

PLANS AND SPECIFICATIONS  
FOR

**PAVEMENT RESURFACING-  
LAS POSAS VALLEY & BALCOM  
CANYON ROAD**

SPECIFICATION NO. RD22-10  
PROJECT NO. 50627



**county of ventura**  
ROADS & TRANSPORTATION



**COUNTY OF VENTURA  
PUBLIC WORKS AGENCY**

**NOTICE INVITING BIDS, PROPOSAL FORM, & SPECIFICATIONS  
FOR**

**PROJECT  
NAME** PAVEMENT RESURFACING-LAS POSAS VALLEY & BALCOM CANYON ROAD  
**LOCATION** ROADS IN THE LAS POSAS VALLEY AREA(LPV) & BALCOM CANYON ROAD  
**SPECIFICATION NO. :** RD22-10 **COST ACCOUNTING PROJECT NO.:** 50627  
**DESIGNED BY:** TERRY HANSER **CHECKED BY:** CHRISTOPHER SOLIS  
**REVIEWED BY** CHRIS HOOKE  
**PROJECT MANAGER:** TERRY HANSER



**RECOMMENDED BY:**

A handwritten signature in blue ink that reads "Chris Hooke".

Deputy Director – Roads & Transportation

**APPROVED BY:**

A handwritten signature in blue ink, likely of the Director of Roads &amp; Transportation.

Director – Roads & Transportation

**APPROVED BY:**

A handwritten signature in blue ink, likely of the Director of the Public Works Agency.

Director - Public Works Agency

**BIDS WILL BE RECEIVED UNTIL 2:00 P.M.**

**JUNE 21<sup>ST</sup>, 2022**

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 now available on the Ventura County 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](mailto: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**

**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.

**Go to the Hall of Administration** (building nearest the corner of Victoria & Telephone) and to the Surveyors counter on the third floor (at the top of the escalator) where plans can be purchased and bids placed in the **bid box**.

## **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 & 2<sup>nd</sup> 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



COUNTY OF VENTURA  
PAVEMENT RESURFACING – LAS POSAS VALLEY &  
BALCOM CANYON ROAD  
SPECIFICATION NO.: RD22-10    PROJECT NO: 50627

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**COUNTY OF VENTURA**  
**NOTICE INVITING FORMAL BIDS**

Sealed bids will be received in the bid box at the County Surveyor's Public Counter, 3rd Floor, Administration Building, 800 South Victoria Avenue, Ventura, California 93009-1670, until **2:00 p.m.** on **JUNE 21<sup>ST</sup>, 2022**, and afterwards publicly opened, for **PAVEMENT RESURFACING – LAS POSAS VALLEY & BALCOM CANYON ROAD**, for Specification No. **RD22-10**, work consists of pavement resurfacing using Asphalt Concrete Hot Mix (AC) with fiber reinforcement over Asphalt Rubber Aggregate Membrane (ARAM), Type II Emulsion-Aggregate Slurry and Jointed Plain Concrete Pavement Replacement. Work includes Public Access & Notice, Mobilization, Traffic Control & Construction Signing, Water Pollution Control, Existing Utility & Roadway Facilities, Roadway Preparation, Surface Preparation & Crack Treatment, Clearing & Grubbing, Sawcut, Cold Milling (5' Wide), AC Taper with Key, AC Grinding, AC Base Repair, AC Miscellaneous Paving, AC Shoulder, PMB Shoulder Backing, Seal Coat, AC Dike Rehabilitation, Concrete Headwalls, Culvert Replacement, Midwest Guardrail System Replacement, Traffic Loop Detector Replacement, Survey Monument Frame Replacement & Adjustment, Pavement Delineation & Striping & appurtenant work.

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

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.vcpublicworks.org/es/contracting/>

then

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**.

When projects are awarded, the award notification to the State will be posted under **Awarded Contracts**.

Bids must be submitted on the proposal form furnished with said documents. Subcontractor list must include a valid Contractor's License Number. Contractor and any subcontractors must be registered with the Department of Industrial Relations prior to bid time and shall be verified during bid verification processes.

Each bid must be accompanied by a bid guarantee in the amount of not less than 10% of the amount bid, **PAYABLE TO THE COUNTY OF VENTURA** 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. Copies 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.

Bidders, contractors, and other interested parties can obtain wage rates pertaining to Ventura County projects at the link provided below.

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

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



**PROPOSAL**  
**FOR**  
**PAVEMENT RESURFACING – LAS POSAS VALLEY &**  
**BALCOM CANYON ROAD**

**LOCATED IN**  
**VENTURA COUNTY, CALIFORNIA**

MAKE BID GUARANTEE TO **COUNTY OF VENTURA**  
**USE FORM PROVIDED (SEE PARAGRAPH 9, INSTRUCTION TO BIDDERS).**

SPECIFICATION NO. **RD22-10** INCLUDING **10** SHEETS OF PLANS

BIDS WILL BE RECEIVED ON **JUNE 21<sup>ST</sup>, 2022** AT **2:00 P.M.**

AGENCY IS ALLOWED **60** DAYS TO AWARD A CONTRACT (SEE SECTION 2-1.1).

THE STARTING DATE OF CONTRACT WILL BE **28** CALENDAR DAYS AFTER AWARD OF CONTRACT (SEE SECTION 6-7.4).

COMPLETION TIME IS **45** WORKING DAYS (SEE SECTION 6-7).

LIQUIDATED DAMAGES ARE **\$1,000** PER CALENDAR DAY (SEE SECTION 6-9).

CONTRACTOR'S LICENSE CLASSIFICATION REQUIRED IS **CLASS A.**

LIABILITY INSURANCE CLASS REQUIRED PER SECTION 7-4 IS **L-B.**

FEDERAL-AID CONTRACT PROVISIONS ARE **NOT** INCLUDED IN THESE SPECIFICATIONS.

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

BIDDER SHALL COMPLETE

NAME: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_

DELIVERY ADDRESS (CONTRACT RELATED DOCS), IF DIFFERENT FROM MAILING ADDRESS:

\_\_\_\_\_

TELEPHONE NUMBER: (\_\_\_\_\_)\_\_\_\_\_-\_\_\_\_\_- FAX No. (\_\_\_\_\_)\_\_\_\_\_-\_\_\_\_\_

eMAIL ADDRESS: \_\_\_\_\_





**PROPOSAL**  
**Instruction to Bidders**

- 1. LICENSING OF BIDDER.** Before submitting bids, 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](mailto: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.
- 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 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 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. The person opening bids will not accept bids that are not in the bid box at closing time. Time can be obtained from <http://www.time.gov/timezone.cgi?Pacific/d/-8> (local standard time). Note that clocks in the building may not be set to the correct time and should not be relied upon.

12. **DELIVERY OF BID.** Bids delivered in person must be placed in the bid box near the Surveyor's Public Counter located at the head of the escalator on the third floor of the Ventura County Hall of Administration Building, 800 South Victoria Avenue, Ventura, California. The Hall of Administration is on the corner of Victoria Avenue and Telephone Road and is accessible from the Ventura Freeway (U.S. 101) by taking the Victoria Avenue off ramp and proceeding north on Victoria Avenue about one mile to Telephone Road. Access from the Santa Paula Freeway (Cal. 126) is by the Victoria Avenue off ramp, then south about 1/4 mile to Telephone Road. Access to the Hall of Administration parking lot is from Telephone Road at Lark St one block east of Victoria Ave. Bids must be placed in the bid box prior to the hour and date designated on Page 1 of this proposal.



**13. MAILED BIDS (Including Express Delivery).** Bids received in the County's Mail Room by 8 a.m. on 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 responsible for sending bid early enough to insure delivery to the County on time.

Mark bids, not placed directly in the bid box, in large letters on the outside of the delivery envelope "SEALED BID" and 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 **Board of Supervisors of the County of Ventura** 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.

**NOTE: Contractor shall perform, with its own organization, contract work amounting to at least 30 percent of the Contract Price. See Specifications Section 2-3.2 for exceptions.**



## PROPOSAL

Schedule of work and prices for: **PAVEMENT RESURFACING – LAS POSAS VALLEY & BALCOM CANYON ROAD**

Item No.	Units	Approx Quantity	Item Description	Payment Reference	Unit-Prices (In Figures)	Item Total (In Figures)
1	LS	1	Mobilization	9-3.4.3		
2	LS	1	Water Pollution Control	1003-3		
3	LS	1	Traffic Control & Construction Signing	1004-7		
4	LS	1	Excavation Safety	1005-2		
5	EA	9	Traffic Signal Loop Detector Replacement	1009-2		
6	SF	938	Concrete Swale	1011-4		
7	LF	186	Culvert Replacement	1012-4		
8	EA	2	Concrete Headwall – Straight	1013-3		
9	EA	3	Concrete Headwall – Type L	1013-3		
10	EA	1	24" Concrete Flared End Section	1013-3		
11	LS	1	Concrete Retaining Wall	1014-2		
12	CY	390	Remove Jointed Plain Concrete Pavement	1015-2		
13	CY	390	Jointed Plain Concrete Pavement	1016-2		
14	LF	7,939	Cold Milling (5' Wide)	1017-2		
15	SF	9,500	AC Taper with Key	1018-2		
16	SF	21,140	AC Grinding	1019-3		
17	TN	90	AC Base Repair	1020-4		
18	TN	554	AC Miscellaneous Paving	1021-4		
19	TN	34	AC Shoulder	1022-4		
20	LS	1	Surface Preparation & Crack Treatment	1024-4		
21	SY	56,130	Type II Emulsion-Aggregate Slurry	1025-11		
22	SY	58,396	Asphalt Rubber Aggregate Membrane (ARAM)	1026-10		
23	TN	5,213	Thick Asphalt Concrete Hot Mix (AC) with Fiber	1027-8		
24	MI	8.0	PMB shoulder Backing	1030-4		
25	SF	69,881	Seal Coat	1031-4		
26	LF	200	AC Dike Rehabilitation	1032-4		
27	LS	1	Removal & Disposal of Existing Guardrail	1034-3		
28	LF	50	Midwest Guardrail System (MGS)	1035-2		
29	EA	3	Terminal End System End Treatment	1036-4		
30	EA	1	End Anchor System	1037-2		
31	EA	17	Butterfly Reflectors	1038-2		
32	EA	13	Survey Monument Frame Replacement & Adjustment	1039-5		
33	LS	1	Pavement Delineation, Striping & Signing	1040-5		
34	LS	1	Release on Contract	9-4		\$1.00
			<b>Total Amount Bid</b>			



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

**COUNTY OF VENTURA** Obligee,  
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 Obligee on a contract for

**PAVEMENT RESURFACING-LAS POSAS VALLEY & BALCOM CANYON ROAD**

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





**PREVAILING WAGE  
REQUIREMENTS**



**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 )

S:\PWA Forms\Plans&SpecsPkg\Prevailing Wage Requirement 2020



## **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 1<sup>1</sup>/<sub>2</sub> times the basic rate of pay.

*(Amended by Stats. 1963, Ch. 964.)*



## **NON-DISCRIMINATION ASSURANCES**



## **Non-Discrimination Assurances**

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, age, sex, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitation for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, national origin, age, sex, or disability.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the FHWA to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
  1. withholding payments to the contractor under the contract until the contractor complies; and/or
  2. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

**PUBLIC CONTRACT CODE 9204  
DISPUTE RESOLUTION PROCESS**





## **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.

**VENTURA COUNTY  
STANDARD SPECIFICATIONS**



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**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

<b><u>Abbreviation</u></b>	<b><u>Word or Words</u></b>	<b><u>Abbreviation</u></b>	<b><u>Word or Words</u></b>
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

<b><u>Abbreviation</u></b>	<b><u>Word or Words</u></b>	<b><u>Abbreviation</u></b>	<b><u>Word or Words</u></b>
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	( $\mu\text{m}$ )
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 <sup>2</sup> )	0.0929	square meter	(m <sup>2</sup> )
square yard	(yd <sup>2</sup> )	0.8361	square meter	(m <sup>2</sup> )
cubic foot	(ft <sup>3</sup> )	0.0283	cubic meter	(m <sup>3</sup> )
cubic yard	(yd <sup>3</sup> )	0.7646	cubic meter	(m <sup>3</sup> )
acre (=43,560 ft <sup>2</sup> )		0.4047	hectare (1ha=10,000m <sup>2</sup> )	(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 <sup>2</sup> /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 <sup>3</sup>	milli (m)	10 <sup>-3</sup>
centi (c)	10 <sup>-2</sup>	micro ( $\mu$ )	10 <sup>-6</sup>
		nano (n)	10 <sup>-9</sup>
		pico (p)	10 <sup>-12</sup>

## 1-5 SYMBOLS

° Degree	$\overline{P}$ Property line	% Percent
' Feet or minutes	$\overline{S}$ Survey line or station line	# Number
" Inches or seconds	$\overline{C}$ Center line	/ per or of (between words)
$\Delta$ Delta, the central angle or angle between tangents		$\angle$ 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 <sup>th</sup> 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 1<sup>st</sup>), 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.

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- d) Controlled access to the space.
- e) Atmospheric testing of the space.
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- 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](http://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 m<sup>2</sup> (120 sq. ft.) of floor area, at least one door, and a window area of 2 m<sup>2</sup> (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:

- 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.
- 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	
	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 \$
							GENERAL AGGREGATE \$ See VCSS 7-4.2
							PRODUCTS - COMP/OP AGG \$
	GEN'L AGGREGATE LIMIT APPLIES PER:						\$
	<input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC						\$
	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 <input type="checkbox"/> OTHER <input type="checkbox"/>
	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	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

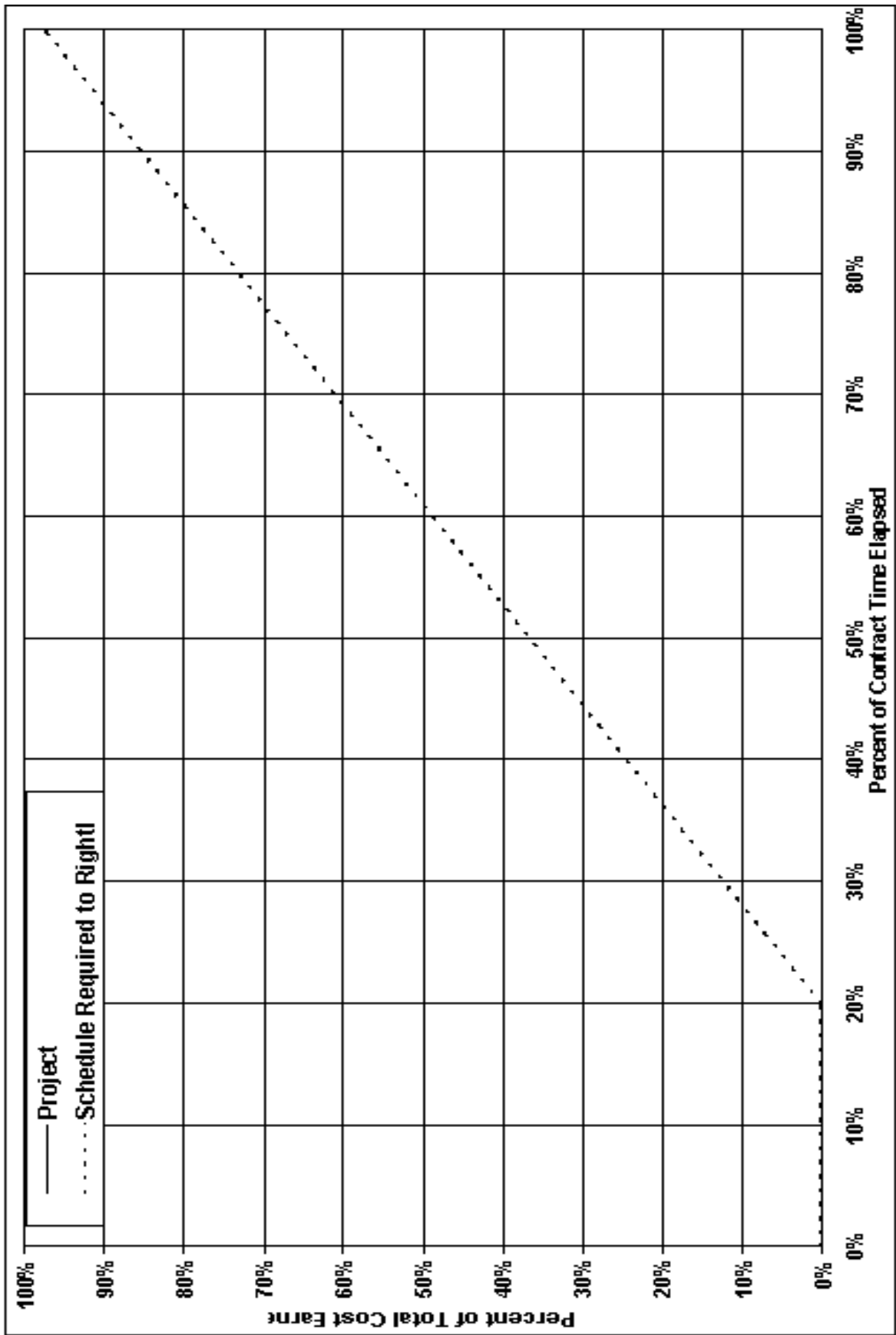
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[illegible]

Spec. No.

Project Name



[illegible]

EACH HORIZONTAL INTERVAL EQUALS 1 WORKING DAYS OF CONTRACT TIME

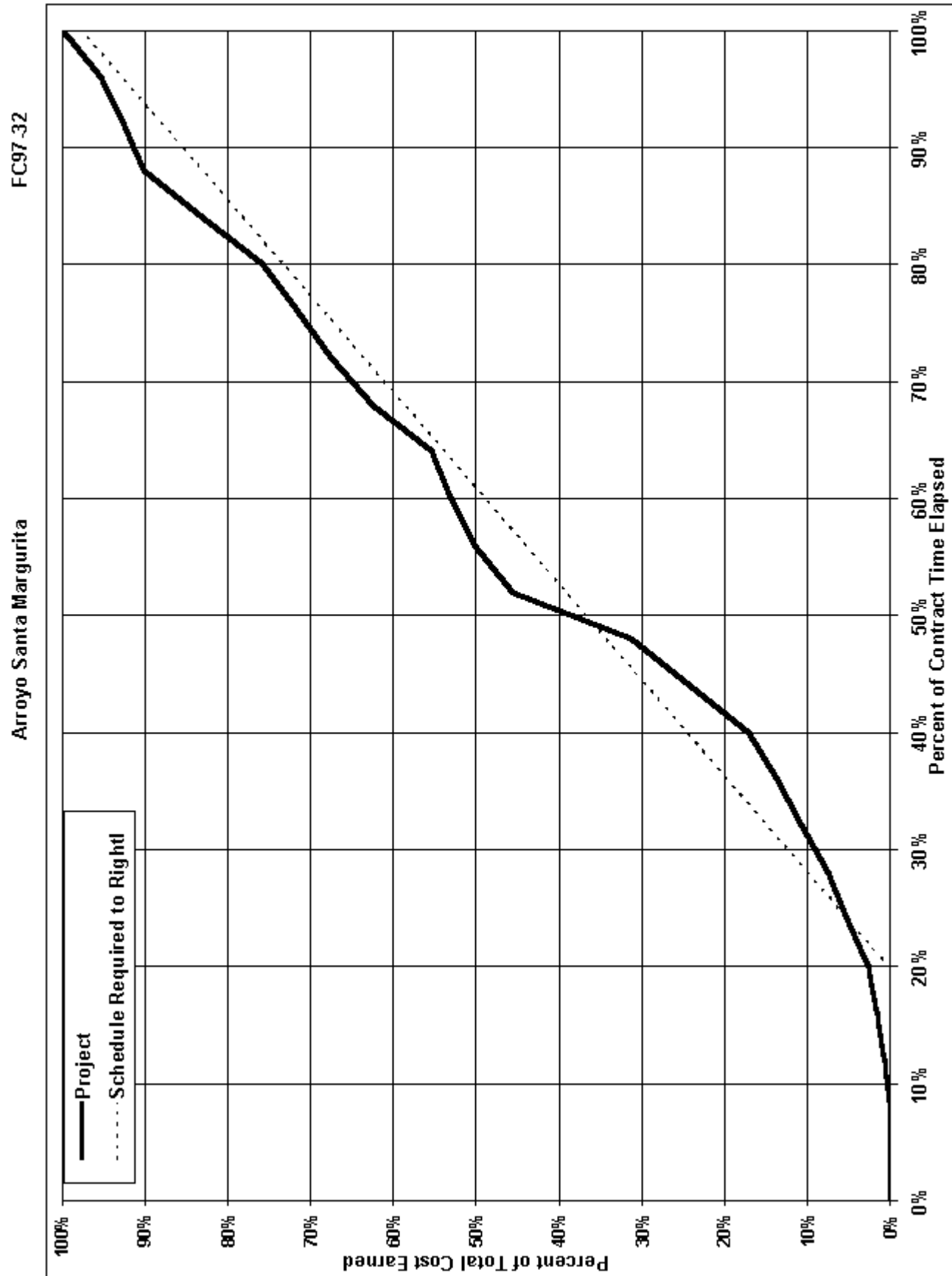
Submitted Dilbert and Company Construction

By *Tina Blair*

5/22/97

Date

Title President



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)

Description of Claim or Dispute	Amount	Date of Claim	Date of Notice of Potential Claim
------------------------------------	--------	------------------	---

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**



# COUNTY OF VENTURA

## PAVEMENT RESURFACING – LAS OSAS VALLEY & BALCOM CANYON ROAD

**SPECIFICATION NO.: RD22-10    PROJECT NO.: 50627**

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## **SPECIAL PROVISIONS**

### **1000 GENERAL REQUIREMENTS**

#### **1000-1 DESCRIPTION OF WORK**

Work under this contract consists of pavement resurfacing including , a 2-layer pavement overlay comprised of an Asphalt Rubber Aggregate Membrane (ARAM) overlain by Asphalt Concrete Hot Mix (AC) with Fiber Reinforcement, Type II Emulsion-Aggregate Slurry, Jointed Plain Concrete Pavement Replacement, Public Access and Notice, Mobilization, Traffic Control and Construction Signing, Water Pollution Control, Existing Utility & Roadway Facilities, Roadway Preparation, Surface Preparation and Crack Treatment, Clearing and Grubbing, Unclassified Excavation & Fill, Sawcut, Cold Milling (5' Wide), AC Taper with Key, AC Grinding, AC Base Repair, AC Miscellaneous Paving, AC Shoulder, PMB Shoulder Backing, Seal Coat, AC Dike Rehabilitation, Concrete Headwall, Culvert Replacement, Midwest Guardrail System replacement, Traffic Loop Detector Replacement, Survey Monument Frame Replacement & Adjustment, Pavement Delineation and Striping, and appurtenant work.

All work shall be performed in accordance with the Plans, the Standard Specifications and these Special Provisions. During the duration of this contract, pavement resurfacing limits may be revised or other roads within the project areas may be added to or deleted from the contract in accordance with 3-2 of the Standard Specifications.

#### **1000-2 REFERENCE SPECIFICATIONS & STANDARD PLANS**

##### **1000-2.1 SPECIFICATIONS**

The Standard Specifications for this project are the Ventura County Standard Specifications (77 pages with VCSS typed at the bottom) supplemented by the Standard Specifications for Public Works Construction (SSPWC, commonly known as the Greenbook), 2021 Edition, published by BNI Publications, Inc.

Where used herein, SSS shall mean the State Standard Specifications, being the State of California, Department of Transportation Standard Specifications, 2018 Edition. Where required by the Special Provisions, work shall conform to the requirements of said SSS except that where reference is made in the SSS to other sections thereof which are not specifically referred to in these Special Provisions, such reference shall be deemed to be reference to the applicable sections of the VCSS (herein referred to as Standard Specifications), and all references to "State" shall mean County of Ventura.

## 1000-2.2 STANDARD PLANS

The contract drawings utilize and make reference to the State Standard Plans (SSP), which is that document published by the State of California, Department of Transportation, dated 2018, and the Standard Plans for Public Works Construction (SPPWC) published by BNI Publications Inc., 2021 Edition.

## 1000-2.3 MODIFICATIONS TO STANDARD SPECIFICATIONS

Section 2-3.2 sentence 2 is here by modified as follows:

This 30% requirement replaces the 50% requirement of Section 2-3.2.

Section 6-1.2 is hereby amended to include the following:

A Preconstruction Meeting will be scheduled by the Agency prior to the beginning of contract time. The meeting may be held at the Administration Building of the County of Ventura Government Center, online or via conference call on a date, time and method established by the Engineer. Attendance at the Pre-construction Meeting by the Contractor's Representative as described in 7-6 of the Standard Specifications is mandatory prior to starting work. Subcontractors' representatives as required by the Engineer shall also attend the Pre-construction Meeting.

Section 2-9.1 shall only apply to Ventura County Standard Monuments (centerline well monuments). All other survey monuments, including nails, iron pipes, and any other objects in the public right-of-way referenced on recorded maps and Ventura County Field Notes will be replaced or reestablished by the Agency following construction.

## 1000-3 GENERAL GUARANTEE

Section 6-8.2 of the Standard Specifications is hereby deleted, and the following is substituted:

The Contractor shall obtain and assign to the Agency, such warranties or guarantees given as customary trade practice for any material or product purchased for use in the project constructed under this contract.

The last sentence of the third paragraph of 2-4, is hereby deleted and the following is substituted:

The material and labor bond must remain in effect until the expiration of six months after the period in which verified claims may be filed as provided in the Civil Code.

#### 1000-4 PROMPT PAYMENT TO SUBCONTRACTORS

A prime contractor or subcontractor shall pay any subcontractor no later than 7 days of receipt of each payment. Any contractor who violates prompt payment shall pay a penalty of 2% of the amount due per month for every month that payment is not made.

