CONSTRUCTION SITE BEST MANAGEMENT PRACTICE (BMP) LIST

- | | | | |
|---|---|---|--------------------------------------|
| <input checked="" type="checkbox"/> SS-01 | SCHEDULING | <input checked="" type="checkbox"/> NS-01 | NON-STORMWATER MANAGEMENT |
| <input checked="" type="checkbox"/> SS-02 | PRESERVATION OF EXISTING VEGETATION | <input checked="" type="checkbox"/> NS-02 | DEWATERING OPERATIONS |
| <input type="checkbox"/> SS-03 | HYDRAULIC MULCH | <input checked="" type="checkbox"/> NS-03 | PAVING AND GRINDING OPERATIONS |
| <input type="checkbox"/> SS-04 | HYDROSEEDING | <input type="checkbox"/> NS-04 | TEMPORARY STREAM CROSSING |
| <input checked="" type="checkbox"/> SS-05 | SOIL BINDERS | <input checked="" type="checkbox"/> NS-05 | CLEAR WATER DIVERSION |
| <input type="checkbox"/> SS-06 | STRAW MULCH | <input checked="" type="checkbox"/> NS-06 | ILLCIT CONNECTION |
| <input type="checkbox"/> SS-07 | GEOTEXTILES, PLASTIC COVERS, AND EROSION CONTROL PRODUCTS | <input type="checkbox"/> NS-07 | POTABLE WATER/IRRIGATION |
| <input type="checkbox"/> SS-08 | WOOD MULCHING | <input checked="" type="checkbox"/> NS-08 | VEHICLE AND MAINTENANCE CLEANING |
| <input type="checkbox"/> SS-09 | EARTH DIKES, DRAINAGE SWALES, AND LINED DITCHES | <input checked="" type="checkbox"/> NS-09 | VEHICLE AND EQUIPMENT FUELING |
| <input type="checkbox"/> SS-10 | OUTLET PROTECTION AND VELOCITY DISSIPATION | <input checked="" type="checkbox"/> NS-10 | VEHICLE AND EQUIPMENT MAINTENANCE |
| <input type="checkbox"/> SS-11 | SLOPE DRAINS | <input type="checkbox"/> NS-11 | PILE DRIVING |
| <input type="checkbox"/> SS-12 | STREAMBANK STABILIZATION | <input checked="" type="checkbox"/> NS-12 | CONCRETE CURING |
| <input checked="" type="checkbox"/> SC-01 | SILT FENCE | <input type="checkbox"/> NS-13 | MATERIAL/EQUIPMENT OVER WATER |
| <input type="checkbox"/> SC-02 | SEDIMENT DESILTING BASIN | <input checked="" type="checkbox"/> NS-14 | CONCRETE FINISHING |
| <input type="checkbox"/> SC-03 | SEDIMENT TRAP | <input type="checkbox"/> NS-15 | STRUCTURAL DEMOLITION NEAR WATER |
| <input checked="" type="checkbox"/> SC-04 | CHECK DAMS | <input checked="" type="checkbox"/> WM-01 | MATERIAL DELIVERY AND STORAGE |
| <input checked="" type="checkbox"/> SC-05 | FIBER ROLLS | <input checked="" type="checkbox"/> WM-02 | MATERIAL USE |
| <input checked="" type="checkbox"/> SC-06 | GRAVEL BAG BERM | <input checked="" type="checkbox"/> WM-03 | STOCKPILE MANAGEMENT |
| <input checked="" type="checkbox"/> SC-07 | STREET SWEEPING AND VACUUMING | <input checked="" type="checkbox"/> WM-04 | SPILL PREVENTION AND CONTROL |
| <input type="checkbox"/> SC-08 | SANDBAG BARRIER | <input checked="" type="checkbox"/> WM-05 | SOLID WASTE MANAGEMENT |
| <input type="checkbox"/> SC-09 | STRAW BALE BARRIER | <input type="checkbox"/> WM-06 | HAZARDOUS WASTE MANAGEMENT |
| <input checked="" type="checkbox"/> SC-10 | STORM DRAIN INLET PROTECTION | <input type="checkbox"/> WM-07 | CONTAMINATED SOIL MANAGEMENT |
| <input checked="" type="checkbox"/> WE-1 | WIND EROSION CONTROL | <input checked="" type="checkbox"/> WM-08 | CONCRETE WASTE MANAGEMENT |
| <input checked="" type="checkbox"/> TC-1 | STABILIZED CONSTRUCTION ENTRANCE | <input checked="" type="checkbox"/> WM-09 | SANITARY AND SEPTIC WASTE MANAGEMENT |
| <input type="checkbox"/> TC-2 | STABILIZED CONSTRUCTION ROADWAYS | <input checked="" type="checkbox"/> WM-10 | LIQUID WASTE MANAGEMENT |
| <input type="checkbox"/> TC-3 | ENTRANCE-OUTLET TIRE WASH | | |

LEGEND

-  SURFACE FLOW DIRECTION
-  TEMPORARY SILT FENCE (SC-01)
-  TEMPORARY CHECK DAM - TYPE 2 (SC-04)
-  TEMPORARY FIBER ROLL (SC-05)
-  TEMPORARY GRAVEL BAG BERM (SC-06)
-  TEMPORARY STABILIZED CONSTRUCTION ENTRANCE (TC-1)
-  TEMPORARY DRAINAGE INLET PROTECTION (SC-10)



PLOT DATE: 3/4/21

SAVE DATE: 10/20/20	ROBERT WILCOX	C:\BOX\PROJECTS\COVEN VENTURA\COVEN190150.03 ENG FERRO DITCH CHANNEL\2 ENG\CAD\2 SHEETS\WPC.DWG
SAVE DATE: 2/2/21	MUELLER, JOHN	K:\PROJECTS\ZONE3\FERRODITCH\55301 FERRO DITCH IMPROVEMENT\DESIGN\DESIGN DRAWINGS\50% PLANS\EROSION CONTROL PLAN.DWG
DESIGNED	MIP	
DRAWN	RMW	
CHECKED	SLP	
REVISION	DESCRIPTION	APP. DATE

DESIGNED	MIP	3/4/21
DRAWN	RMW	3/5/21
CHECKED	SLP	3/11/21
DISTRICT PROJECT MANAGER	<i>Karl Rasmussen</i>	DATE
DISTRICT DEPUTY DIRECTOR	<i>Robert Mueller</i>	DATE
DISTRICT DIRECTOR	<i>John Mueller</i>	DATE

VENTURA COUNTY
PUBLIC WORKS AGENCY
WATERSHED PROTECTION

SPEC. NO.
WP21-05
PROJ. NO.
85301

WDID: 4 56C390752 RISK LEVEL = 1

FERRO DITCH
CHANNEL IMPROVEMENTS
TEMPORARY WATER POLLUTION CONTROL PLAN



SHEET	20
OF	20
DRAWING NO.	WPD-3-512

CALTRANS PERMIT NO. 720-NDD-1053