Prompt payment verification shall be submitted to the Agency on the 15<sup>th</sup> of each month.

The contractor shall notify the Agency in writing in the event that for some reason timely payment is not made to a subcontractor. Disputes shall be resolved in accordance with the contract and state law.

This provision applies to both DBE and non-DBE prime contractors and subcontractors.

#### 1000-5 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.

#### 1000-6 PERMITS

In accordance with Section 7-5, the Contractor shall obtain and keep in force during the term of this contract all necessary permits required by the County of Ventura or any other permits necessary to perform the work.

An encroachment permit for work within the State right-of-way has been obtained by the Agency from the State of California, Department of Transportation (Caltrans).

A copy of this permit is included in the Appendices of these Special Provisions. The Contractor shall obtain at his own expense the necessary separate (double) Caltrans encroachment permit prior to beginning work that may disrupt traffic or encroach onto a state highway. Contact Caltrans at (818) 370-1272, State Permit Inspector, Jasraj (Raj) Singh per the permit instructions 10 days prior to the initial start of work.

#### 1000-7 WORK AREA

The Contractor shall confine its operations within the right-of-way and temporary easements shown on the Plans or shall make its own separate arrangements with owners of any additional property needed for this project. Prior to entering upon any such additional property, the Contractor shall submit to the Engineer proof of written permission from the appropriate property owner(s).

#### 1000-8 REQUIRED DOCUMENTS FOR WORK AREAS

The Contractor shall submit to the Engineer, for review and approval, the following documents at least three working days prior to beginning work in any specified area indicated on the vicinity maps shown on the Plans.

- A. Order of Work and Traffic Control Plan, including map(s) and descriptions indicating the locations of work areas, construction signing, text used for changeable message signs and timing of advance notice. Traffic Control Plan shall be updated and re-submitted for approval as necessary to accurately reflect the Contractor's planned operations.
- B. As-Built Plan of existing striping and marking. The plan shall be prepared by the Contractor.
- C. Plans documenting ties to the existing location of any facility planned for relocation, adjustment, or replacement including, but not limited to, survey monuments, manholes, valves, clean-outs, signs, roadside markers, and guardrails.
- D. A map or written description of material haul routes.
- E. A copy of the Notice to Resident/Business/Institution.
- F. Copies of any required encroachment permits.
- G. Underground Service Alert confirmation number.
- H. Name and phone number of person(s) responsible for 24-hour maintenance of construction signing and traffic control.

1000-9 SURVEYING

The Contractor shall provide its own survey control for the project and shall bear all responsibility for the correctness of the work in accordance with 2-9 of the Standard Specifications. The Engineer will set only basic control bench marks for elevation and a minimum of two alignment control monuments as shown on the Plans.

1000-10 STORAGE OF CONSTRUCTION MATERIAL

The Contractor may store construction equipment and material outside the roadway and inside the Right-of-Way for the safety and security of all material and equipment. Storage of equipment or material is NOT permitted within the roadway pavement area.

Materials, which are to be disposed of, shall not be stored at the site but shall be removed immediately. No overnight storage of materials or debris will be allowed in the street.

1000-11 MEASUREMENT & PAYMENT

Payment for complying with these General Requirements Special Provisions shall be considered included in the prices paid for other items of work and no additional compensation will be made

**1001 PUBLIC ACCESS & NOTICE**

1001-1 SCOPE

This work consists of notification to the public and maintaining access during construction

1001-2 NOTICE TO RESIDENT/BUSINESS/INSTITUTION

The Contractor shall notify all adjacent residents, businesses, and institutions four days prior to starting any work, using "door-knob" type notices. These notices will notify affected people within the area of impending work. The notice shall be worded as shown on Appendices.

1001-3 PARKING RESTRICTIONS

The Contractor shall furnish and place "No Parking" signs, 12" x 18" minimum size approved by the Engineer, along the street, in front of every residence affected by the work, three working days in advance of any work. In rural areas, the signs shall be placed at a spacing not exceeding 400 feet. The signs shall include the day and the time during which parking is not permitted.

Parking restrictions shall be limited to periods of up to five calendar days at a time, when work requires it. Parking restrictions shall not be posted for the entire duration of the project or for periods longer than five days between work activities. Parking restrictions shall be limited to the interval between 7:00 a.m. and 5:00 p.m. to allow for parking during the night. The Contractor shall remove these signs immediately when they are no longer needed.

If the work is delayed or rescheduled for any reason after placement of "No Parking" signs, the Contractor shall re-date the signs affected. If the work is delayed more than five days, the Contractor shall notify local authorities, remove the signs, and place re-dated signs two days in advance of the work.

#### 1001-4 ACCESS

The Contractor shall provide property owners and residents with access to their properties at all times except when paving operations make access to properties impractical or unsafe, in accordance with the Plans, the Standard Specifications and these Special Provisions.

#### 1001-5 MEASUREMENT & PAYMENT

Payment for Public Access and Notice shall be considered included in the prices paid for other items of work and no additional compensation will be made.

### 1002 MOBILIZATION

#### 1002-1 SCOPE

In addition to the work specified in 9-3.4.1, Mobilization includes work, services and operations necessary to establish access to the project site, restoration of such areas to their original conditions or to a condition approved by the Engineer, the movement of labor, supplies, equipment and incidentals to and from the project site, applying for and obtaining all required permits, and for all other work for which costs are incurred prior to or after performing work of other Contract items.

#### 1002-2 MEASUREMENT & PAYMENT

Measurement and Payment for Mobilization will be made in accordance with 9-3.4.2 of VCSS. The lump sum price shall be considered full compensation for all labor, materials, and equipment necessary to mobilize and completely demobilize.

## **1003 WATER POLLUTION CONTROL**

### **1003-1 SCOPE**

This item shall consist of preventing, controlling, and abating discharges of pollutants from the construction site, and shall be performed in accordance with the Standard Specifications and these Special Provisions. The Contractor shall prepare and submit a Storm Water Pollution Control Plan (SWPCP) covering pollution control measures and best management practices in general for all locations.

### **1003-2 CONSTRUCTION METHODS**

All work for Water Pollution Control proposed by the Contractor shall be approved by the Engineer. All work shall be performed in accordance with 7-8 of the Standard Specifications.

If the Contractor determines that discharge of ground water to surface water will be necessary to complete the work, the Contractor shall obtain a Waste Discharge Permit under General NPDES Permit No. CAG994004 from the California Regional Water Quality Board, Los Angeles Region. The Contractor will be given an extension of time to obtain the Water Discharge Permit based on a written request to the Engineer in accordance with 6-6.4 of the Standard Specifications.

### **1003-3 MEASUREMENT & PAYMENT**

Payment for Water Pollution Control will be made in accordance with 7-8.6.7. The contract Lump Sum price for Water Pollution Control shall be considered full compensation for obtaining and complying with all necessary permits and installation and removal of Water Pollution Control works, including all labor, materials, tools and equipment and all other necessary incidental items required to complete the work.

## **1004 TRAFFIC CONTROL & CONSTRUCTION SIGNING**

### **1004-1 SCOPE**

The Contractor shall be responsible for maintaining Traffic Control in accordance with the provisions of 7-10 of the Standard Specifications, 12-3 and 56-2 of the SSS, SSP T11, T12, or T13, the current requirements set forth in the California Manual on Uniform Traffic Control Devices (California MUTCD 2014, Rev 3) adopted on March 9, 2018, by the California Department of Transportation, and these Special Provisions.

The Contractor shall notify the Engineer and County Traffic Engineer at (805) 654-2063 of its intention to begin work at least ten working days before starting any work.

The Contractor shall replace all STOP bars the same day they are removed by grinding or paving, as indicated in Pavement Delineation and Striping of these Special Provisions.

#### 1004-2 TRAFFIC CONTROL

The Contractor shall be responsible for handling vehicular and pedestrian traffic in accordance with 7-10 of the Standard Specifications and these Special Provisions.

The Contractor shall submit in writing, for approval by the Engineer, an Order of Work and Traffic Control Plan (graphic form) at least five working days prior to beginning work on the project site. No work on site shall begin until such approval is obtained.

The Traffic Control Plan shall include map(s) and descriptions indicating the location of work areas, intersecting streets, construction signing, and text used for changeable message signs, and timing of Advance notice. The Plan shall be updated and re-submitted for approval as necessary to accurately reflect the Contractor's planned operations.

Traffic Control Plans shall include Caltrans and/or other Local Agencies Encroachment Permit (EP) work areas. Caltrans EP application is included in Appendix M. The approved EP will be given at the Pre-construction meeting.

Traffic control signs shall be covered or removed when not in use.

In areas of high volume pedestrian traffic, such as schools and shopping centers, the Contractor shall provide for controlled pedestrian crossings through the work or schedule work to avoid peak pedestrian volumes. Crossings shall provide pedestrians a means of passing over or through the work without tracking tack coat or hot asphalt concrete.

At intersections, if a cross road needs to be temporarily closed when work is in progress through the intersection and the anticipated traffic delay is more than five minutes, a detour sign shall be installed on the cross road and shall include the installation of a changeable message sign displaying the anticipated delay time. The signing shall be approved by the Engineer.

When two-way traffic is restricted to one lane, and when applying the resurfacing treatment past intersecting roads, traffic shall be controlled as shown on SSP T13. A pilot car and driver will be required at various locations if control by flaggers proves deficient in the opinion of the Engineer.

Overnight parking of construction equipment on adjacent County roads is not permitted. If construction equipment is parked on the shoulder area overnight, barricades and other suitable warning devices shall be placed around the



equipment. No part of the equipment shall be less than 4 feet from the edge of pavement.

#### 1004-3 CONSTRUCTION SIGNING

Construction Signing shall consist of furnishing, installing, maintaining and removing construction signs and barricades.

A "Road Work Ahead" sign (W20-1) mounted on either a 4" x 4" wood post or a Type III barricade shall be installed at each approach in accordance with SSP T11, T12, or T13. The signs for each road shall be installed prior to starting work on that road and shall not be removed until all work has been completed on that road.

When locations are changed, the full traffic control system shall be in place at the new location prior to starting any work and shall not be removed until all work has been completed at that location.

#### 1004-4 TEMPORARY GUIDE MARKERS

Temporary Guide Markers shall be portable delineators as specified in 12-3.04 of the SSS and these Special Provisions. Only one type of Temporary Guide Marker shall be used at any one time.

Temporary Guide Markers shall be placed adjacent to the edge of all slurry seals, at such locations as called for elsewhere in this Section, and as directed by the Engineer. Spacing of Temporary Guide Markers shall not exceed 30 feet on tangents or 15 feet on curves.

Temporary Guide Markers shall be placed at the required locations prior to sundown on the same day the slurry seal is placed. Temporary Guide Markers shall be left in place along the completed edges of pavement and maintained, repaired, and replaced as required until the work is completed. If the Temporary Guide Markers are damaged, displaced, or are not in an upright position, from any cause, said markers shall immediately be replaced or restored to their original locations, in an upright position by the Contractor. Upon completion of the project, all components of the temporary traffic control system shall be removed from the work site.

#### 1004-5 GENERAL WORK SEQUENCE & RESTRICTIONS ON CLOSURE OF TRAFFIC LANES

The full width of the traveled way on all roads shall be open for use by public traffic on Saturday, Sunday and any day designated by the Agency as a holiday, after 3:00 p.m. on Friday, after 3:00 p.m. on the day preceding an Agency-designated holiday, and when construction operations are not actively in progression working days. Days designated by the Agency as holidays are listed in 6-7.2.1 of the Standard Specifications.

Contractor shall keep at least one lane of traffic open at all times during working hours and one lane in each direction open at all other times. Contractor's equipment and personal vehicles of the Contractor's employees shall not be parked on the traveled way, or on any section where traffic is restricted at any time. Overnight parking of construction equipment on adjacent county roads is not permitted.

Changeable message signs displaying the construction start and end dates, shall be placed at each end of roads under construction and each direction of the adjacent SR118 a minimum of two weeks before commencing construction.

A changeable message sign displaying the anticipated delay time shall be placed at each end of lane closure and at the approaches to any side streets within the lane closure.

#### 1004-6 ROAD CLOSURES

Except as provided herein, road closures are generally not allowed, and the Contractor shall maintain one lane of traffic through the work area at all times. Limited road closures may be allowed under unusual circumstances, subject to advance approval by the Engineer and public notice.

If in the Engineer's opinion, the Contractor demonstrates that a 12-foot wide lane cannot be maintained through the work area or demonstrates that a partial closure would be in the best interests of the Agency and minimizes public inconvenience, a limited road closure may be approved. Prior to approval of any limited road closure, the Contractor shall prepare a site-specific traffic control (detour) plan 10 days prior to the intended date of the road closure for approval by the Engineer. The traffic control (detour) plan shall include notice to the public with placement of changeable message signs at least 72 hours prior to physically closing the road.

#### 1004-7 MEASUREMENT & PAYMENT

Payment for Traffic Control and Construction Signing will be made at the contract Lump Sum price. Such payment will be considered full compensation for furnishing and installing all materials, labor, equipment and all incidentals necessary to complete the work in accordance with the Standard Specifications and these Special Provisions.

**1005 EXCAVATION SAFETY**

**1005-1 SCOPE**

This item shall consist of all the work required to meet the excavation safety requirements of section 7-10.4 of the Standard Specifications.

**1005-2 MEASUREMENT & PAYMENT**

Payment for Excavation Safety will be made at the contract Lump Sum price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and incidentals for performing all the work. Progress payment for Work Site 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

**1006 EXISTING UTILITY & ROADWAY FACILITIES**

**1006-1 SCOPE**

Work shall conform to the provisions in Section 5 of the Standard Specifications and these Special Provisions.

Prior to placing pavement or slurry seal on streets, the Contractor shall document or mark the location of each utility valve box, lid, cover, manhole, vault, cleanout, or any other utility access at the road surface that will be covered by the new pavement with two swing ties or perpendicular offsets to a marker or fixed feature at the side of the road. These swing ties or offset measurements shall be written in an organized manner and provided to the Engineer. The Contractor shall demonstrate the utility markings to the Engineer and receive acceptance prior to paving any street.

The Contractor shall remove wasted material from the interior and exterior of manholes, valve boxes, storm drains, gutters or other facilities. All manholes, valve covers and cleanouts shall be covered with roofing paper prior to applying the slurry seal in order to permit easy removal of the materials. Covers that are partially exposed shall be cleaned to the satisfaction of the Engineer.

The Contractor shall contact Underground Service Alert and the respective utility companies at least two working days prior to starting any work on each road by which those companies are affected.

The Contractor shall provide access to utility owners at all times during the construction life of the project. The Contractor shall coordinate work by others in accordance with 7-7 of the Standard Specifications.

## 1006-2 UTILITY CONTACTS

Utility contacts sorted by services area are included in the appendices.

The Contract shall notify the Engineer and the Utility Company and request written authorization to proceed from the Engineer prior to potholing any utility crossings. Below is the contact information for the conflicting Utility Companies:

AT&T California  
Jody Riehl  
Right of Way 300 E Green Street #300  
Pasadena, CA 91101  
(805) 422-4865  
[Jr2461@att.com](mailto:Jr2461@att.com)

## 1006-3 ROADWAY FACILITIES

The Contractor shall protect existing Roadway Facilities, including but not limited to, curbs, curb and gutters, cross gutters, spandrels, traffic striping, from being disfigured by overspray of materials or by tracking of materials by equipment used in the project. If such overspray or tracking does occur, the Contractor shall, at its own expense, clean, restore, or replace disfigured items to the satisfaction of the engineer.

Existing Signs, Clearance Markers and Delineators within the existing pavement area or which interfere with the Contractor's work on any road to be rehabilitated, shall be removed, and re-installed at their original locations after completion of work on that road. The Contractor shall exercise extreme caution when removing the markers or delineators. Damaged markers or delineators shall be replaced at the expense of the Contractor.

The Contractor may trim back trees and shrubbery encroaching on the public road right-of-way or interfering with this work. Contractor shall obtain permission from the Engineer to trim trees or shrubbery on private property.

## 1006-4 MEASUREMENT & PAYMENT

Payment for costs incurred in protecting and marking existing utility and roadway facilities and including all the requirements set forth in this section, shall be considered included in the prices paid for other items of work and no additional compensation will be made.

## **1007 ROADWAY PREPARATION**

### **1007-1 SCOPE**

The work under this section consists of preparing the roadway and shoulders prior to the widening and the resurfacing. Such work shall include the removal and disposal off site of soil, dirt, and rock deposits on existing pavement, shoulders, and swales, trimming of interfering trees and shrubbery, scraping and removing spilled concrete on pavement, removing raised pavement markers, eradication and removal of vegetation, controlling nuisance water, sweeping, watering, and removing loose and broken asphalt concrete pavement and foreign material as specified in these Special Provisions and as required by the Engineer.

### **1007-2 CONSTRUCTION METHODS**

Any vegetation in the area of the roadway shall be removed.

Eradication of vegetation shall include treatment with an approved herbicide, not containing the active ingredient glyphosate, with an approved dye at least five working days prior to asphalt concrete resurfacing.

All thermoplastic markings, painted markings and pavement markers shall be removed in accordance with the following requirements:

1. All existing painted or thermoplastic traffic stripes and pavement markings within areas to receive overlay shall be removed prior to sealing operations, unless indicated otherwise on the Plans.
2. Removal of existing painted or thermoplastic striping/markings shall be performed by grinding. Removal shall be to the satisfaction of the Engineer.
3. Immediately following the removal of existing pavement and sweep/markings and pavement markers, the Contractor shall clean and sweep roadways and on-site paved areas to eliminate all materials attributed to or involved with removal operations. All materials shall be removed from the roadway prior to the end of each working day or as directed by the Inspector. The Contractor shall not use water to flush down streets in place of street sweeping.

Preparation shall include removal of pavement markers, trimming of interfering shrubbery and ground growth, removing trimmed vegetation, controlling nuisance water, and sweeping. Immediately prior to overlay application, the surface shall be cleaned of dust, dirt, oil, grease, vegetation, and other foreign material.

All metal covers and survey markers within the street overlay areas shall be protected by the Contractor in order that the overlay will not adhere. The methods of protection shall be approved in advance by the Engineer. These areas shall be cleaned no later than twenty-four (24) hours or the following work day after the application of the overlay.

**1007-3 MEASUREMENT & PAYMENT**

Payment for Roadway Preparation shall be considered included in the prices paid for other items of work and no additional compensation will be made.

**1008 CLEARING & GRUBBING**

**1008-1 SCOPE**

The Contractor shall perform Clearing and Grubbing in accordance with 300-1, "Clearing and Grubbing," of the Standard Specifications. Clearing and Grubbing shall include removal of existing vegetation and organics from all cut and fill areas, eradication of all weeds in the roadway and shoulders within 5 feet of the limits of pavement, removal of vegetation, and cleaning shoulders from any sloughing dirt as identified to be removed within the limits of construction. Eradication of vegetation shall include cutting and treatment of the root with an EPA-approved herbicide with an approved color dye. Use only enough herbicide to properly treat roots. Clearing and Grubbing shall include removing and disposing of all vegetation, trash, and debris and any other objects in conflict with the proposed construction, adjacent to existing facilities or identified for removal. Depressions and disturbed areas left from removals shall be replaced and compact with fill.

Existing trees not in conflict with the proposed construction or those specifically identified on the plans to be preserved and protected, shall be preserved and protected at all times. If any such trees are damaged, they shall be replaced in kind with the same type and size and maintained until established as directed by the Engineer at the Contractor's own expense.

**1008-2 MEASUREMENT & PAYMENT**

Payment for clearing and grubbing shall be considered included in the prices paid for other items of work and no additional compensation will be made.

**1009 TRAFFIC SIGNAL LOOP DETECTOR REPLACEMENT**

**1009-1 SCOPE**

The work in this section consists of removal and replacement of existing traffic and bicycle loop detectors in kind.

Prior to starting work, contact Noel Aclardo of Caltrans at (213) 999-1905 for a pre-construction meeting to take the loops out of circulation. Contact Noel Aclardo of Caltrans to approve the new loop installation.

All work shall be performed in accordance with Section 86 "Signals, Lighting, and Electrical Systems" of the SSS, applicable portions of the SSP ES-5A, ES-5B, the Standard Specifications, and these Special Provisions.

Existing damaged loop detectors may be abandoned in place providing they do not interfere with the new work.

**1009-2 MEASUREMENT & PAYMENT**

Payment for Traffic Signal Loop Detector Replacement shall be made at the contract unit price per Each loop installed. Such payment shall be considered full compensation for furnishing all materials, labor, equipment, and all incidentals necessary to complete the work.

**1010 SAWCUT**

**1010-1 SCOPE**

This work consists of sawcutting existing pavement to a neat line and depth as shown on the plans and as marked in the field. Sawcutting using a grinding wheel will not be permitted.

**1010-2 MEASUREMENT & PAYMENT**

Payment for Sawcut shall be considered included in the prices paid for other items of work and no additional compensation will be made.

**1011 CONCRETE SWALE**

**1011-1 SCOPE**

Work includes construction of concrete swales as shown on the plans and as marked in the field. Construct swale to maintain positive flow. Removal and disposal of existing asphalt swale is included in this item.

**1011-2 MATERIALS**

Minor Concrete shall be PCC (Portland Cement Concrete) as shown on the Plans. Concrete shall be Class 520-C-2500.

**1011-3 CONSTRUCTION METHODS**

Construction of Concrete Swale shall comply to Section 51-7, "Minor Structures and other applicable subsections of the SSS and these Special Provisions. Tack coat shall be applied to exposed edges of the existing pavement per 302-5.4 of the Standard Specifications. Provide swale backing to line and grade using native material. All material beneath the concrete shall be compacted to 95% relative density.

**1011-4 MEASUREMENT & PAYMENT**

Measurement and Payment for Concrete Swale will be made at the contract unit price per Square Foot. Such payment will be considered full compensation for furnishing and installing all materials, labor, equipment and all incidentals necessary to complete the work including sawcutting of AC pavement, removal and disposal of existing materials, subgrade preparation, tack coat, AC repairs and all incidentals necessary to complete the work.

**1012 CULVERT REPLACEMENT**

**1012-1 SCOPE**

Culvert Replacement shall consist of furnishing and installing a reinforced concrete pipe with smooth interior as shown on the Plans and these Special Provisions. This item shall include all the work required to remove and dispose of the existing culverts, headwalls and repairing the roadway section and fence removal & replacement according to the plans and specifications.

Culvert outlet at MP3.18 requires removal of the bottom of the chain link fence to restore original 6' high chain link fence as marked in the field.

**1012-2 MATERIAL**

RCP shall be 24-inch Class III; Backfill material shall be 2 – sack sand cement slurry, CLSM-2 (100-E-188 to 300).

**1012-3 CONSTRUCTION METHODS**

Pavement to be removed shall be sawcut per specifications.

Culvert shall be installed per Ventura County Road Standards Plate E-11, SSPWC 207-2, and 306-7.3.

All work necessary for any given length of pipe placed, including excavation bedding, pipe placement and backfill shall be accomplished during the same workday. Pipe sizes are shown on the Plans.



#### 1012-4 MEASUREMENT & PAYMENT

Payment for Culvert Replacement will be made at the contract unit price per Linear Foot placed. Such payment shall be considered full compensation for constructing all pipe culvert in place and furnishing all labor, equipment, tools, materials including, minor concrete, minor grading and fill, subgrade preparation, sawcutting and unclassified excavation & fill, removal of existing pavement, headwalls, pipe, berms, rocks, boulders, trenching, pavement repair, fence removal & repair, 2 sack slurry mix, and incidentals necessary to complete work including subgrade preparation, water diversion, and structure excavation and backfill.

### 1013 CONCRETE HEADWALL

#### 1013-1 SCOPE

Construction of Cast in Place reinforced concrete, Straight & "L" Type headwalls Caltrans SSP RSP D89 and 24" Concrete Flared End Section per SSP D94B, Type A at ends of roadway culverts.

#### 1013-2 CONSTRUCTION METHODS

Construction of headwalls shall conform to the provisions in Section 51, "Concrete Structures," Section 52, "Reinforcement," Section 75, "Miscellaneous Metal" and other applicable subsections of the SSS, SSP, these Special Provisions, and the Plans.

The existing soil material directly below the proposed headwall shall be over-excavated and recompact to provide a firm, uniform bearing layer. Removals below the proposed headwall shall extend 12 inches below structure.

The Contractor's attention is directed to the probability of encountering Rock and surface water during construction of the headwall. The Contractor shall reroute surface water as required. In no case will surface water be allowed to come into contact with wet concrete.

#### 1013-3 MEASUREMENT & PAYMENT

Payment for construction of Concrete Headwalls will be made at the Contract Unit Price for Each type as shown on the Proposal form, the Plans and Special Provisions. Such payment shall be considered full compensation for furnishing all labor, equipment, tools, minor concrete, minor grading and fill, sawcutting and removal of existing pavement and pipe, berms, rocks, boulders, and incidentals necessary to complete work including subgrade preparation, water diversion, and structure excavation and backfill.

Payment for construction of the 24" Concrete Flared End Section complete and in place at the Contract Unit Price per Each. Such payment shall be considered full compensation for furnishing all labor, material equipment, tools and incidents necessary to complete work including subgrade preparation, water diversion, and structure excavation and backfill, adjacent grading and fill.

## **1014 CONCRETE RETAINING WALL**

### **1014-1 SCOPE**

Construction of concrete retaining wall shall conform to the provisions in Section 19, "Earthwork," Section 51, "Concrete Structures," Section 52, "Reinforcement," Section 75, "Miscellaneous Metal" and other applicable subsections of the SSS, SSP, these Special Provisions, and the Plans. The retaining wall shall be modified to tie into the culvert footing and headwalls.

### **1014-2 MEASUREMENT & PAYMENT**

Payment for construction of Concrete Retaining Wall will be made at the contract Lump Sum price. Such payment will be considered full compensation for furnishing and installing all materials, labor, equipment and all incidentals necessary to complete the work including rebar, structure excavation & backfill in accordance with the Standard Specifications and these Special Provisions.

## **1015 REMOVE JOINTED PLAIN CONCRETE PAVEMENT**

### **1015-1 SCOPE**

This work consists of removing and disposing of approximately 7" thick jointed plain concrete pavement with dowel bars at transverse joints as shown on the plans and marked in the field. Removals includes removal of concrete curbs as shown on the plans and marked in the field.

Concrete shall be sawcut at full panels or as approved by the Engineer. Removals shall be performed in two stages. The 2<sup>nd</sup> stage shall not be removed until traffic is switched to Stage 1.

### **1015-2 MEASUREMENT & PAYMENT**

The payment quantity is the volume determined by the neatline dimensions shown on the plans.

Payment for removal of Jointed Plain Concrete Pavement shall be per Cubic Yard for the neat line quantity removed and disposed. Such payment will be considered full compensation for furnishing and installing all materials, labor, equipment and all incidentals necessary to complete the work in accordance with the Standard Specifications and these Special Provisions.

## **1016 JOINTED PLAIN CONCRETE PAVEMENT**

### **1016-1 SCOPE**

This work consists of replacing jointed plain concrete pavement as shown on the plans, the SSP and marked in the field. Concrete shall be 3250 psi and shall meet the requirements of SSS Section 40. The pavement shall be 7" thick and match existing lines, joints and grades.

Traverse joints shall be in the same location and match existing (approximately 12' center to center on a skew) with dowel bars per SSP P10.

Longitudinal joints shall be installed per SSP P18 Detail A.

This work includes replacing adjoining curb to match existing in locations identified on the plans.

The concrete pavement shall be placed in two stages allowing for resident access and traffic through the work limits. Traffic is not allowed on the concrete pavement for 10 days per the SSS.

### **1016-2 MEASUREMENT & PAYMENT**

Payment for Jointed Plain Concrete Pavement shall be per Cubic Yard for the neat line quantity complete and in place. Payment includes furnishing and installing all materials including concrete, dowel bars, and isolation joints.

Payment for grinding existing pavement is included in the payment for concrete pavement.

## **1017 COLD MILLING (5' WIDE)**

### **1017-1 SCOPE**

Cold Milling shall be performed in accordance with the 404-3 and 404-5 of the Standard Specifications, as shown on the Plans, marked in the field, and as specified in these Special Provisions. The placing of AC overlay shall follow cold milling and all similar grinding-related operations within six calendar days.

Cold Milling is milling a tapered section of pavement a standard width of 5 feet along the outside edge of pavement or flowline along existing AC Dikes existing utilities and vaults that are to be protected in place, and existing concrete features that transitions from 0 inches to 2 inches in depth.

**1017-2 MEASUREMENT & PAYMENT**

Cold Milling will be measured by the linear foot along the edge of the adjacent traveled way. Payment will be made at the contract unit price per Linear Foot on the basis of actual measured quantities of cold milling completed. Such payment shall be considered full compensation for providing all labor and equipment and performing all work related to cold milling, including dust control and disposal of the material removed.

**1018 AC TAPER WITH KEY**

**1018-1 SCOPE**

AC Taper shall be provided at ends of the overlay and at Concrete Driveways as shown on the Plans, marked in the field, and as specified in these Special Provisions. AC Taper is a cold milling operation and shall be performed in accordance with the 404-3 and 404-5 of the Standard Specifications, as shown on the Plans, marked in the field, and as specified in these Special Provisions. The placing of pavement resurfacing shall follow cold milling and all similar grinding-related operations within six calendar days.

AC Taper at Driveways is milling a tapered section of pavement a standard width of 10 feet along the outside edge of pavement along existing Driveways that transitions from 0 inches to 2 inches in depth in the transverse direction and transitions from 2 inches to 0 inches in the longitudinal direction over 10 feet at each end of the driveway.

AC Taper at Intersections also known as "AC Taper with Key" shall be provided at ends of the overlay and intersections and includes forming a key. It involves constructing a key formed by creating a neat straight, 2 inch high vertical edge by sawcutting at the joint line and/or removing by cold milling and disposing of a portion of the existing AC pavement as shown on the Plans. Should cold milling result in an uneven line, the Engineer or his Inspector may direct the contractor to construct the key by sawcutting.

If the placing of the AC taper cannot be completed on the same day the key is formed, a temporary AC ramp shall be installed to enhance traffic safety. The asphalt concrete temporarily placed shall be removed prior to the final placement of AC taper.

## 1018-2 MEASUREMENT & PAYMENT

Payment for AC Taper will be paid at the contracted price per Square Foot in place. Such payment shall be considered full compensation for forming a key by sawcutting and/or milling, furnishing all labor, materials, removal of any encountered fabric, equipment, tools and incidentals necessary to complete the work. No separate payment will be made for AC used in the installation of temporary ramps, or sawcutting associated with this work. Such payment shall be considered full compensation for providing all labor and equipment and performing all work related to cold milling, including dust control and disposal of the material removed.

## 1019 AC GRINDING

### 1019-1 SCOPE

AC Grinding shall be performed in accordance with the 404-3 and 404-5 of the Standard Specifications, as shown on the Plans, marked in the field, and as specified in these Special Provisions. The placing of AC overlay shall follow AC Grinding and all similar grinding-related operations within six calendar days.

### 1019-2 CONSTRUCTION METHODS

AC Grinding shall be performed at location & depth shown on the plans. The limits of grinding will be as marked in the field by a single dashed line or as directed by the Engineer.

Utility covers, manholes vaults, etc. within the grinding area shall be ramped with temporary AC pavement as specified in 306-13. Ramps shall be constructed the same day as grinding and removed the same day as permanent paving. Ramp dimensions and compaction shall be approved by the Engineer. Ramps shall be constructed as soon as practicable for the maximum convenience of the Public.

### 1019-3 MEASUREMENT & PAYMENT

Grinding will be measured by the Square Foot of ground pavement to the depth specified on the Plans, in these Special Provisions and as specified by the Engineer.

Payment will be made at the contract unit price of Square Foot on the basis of actual measured quantities of AC Grinding completed. Such payment shall be considered full compensation for providing all labor and equipment and performing all work related to grinding, removal of encountered fabric, constructing temporary AC Ramps including dust control and disposal of the material removed.

## **1020 AC BASE REPAIR**

### **1020-1 SCOPE**

AC Base Repair involves repairing the structural section of the roadway by removing the existing AC plus 1 inch or to a depth of 6 inches, whichever is less. The structural section is replaced with asphalt concrete placed in two equal lifts and compacted, as specified in 302-5.5 and 302-5.6 of the Standard Specifications, prior to placing the overlay.

### **1020-2 MATERIAL**

Asphalt concrete used in Base Repair shall be B-PG 64-10.

### **1020-3 CONSTRUCTION METHODS**

In areas delineated by a double dashed white line painted on the existing road, the structural section of the roadway shall be removed to a depth of 6 inches. Any roots within the upper six inches of base and/or sub-grade shall be removed and the base and/or sub-grade material shall be compacted to 95 percent relative compaction. The structural section removed shall be replaced with asphalt concrete placed in two equal lifts and compacted, as specified in 302-5.5 and 302-5.6 of the Standard Specifications, prior to placing the overlay.

Where new asphalt concrete pavement for base repair is placed against existing pavement, the pavement shall be removed in a manner that will not result in ragged and loose edges of the existing pavement. Tack coat shall be applied to exposed edges of the existing pavement per 302-5.4 of the Standard Specifications.

### **1020-4 MEASUREMENT & PAYMENT**

Payment for Base Repair, complete in place, will be made at the contract unit price per Ton in accordance with 302-5.9 of the Standard Specifications and these Special Provisions. Such payment shall be considered full compensation for furnishing all labor, materials, equipment, tools and incidentals necessary in the removal and disposal of existing pavement, compaction of base and/or sub-grade, applying tack coat, and AC backfill.

## **1021 AC MISCELLANEOUS PAVING**

### **1021-1 SCOPE**

AC Miscellaneous Paving shall include resurfacing existing asphalt drainage aprons and swales contiguous to the resurfacing, repairing existing roadway as directed by the Engineer, filling of milled or grinded areas, and feathering asphalt concrete to maintain surface drainage patterns at locations directed by

Engineer. The work shall include Roadway Preparation and shall be in accordance with the Plans, the Standard Specifications and these Special Provisions.

**1021-2 MATERIAL**

Asphalt concrete for Miscellaneous Paving shall be D2-PG 64-10 in accordance with 203-6 of the Standard Specifications. The Contractor may substitute a paving asphalt mix upon approval of the Engineer. A minimum of 5.5% Asphalt Binder content is set for this project.

**1021-3 CONSTRUCTION METHOD**

Prior to placing the AC Hot Mix course, a Tack coat shall be applied to exposed edges of the existing pavement per 302-5.4 of the Standard Specifications and as specified in other sections of these Special Provisions.

AC Hot Mix shall be evenly placed over the milled area to such a depth that, after rolling, it will be of the specified cross-section and grade of the course being constructed or is flush with adjoining existing pavement.

AC Hot Mix shall be compacted and rolled per 302-5.6.

**1021-4 MEASUREMENT & PAYMENT**

Payment for AC Miscellaneous Paving, complete in place, will be made at the contract unit price per Ton placed in accordance with 302-5.9 of the Standard Specifications and these Special Provisions. Such payment shall be considered full compensation for furnishing all labor, materials equipment, tools and incidentals necessary to complete the work.

**1022 AC SHOULDER**

**1022-1 SCOPE**

This section covers pavement widening along existing shoulders as shown on the Plans, marked in the field, and as specified in these Special Provisions.

**1022-2 MATERIAL**

Asphalt concrete with fiber reinforcement for AC Shoulders shall be C2-PG 64-10 as specified on the Plans and in accordance with 203-6.4 of the SSPWC and these Special Provisions. In addition to the requirements of 203-6.7.3.2, a certificate of calibrated batch scales per California State Test 109 from the batch plant supplying the material is required.

### 1022-3 CONSTRUCTION METHODS

Where new asphalt concrete pavement is placed against existing pavement, the pavement shall be removed by sawcutting to a neat line a minimum of 6" from the edge of existing pavement that will not result in ragged and loose edges.

Tack Coat shall be applied to exposed edges of the existing pavement per 302-5.4 of the SSPWC.

The material below the proposed paving surface shall be graded and compacted to receive 5" thick asphalt concrete pavement with fiber reinforcement over 6" of scarified subgrade. Sub-grade preparation shall be per SSPWC 301-1. The structural section removed shall be replaced with asphalt concrete placed in equal lifts and compacted, as specified in 302-5.5 and 302-5.6 of the Standard Specifications, and as shown on the plans prior to placing the asphalt concrete.

### 1022-4 MEASUREMENT & PAYMENT

Payment for AC Shoulders will be made at the contract unit price per Ton in accordance with 302-5.9 of the SSPWC and these Special Provisions.

Such payment shall be considered full compensation for furnishing all labor, materials, equipment, tools and incidentals necessary including sawcutting and removals and disposals of existing pavement and other foreign materials, roadway excavation and fill, preparation and compaction of sub-grade, applying tack coat, and AC paving.

## 1023 TACK COAT

### 1023-1 SCOPE

Tack Coat shall be used to adhere new Asphalt to Existing Asphalt.

### 1023-2 MATERIAL

Tack Coat shall be Thermoplastic Polymer Modified High Performance Seal, also known as HPS No-Track Tack, manufactured by Paramount Petroleum, no known equal.

### 1023-3 CONSTRUCTION METHODS

The tack coat shall not be applied until the preparation of the existing surface has been completed, and then only so far in advance of placing the asphalt concrete overlay as permitted by the Engineer. Tack coat shall not be applied when the temperature of the surface to be tacked is below 50o F in the shade. No tack coat shall be applied when rain is imminent.



No tack coat shall be left exposed overnight. Immediately in advance of placing the asphalt concrete, additional tack coat shall be applied as directed by the Engineer to areas where the tack coat has been destroyed or otherwise rendered ineffective, and no additional compensation will be allowed for such work.

Tack coat shall be heated slowly to temperature between 325-425 degrees F. At no time shall the product be heated to above 450 degrees F. The product shall be applied through a distributor truck equipped with a heating unit. It shall be equipped with a full circulating spreader bar and pumping system capable of applying the tack coat material within 0.05 gallons per square yard tolerance of the specified application rate and give a uniform covering of the surface to be treated. The distributor shall also include tachometer, pressure gauge, and volume measuring device and thermometer.

The application rate shall be between 0.12 to 0.15 gallons per square yard and the rate to be determined by the prevailing surface conditions or as approved by the Engineer.

The Tack Coat shall not be applied until the preparation of the existing surface has been completed, and then only so far in advance of placing the asphalt concrete overlay as permitted by the Engineer. The Engineer will determine if the pavement is sufficiently clean and dry for the application of Tack Coat.

Existing concrete surfaces shall be protected against disfigurement from the asphalt. Residue of the material shall be removed by sandblasting to the extent required by the Engineer.

#### 1023-4 MEASUREMENT & PAYMENT

Payment for Tack Coat shall be considered included in the prices paid for other items of work and no additional compensation will be made.

### 1024 SURFACE PREPARATION & CRACK TREATMENT

#### 1024-1 SCOPE

Roadway surface preparation shall include grinding/planing to remove ridges along cracks, leaving a smooth pavement surface. Upon completion of grinding/planing, the road surface shall be cleaned of all dust, dirt and other foreign material by a self-loading vacuum-type motor sweeper. "Kickbroom" sweepers shall not be used. This shall be followed by a crack treatment measure as described below.

Crack Treatment shall either be crack sealing or crack filling as defined below are required prior to placement micro-surfacing or slurry.

Cracks in the existing pavement less than 1/4" in width need no treatment, except that any weeds in the cracks shall be removed and herbicide sprayed into the cracks. Cracks 1/4" wide and wider shall be repaired by removing all weeds, cleaning out the cracks, spraying with herbicide, and filling the cracks as described below.

Crack sealing: Cracks between 1/4" and 3/4" wide shall be filled with elastomeric crack sealant as described below (herein called crack sealing).

Crack filling: Cracks wider than 3/4" shall be filled with Type D asphalt concrete (herein called crack filling). Cold mix is allowed.

## 1024-2 MATERIAL

Crack Sealing: Material used for sealing pavement cracks shall be Crafcro Polyflex Type III Sealant as manufactured by Crafcro, Inc., Chandler, Arizona (800-528-8242), Deery 200 Sealant as manufactured by Deery American Corporation, Grand Junction, Colorado (800-227-4059), Nuvo CS C, manufactured by Maxwell Products, Inc., Salt Lake City, Utah (801-972-2090) or approved equal. Sealant shall conform to ASTM Designation D 5078 and the following specifications:

TEST PARAMETER	SPECIFICATION LIMITS
Safe Heating Temperature	400°F
Recommended Application Temperature	380°F
Penetration, 77°F, 0.1 mm (ASTM D3407)	15-45 max.
Resilience, 77°F, Recovery (ASTM D3407)	30% min.
Softening Point (ASTM D36)	200°F min.
Ductility, 77°F, cm (ASTM D113)	30 min.
Flexibility (Craftco Procedure)	Pass at 30°F
Asphalt Compatibility (ASTM D3407)	Pass
Bitumen Content (ASTM D4)	60% min.
Tensile Adhesion (ASTM D3583)	400% min.

Equal materials shall, as a minimum, be hot applied single component elastically modified asphalt, which conforms to ASTM Designation D 5087 and generally conforms to the above listed specifications. Equal materials shall be formulated to seal cracks as narrow as 1/4 inch wide.

Crack Filling: Material used for crack filling shall be Type D asphalt concrete. Cold mix is allowed.

## 1024-3 INSTALLATION

- A. Crack sealing or filling shall be completed at least one week (7 days) before placement of slurry or micro-surfacing. Crack sealing or filling shall be completed at least weeks (14 days) before being overlaid by AC or ARHM.

- B. Sealing or filling of cracks and joints shall not commence until cracks, joints and the surrounding pavement are clean and dry and all ridges along the sides of cracks or elsewhere on the pavement have been planed or ground smooth.
- C. Crack Cleaning: Cracks and pavement within 3 inches of the crack shall be air-blasted clean by compressed air of pressure not less than 130 psi to provide an intact bonding surface, to remove all dirt, sand, gravel, weeds, or other debris that might be in the crack. Cracks having vegetation shall be sprayed with weed killer before crack sealing. Contractor shall remove from the road all material generated by crack cleaning that same day. Routing of cracks is not required.
- D. The gutter lip joint between the asphalt pavement and concrete gutter does not need to be sealed.
- E. Crack Sealing: All cracks and joints in the asphalt pavement surface 1/4-inch up to 3/4-inch wide shall be filled with an asphaltic-elastomeric crack sealant. Sealant material shall be melted in a jacketed double boiler type application unit, equipped with both agitation and recirculation systems, which is capable of maintaining sealant application temperatures of between 380°F and 400°F. Sealant, which has been heated to above the manufacturer's safe heating temperature, shall be properly and legally disposed of at the Contractor's expense. Sealant shall not be cut with solvents, diluents, or cleaning agents.
- F. Crack Sealing: Cracks 1/4" to 3/4" wide shall be sealed using a pressure-fed wand, to the surface level and struck flush with the pavement surface by use of a squeegee immediately after application. The finished sealant surface shall be flush with or slightly below the surrounding pavement surface. Overbanding shall not be allowed, as it may reflect bumps to the surface of the slurry that will follow.
- G. Sealant extending more than 1/2-inch onto any concrete improvement shall be removed. The Contractor shall protect the sealant from public traffic (vehicles) until cured. The Engineer may require a release agent (Glensoil, or equal) be applied to the sealant surface to reduce tracking; no additional compensation will be made for providing or applying a release agent.
- H. Crack Filling: Cracks 3/4-inch or wider, after being cleaned by pressurized air blasting and receiving weed killer, shall be filled with Type D (fine gradation) asphalt hot mix or cold mix. The material shall be placed by hand using shovels and tamping bars, and shall be compacted in place in the crack flush with the surrounding pavement surface. No overbanding or protrusion above the surrounding surface shall occur. The completed crack filling shall have a flush finish with the surrounding pavement.
- I. Sand Blotter shall be used only when directed by the Engineer to provide for access. Excess blotter shall be removed by sweeping within 48 hours of placement.

**1024-4 MEASUREMENT & PAYMENT**

Payment for Surface Preparation and Crack Treatment (including crack sealing & crack filling) will be made at the contract Lump Sum price. The above contract price shall include full compensation for furnishing all labor, materials, tools, equipment, transportation, and incidentals for surface preparation, in accordance with the manufacturer's specifications and these Special Provisions. If the Engineer directs that sand blotter be used, no additional payment shall be made therefor.

**1025 TYPE II EMULSION-AGGREGATE SLURRY**

**1025-1 SCOPE**

This work shall consist Type II Slurry construction in accordance with 203-5 and 302-4 of the SSPWC, the Plans, the Standard Specifications and these Special Provisions. Roadway Preparation per 1007 and Surface Preparation & Crack Treatment per 1008 shall be performed prior to placing Type II Emulsion-Aggregate Slurry.

**1025-2 MATERIALS**

Aggregate shall be Type II. Emulsified asphalt shall be Polymer modified quick-set type PMCQS-1h. The amount and type of accelerator used shall be approved by the Engineer.

Prior to a change of emulsion, Contractor shall thoroughly clean all emulsion tanks and mixing units to prevent any chemical reaction between any two emulsions.

Contractor shall schedule and coordinate the delivery of aggregate to the stockpile(s) such that: (1) deliveries originate at the plant and arrive at the stockpile site within normal work hours on the same calendar day, (2) delivery site and project name are explicitly stated on each delivery ticket, (3) successive deliveries on the same calendar day show the cumulative total for that day, (4) copies of all delivery tickets are delivered to the Engineer before the end of the working day, whereas any delivery tickets not so delivered may be rejected by the Engineer. Any deviation from this process must have the prior approval of the Engineer.

**1025-3 POLYMER MODIFIED EMULSION**

The emulsion-aggregate slurry must include elastomeric polymer and meet the requirements of 37-3.02B(3). The polymer used in the manufacture of polymer modified asphaltic emulsion shall be, at the option of the Contractor, either neoprene, ethylene vinyl acetate, or a blend of butadiene and styrene.

The emulsion supplier shall certify that the asphalt residue contains at least 2.5 percent polymer (dry weight) and that the polymer has either been added as a solid polymer to the base asphalt or has been added in the form of a latex at the time of emulsion manufacture.

Polymer modified emulsified asphalt shall be kept in a suspended state by an agitating mixer operated every 3 days.

#### 1025-4 TEST REPORTS & CERTIFICATION

A certification of compliance shall be provided at least 48 hours prior to delivery of emulsion to the project.

#### 1025-5 EQUIPMENT

The Contractor shall provide the slurry application equipment for inspection at the site or other location acceptable to the Engineer of least two working days prior to beginning work. Any equipment requiring repair or replacement as determined by the Engineer shall not be used on the work until its condition is accepted by the Engineer.

All equipment must be maintained in a good state of repair, i.e., no excessive oil leaks that could damage existing asphalt, concrete or landscaped areas. All equipment safety guards shall be in place, hydraulic hoses shall be in good condition. No equipment shall show potential danger to the crews, passing pedestrians and motorists. Failure to comply with this provision will be cause to have the equipment removed from the job. Equipment considered by the Engineer to be critical to the operation including monitoring equipment such as meters and scales shall be operational at all times.

All emulsion storage facilities shall have temperature measuring devices. Temperature measuring devices shall be operational at all times when the storage facility is in use.

Transit trucks shall not be used. The Contractor shall furnish and continuously operate a minimum of three (3) trucks with approximately fourteen (14) ton capacity for each scheduled work day. The number of trucks used each day shall be as shown on the approved schedule unless otherwise approved in advance by the Engineer. Failure by the Contractor to adhere to this requirement will cause the Agency to sustain additional inspection costs to be determined by the Engineer which will be deducted from any compensation due the Contractor. All trucks which the Contractor proposes to use that exceed the legal limit are required to have overweight permits.

Prior to the beginning of slurry operations, Contractor shall furnish, at no cost to the Engineer, a licensed weighmaster's certificate indicating the net weight capacity of the aggregate bin for each truck. The certificate shall be dated no more than 60 days prior to construction.

The Slurry Spreader Box shall be equipped with a steering device and suitable drag to erase ridges. The drag rubber shall be new at the beginning of the contract and shall be maintained in a good state of repair throughout the contract. A minimum 2-foot length of burlap material shall be attached to the entire width of the drag. Continuous flow mixers shall conform to SSPWC 302-4.3 and shall be equipped with a fines feeder for addition of accelerator and a thermometer for indicating emulsion temperature.

Street sweepers for pre-slurry application cleaning shall be air-vacuum type. Post application cleaning may be performed by broom type sweepers approved.

Support equipment such as front-end loaders and emulsion storage tank shall be in good working order and sized adequately to maintain the slurry seal work without interruption. Emulsion storage tank shall have a thermometer for indicating emulsion temperature.

#### 1025-6 APPLICATION

Except where otherwise indicated herein slurry seal application shall be in accordance with 302-4.6.

Contractor shall arrange with the Engineer for appropriate areas for stockpiling and batching. The stockpile areas shall be thoroughly cleaned, removing all excess material and all material contaminated by spilled oil, and left with a neat, orderly appearance upon completion of slurry operations. Any damage done to these areas as determined by the Engineer shall be corrected by the Contractor to the satisfaction of the Engineer prior to final payment.

Contractor shall supply the Engineer with licensed weighmaster's certificates of weights for all aggregate delivered to the job during the course of each day. Aggregate so certified as being delivered for use in the contract shall be used only in the slurry mixture for this contract. Contractor shall present weighmaster's certificates for the amount of such aggregate remaining unused at the completion of the contract at no cost to the Agency. The certificates shall be presented to the Engineer on the same day the aggregate is delivered.

The Contractor shall stockpile all slurry constituents at the same site for the work in each area.

#### 1025-7 PREPARATION

The Contractor shall fill or seal cracks, clean the surface, removing existing thermoplastic striping per Roadway Preparation (1007) and Surface Preparation & Crack Treatment (1008) Specifications prior to placing Type II Slurry.

## 1025-8 MIXING & SPREADING

Slurry seal shall be placed only when the ambient temperature is above 55 degrees and rising. No slurry will be placed during inclement weather or the threat thereof. Contractor shall bear the responsibility of cancellation of work on these days and shall be responsible for any damages which may arise from non-cancellation.

Each slurry crew shall be composed of a coordinator at the project site at all times, a competent quick-set mixing man, a competent driver, sufficient traffic control personnel and sufficient laborers for any handwork and cleanup.

No slurry seal shall be placed on a wet street or crossing without the Engineer's consent. Intersections and commercial driveways shall be completed in two or more parts to allow ingress and egress to traffic.

When necessary to provide vehicular or pedestrian crossing over the fresh slurry, the Engineer will direct the Contractor to spread sufficient sand or rock dust on the affected area to eliminate tracking or damage to the slurry. Sand or rock dust used for this purpose shall be at the Contractor's expense. Slurry aggregate is not acceptable for this application. The texture and appearance of the sanded areas shall sufficiently match adjacent work or the area shall be repaired as required by the Engineer at the Contractor's expense.

Contractor shall provide barricades and other traffic control devices as necessary to eliminate traffic on areas of fresh slurry that might sustain damage from such traffic. Any tracking of slurry seal on private property will be the responsibility of the Contractor to correct.

The cost of cleanup and/or damage caused by vehicles tracking through the slurry seal shall be born solely by the Contractor.

Slurry shall be applied with an overlap of the concrete gutter of 2"(two inches). Any slurry material exceeding the 2" shall be removed by the contractor prior to completion of the project. The overlap dimension of the longitudinal lap joint shall not exceed 6" (six inches) unless directed otherwise by the Engineer.

Where the completed slurry is not uniform in color, the street shall be treated to eliminate the color variation at the Contractor's expense. The method of treatment shall be approved by the Engineer.

Contractor shall sweep all streets including gutters after slurry application. Additional sweeping may be required by the Engineer at the Contractor's expense if the Engineer determines that sufficient loose material is accumulating after the initial sweeping.

The application rate shall not exceed 200,000 square feet per day on residential streets and 300,000 square feet per day on commercial streets. After 10 consecutive working days of operation, the Contractor may request that these

spread rates be increased. In consideration of the Contractor's performance and in the interest of the project, the Engineer may elect to allow this change.

Type II slurry shall be applied at a rate between 1,600 square feet per Extra-Long Ton (ELT) on very smooth surfaces and 1,200 square feet per ELT on extremely coarse surfaces.

An extra-long ton of slurry is made up of 2000 pounds of dry aggregate plus emulsified asphalt, accelerator, or retardant, and water.

#### 1025-9 TEST SECTIONS

At least five (5) working days prior to commencement of work and prior to issuing notifications to property owners, Contractor shall perform test sections for review and approval by the Agency for each type of slurry to be used in the contract. The area of the test sections shall be at least 5,000 square feet. The test section locations shall be in the area of the work and shall be completed prior to 11:00 a.m. to allow for minimum delay of test results. Test section locations shall be approved by the Engineer prior to placing slurry.

If the tested materials and workmanship do not meet specifications, the Contractor shall arrange with the Agency for subsequent test section locations, sampling, testing and monitoring. All expenses to the Agency for subsequent test sections shall be reimbursed by the contractor by deduction from the contract price.

The Contractor shall not begin slurry application until the test sections have received written approval by the Agency. The approved mix design and test section results shall determine the mixing parameters for this project.

#### 1025-10 MONITORING

The Contractor shall facilitate the following testing and monitoring activities to be performed by the Agency:

- A. Obtaining load tickets for materials delivered to the stockpile sites (to be given to the Agency the same day the material is received).
- B. Obtaining tare and loaded weights for each load on each truck at the stockpile site. (Note: If the Contractor agrees to fill oil and water prior to weighing loaded trucks, the tare weight need only be taken as required by the Agency.)
- C. Obtaining measurements of emulsion and water added for each truck at the stockpile site.
- D. Obtaining volumetric measurements of rubberized slurry for each truck.
- E. Sampling for Wet Track Abrasion Testing at the work sites.
- F. Measurement of street area covered.
- G. Monitoring of work quality and traffic control.



## 1025-11 MEASUREMENT & PAYMENT

Payment for Type II Emulsion-Aggregate Slurry, complete in place, will be made at the contract unit price per Square Yard. Such payment shall include payment for dry aggregate, emulsified asphalt, accelerator, or retardant, and water, full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in constructing the slurry seal, complete in place, including testing for and furnishing the mix design, and protecting the seal until it has set, as shown on the plans, as specified in the standard specifications and these special provisions, and as directed by the Engineer, and other incidentals necessary to complete the work.

## 1026 ASPHALT RUBBER AGGREGATE MEMBRANE (ARAM)

### 1026-1 SCOPE

Rubberized Chip Seal shall conform to SSPWC 302-10 except as modified herein.

Rubberized chip seal shall consist of an application of rubberized asphalt binder and hot screenings pre-coated with paving asphalt.

Asphalt rubber shall conform to 203-11, Asphalt Rubber Hot Mix (ARHM) Wet Process, of the SSPWC.

### 1026-2 SUBMITTALS

Prior to construction, the Contractor shall supply the Engineer with mix proportions, a formula for the production of asphalt rubber binder, and the individual raw components of the asphalt rubber binder to verify conformance to the specifications, modifier, natural rubber and tire crumb rubber.

### 1026-3 ROCK PRODUCT SCREENINGS

The Screenings shall conform to 200-1.2.2.3, of the SSPWC except modified herein. The screenings shall also meet the following requirements:

Tests	
Test Method No.	Requirements
Percentage Wear (100 rev.) ASTM C 131	12 Maximum
Percentage Wear (500 rev.) ASTM C 131	35 Maximum
Film Stripping Calif. 302	25 Maximum
Cleanness Value Calif 227	80 Minimum
Aggregate for screenings shall be medium (3/8 inch)	

#### 1026-4 SURFACE PREPARATION

Pavement must be completely dry prior to the application of Rubberized Chip Seal. Special care shall be taken to clean the pavement before the Rubberized Chip Seal application. Prior to the application of Rubberized Chip Seal, the surface to receive the treatment shall be cleaned by power brooming, or other means necessary to remove all vegetation, loose particles of paving, all dirt and extraneous material. Vegetation shall be removed from cracks in pavement and at the interface of pavement and gutter prior to sweeping.

The contractor shall blow the cracks clean of loose materials with a high-pressure air nozzle (90 psi or greater and free of oil). Pavements impregnated with grease, oil, or fuel shall be thoroughly scrubbed with water and approved detergent and then flushed and swept clean. Wash water shall be vacuumed up and disposed of and shall not be permitted to enter the storm drain system. Contractor shall be responsible for sweeping the streets until sufficiently cleaned to the satisfaction of the Engineer. Streets shall be swept from face of Dike to face of Dike (full width). Pavement missed by or inaccessible to power brooms shall be swept manually or by other methods approved by the Engineer.

All existing temporary and permanent pavement markers and temporary delineation shall be removed. All surface metal utility covers (including survey monuments) shall be protected by thoroughly covering the surface with tar paper. Tar paper is to be removed from top of utility covers and cleaned of ARAM material by the end of the same work day.

#### 1026-5 ASPHALT-RUBBER APPLICATION

The asphalt-rubber shall conform to 302-10, Application of the SSPWC except modified herein.

Asphalt-Rubber shall be applied at a temperature between 375°F to 425°F. Asphalt-Rubber binder shall be applied at a rate between 0.55 to 0.65 gallons per square yard as directed by the Engineer.

Application shall not take place when rain is predicted within the next 8 hours. Application should be stopped before the distribution tank is empty to assure designated application. Application of asphalt-rubber shall be discontinued sufficiently early in the day to permit the termination of traffic control prior to darkness.

Apply tar paper cover to the tops of manholes, survey monuments, valve covers and other miscellaneous frames and covers to prevent emulsion from adhering. After the new surface is placed, the Contractor shall uncover and expose the frames and covers. Any utility covers that need to be adjusted to grade should be adjusted promptly by the utility owners.

#### 1026-6 SPREADING SCREENINGS

Screening shall be spread at a uniform rate over the full width of a traffic lane in one application. The spreader shall be capable of reducing the aggregate spreading width to accommodate variable width.

Screenings shall be applied at a temperature between 260°F and 325°F. Stock piling of screenings after preheating and precoating with paving asphalt will not be permitted.

Spread screenings at a rate from 30 to 40 lbs./sq. yd. The exact rate shall be determined by the Engineer. Spread to within 10% of the determined rate. All joint edges shall be swept clean of excess screenings prior to the adjacent application of asphalt-rubber material. Precautions shall be taken to avoid "skips" and "overlaps" at joints and to protect the surfaces of adjacent structures from being spattered or marred.

All transverse cold joints shall be made by placing building paper over the ends of the previous applications of concrete joints, and the joining applications shall start and end on the building paper. The paper shall be removed and disposed of as required by 7-8.1 of the SSPWC.

Hot joints shall be made utilizing a squeegee man between the boot truck and the aggregate spreader to spread out or rake off overlaps or excess applications of the asphalt-rubber binder. The longitudinal joints between adjacent applications of screening shall coincide with the line between designated traffic lanes.

The completed surface shall present a uniform appearance and shall be thoroughly compacted, and free from ruts, humps, depressions or irregularities due to an uneven distribution of asphalt-rubber or screenings.

#### 1026-7 ROLLING OPERATIONS

Initial rolling shall commence within 90 seconds following the placement of screenings. Rolling shall be accomplished by 3 self-propelled, pneumatic-tired rollers meeting the requirements of 302-5.6.1 SSPWC except that the tires shall be inflated to 100 psi. There shall be at least 4 complete coverages (single pass in one direction) by the pneumatic-tired rollers before the final roller coverage. As steel-drum roller weighing 8 tons minimum to 10 tons maximum shall complete the final roller coverage.

#### 1026-8 FINAL SWEEPING

A minimum of three (3) vacuum sweepers shall be used that are capable of cleaning the existing pavement and removing loose screenings without dislodging screenings set in the asphalt-rubber mixture. Gutter brooms or steel-tined brooms shall not be used.

Sweeping shall commence on the day of Rubberized Chip Seal operations. Three (3) vacuum sweepers shall be used on those streets being resurfaced that day. Two (2) sweepers shall be used to remove excess screenings from the road surface, and one (1) sweeper shall be used to sweep and clean the surrounding streets, staging area and road surfaces outside of the project area to avoid tracking loose material. The Rubberized Chip Seal shall be maintained free of loose screenings for a minimum of 5 working days following placement. During this period the surface shall be swept as necessary to remove any loose cover material as directed by the Engineer.

Final sweeping shall be done, and all loose aggregate shall be removed prior to acceptance. The aggregate shall be disposed of by the Contractor at no cost to the Agency.

#### 1026-9 PUBLIC CONVENIENCE & TRAFFIC CONTROL

The Contractor shall prohibit traffic on the street until initial sweeping is complete. Prior to opening the streets to traffic, "Loose Gravel," W8-7 signs, and appropriate speed reduction signs conforming to local, State and Federal regulations shall be posted and maintained by the contractor. The signs shall remain in place until there is no further dislodging of the cover aggregate.

#### 1026-10 MEASUREMENT & PAYMENT

ARAM will be paid for at the contract unit price per Square Yard. Such payment shall be considered full compensation for furnishing and placing all materials, labor, equipment, tools, incidentals, road dust blotter, and sweeping if necessary and for doing all the work needed to complete the Rubberized Chip Seal.

### 1027 ASPHALT CONCRETE HOT MIX (AC) WITH FIBER REINFORCEMENT

#### 1027-1 SCOPE

Asphalt Concrete Hot Mix with fiber reinforcement shall be placed in accordance with the Plans, Section 203-6 and 302-5 of the Standard Specifications and these Special Provisions. The width of road tabulated on the Plans is the weighted average width determined by adding the areas of portions of the street of different widths and dividing by the total length of the street to be overlaid and is only approximate. The full width of existing pavement shall be overlaid and asphalt tapers at paved driveways.

## 1027-2 MATERIAL

Material for conventional AC Hot Mix shall be C2-PG 64-10 as specified on the Plans and in accordance with 203-6.4 of the Standard Specifications and these Special Provisions. In addition to the requirements of 203-6.7.3.2, a certificate of calibrated batch scales per California State Test 109 from the batch plant supplying the material is required. A minimum of 5.5% Asphalt Binder Content is set for this project.

Fibers shall be FORTA-FI, ACE XP Polymer Fiber by Surface-Tech, or an approved equal. Fibers shall be mixed with AC in accordance with the manufacturer's recommendation. A manufacturer's representative shall be present at the batch plant to approve the fiber addition system and ensure uniform distribution. The Contractor shall submit alternative fiber reinforcement no later than 7 days after award for evaluation by the Engineer.

## 1027-3 DISTRIBUTION & SPREADING

New longitudinal joints shall be located as approved by the Engineer with the following order of preference:

1. Longitudinal joints shall be located a minimum of two feet away from existing longitudinal joints.
2. Longitudinal joints shall not be placed in wheel paths.
3. Longitudinal joints shall occur within one foot of lane lines or the center line.

The full width of undivided roadway shall be paved such that no unfinished longitudinal joints of asphalt concrete exist at the end of the workday.

The fourth paragraph included in 302-5.5 is hereby deleted and replaced with the following:

"Asphalt Rubber Hot Mix shall not be placed unless the atmospheric temperature is at least 55°F and rising or during unsuitable weather."

In addition to the requirements of 302-5 of the Standard Specifications, asphalt concrete shall be placed with spreading equipment equipped with fully automatic screed and grade sensing controls, which shall control the longitudinal grade of the screed. Automatic controls shall conform to and be operated in accordance with the following provisions.

Unless approved otherwise, ski-type devices, with a minimum length of 30 feet, shall be used to provide a reference for the grade sensor. Skis shall be constructed and installed in such a manner that a reference to the average elevation of the existing pavement, along the length of ski, is maintained at the sensor point. When placing surfacing adjacent to surfacing previously placed in conformance with these provisions, a joint matching shoe of adequate size and type to properly sense the grade of the previously placed mat, may be used in lieu of the 30-foot ski.

The ski shall be mounted at a location, which will provide an accurate reference for the surfacing being placed. This may require the ski to be mounted ahead of, and inside the outer limits of the screed. Automatic cross slope control may be accomplished by use of a ski and grade sensor on each side of the paving machine.

Automatic screed controls shall be installed in such a manner that the occasional manual adjustments, necessary to maintain the attitude of the screed parallel to the underlying pavement, are readily accomplished. Automatic screed controls shall be installed so that with little or no delay, use of the automatic controls can be discontinued and the screed controlled by manual methods.

Should the automatic screed controls fail to operate properly during any day's work, the Contractor may use manual control of the spreading equipment for the remainder of that day, provided the quality of the work conforms to the requirements of 302-5 of the Standard Specifications. Should the methods and equipment used for automatic control fail to result in the quality of work required by said 302-5, the paving operations shall be temporarily discontinued, and the Contractor shall make the necessary changes to the equipment, or furnish other equipment conforming to the requirements herein, before paving is resumed.

If it is determined by the Engineer that the existing grade and cross slope is too irregular for the automatic controls to provide the quality of work required, the use of the automatic controls shall be discontinued, and the spreading equipment adjusted by manual methods. Use of the automatic equipment shall be resumed when the Engineer has determined that it is again practical and so orders.

Base repairs, as specified in these Special Provisions, shall be accomplished in advance of the paving operation. Repair of potholes may be accomplished directly in front of the leveling course operation using material taken from the hopper of the paving machine as directed by the Engineer.

Placement of a seal coat of SS1h emulsion in accordance with 203-3 is required at areas where new pavement meets existing asphalt concrete.

#### 1027-4 ROLLING

In addition to the requirements of 302-5.6 of the Standard Specifications, the number of rollers required for each paving operation shall be such that all rolling for density shall be completed before the temperature of the asphalt concrete mixture drops below 290°F.

Breakdown rolling shall commence when the asphalt concrete is placed. Rolling shall be accomplished with the drive wheel forward and with the advance and return passes in the same line.

Road dust blotter shall be applied in accordance with 302-9.7.

#### 1027-5 COMPACTION TESTING

Engineer will take nuclear gage compaction tests to ensure the minimum 95% compaction requirement is being met. If 95% compaction or better is not achieved, Contractor shall receive decreased payment for AC pavement in accordance with the following:

The Contractor shall reimburse the Agency with the difference between the contract unit price and the reduced unit price for those tons that fall below 95% compaction. The reduced unit price is calculated as follows:

Contract unit price x (1- Reduced Compensation Factor) = Reduced unit price.  
Pavement with 93.0% or lower compaction will be removed and replaced by the contractor at no cost to Agency.

The amount of reduced compensation will be calculated based on the following table.

Relative Compaction (Percent)	Reduced Compensation Factor	Relative Compaction (Percent)	Reduced Compensation Factor
95.0	0.000	93.8	0.300
94.8	0.050	93.6	0.350
94.6	0.100	93.4	0.400
94.4	0.150	93.2	0.450
94.2	0.200	93.0	0.500
94.0	0.250	LESS THAN 93.0 NO COMPENSATION	

#### 1027-6 INTERSECTIONS

Where AC overlay is required on a through street at an intersection with no concrete cross gutter, the overlay on the cross-street shall extend a distance of ten feet per inch of overlay thickness (including leveling course) past the end of the pavement or Dike return unless otherwise marked in the field or as directed by the Engineer.

Existing road surface drainage pattern shall be maintained.

#### 1027-7 SAMPLING

The Engineer will sample the asphalt concrete from the hopper of the paving machine at various intervals. The Contractor shall facilitate the sampling process.

**1027-8 MEASUREMENT & PAYMENT**

Payment for Asphalt Concrete Hot Mix with Fiber Reinforcement, complete in place, will be made as specified in 302-5.9 of the Standard Specifications and these Special Provisions. The unit prices per Ton paid for asphalt concrete shall be considered full compensation for all labor, materials, and equipment required to construct asphalt concrete overlays as shown on the Plans and as specified in the Standard Specifications and these Special Provisions including AC overlay at AC taper with key.

**1028 FIBER REINFORCEMENT FOR HOT MIX ASPHALT (FORTI-FI)**

**1028-1 SCOPE**

This item shall consist of High tensile strength aramid fiber blend specially formulated to reinforce hot mix asphalt.

**1028-2 SUBMITTAL**

Representative fiber product sample.

Fiber product data sheet and certification from the Manufacturer that the fiber product supplied meets the requirements of this specification.

**1028-3 MATERIAL**

Provide FORTA-FI provided by Forta-Fi corporation or equal product of reinforcing fiber blend of Virgin Polyolefins and Virgin Aramids that meets the requirements in Table 1 and Table 2.

Table 1: Reinforcing Fiber Material Properties

Property	Test Method	Aramid
Form	Manufacturer Certification	Monofilament
Nominal Specific Gravity	ASTM D276	1.44
Tensile Strength (psi)	ASTM D7269	400,000
Length (in)	Manufacturer Certification	0.75

1. Polyolefin fibers will melt or become plastically deformed during production



Table 2: Reinforcing Fiber Performance Properties

Performance Measure	Test Method	Standard	Requirement
Dispersion Efficiency	Aramid Dispersion State Ratio (ADSR)	Modified ASTM D2172	≥ 85%
Field Performance Cracking Resistance	Pavement Condition Index	ASTM D6433	≥ 10 PCI Points Increase, Minimum 4 Years
Resistance to Permanent Deformation (Rutting)	Flow Number (FN)	AASTHO TP79	≥ 75% increase

#### 1028-4 DELIVERY, STORAGE, AND HANDLING

Deliver fiber-reinforcement in sealed, undamaged containers with labels intact and legible, indicating material name and lot number.

Deliver fiber-reinforcement to location where it will be added to each batch or loaded into the mixer.

Store materials covered and off the ground. Keep sand and dust out of boxes and do not allow boxes to become wet.

#### 1028-5 MIXING, PRODUCTION & QUALITY CONTROL

1. Add Reinforcing Fibers at a dosage rate of 2.1 ounces per ton of asphalt.
2. Add alternative aramid fiber blends at a rate proposed by the manufacturer that achieves the ADSR, PCI, and FN results required by Section D.
3. Have a fiber manufacturer's representative on site during mixing and production. This requirement can be waived if fiber manufacturer and asphalt producer can supply evidence of manufacturer's brand of fiber being successfully produced a minimum of three times at the asphalt plant to be used for the project.
4. Batch Plant. When a batch plant is used, add fiber to the aggregate in the weigh hopper and increase both dry and wet mixing times. Ensure that the fiber is uniformly distributed before the injection of asphalt cement into the mixture.

5. Drum Plant:

- a. Inject fibers through the RAP collar using an automatic, metered air blown system to promote rapid and complete fiber dispersion. System must automatically record fiber addition data so as to remove human error. Rate the feeding of fibers with the rate the plant is producing asphalt mix. If there is any evidence of fiber bundles at the discharge chute, increase the mixing time and/or temperature or change the angle of the fiber feeder line to increase dry mixing time.
- b. Manual feeding of the fibers is not allowed.
- c. Add fibers continuously and in a steady uniform manner. Provide automated proportioning devices and control delivery within  $\pm 10\%$  of the mass of the fibers required. Perform an equipment calibration to the satisfaction of the fiber manufacturer's representative to show that the fiber is being accurately metered and uniformly distributed into the mix.

Include the following with the air blown system:

- Low level indicators
- No-flow indicators
- A printout of feed rate status in pounds/minute
- A section of transparent pipe in the fiber supply line for observing consistency of flow or feed.
- Manufacturer's representative's approval of fiber addition system

1028-6 PLACEMENT

Follow the manufacturer's and Engineer's recommendations for placement of Asphalt Concrete Hot Mix with Fiber Reinforcement.

1028-7 MEASUREMENT & PAYMENT

Measurement & Payment for Fiber Reinforcement for Hot Mix Asphalt and including all the requirements set forth in this section shall be considered included in the prices paid for other items of work and no additional compensation will be made.

**1029 FIBER REINFORCEMENT FOR HOT MIX ASPHALT (ACE XP)**

1029-1 SCOPE

This item shall consist of ACE XP Polymer Fiber, a high tensile strength aramid fiber blend, or equal product of reinforcing fiber specially formulated to reinforce hot mix asphalt (HMA).

## 1029-2 SUBMITTAL

The following shall be submitted prior to asphalt production:

1. Identification of the mixing plant and type (batch or drum).
2. Material data sheet for the treated aramid fiber and associated treatment properties.
3. Certified quality assurance and quality control (QA/QC) mixing plan which includes procedures for continuously feeding the aramid fiber into the asphalt. The fiber supplier must approve of the QA/QC plan and provide certification of the QA/QC mixing technician at the mixing plant who is responsible for the continuous feeding of the fiber into the HMA. Continuous feeding can be accomplished either by a manual machine or an automated machine for the entire fiber mixing process.

## 1029-3 MATERIAL

Provide ACE XP Polymer Fiber provided by Surface Tech corporation or equal product of reinforcing fiber blend that meet the following aramid and treatment material properties found in the following Table 1 and Table 2.

Table 1: Reinforcing Fiber Material Properties

Property	Measure
Material	Para-Aramid Fiber (50-52% by weight)
Form	Filament Yarn
Elongation at Break (%)	<4.4
Modulus (GPa)	>95
Decomposition Temperature (°F)	>800
Specific Gravity (g/cm <sup>3</sup> )	1.44-1.45
Tensile Strength (GPa)	>2.758
Length (in)	1.5 +/-0.05

Table 2: Treatment Properties

Property	Measure
Treatment Type	Sasobit® Wax (48-50% by weight)
Treatment Melting Temperature(°F)	>175

#### 1029-4 DELIVERY & STORAGE

1. Deliver fiber-reinforcement in sealed, undamaged containers with labels intact and legible, indicating material name and lot number.
2. Deliver fiber-reinforcement to location where it will be added to each batch or loaded into the mixer.
3. Store materials covered and off the ground. Keep sand and dust out of boxes and do not allow boxes to become wet.

#### 1029-5 MIXING, PRODUCTION & QUALITY CONTROL

1. Add Reinforcing Fibers at a dosage rate of 2.1 ounces per ton of HMA.
2. Add alternative aramid fiber blends at a rate proposed by the manufacturer.
3. Have a fiber manufacturer's representative on site during mixing and production. This requirement can be waived if fiber manufacturer and asphalt producer can supply evidence of manufacturer's brand of fiber being successfully produced a minimum of three times at the asphalt plant to be used for the project.
4. Batch Plant: When a batch plant is used, add fiber to the aggregate in the weigh hopper. HMA batch dry mix times will need to be 20 seconds minimum to ensure proper aramid distribution. Metering shall be based on batch size (tons) and dosage rate (oz/ton). Feeding shall occur in a constant stream-like manner as the heated aggregate is added to the weigh hopper. If necessary, increase the mixing time with heated aggregates to ensure the aramid fibers are uniformly distributed.
5. Drum Plant: When a drum plant is used, feed the treated aramid with automated dosing machine directly into the mixing drum through the Reclaimed Asphalt Pavement collar. Standard project HMA asphalt production rates apply. Metering shall be calibrated by the automated dosing machine based on the asphalt production rate (tons/hour), and the dosage rate (oz/ton). Feeding shall occur in a constant stream-like manner through the Reclaimed Asphalt collar.

#### 1029-6 PLACEMENT

Follow the manufacturer's Engineer recommendations for placement of Asphalt Concrete Hot Mix with Fiber Reinforcement.

**1029-7 MEASUREMENT & PAYMENT**

Measurement & Payment for Fiber Reinforcement for Hot Mix Asphalt and including all the requirements set forth in this section shall be considered included in the prices paid for other items of work and no additional compensation will be made.

**1030 PMB SHOULDER BACKING**

**1030-1 SCOPE**

This work shall consist of scarifying, shaping existing shoulder, conforming to dirt driveways, and adding Processed Miscellaneous Base (PMB), as modified herein, to bring shoulders to the new pavement surface.

**1030-2 MATERIAL**

PMB shall conform to the provisions of 200-2.5 of the Standard Specifications and coarse graded per table 200-2.4.2; however, the percentage passing sieve No. 200 shall be 7 - 11 percent and the sand equivalent requirement does not apply.

**1030-3 CONSTRUCTION METHODS**

Shoulder Backing shall start no sooner than three (3) calendar days and shall be completed no later than seven (7) calendar days after placing the adjacent overlay. PMB placed under pavement widening and shall be compacted to 95%.

The existing shoulder backing shall be scarified to a minimum distance of three feet from the edge of pavement, watered and shaped prior to adding PMB. The PMB shall be watered, shaped and compacted by rolling to a smooth, firm surface using a pneumatic tire roller or a 4 - 6 ton steel wheel roller.

Existing drainage patterns shall be maintained. Where unusual conditions are encountered, the Contractor shall notify the Engineer in advance of performing the work. The Engineer will specify the methodology to be employed to ensure road drainage patterns are not disrupted.

In the event that Shoulder Backing cannot be completed within the specified number of days, the Engineer may order asphalt concrete paving operations suspended in accordance with 6-2 to allow shoulder backing work to catch up to the schedules specified in these Special Provisions and the Plans.

**1030-4 MEASUREMENT & PAYMENT**

Processed Miscellaneous Base will be measured in Miles of PMB placed. The contract unit price paid per Mile of Processed Miscellaneous Base shall be considered full compensation for furnishing all labor, material, and equipment and for doing all the work involved in scarifying existing material, furnishing and placing PMB, compacting, reshaping shoulders, constructing base layer, and maintaining drainage patterns as specified in these Special Provisions and the Plans.

**1031 SEAL COAT**

**1031-1 SCOPE**

Work under this section consists of applying a seal coat on existing AC Dike AC Berms & AC Swales as specified in the Standard Specifications and these Special Provisions. Seal coat shall be applied to all existing AC Dike and AC Berms within the project limits, as shown on the Plans and marked in the field.

**1031-2 MATERIAL**

The seal coat shall be SS-1h complying with the provisions of 203-3 of the Standard Specifications.

**1031-3 CONSTRUCTION METHODS**

Roadway resurfacing shall be performed prior to the seal coat application. The application shall extend 1 foot into the existing pavement and shall be performed after placing an asphalt concrete overlay. Rate of application shall be 0.15 to 0.20 gallons per square yard.

**1031-4 MEASUREMENT & PAYMENT**

AC Dike Seal will be measured by the Square Foot and payment made at the contract unit price per Square Foot. Measurement for AC Dike and AC Berm shall be the calculated area by multiplying the linear foot X 1.5 feet and no additional payment shall be made. Measurement for seal coat on AC Swale shall be as measured in the field. Such payment shall be considered full compensation for furnishing all labor, materials, tools and equipment's, and other incidental necessary to complete the work.

**1032 AC DIKE REHABILITATION**

**1032-1 SCOPE**

AC Dike Rehabilitation shall consist of capping, dike backing, new construction and/or removal and replacement of AC Dike in accordance with the Plans, the Standard Specifications and these Special Provisions.

AC Dike capping, constructing or removal and replacement shall be at the discretion of the Engineer.

If, in the opinion of the Engineer, the existing dike is in sound condition, firmly attached to the underlying pavement and in proper alignment with the road, capping will be allowed unless otherwise specified.

#### 1032-2 CONSTRUCTION METHOD

Slurry seal shall be performed prior to rehabilitation of AC Dike. All surfaces of the AC Pavement shall be cleaned and free of loose materials, dirt, vegetation, and shall be tack-coated prior to construction of the AC Dike. A self-powered curb extrusion machine shall be used for AC Dike Rehabilitation. Any dike backing material previously existing behind the existing AC Dike shall be replaced after construction of AC Dike Rehabilitation.

When AC Dike Rehabilitation work is performed adjacent to sidewalks, capping and rehabilitation/reconstruction of dike shall be interrupted at the edge of sidewalk and recommence at the opposite edge of sidewalk in order to avoid introduction of pedestrian trip hazards. The dike adjacent to the sidewalk shall be completely removed and reconstructed flush with the top of existing sidewalk.

#### 1032-3 MATERIAL

The asphalt concrete shall be D1-PG 70-10 in accordance with 203-6 of the Standard Specifications. Tack coat shall be paving asphalt PG 64-10, PG 70-10 or as specified in these Special Provisions.

#### 1032-4 MEASUREMENT PAYMENT

Payment for AC Dike Rehabilitation will be made at the contract unit price per Linear Foot complete in place. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and all incidentals necessary to complete the work, including clearing and grubbing, grinding, removal and disposal of asphalt concrete, and tack coat.

### 1033 COMPENSATION ADJUSTMENTS FOR PRICE INDEX FLUCTUATIONS

The provisions of this Section shall apply only to paving asphalt used for Item No. 22, ACHM with Fiber Reinforcement and No. 21, ARAM & Item No. 20 Type II Emulsion Aggregate Slurry. Paving asphalt here refers to the asphalt binder in the mix and does not include the weight of aggregate, modifiers, rubber, or other materials in the mix.

The price paid for the Items listed above will not be adjusted for paving asphalt price fluctuations up or down within 5% of the contract price bid. Payment for

price fluctuations greater than 5% up or down during the month the work is done ( $I_u/I_b$  is greater than 1.05 or less than 0.95) will be adjusted in accordance with the following formula each month such material is included in a monthly estimate.

Total monthly payment adjustment =  $(Q_t)(A)$

For an increase in paving asphalt price index exceeding 5%:

$$A = 0.90 (I_u/I_b - 1.05) (I_b)$$

For a decrease in paving asphalt price index exceeding 5%:

$$A = 0.90 (I_u/I_b - 0.95) (I_b)$$

Where A = Adjustment in dollars per ton of paving asphalt used in materials placed during a given month and rounded to the nearest penny.

$I_u$  = The California Statewide Crude Oil Price Index *used* during the month the paving asphalt is placed.

$I_b$  = The California Statewide Crude Oil Price Index for the month when the *bids* were opened.

$Q_t$  = Total quantity in tons of paving asphalt used for ACHM and for ARAM.

The quantity of paving asphalt in ACHM to be used in making the compensation adjustment will be based on an assumed asphalt content of 112 pounds per ton of asphalt concrete regardless of actual asphalt content.

The quantity of paving asphalt in ARAM to be used in making the compensation adjustment will be the actual tonnage of asphalt binder oil used, not including the weight of the rubber or modifier. The Engineer shall determine the method for calculating this weight.

The quantity of asphalt emulsion in Emulsion Aggregate Slurry to be used in making the compensation adjustment will be the actual tonnage of asphalt emulsion used. The Engineer shall determine the method for calculating this weight.

The adjustment in compensation will also be subject to the following:

1. The compensation adjustment provided herein will be shown separately on payment estimates. The Contractor shall be liable to the Agency for decreased compensation adjustments and the Agency may deduct the amount thereof from any moneys due or that may become due to the Contractor.
2. Compensation adjustments made under this section will be considered in making adjustments in accordance with 3-2.2.1 of the VCSS for increased or decreased quantities.



3. In the event of an overrun of contract time, adjustment in compensation for paving asphalt used in materials placed during the overrun period will be determined using the California Statewide Paving Asphalt Price Index in effect the month in which the overrun began.
4. If the indexes described above are discontinued or otherwise become unavailable, the Engineer will select another index or establish another method of price adjustments.
5. Adjustments in compensation may be based on indexes or corrected indexes published after the final payment has been made. Such adjustments due to the Contractor will be made on receipt of a properly signed Agency claim form except that no claim for adjustment for less than \$100 will be paid after final payment has been made. Such adjustments due to the Agency shall be made promptly by the Contractor after notification by the Agency, except that the Agency will make no claim for less than \$100 after final payment has been made.

## **1034 REMOVAL & DISPOSAL OF EXISTING GUARDRAIL**

### **1034-1 SCOPE**

This work consists of removal of existing guardrail and posts at Balcom Canyon Road (Bridge 208) as shown on the Plans. All removed guardrail components shall become the property of the Contractor and shall be disposed of in a manner and location satisfactory to the Engineer and in accordance with the Standard Specifications.

### **1034-2 CONSTRUCTION METHODS**

Prior to making removals, the Contractor shall meet with the Engineer to verify the limits of removal and location of joins. Steel posts to remain in place.

The Contractor shall stage removals, with proposed improvements, to maximize guardrail protection to traveling public.

The Contractor shall dismantle and remove railing, remove end treatments, notched blocks, detach steel posts from bridge and or road surface, and excavate wood posts (when in-ground).

**1034-3 MEASUREMENT & PAYMENT**

Payment for Removal & Disposal of Existing Guardrail will be made at the contract Lump Sum price. Such payment shall be considered full compensation for furnishing all labor, equipment, and all incidentals necessary to complete the work including proper disposal of guardrail components and no additional compensation will be made.

**1035 MIDWEST GUARDRAIL SYSTEM (MGS)**

**1035-1 SCOPE**

Midwest Guardrail System (MGS) shall be furnished and installed in conformance with Section 83-2, "Railings," of the SSS, SSP, Caltrans Traffic Manual, Chapter 7, "Traffic Safety Systems," all of the items detailed for Midwest Guardrail as shown on the Plans, as marked on the field, and as specified in these Special Provisions. The limits of MGS are delineated by orange paint marks painted on the edge of the existing road.

Remove the existing rail and angle iron bolted and welded to the existing steel posts bolted to the bridge. Field drill existing steel posts to accommodate correct guardrail height. Paint existing posts with matching galvanized paint. Blocks may be omitted on the existing steel posts

MGS with steel post & notched plastic block modified as approved by the Engineer shall be used per Caltrans Standard Plan A77N2.

**1035-2 MEASUREMENT & PAYMENT**

Payment for guardrail installation will be made at the unit price per Linear Foot for MGS (steel post & plastic block) installed. Such payment shall be considered full compensation for furnishing all labor, materials, equipment, tools and incidentals necessary to complete the work.

**1036 TERMINAL SYSTEM END TREATMENT**

**1036-1 SCOPE**

Terminal System End Treatment shall be furnished & installed in conformance with Section 83-2, "Railings," of the SSS, SSP, Caltrans Traffic Manual, Chapter 7, "Traffic Safety Systems," all of the items detailed as shown on the Plans, as marked on the field, and these Special Provisions. The limits of end treatments are delineated by orange paint marks painted on the edge of the existing road.

## 1036-2 CONSTRUCTION MATERIALS

The allowable alternatives shall consist of one of the following or an approved equal:

In-Line Terminal System shall be SKT-SP-MGS (TL-3) manufactured by Road Systems, Inc., and shall include items as shown on the Plans or a County approved equal per Caltrans pre-approved list, as found on the Caltrans website. In-Line Terminal System at two locations on Rose Avenue shall be SKT-SP-MGS (TL-3), as directed and marked out by the Engineer.

Flared Terminal System shall be SRT-31 System by Trinity Industries, Inc., or FLEAT-SP-MGS (TL-3) Terminal System (Flared Energy Absorbing Terminal 350) by Road Systems, Inc., and shall include items as shown on the Plans or a County approved equal per Caltrans pre-approved list, as found on the Caltrans website.

## 1036-3 CONSTRUCTION METHODS

Terminal systems shall be installed in conformance with the manufacturer's installation instructions.

Surplus excavated material remaining, after the terminal system has been installed, shall be disposed of in a uniform manner along the adjacent roadway where designated by the Engineer.

## 1036-4 MEASUREMENT & PAYMENT

Payment for Flared Terminal System and In-Line Terminal System will be made at the contract unit price per Each SKT-SP-MGS and FLEAT-SP-MGS or SRT-31 installed. Such payment shall be considered full compensation for furnishing all labor, materials, equipment, tools, and incidentals necessary to complete the work.

# 1037 END ANCHOR ASSEMBLY

## 1037-1 SCOPE

Midwest Guardrail System (MGS) End Anchor Assembly shall be furnished and installed in conformance with Section 83-2, "Railings," of the SSS, SSP, Caltrans Traffic Manual, Chapter 7, "Traffic Safety Systems," all of the items detailed for MGS as shown on the Plans, as marked on the field, and these Special Provisions. MGS End Anchor Assembly shall be Type SFT per Caltrans Std. Plan A77S1.

**1037-2 MEASUREMENT & PAYMENT**

Payment for end anchor assembly will be made at the contract unit price per Each MGS End Anchor Assembly (Type SFT) installed. Such payment shall be considered full compensation for furnishing all labor, materials, equipment, tools, and incidentals necessary to complete the work.

**1038 BUTTERFLY GUARDRAIL REFLECTOR**

**1038-1 SCOPE**

Butterfly Guardrail Reflector shall be furnished and installed in conformance with Section 83-2, "Railings," of the SSS, SSP, Caltrans Traffic Chapter 7, "Traffic Safety Systems," all the items detailed for Midwest Guardrail as shown on the Plans and these Special Provisions.

Butterfly Guardrail Reflector shall be placed at every 12.5 feet intervals and mounted Bolt-On style reflectors behind post bolts with the reflector's prongs pointed towards oncoming traffic. Bolt must be tightened securely over two prongs of the reflector deep into slot provided. Reflector overall height shall be 2-3/4".

**1038-2 MEASUREMENT & PAYMENT**

Payment for Butterfly Guardrail Reflector will be made at the contract unit price per Each guardrail reflector installed. Such payment shall be considered full compensation for furnishing all labor, materials, tools, and incidentals necessary to complete the work.

**1039 SURVEY MONUMENT FRAME REPLACEMENT & ADJUSTMENT**

**1039-1 SCOPE**

Ventura County survey monument frames with triangular covers shall be removed, salvaged and replaced to the new finished grade with new monument frames with circular covers. Salvaged triangular covers shall be delivered to the Ventura County Government Center. Contact Alex Mathews at (805) 654-2083 to make arrangement for delivery.

Ventura County Survey monument frames with circular covers shall be adjusted to the new finished grade.

When removing and replacing or adjusting frames and covers, the Contractor shall not move, undermine, disturb, or damage in any way, the existing concrete monument cores or their attached metal survey markers.

All Ventura County Survey monument frames and covers to be replaced or adjusted, shall be performed in accordance with the appendices, the Standard Specifications, and these Special Provisions.

#### 1039-2 REPLACEMENT

Existing concrete Survey Monument Frames with triangular cast iron covers shall be removed and replaced with standard Ventura County survey monument cast iron frames, round covers, and PVC slip couplings. The Contractor shall salvage and deliver the old triangular lids and deliver them to the Agency.

The new PVC slip couplings shall be extended upward as needed by placing a section of white, 8" PVC pipe (Class 125 with 9/32" wall thickness) on top of the couplings. The tops of the new frames shall be flush with the new pavement surface.

A standard survey monument kit (frame, cover, and PVC slip couplings) can be purchased at the County Surveyor's public counter, Third Floor, Administration Building, 800 S. Victoria Avenue, Ventura, CA 93009 for \$219.86 including tax plus a requisition fee of \$7.50 per lot.

#### 1039-3 ADJUSTMENT

Existing standard Ventura County survey monument cast iron frames and round covers that are to be adjusted so that the tops of the existing frames are flush with the new pavement surfaces are listed herein.

The existing PVC slip couplings or vitrified clay pipe and bells at the frames and covers to be raised shall be left in place and shall be extended upward as needed by placing a section of white, 8" PVC pipe (Class 125 with 9/32" wall thickness) on top of the existing couplings or pipe and bells.

#### 1039-4 LOCATION & TYPE OF MONUMENTS

Monuments, which are to be adjusted or replaced and adjusted, are at the locations shown in the appendices.

#### 1039-5 MEASUREMENT & PAYMENT

Payment for Survey Monument Frame Adjustment and Survey Monument Frame Replacement will be made at the contract unit price for Each survey monument adjusted and/or replaced to finished grade. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and all incidentals necessary to perform the work, complete in place.

## **1040 PAVEMENT DELINEATION, STRIPING & SIGNING**

### **1040-1 SCOPE**

Pavement Delineation shall consist of removing and installing thermoplastic striping, marking, pavement markers, delineators, object markers and signs and posts as shown on the Plans and as directed by the Engineer.

All conflicting or damaged signs within project limits as determined by the Engineer shall be removed and replaced, and shall have a minimum vertical clearance of 7 feet. All sign posts shall be 2" x 2" Quick Punch steel posts (12-gauge galvanized square steel tubing) with knock out holes and breakaway pin in accordance with County Road Standard Plate F-4.

On roads to be delineated, prior to removing traffic control, temporary markings shall be placed. Permanent Pavement Delineation on each road to be delineated shall be completed within 14 calendar days following completion of the overlay on that road unless otherwise specified in these Special Provisions. In the event that striping cannot be completed within the specified number of days, the Engineer may order resurfacing operations suspended in accordance with 6-2 to allow striping work to meet schedules specified in these Special Provisions. Centerline striping shall be completed within 10 calendar days after placing overlay. Pavement markers, pavement legends, edge line striping and markings shall be completed within 7 calendar days after completion of work.

### **1040-2 TEMPORARY MARKINGS**

STOP bars: On roads to be delineated and on which permanent delineation will not be applied before public traffic is allowed on the freshly ground or paved surface, Temporary Stop bars shall be placed at stop signs the same day that paving or grinding occurs. Temporary Stop Bars shall be 12 inches wide.

Temporary Markings shall be placed at the centerline of pavement and on multi-lane roads at each lane line the same day that grinding occurs or overlay is placed. Temporary centerline markings shall consist of temporary raised pavement markers (Davidson Plastics Co., M. V. Plastics, or approved equal) at 25-foot maximum intervals. Temporary lane line markings shall be reflective tape or painted spots (cat-tracking) at 50-foot maximum intervals or a painted dribble line.

Temporary Markings shall be maintained, replaced, restored or augmented as directed by the Engineer until permanent pavement delineation is completed. When the Engineer determines Temporary Markings as specified herein do not provide adequate temporary delineation, the Contractor shall install Temporary Markings as specified for permanent delineation. All Temporary Markings shall be removed prior to the installation of permanent markings and striping.

1040-3 PAVEMENT MARKERS

Pavement Markers shall be placed in accordance with SSS Section 85, SSP A20A through A20D and these Special Provisions. Pavement markers shall include placement of blue fire hydrant markers. The Contractor shall replace any damaged Pavement Markers, without cost to the Agency, prior to the Agency's acceptance of the project.

1040-4 THERMOPLASTIC TRAFFIC STRIPING & PAVEMENT MARKINGS

Thermoplastic Traffic Striping and Pavement Markings shall be 90 mils in thickness and shall conform to the provisions of 84-2 of the SSS, SSP, and these Special Provisions. Striping and markings shall be reapplied as shown on the Plans and as specified herein. The size, color, and spacing of the striping shall conform to the requirements of Section 310 of the Standard Specifications and the State Standard Specifications, State of California, Department of Transportation Standard Plans as shown on SSP A20A through A20D and A24A through A24F, except that lane lines shall be 4-inches wide.

Striping Width shall comply with 2015 SSP, the Plans, and these Special Provisions.

1040-5 MEASUREMENT & PAYMENT

Payment for Pavement Delineation, Striping and Signing will be made at the contract Lump Sum price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to complete the work.





**APPENDIX H**  
**UTILITY COMPANY DIRECTORY**



## Utility Company Directory

### Camarillo

Electric	<b>So. Calif. Edison Company</b> SCE Planning Supervisor	10060 Telegraph Road			<b>Phone:</b> (805) 654-7444
E-Mail: MapRequests@sce.com		Ventura	CA	93004-	<b>Fax:</b> (805) 654-7275

**Comments:** For review of preliminary or final plans

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Electric	<b>So. Calif. Edison Company</b> Attn: Planning	10060 Telegraph Road			<b>Phone:</b> (714) 796-9932
E-Mail: MapRequests@sce.com		Ventura	CA	93004-	<b>Fax:</b> (714) 973-5735

**Comments:** Use to request facilities maps

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Gas	<b>The Gas Company - Distribution</b> Peggy Li, Planning Associate	P.O. Box 2300, SC9331			<b>Phone:</b> (818) 701-3319
E-Mail: NorthwestDistributionUtilityRequest@semprautilities.com		Chatsworth	CA	91313-	<b>Fax:</b> (818) 701-3380

**Comments:**

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Gas	<b>The Gas Company - Transmission</b> Roselyn Squires, Planning Associate	9400 Oakdale Avenue P.O. Box 2300, M.L. 9314			<b>Phone:</b> (818) 701-4546
E-Mail: SoCalGasTransmissionUtilityRequest@semprautilities.com		Chatsworth	CA	91313-2300	<b>Fax:</b> (818) 701-3441

**Comments:**

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Pipeline	<b>Shell Pipeline Company LLC</b> Utility Coordinator	20945 S. Wilmington Ave.			<b>Phone:</b> (310) 816-2063 (888) 257-0877
E-Mail: SPLC-Encroachments@shell.com		Carson	CA	90810-1039	<b>Fax:</b>

**Comments:** Formerly Equilon Pipeline

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Sewer	<b>City of Camarillo Sanitation District</b>	P.O. Box 248			<b>Phone:</b> (805) 388-5382
E-Mail:		Camarillo	CA	93010-	<b>Fax:</b>

**Comments:**

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Telecom	<b>AT &amp; T California</b> Attn: Cathy Hurtado	Right of Way 600 E. Green Street #300			<b>Phone:</b> (626) 817-4263
E-Mail: ma2797@att.com		Pasadena	CA	91101-2020	<b>Fax:</b>

**Comments:** AT & T leasehold entity

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Telecom	<b>AT&amp;T Long Distance Inquiries</b> Attn: Joe Forkert	22311 Brookhurst Street #203			<b>Phone:</b> (714) 963-7964
E-Mail: joef@forkertengineering.com		Huntington Beach	CA	92646-	<b>Fax:</b>

**Comments:** Steve Shermoen - AT & T (Long Distance). E-mail inquiries to AT&T-Inquiries@forkertengineering.com

## Utility Company Directory

### Camarillo

Telecom	<b>Qwest/CenturyLink</b> Juan Del Castillo	4090 E. Leaverton Court			<b>Phone:</b> (805) 701-4157
E-Mail:	CenturylinkNationalOSPRelocations@centurylink.com / relocations	Anaheim	CA	92807-	<b>Fax:</b> (562) 777-2235

**Comments:** Alternate Michael Garrison or William Peterson. Corporate: George McElvain, Mgr. Of Operations: 1860 Lincoln St #200, Denver, CO (303) 937 9026

Telecom	<b>Sprint - Fiber Operations</b> Attn: Tibor Laky, Outside Plant Engineer	2592 Dupont Drive			<b>Phone:</b> (949) 225-2931
E-Mail:	tibor.x.laky@sprint.com	Irvine	CA	92612-	<b>Fax:</b> (949) 225-2950

**Comments:** Tibor Laky - Ericsson Contractor for Sprint. E-mail: Tibor.X.Laky@sprint.com

Telecom	<b>Time Warner Cable</b> Attn: Joe Maysick	2525 Knoll Drive			<b>Phone:</b> (805) 477-4439
E-Mail:	Joe.Maysick@adelphia.com	Ventura	CA	93003-	<b>Fax:</b> (805) 644-9324

**Comments:** Data Operations - West Region, 750 Canyon Drive, Coppell, TX 75019 - west-engineering-relo@twcable.com

Telecom	<b>Verizon Business/MCI</b> Attn: Chuck Czumak	1701 Ringling Blvd.			<b>Phone:</b>
E-Mail:	investigations@verizon.com	Sarasota, FL	FL	94240-	<b>Fax:</b>

**Comments:**

Telecom	<b>Verizon Business/MCI</b> Attn: Investigations	2400 N. Glenville Drive			<b>Phone:</b> (972) 729-6240
E-Mail:	investigations@verizon.com	Richardson	TX	75082-	<b>Fax:</b>

**Comments:**

Telecom	<b>Verizon/ Frontier Communications</b> Attn: Tom Pearson	201 Flynn Rd			<b>Phone:</b> (805) 437-9351
E-Mail:	thomas.pearson@ftr.com	Camarillo	CA	93012-	<b>Fax:</b>

**Comments:**

Water	<b>California American Water Company</b> Village District	2439 W. Hillcrest Drive, #A			<b>Phone:</b> (805) 498-6770 (805) 498-1266
E-Mail:		Newbury Park	CA	91320-	<b>Fax:</b>

**Comments:** Alternate address: P.O. Box 578, Alton, IL 62002

Water	<b>Calleguas Municipal Water District</b> Tony Goff, Manager of Operations & Maintenance	2100 Olsen Road			<b>Phone:</b> (805) 579-7138
E-Mail:	tgoff@calleguas.com	Thousand Oaks	CA	91360-6800	<b>Fax:</b> (805) 522-5730

**Comments:**

## Utility Company Directory

### Camarillo

Water	<b>Camrosa Water District</b>	7385 E. Santa Rosa Road	<i>Phone:</i> (805) 482-4677
E-Mail:		Camarillo CA 93012-	<i>Fax:</i>

#### *Comments:*

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Water	<b>City of Camarillo</b> Water Department	P.O. Box 248	<i>Phone:</i> (805) 987-5079
E-Mail:		Camarillo CA 93010-	<i>Fax:</i>

#### *Comments:*

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Water	<b>Crestview Mutual Water Company</b>	328 Valley Vista Drive	<i>Phone:</i> (805) 482-2001
E-Mail:		Camarillo CA 93010-	<i>Fax:</i>

#### *Comments:*

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Water	<b>Del Norte Mutual Water Company</b> Attn. Patrick McGonigle	647 W. La Loma Avenue	<i>Phone:</i> (805) 983-1170
E-Mail:		Somis CA 93066-	<i>Fax:</i>

#### *Comments:*

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Water	<b>Pleasant Valley County Water District</b> Dave P. Souza, General Manager	154 S. Las Posas Road	<i>Phone:</i> (805) 482-2119
E-Mail: pvcwd.agwater@verizon.net		Camarillo CA 93010-	<i>Fax:</i> (805) 484-5835

#### *Comments:*

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Water	<b>Pleasant Valley Mutual Water District</b>	1863 E. Las Posas Road	<i>Phone:</i> (805) 482-5061
E-Mail:		Camarillo CA 93010-	<i>Fax:</i>

#### *Comments:*

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Water	<b>United Water Conservation District</b> James Grisham	106 North 8th Street	<i>Phone:</i> (805) 525-4431
E-Mail: jamesg@unitedwater.org		Santa Paula CA 93060-	<i>Fax:</i>

#### *Comments:* jamesg@unitedwater.org

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Water	<b>Zone Mutual Water Company</b> Attn: Carol Schoen	6648 Los Angeles Avenue P.O. Box 239	<i>Phone:</i> (805) 386-4061
E-Mail:		Somis CA 93066-0239	<i>Fax:</i> (805) 485-1186

#### *Comments:*

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## Utility Company Directory

### Somis

Electric	<b>So. Calif. Edison Company</b> SCE Planning Supervisor	10060 Telegraph Road	<b>Phone:</b> (805) 654-7444
E-Mail: MapRequests@sce.com		Ventura CA 93004-	<b>Fax:</b> (805) 654-7275

**Comments:** For review of preliminary or final plans

Electric	<b>So. Calif. Edison Company</b> Attn: Planning	10060 Telegraph Road	<b>Phone:</b> (714) 796-9932
E-Mail: MapRequests@sce.com		Ventura CA 93004-	<b>Fax:</b> (714) 973-5735

**Comments:** Use to request facilities maps

Gas	<b>The Gas Company - Distribution</b> Peggy Li, Planning Associate	P.O. Box 2300, SC9331	<b>Phone:</b> (818) 701-3319
E-Mail: NorthwestDistributionUtilityRequest@semprautilities.com		Chatsworth CA 91313-	<b>Fax:</b> (818) 701-3380

**Comments:**

Gas	<b>The Gas Company - Transmission</b> Rosalyn Squires, Planning Associate	9400 Oakdale Avenue P.O. Box 2300, M.L. 9314	<b>Phone:</b> (818) 701-4546
E-Mail: SoCalGasTransmissionUtilityRequest@semprautilities.com		Chatsworth CA 91313-2300	<b>Fax:</b> (818) 701-3441

**Comments:**

Pipeline	<b>Shell Pipeline Company LLC</b> Utility Coordinator	20945 S. Wilmington Ave.	<b>Phone:</b> (310) 816-2063 (888) 257-0877
E-Mail: SPLC-Encroachments@shell.com		Carson CA 90810-1039	<b>Fax:</b>

**Comments:** Formerly Equilon Pipeline

Telecom	<b>AT &amp; T California</b> Attn: Cathy Hurtado	Right of Way 600 E. Green Street #300	<b>Phone:</b> (626) 817-4263
E-Mail: ma2797@att.com		Pasadena CA 91101-2020	<b>Fax:</b>

**Comments:** AT & T leasehold entity

Telecom	<b>AT&amp;T Long Distance Inquiries</b> Attn: Joe Forkert	22311 Brookhurst Street #203	<b>Phone:</b> (714) 963-7964
E-Mail: joef@forkertengineering.com		Huntington Beach CA 92646-	<b>Fax:</b>

**Comments:** Steve Shermoen - AT & T (Long Distance). E-mail inquiries to AT&T-Inquiries@forkertengineering.com

Telecom	<b>Qwest/CenturyLink</b> Juan Del Castillo	4090 E. Leaverton Court	<b>Phone:</b> (805) 701-4157
E-Mail: CenturylinkNationalOSPRelocations@centurylink.com / relocations		Anaheim CA 92807-	<b>Fax:</b> (562) 777-2235

**Comments:** Alternate Michael Garrison or William Peterson. Corporate: George McElvain, Mgr. Of Operations: 1860 Lincoln St #200, Denver, CO 73023 827 3026

## Utility Company Directory

### Somis

Telecom	<b>Sprint - Fiber Operations</b> Attn: Tibor Laky, Outside Plant Engineer	2592 Dupont Drive			<b>Phone:</b> (949) 225-2931
E-Mail:	tibor.x.laky@sprint.com	Irvine	CA	92612-	<b>Fax:</b> (949) 225-2950

**Comments:** Tibor Laky - Ericsson Contractor for Sprint. E-mail: Tibor.X.Laky@sprint.com

Telecom	<b>Time Warner Cable</b> Attn: Joe Maysick	2525 Knoll Drive			<b>Phone:</b> (805) 477-4439
E-Mail:	Joe.Maysick@adelphia.com	Ventura	CA	93003-	<b>Fax:</b> (805) 644-9324

**Comments:** Data Operations - West Region, 750 Canyon Drive, Coppell, TX 75019 - west-engineering-relo@twcable.com

Telecom	<b>Verizon Business/MCI</b> Attn: Chuck Czumak	1701 Ringling Blvd.			<b>Phone:</b>
E-Mail:	investigations@verizon.com	Sarasota, FL	FL	94240-	<b>Fax:</b>

**Comments:**

Water	<b>Balcom Bixby Water Association</b>	900 Avenida Acaso, Suite E			<b>Phone:</b> (805) 482-4376
E-Mail:		Camarillo	CA	93012-	<b>Fax:</b>

**Comments:** formerly at 8410 Waters Rd., MP

Water	<b>Berylwood Heights Mutual Water Co.</b>	P.O. Box 239			<b>Phone:</b> (805) 484-7711
E-Mail:		Somis	CA	93066-	<b>Fax:</b>

**Comments:**

Water	<b>Calleguas Municipal Water District</b> Tony Goff, Manager of Operations & Maintenance	2100 Olsen Road			<b>Phone:</b> (805) 579-7138
E-Mail:	tgoff@calleguas.com	Thousand Oaks	CA	91360-6800	<b>Fax:</b> (805) 522-5730

**Comments:**

Water	<b>Del Norte Mutual Water Company</b> Attn. Patrick McGonigle	647 W. La Loma Avenue			<b>Phone:</b> (805) 983-1170
E-Mail:		Somis	CA	93066-	<b>Fax:</b>

**Comments:**

Water	<b>Ventura County Water Works District #1</b> PWA Water & Sanitation	6767 Spring Road P.O. Box 250			<b>Phone:</b> (805) 378-3000
E-Mail:		Moorpark	CA	93020-	<b>Fax:</b> (805) 529-7542

**Comments:**

## ***Utility Company Directory***

### **Somis**

Water	<b>Ventura County Water Works District #19</b>	6767 Spring Road	<b>Phone:</b> (805) 378-3000
	PWA Water & Sanitation	P.O. Box 250	
E-Mail:		Moorpark	<b>Fax:</b> (805) 529-7542
		CA 93020-	

#### ***Comments:***

---

Water	<b>Zone Mutual Water Company</b>	6648 Los Angeles Avenue	<b>Phone:</b> (805) 386-4061
	Attn: Carol Schoen	P.O. Box 239	
E-Mail:		Somis	<b>Fax:</b> (805) 485-1186
		CA 93066-	

#### ***Comments:***

---



**APPENDIX I**  
**NOTICE TO RESIDENT-BUSINESS-INSTITUTION**



**NOTICE TO RESIDENT/ BUSINESS/ INSTITUTION**

Date \_\_\_\_\_

In approximately \_\_\_\_\_, the Transportation Department of the Public Works Agency, County of Ventura, will resurface the existing pavement of your street. The work will be done by \_\_\_\_\_.

The resurfacing consists of street repairs, concrete repairs, street resurfacing, and restriping of the streets. The new surfacing will provide smoother driving and will extend the service life of the road. Generally, existing driveways and the surface drainage should not be affected; however, if there are changes, we will contact you.

It will be necessary to close, or partially close, your street on the days the work is done. We will post temporary "No Parking" signs at least 48 hours in advance of the scheduled work. This will prohibit parking on the pavement between 7:30 AM and 5:30 PM. In case of inclement weather, it may be necessary to reschedule the contractor's operations.

We ask your cooperation by not parking your automobile in the street during the short construction period. You can drive in and out of your garage or driveway anytime during construction operations as one lane will be kept open to traffic.

In order for the resurfacing to be effective, it is absolutely necessary that the pavement be kept dry prior to its application. If water is allowed to run onto the pavement the treatment will be less effective.

We ask that during the time we are working that you DO NOT:

1. Park on the street.
2. Allow water to run onto the street.
3. Allow children to play in the street.

If some asphalt accidentally gets on your skin clean the area with oil-dissolving skin cleaner. Do not use solvents or thinners to remove material from skin.

We regret any inconvenience that this work may cause you. We thank you for your cooperation in assisting us to maintain your street in the most efficient way possible.

If you have any questions regarding the project, please call:

General Contractor

Tel. \_\_\_\_\_

Terry Hanser Project Manager  
County of Ventura, Public Works Agency

Tel. (805) 654-3700

**Si necesita esta informacion traducida en español, por favor contacte al Departamento de Obras Publicas, del Condado de Ventura al 805-654-2049.**



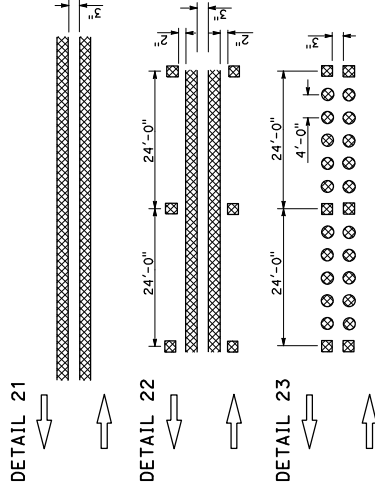
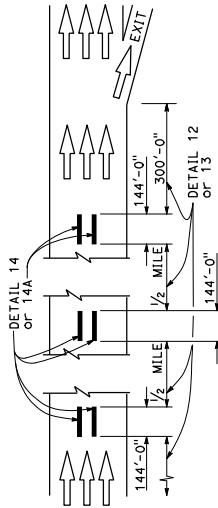
**APPENDIX J**  
**APPLICABLE STANDARD PLANS**



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

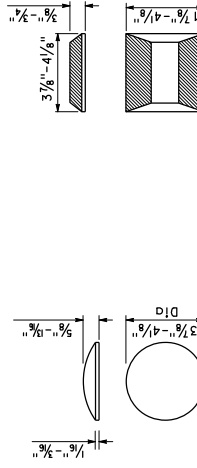
October 30, 2015  
 REGISTERED CIVIL ENGINEER  
 THE STATE OF CALIFORNIA OR ITS OFFICERS  
 SHALL NOT BE RESPONSIBLE FOR  
 ANY ERRORS OR OMISSIONS OR FOR THE  
 CONSEQUENCES OF THIS PLAN SHEET.

## NO PASSING ZONES-TWO DIRECTION

TYPICAL LANE LINE DELINEATION  
IN ADVANCE OF EXIT RAMP

**NOTE:**  
 Detail 14 is to be used in combination  
 with Detail 13. Detail 14A is to be used  
 in combination with Detail 12.

## MARKER DETAILS



## TYPE A AND TYPE AY

## TYPE C AND TYPE D

## TYPE G AND TYPE H

PAVEMENT MARKERS  
AND TRAFFIC LINES  
TYPICAL DETAILS

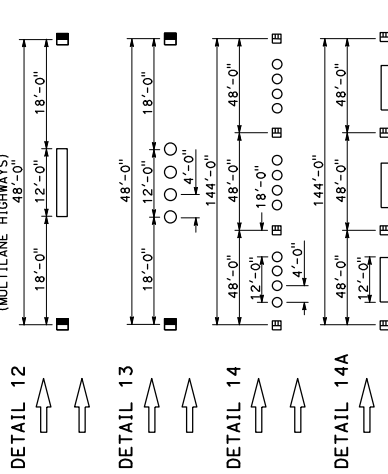
NO SCALE

A20A

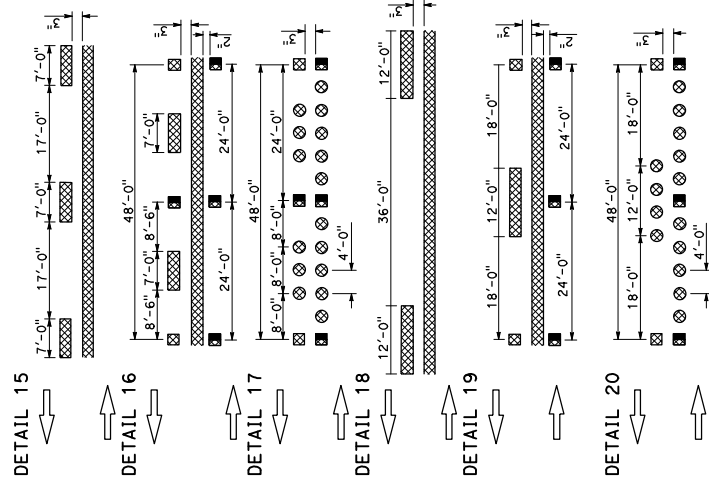
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

## LANELINES (Cont)

(MULTILANE HIGHWAYS)

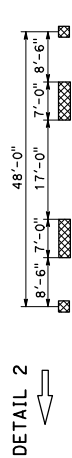
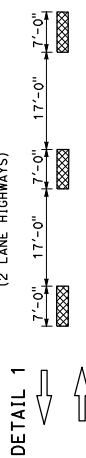


## NO PASSING ZONES-ONE DIRECTION

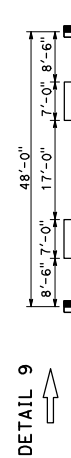
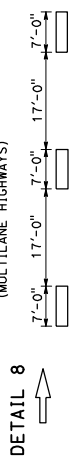
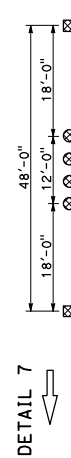
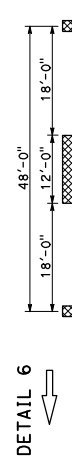
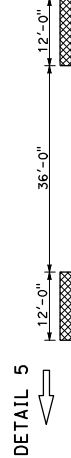
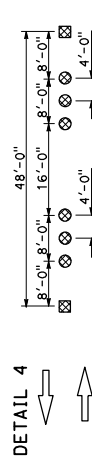


## CENTERLINES

(2 LANE HIGHWAYS)



DETAIL 3 DELETED



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTALS NO. SHEETS

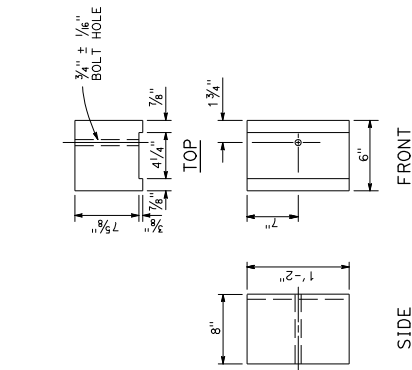
  

<b>Randell D. Hiett</b> REGISTERED CIVIL ENGINEER No. C50200 Exp. 6-30-19 STATE OF CALIFORNIA	
PLANS APPROVAL DATE MAY 31, 2018	PROFESSIONAL ENGINEER No. C50200 Exp. 6-30-19 STATE OF CALIFORNIA

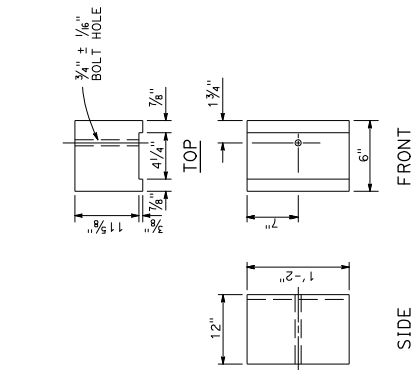
THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION  
 AND ITS OFFICERS  
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR  
 THE ACCURACY OR COMPLETENESS OF SCANNED  
 COPIES OF THIS PLAN SHEET.

**NOTES:**

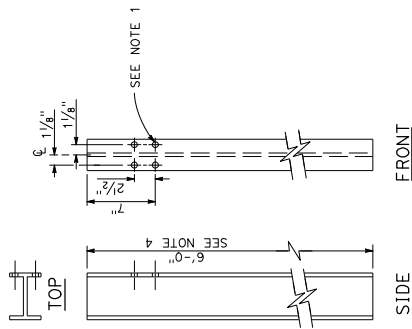
1. All holes in steel post shall be  $\frac{1}{8}$ " Dia maximum.
2. Dimensions shown for wood block are nominal.
3. Notched face of block faces steel post.
4. 6'-0" length posts to be used for typical roadway installation. See Standard Plan A77N3.
5. See Standard Plan A77N3 for use of 6" x 8" and 8" x 8" notched wood blocks.
6. This post and 8" x 12" block combination to be used for line post sections of MGS on narrow roadways and where strengthened line post sections of MGS are warranted to shield fixed objects.
7. 6" x 12" notched wood block and 8" x 12" notched wood block must be used with 6" dike.



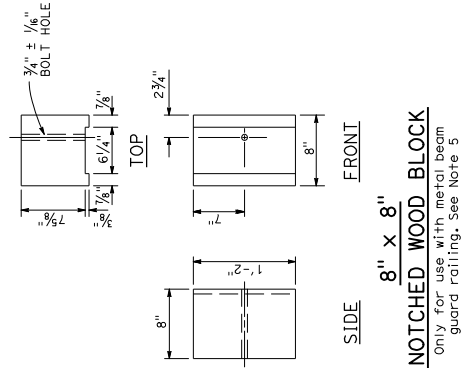
**6" x 8"**  
**NOTCHED WOOD BLOCK**  
 only for use with metal beam  
 guard railing. See Note 5



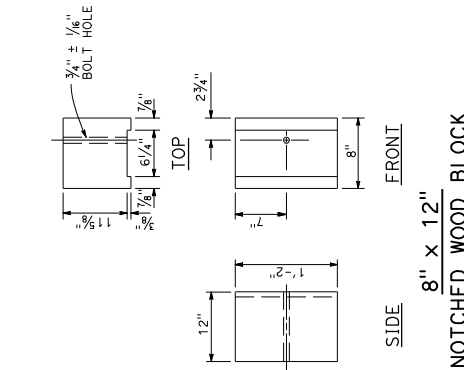
**6" x 12"**  
**NOTCHED WOOD BLOCK**  
 See Notes 2, 3 and 7



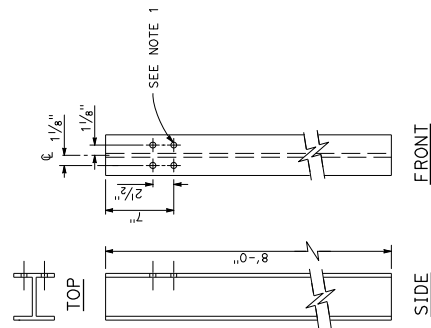
**W6 x 9 OR W6 x 8.5**  
**STEEL POST**  
 See Note 4



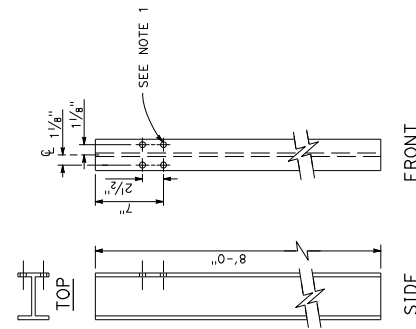
**8" x 8"**  
**NOTCHED WOOD BLOCK**  
 only for use with metal beam  
 guard railing. See Note 5



**8" x 12"**  
**NOTCHED WOOD BLOCK**  
 See Notes 2, 3 and 7



**W6 x 15**  
**STEEL POST**



**W6 x 9 OR W6 x 8.5**  
**STEEL POST**  
 See Note 6

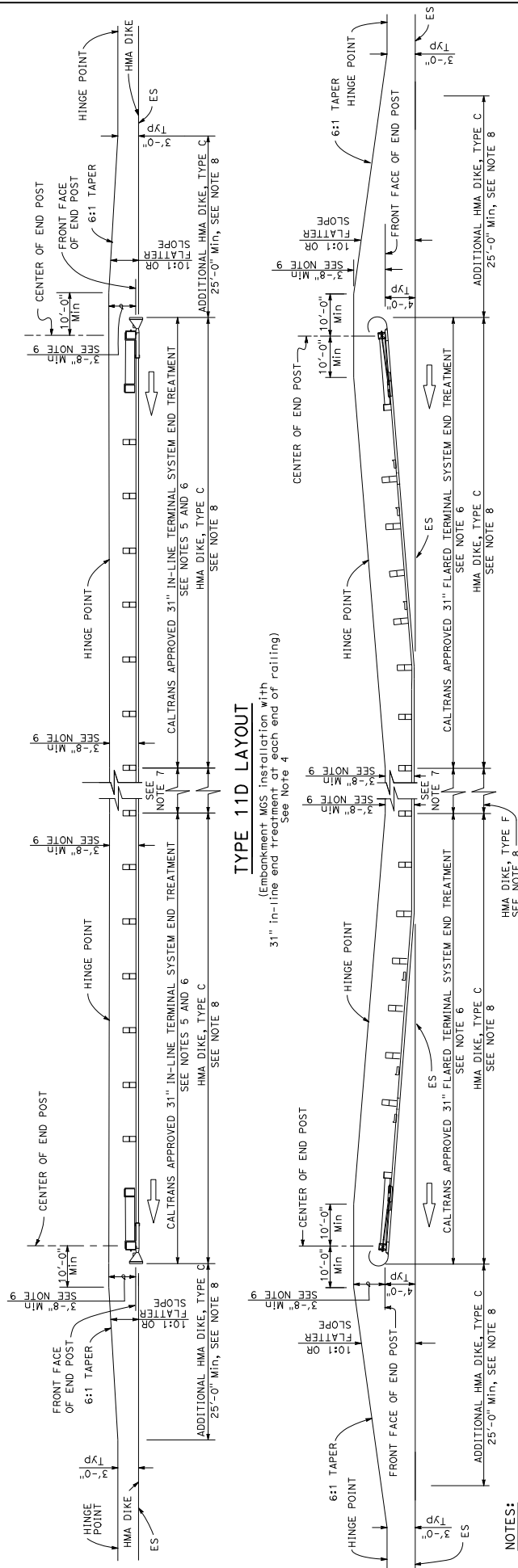
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**MIDWEST GUARDRAIL SYSTEM**  
**STEEL POST AND**  
**NOTCHED WOOD BLOCK DETAILS**  
 NO SCALE  
**A77N2**



DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
			TOTAL PROJECT	NO. SHEETS

**Randall D. Hiett**  
REGISTERED CIVIL ENGINEER  
No. C50200  
Exp. 6-30-19  
STATE OF CALIFORNIA

PLANS APPROVED DATE: May 31, 2018  
BY: [Signature]  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



## NOTES:

- Line post, blocks and hardware to be used are shown on Standard Plans A77L1, A77L2, A77N1, A77N2 and A77M1.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks, W6 x 8.5 or W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Layout Types 11D through 11L, shown on the A77P Series of Standard Plans, are typically used where MGS is recommended to shield embankment slopes and a crashworthy 31" end treatment is required for both directions of traffic.
- 31" in-line terminal system end treatments are used where site conditions will not accommodate a flared end treatment.
- The type of 31" terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height and side slope), construction of embankment (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
- Where placement of dike is required with MGS installations, see Standard Plan A77N4 for dike positioning details.
- Use this offset for 8-inch block. For 12-inch block, use 4'-0" Min offset.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

## MIDWEST GUARDRAIL SYSTEM TYPICAL LAYOUTS FOR EMBANKMENTS

NO SCALE

A77P2

1-39-14

Return to Table of Contents

# TYPE 11H LAYOUT

(Embankment MGS installation with 31" flared end treatment and 31" in-line end treatment at the ends of railing)  
See Notes 4 and 7

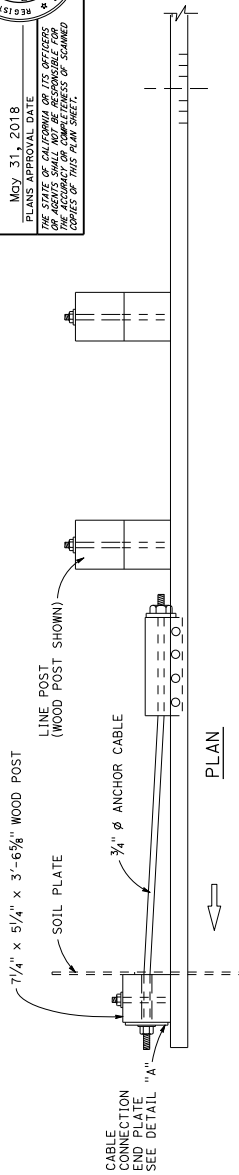
1. Line post blocks and hardware to be used are shown on Standard Plans A77L1, A77L2, A77N1, A77N2 and A77M1.
2. MOS post spacing to be 6'-3" center to center, except as otherwise noted.
3. Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 8.5 or W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or plastic blocks may be used with 6" x 8" x 1'-2" wood blocks with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. Layout Types 11D through 11L, shown on the A77P Series of Standard Plans, are typically used where MOS is recommended to shield embankment slopes, and a crashworthy 31" end treatment is required for both directions of traffic.
5. The type of 31" terminal system and treatment to be used will be shown on the Project Plans.
6. Dependent on site conditions (embankment height and side slope), construction of additional MOS (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
7. Where placement of dike is required with MOS installations, see Standard Plan A77N4 for dike positioning details.
8. Use this offset for 8-inch block. For 12-inch block, use 4'-0" Minifret.

**A77P4**

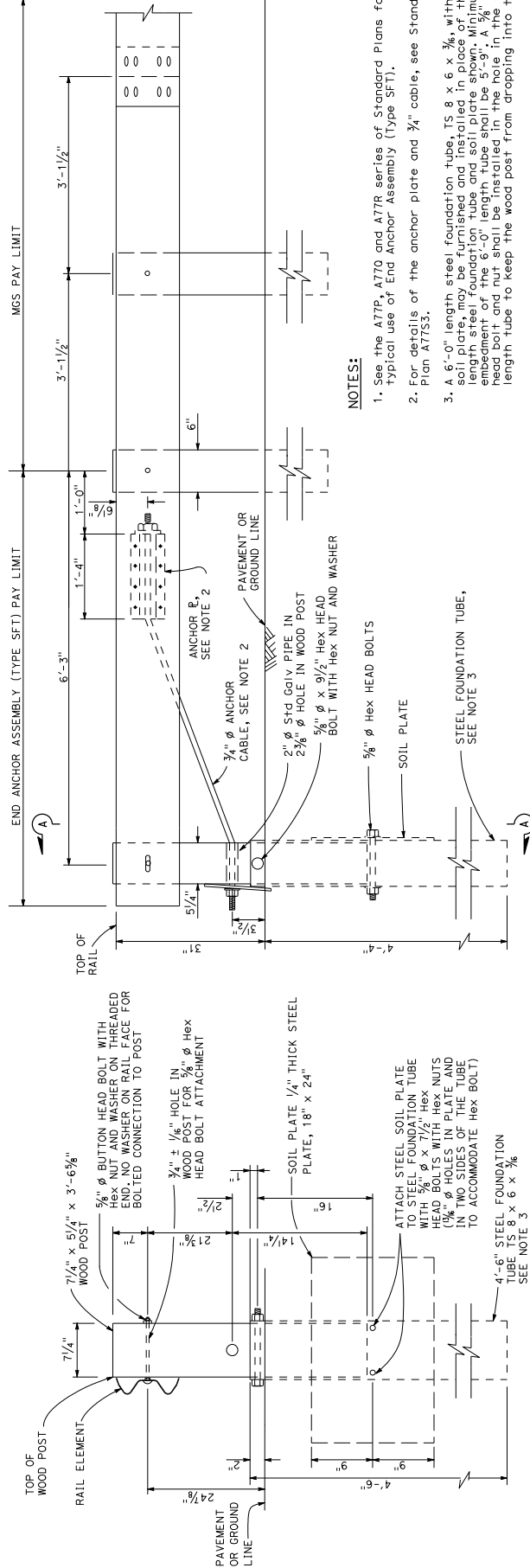
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

**Randell D. Hiett**  
REGISTERED CIVIL ENGINEER  
May 31, 2018  
PLANS APPROVED DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY COPIES OF THIS PLAN SHEET.

**PROFESSIONAL ENGINEER**  
Randell D. Hiett  
No. C50200  
CIVIL  
STATE OF CALIFORNIA



DETAIL "A"  
CABLE CONNECTION  
END PLATE



NOTES:

1. See the A77P, A77Q and A77R series of Standard Plans for typical use of End Anchor Assembly (Type SFT).
2. For details of the anchor plate and 3/4" cable, see Standard Plan A77S3.
3. A 6'-0" length steel foundation tube, TS 8 x 6 x 3/8, without a soil plate, may be furnished and installed in place of the 4'-6" length steel foundation tube and soil plate shown. Minimum embedment of the 6'-0" length tube shall be 5'-9". A 3/8" hex head bolt shall be used to attach the 6'-0" length tube to the 4'-6" length tube to keep the wood post from dropping into the tube.

END ANCHOR  
ASSEMBLY (TYPE SFT)  
See Note 1

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM  
END ANCHOR ASSEMBLY  
(TYPE SFT)**

NO SCALE

**A77S1**

DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
				NO. SHEETS

REGISTERED CIVIL ENGINEER Gary D. Berg May 31, 2018 LICENSE EXPIRATION DATE No. 6-30-18 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY PORTION OF THIS PLAN SHEET.	

**SYMBOLS:**

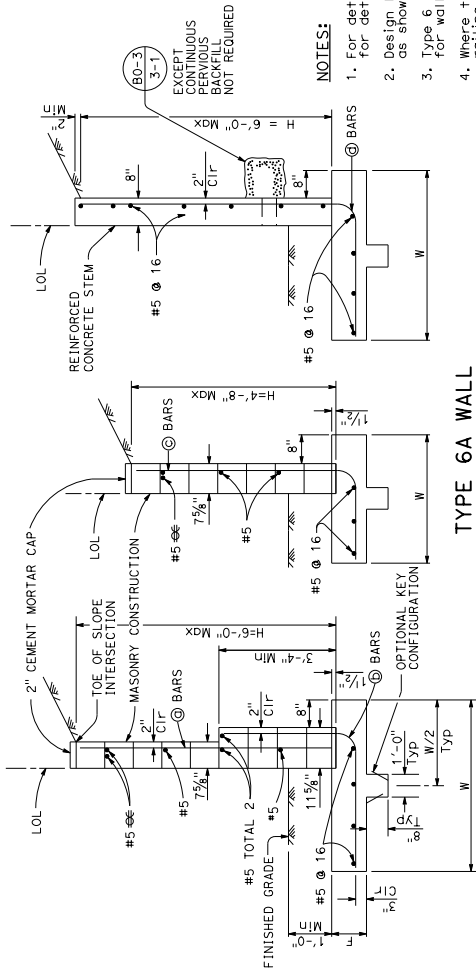
Ser - service limit state 1  
 Str - strength limit state 1  
 Ext - extreme event limit state 1  
 B' - effective footing width (ft)  
 q<sub>6</sub> - net bearing stress (ksf), OG assumed to be FG at toe  
 q<sub>0</sub> - gross uniform bearing stress (ksf)

**DESIGN NOTES:**

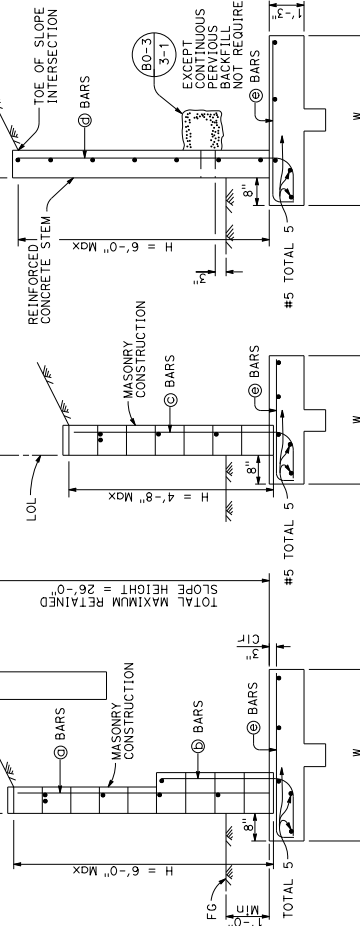
DESIGN: AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments  
 Building Code Requirements for Masonry Structures (TMS 402-08/ACI 530-08/ASCE 5-08)  
 LS: 240 psf surcharge on level ground surface as limited by Guard Railing location  
 SEISMIC:  $k_h = 0.2$   
 $k_v = 0.0$   
 $\theta = 34^\circ$   
 $\gamma = 120$  pcf  
 SOIL: REINFORCED CONCRETE:  $f'_c = 3,600$  psi  
 $f_y = 60,000$  psi  
 REINFORCED MASONRY:  $f_m' = 1,500$  psi  
 $f_y = 60,000$  psi  
 LOAD COMBINATIONS AND LIMIT STATES:  
 Strength I  $Q = 1.00EH+1.00EH+1.75LS$   
 Extreme I  $Q = 1.00EH+1.00EH+1.00EH+1.00OE$

- NOTES:**
- For details not shown at "68", see "6A", similarly, for details not shown at "6A", see "6B".
  - Design loading for both Type "6A" and "6B" is as shown at "65".
  - Type 6 retaining wall shall be limited to use for walls of Design H of 6'-0" or less.
  - Where traffic is adjacent to the top of wall, guard railing should be set back from the top front face of wall at least 4'-0" or 6'-0", dependent on wall type.
  - For reinforced concrete wall stem joint details, see (B0-3) and (B0-3-3-4).
  - No splices are allowed on (B0-3), (B0-3-3-4), and (B0-3-3-4).
  - See "Retaining Wall Type 6 Details" sheet for Elevation View and Footing Step Details.

**TYPE 6A WALL**



4'-0" Min for Type 6A Wall  
 6'-0" Min for Type 6B Wall



**TYPE 6B WALL**

**TYPE 6A WALL - TABLE OF REINFORCING STEEL, DIMENSIONS AND DATA**

DESIGN H	3'-4"	4'-0"	4'-8"	5'-4"	6'-0"
W	3'-8"	4'-1"	4'-8"	5'-3"	6'-9"
F	1'-0"	1'-0"	1'-2"	1'-3"	1'-4"
(B) BARS	NONE	NONE	NONE	#5 @ 16"	#5 @ 16"
(B) BARS	NONE	NONE	NONE	#5 @ 16"	#5 @ 16"
(B) BARS	#5 @ 16"	#5 @ 16"	#5 @ 16"	NONE	NONE
(B) BARS	#5 @ 16"	#5 @ 16"	#5 @ 16"	#5 @ 16"	#5 @ 16"
Ser: B, q <sub>6</sub>	3.4, 0.3	3.8, 0.3	4.3, 0.3	4.9, 0.4	6.0, 0.4
Str: B, q <sub>0</sub>	3.4, 0.7	3.8, 0.7	4.1, 0.8	4.7, 0.8	5.7, 0.9
Ext: B, q <sub>0</sub>	1.3, 1.9	1.4, 2.0	1.7, 2.1	1.9, 2.2	3.9, 1.4

**TYPE 6B WALL - TABLE OF REINFORCING STEEL, DIMENSIONS AND DATA**

DESIGN H	3'-4"	4'-0"	4'-8"	5'-4"	6'-0"
W	4'-6"	5'-1"	5'-7"	6'-2"	6'-9"
(B) BARS	NONE	NONE	NONE	#5 @ 16"	#5 @ 16"
(B) BARS	NONE	NONE	NONE	#5 @ 16"	#5 @ 16"
(B) BARS	#5 @ 16"	#5 @ 16"	#5 @ 16"	NONE	NONE
(B) BARS	#5 @ 16"	#5 @ 16"	#5 @ 16"	#5 @ 16"	#5 @ 16"
Ser: B, q <sub>6</sub>	3.3, 0.6	3.7, 0.8	4.0, 0.9	4.5, 1.0	4.7, 1.4
Str: B, q <sub>0</sub>	1.9, 1.4	2.3, 1.6	2.3, 1.8	2.8, 1.9	1.8, 3.6
Ext: B, q <sub>0</sub>	1.5, 2.8	1.8, 3.1	1.9, 3.6	2.1, 3.8	2.4, 3.9

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**RETAINING WALL TYPE 6 (CASE 2)**  
 NO SCALE

**B3-7B**



Dist# COUNTY ROUTE POST MILES TOTAL PROJECT SHEET TOTAL NO. SHEETS

REGISTERED CIVIL ENGINEER

May 31, 2018

PLANS APPROVED DATE

THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION  
ON AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER

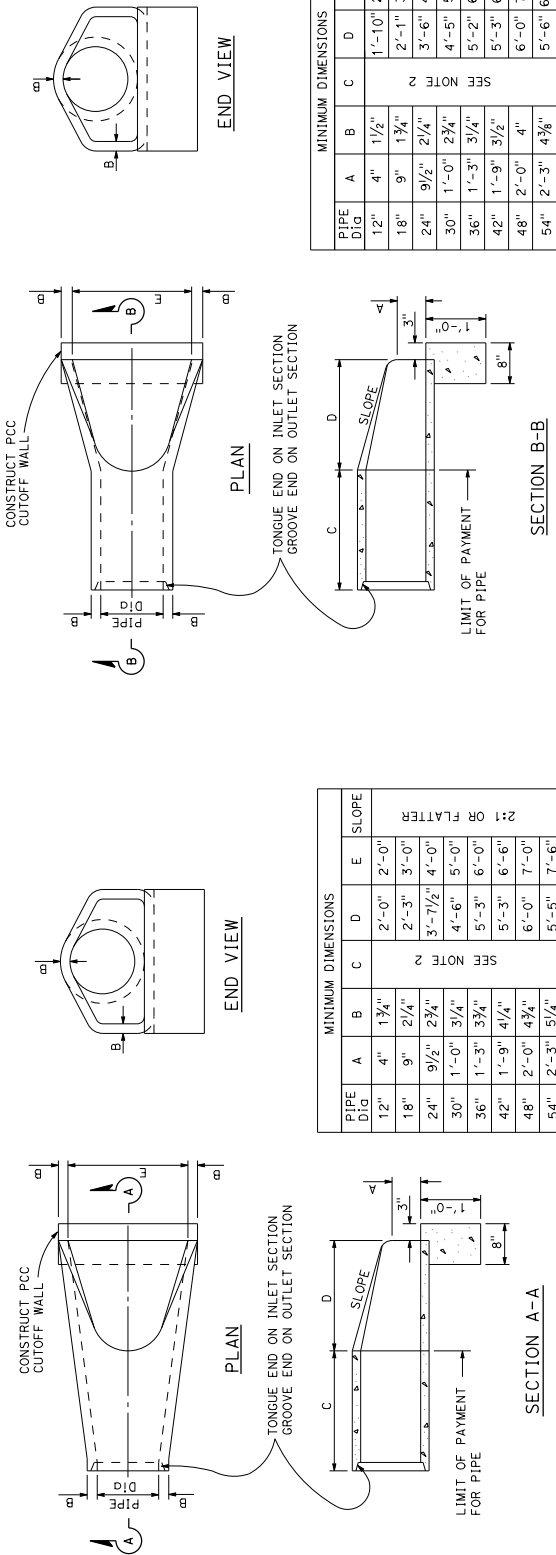
Brucio D. Springer

No. 661257

Exp. 6-30-19

CIVIL

STATE OF CALIFORNIA



PRECAST CONCRETE FLARED END SECTION TYPE A

PRECAST CONCRETE FLARED END SECTION TYPE B

- NOTES:
- Contractor has the option of using either Type A or B precast concrete flared end section.
  - "C" dimension varies by manufacturer and will be paid for as concrete pipe.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**CONCRETE FLARED  
END SECTIONS**  
NO SCALE

D94B

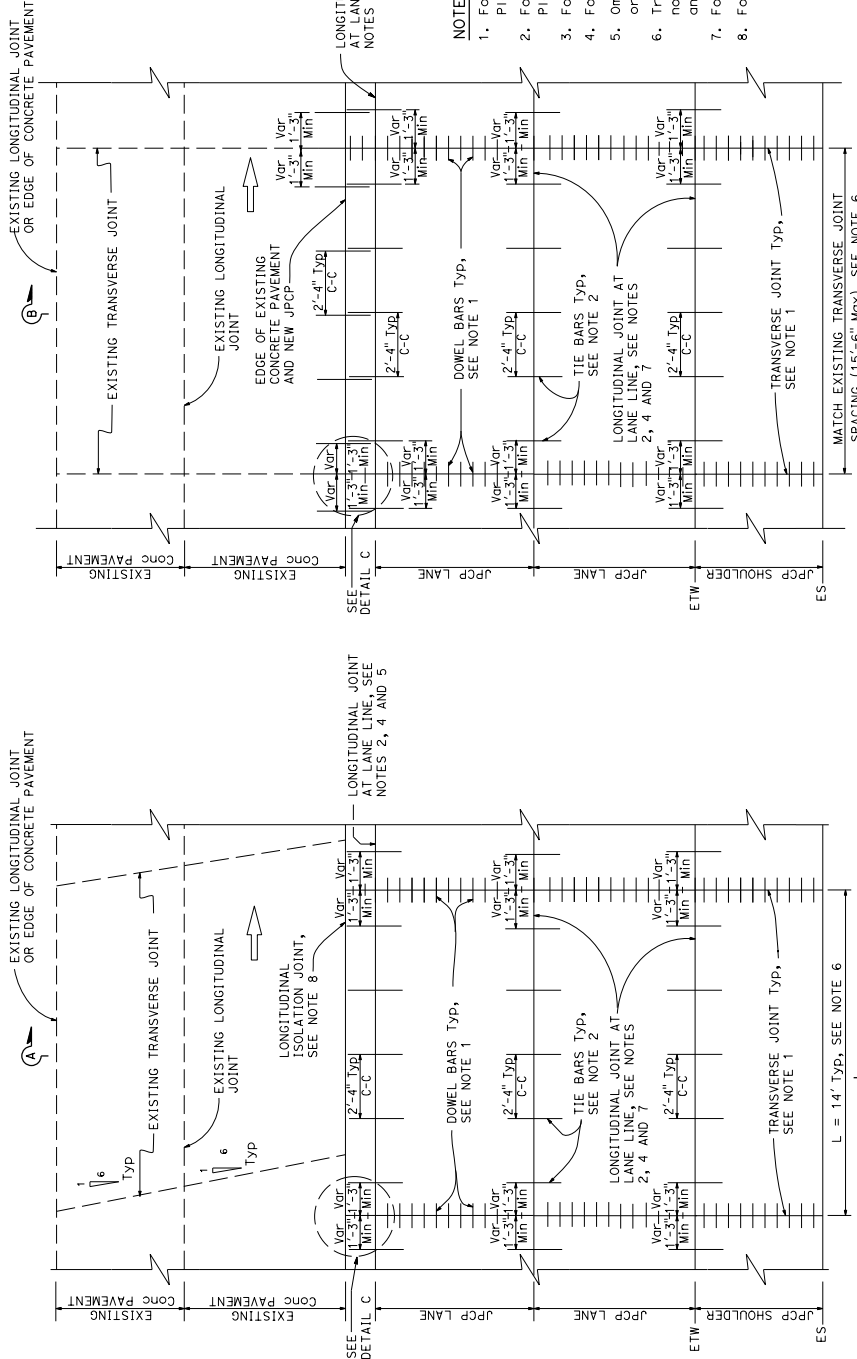
1-29-18

Return to Table of Contents

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

**Professional Engineer**  
*Julie Ruffalo*  
 REGISTERED CIVIL ENGINEER  
 No. 9-30-19  
 EXPIRATION DATE 9-30-19  
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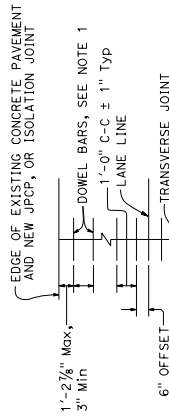
May 31, 2018  
 PROJECT NO. 100-00000000  
 SHEET NO. 100-00000000



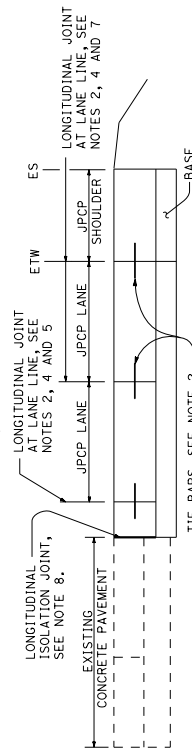
**NOTES:**

1. For transverse joint and dowel bar details not shown, see Standard Plan P10.
2. For longitudinal joint and tie bar details not shown, see Standard Plan P15.
3. For joint layout at intersections, see Project Plans.
4. For additional longitudinal joint details, see Standard Plan P18.
5. Omit longitudinal joint when edge of new concrete pavement is 3'-3" or less from JPCP lane line.
6. Transverse joint spacing may be adjusted to no less than 10' and no more than 15'-6" to conform to bridges, change in pavement type and existing pavement.
7. For dowel bars at longitudinal joint, see Standard Plan P18.
8. For isolation joints, see Detail A on Standard Plan P18.

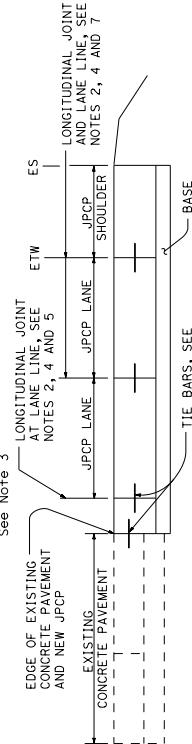
**DETAIL C**



**PLAN ISOLATED**



**PLAN TIED**



NO SCALE

**P3A**

**JOINTED PLAIN CONCRETE PAVEMENT LANE AND SHOULDER ADDITION OR REPLACEMENT**

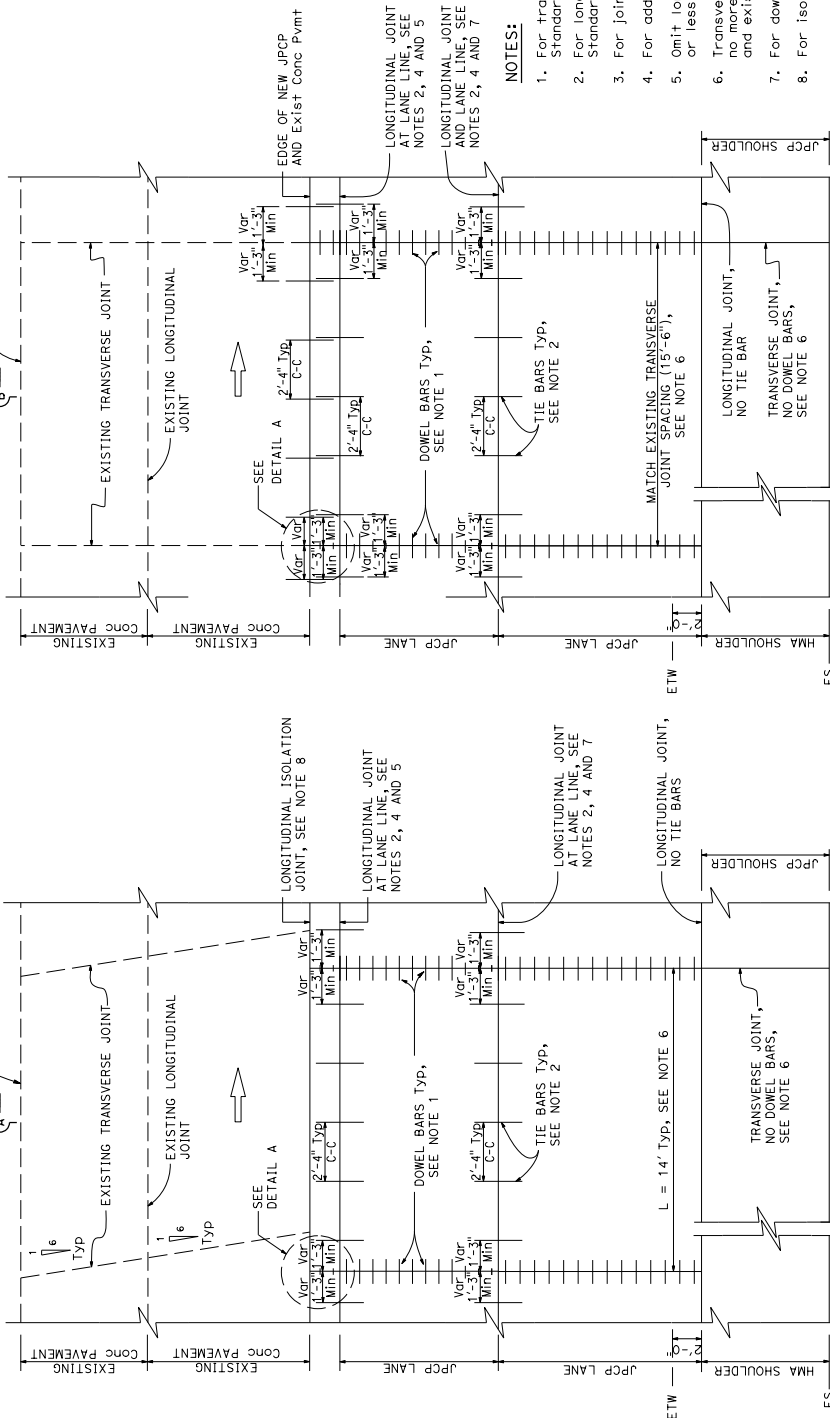
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

**Professional Engineer**  
*Julie Ruffalo*  
 REGISTERED CIVIL ENGINEER  
 No. 95-19  
 EXPIRATION DATE 06-30-19  
 STATE OF CALIFORNIA  
 CIVIL  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS OR FOR THE CONSEQUENCES OF THIS PLAN SHEET.

EXISTING LONGITUDINAL JOINT OR EDGE OF CONCRETE PAVEMENT

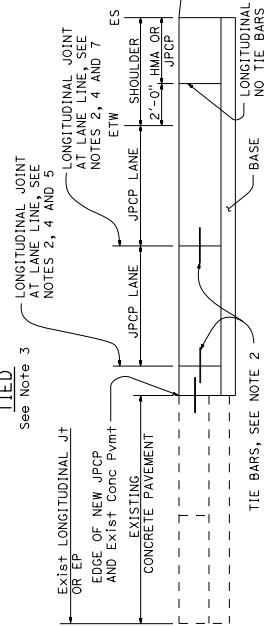
EXISTING LONGITUDINAL JOINT OR EDGE OF CONCRETE PAVEMENT



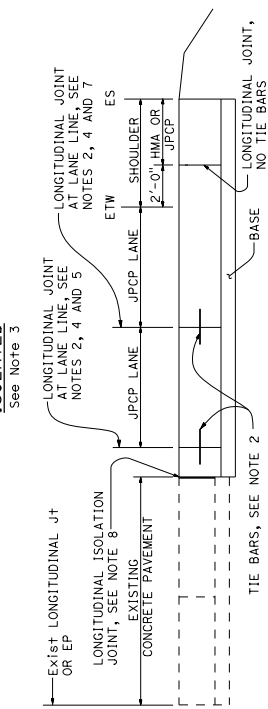
**NOTES:**

1. For transverse joint and dowel bar details not shown, see Standard Plan P10.
2. For longitudinal joint and tie bar details not shown, see Standard Plan P15.
3. For joint layout at intersections, see Project Plans.
4. For additional longitudinal joint details, see Standard Plan P18.
5. Omit longitudinal joint when edge of new concrete pavement is 3'-3" or less from JPCP lane line.
6. Transverse joint spacing may be adjusted to no less than 10' and no more than 15'-6" to conform to bridges, change in pavement type and existing pavement.
7. For dowel bars at longitudinal joint, see Standard Plan P18.
8. For isolation joints, see Detail A on Standard Plan P18.

**PLAN TIED**



**PLAN ISOLATED**



**JOINTED PLAIN CONCRETE PAVEMENT (WIDENED LANE) LANE AND SHOULDER ADDITION OR REPLACEMENT**

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

NO SCALE

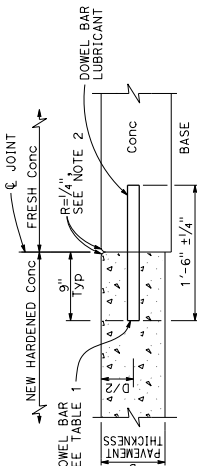
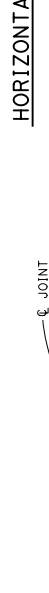
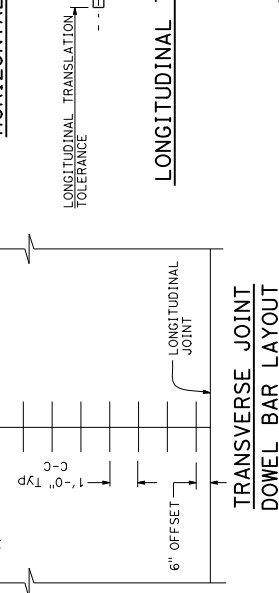
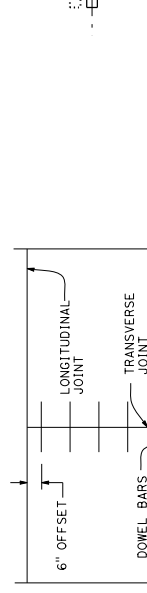
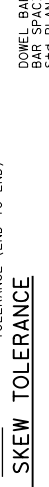
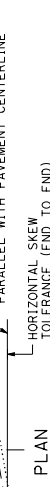
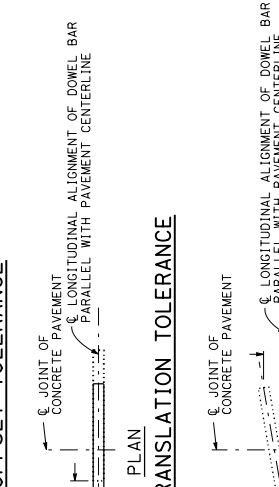
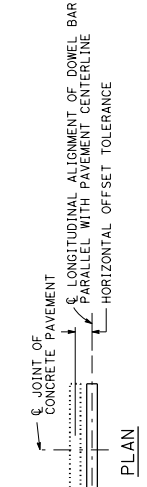
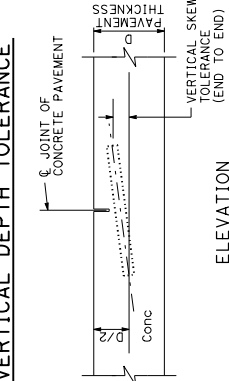
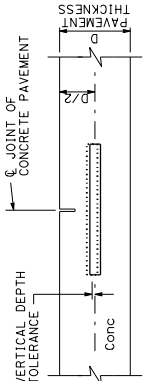
**P3B**



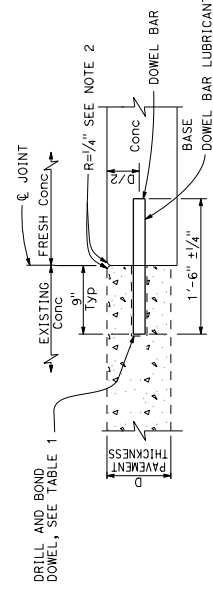
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

**Professional Engineer**  
 State of California  
 No. 9-30-19  
 Civil  
 Seal

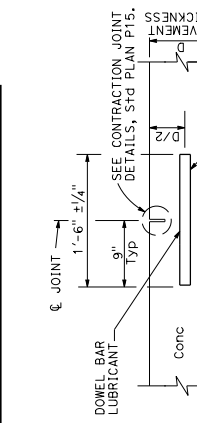
**REGISTERED CIVIL ENGINEER**  
 May 31, 2018  
 DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS  
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR  
 THE CORRECTNESS OF THIS PLAN SHEET.



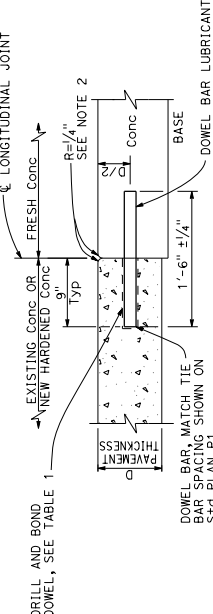
TRANSVERSE JOINT DETAIL



TRANSVERSE JOINT DETAIL



LONGITUDINAL JOINT DETAIL



LONGITUDINAL JOINT DETAIL

TABLE 1

DOWEL BAR DIAMETER TABLE		
PAVEMENT THICKNESS	0.65' - 0.85'	> 0.85'
MINIMUM DOWEL BAR DIAMETER	1"	1 1/2"

\* The drilled hole diameter must be 1/8" to 3/16" larger than the bar diameter.

TABLE 1

NOTES:

1. See Standard Plan P1 for typical dowel bar placement and locations.
2. Where fresh concrete pavement is placed against new concrete or existing concrete pavement, rounding the corner of the existing concrete pavement is not required.
3. May also use 3/4" dia dowel bars 2'-4" ± 1/4" in length. Center the length of dowel bars at the centerline of longitudinal joint.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**CONCRETE PAVEMENT  
 DOWEL BAR  
 DETAILS**

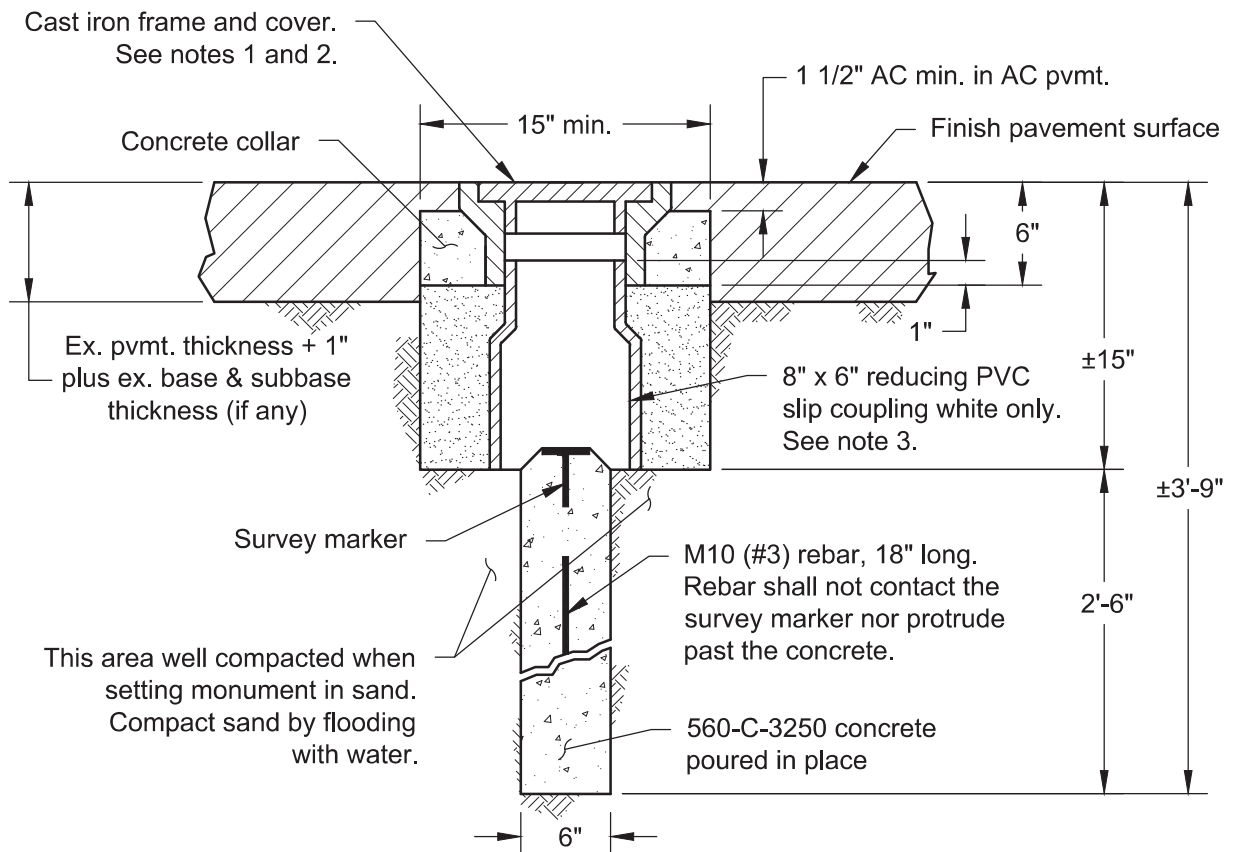
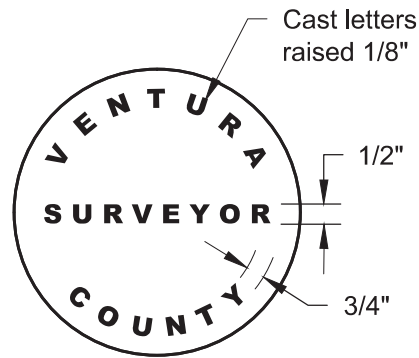
NO SCALE

**P10**



**TOP OF COVER DETAIL**

Cover to be embossed with special lettering as shown

**NOTES:****SURVEY MONUMENT**

1. Frame is Alhambra Foundry cast iron monument handhole frame with bituminous paint, Plate No. A-2925-F.
2. Cover is Alhambra Foundry cast iron monument handhole cover with bituminous paint, Plate No. A-2925-A, marked "VENTURA COUNTY SURVEYOR" See Top of Cover Detail above.
3. 8" x 6" IPS class 125 PVC fabricated reducing slip coupling 9/32" wall thickness, colored white
4. Install concrete collar around utility structure, concrete shall be Class 560-C-3250 with maximum 3 inch slump.

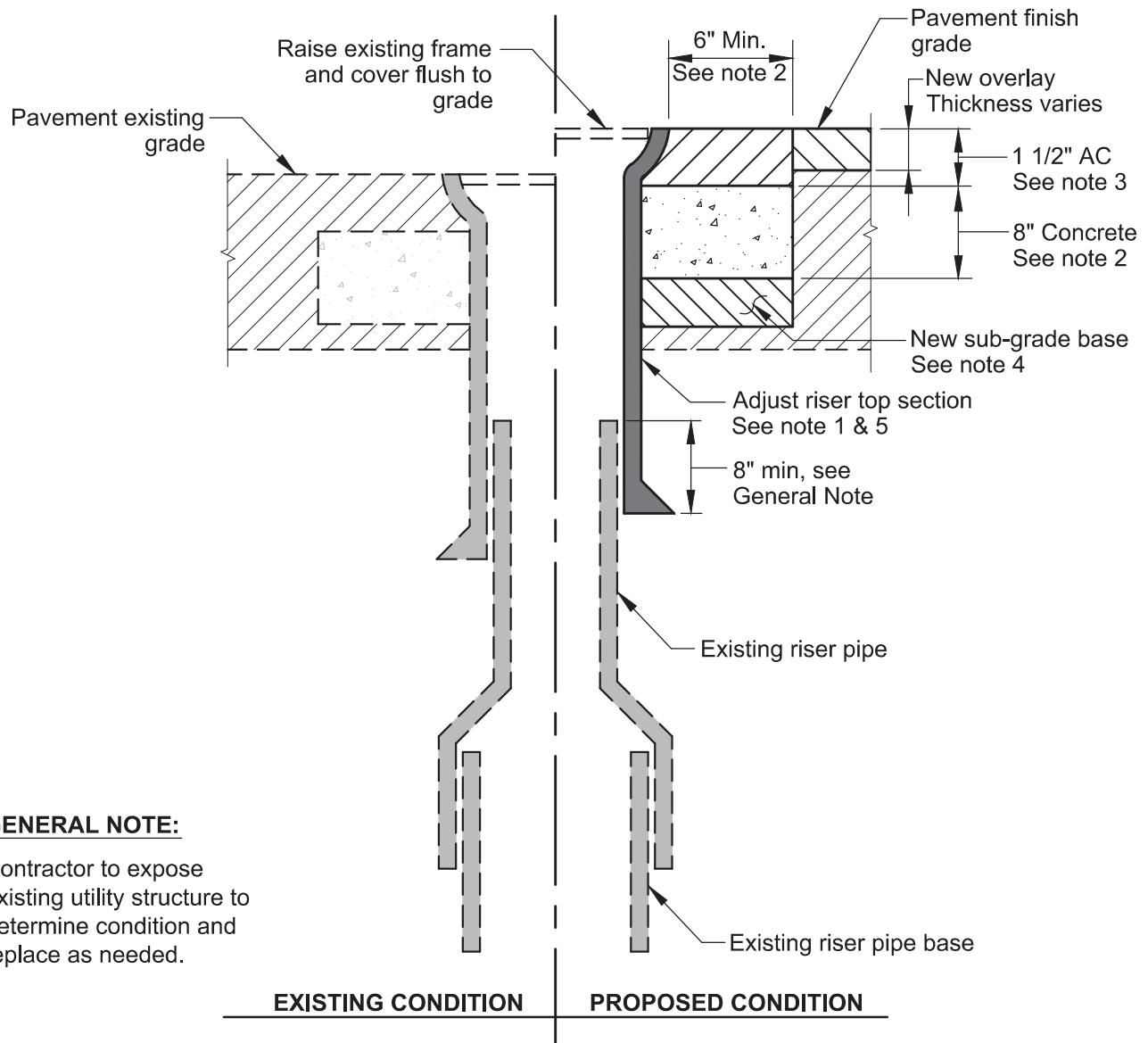
ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

REVISION DATE:	DESCRIPTION:	APPROVED BY:
		J P
		RECOMMENDED BY:
		D F

**COUNTY OF VENTURA  
PUBLIC WORKS AGENCY**

**ROAD STANDARDS**

**SURVEY MONUMENT**

**GENERAL NOTE:**

Contractor to expose existing utility structure to determine condition and replace as needed.

**NOTES:**

1. All necessary portions of the subgrade base and pavement shall be neatly removed. Utility cover shall be raised and the utility riser top sections set to be backfilled to within 1 1/2 inch of the final grade with portland cement concrete. The remaining 1 1/2 inch shall be backfilled with an asphalt concrete wearing surface mixture to match the project surface course. The material shall be placed and compacted in a workmanlike manner to conform to the appearance of the surrounding pavement.
2. Install concrete collar around utility structure, concrete shall be Class 560-C-3250 with maximum 3 inch slump.
3. Asphalt concrete shall be C2-PG 64-10, placed in accordance with Section 302-5.8 of the SSPWC.
4. Backfill compaction shall be a minimum of 95% prior to placing concrete collar.
5. Existing utility installations that do not meet standards must be constructed in compliance with current standard.

ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

REVISION  
DATE:

DESCRIPTION:

APPROVED BY:

J P

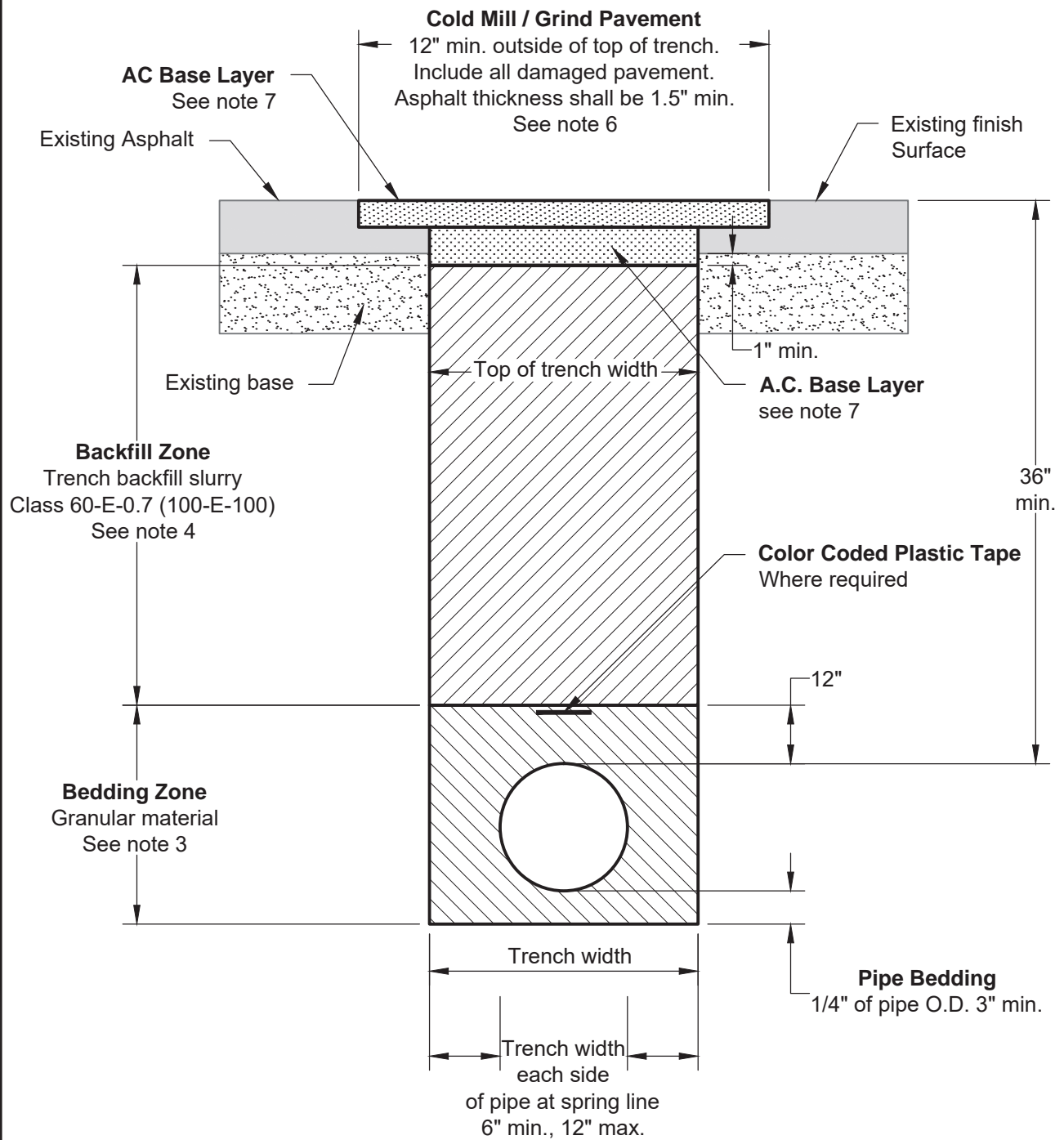
RECOMMENDED BY:

D F

COUNTY OF VENTURA  
PUBLIC WORKS AGENCY

ROAD STANDARDS

RAISE EXISTING  
UTILITY COVER



ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

REVISION DATE:	DESCRIPTION:	APPROVED BY:
		J P
		RECOMMENDED BY:
		D F

COUNTY OF VENTURA  
PUBLIC WORKS AGENCY

ROAD STANDARDS

PAVEMENT REPAIRS FOR  
TRENCHING

SHEET 1 OF 2

<b>US UNITS</b>	<b>REVISION:</b>	<b>PLATE E-11</b>												
<p><b>PLATE E-11 NOTES:</b></p> <ol style="list-style-type: none"> <li>1. Construction shall conform to Standard Specifications for Public Works Construction (SSPWC) except as noted.</li> <li>2. Trench width shall be as shown unless otherwise shown on the approved plans.</li> <li>3. Bedding material shall be granular with 100% passing 3/4" sieve, 90 to 100% passing the 3/8" sieve and not more than 4% passing No. 200 sieve.</li> <li>4. Backfill between the bedding zone and subgrade shall be Trench Backfill Slurry Class 60-E-0.7 (100-E-100). The Director of Public Works may approve the substitution of one of the following:               <ol style="list-style-type: none"> <li>a. Controlled Low Strength Material (SSPWC 201-6), provided that laboratory control is provided to insure compliance with the specifications.</li> <li>b. Non-cementitious backfill, provided that the backfill is tested and certified to meet the approved specifications for the material by an independent testing laboratory (SSPWC 217-2). A Quality Control Plan shall be submitted for approval.</li> </ol> </li> <li>5. Compaction shall not use flooding, ponding or jetting unless directed by Soils Engineer.</li> <li>6. A.C. Overlay shall be C1 or C2 PG 64-10, 1.5" minimum.</li> <li>7. AC Base Layer               <ol style="list-style-type: none"> <li>a. Where existing pavement surface is AC the AC Base Layer thickness shall be equal to or greater than the existing AC thickness plus 1" with a minimum of 3" and a maximum of 8". For roads where Traffic Index is 7.0 or greater (Plates B-2, B-3 &amp; B-7a), the AC Base layer thickness shall be 4" min.</li> <li>b. Where existing pavement surface is PCC pavement, saw cut 2" into the existing pavement at the outer edge of the trench and break the remaining thickness. Replace the PCC and base to the same depth as the existing pavement. The PCC shall be 560-C-3250.</li> </ol> </li> </ol>														
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center; padding: 2px;">ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017</td> </tr> <tr> <td style="width: 15%; padding: 2px;">REVISION DATE:</td> <td style="width: 45%; padding: 2px;">DESCRIPTION:</td> </tr> <tr> <td style="height: 20px;"></td> <td style="padding: 2px;">APPROVED BY:</td> </tr> <tr> <td style="height: 20px;"></td> <td style="text-align: center; padding: 2px;">J P</td> </tr> <tr> <td style="height: 20px;"></td> <td style="padding: 2px;">RECOMMENDED BY:</td> </tr> <tr> <td style="height: 20px;"></td> <td style="text-align: center; padding: 2px;">D F</td> </tr> </table>		ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017		REVISION DATE:	DESCRIPTION:		APPROVED BY:		J P		RECOMMENDED BY:		D F	<p><b>COUNTY OF VENTURA PUBLIC WORKS AGENCY</b></p> <hr/> <p><b>ROAD STANDARDS</b></p> <p><b>PAVEMENT REPAIRS FOR TRENCHING</b></p> <p style="text-align: right;">SHEET 2 OF 2</p>
ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017														
REVISION DATE:	DESCRIPTION:													
	APPROVED BY:													
	J P													
	RECOMMENDED BY:													
	D F													

**APPENDIX K**  
**UNLISTED SUBCONTRACTOR'S LIST**





## UNLISTED SUBCONTRACTOR'S LIST

## Appendix K

Name of Contractor: \_\_\_\_\_

NAME OF SUBCONTRACTOR	CONTRACTOR'S LICENSE No.	BUSINESS ADDRESS	CATEGORY OF WORK

The California Department of Industrial Relations (DIR) requires that all construction contractors and tiered subcontractors performing prevailing wage work is to be registered with the DIR pursuant to Labor Code Section 1725.5.

Contractors and Subcontractor who are required to register but fail to do so are ineligible to bid or work on a public works contract.

**Note: The Unlisted Subcontractor's List is required to be submitted to the Project Engineer for approval prior to the issuance of the Notice to Proceed.**



**APPENDIX L**  
**LOCATION OF SURVEY MONUMENTS**



PAVEMENT RESURFACING - BALCOM CANYON ROAD  
 SEURVEY LOG NO. 2021-054  
 PROJECT NO. 50627  
 RECORD MONUMENTS: VCSM

ID #	BALCOM CANYON ROAD	STATION	ONUMENT TYF	FIELD CHECK	RECORD MAP	TIE SHEET	TIES VERIFIED?	PRE-CR
1	Balcom Rd @ POT	1+00	VCSM	Fd, Std, Flush	1858-M/2	1858-M/4	Not Verified	
2	Balcom Rd @ PI	26+46	VCSM	Fd, Std, Flush	1858-M/2	1858-M/4	Not Verified	
3	Balcom Rd @ PI	52+91	VCSM	Fd, Std, Flush	1858-M/3	1858-M/4	Not Verified	
4	Balcom Rd @ Stockton Rd.	79+37	VCSM	Fd, Std, Flush	1858-M/3	1858-M/19	Not Verified	
5	Balcom Rd @ PI	133+53	VCSM	Fd, Tri, Flush	1858-M/15	1858-M/18	Triangular Lid	
6	Balcom Rd @ PI	146+08	VCSM	Fd, Tri, Flush	1858-M/15	1858-M/18	Triangular Lid	
7	Balcom Rd @ PI	151+37	VCSM	Fd, Tri, Flush	1858-M/16	1858-M/19	Triangular Lid	
8	Balcom Rd @ PI	160+60	VCSM	Fd, Tri, Flush	1858-M/16	1858-M/19	Triangular Lid	
9	Balcom Rd @ PI (Bixby Rd)	177+25	VCSM	Fd, Tri, Flush	1858-A/58	1858-A/60	Triangular Lid	

ID #	LA CUMBRE ROAD	STATION	ONUMENT TYF	FIELD CHECK	RECORD MAP	TIE SHEET	TIES VERIFIED?	PRE-CR
10	La Cumbre Rd @ Donlon Rd	0+00	VCSM	Fd, Std, Flush	26 CR 11	26 CR 11	Not Verified	
11	La Cumbre Rd @ PI	2+46	VCSM	Fd, Std, Flush	26 CR 10	26 CR 10	Not Verified	
12	La Cumbre Rd @ PI	14+75	VCSM	Fd, Std, Flush	26 CR 9	26 CR 9	Not Verified	
13	La Cumbre Rd @ PI	52+44	VCSM	Fd, Std, Flush	26 CR 3	26 CR 3	Not Verified	
14	La Cumbre Rd @ PI	55+87	VCSM	Fd, Std, Flush	26 CR 4	26 CR 4	Not Verified	
15	La Cumbre Rd @ PI	59+20	VCSM	Fd, Std, Flush	26 CR 5	26 CR 5	Not Verified	
16	La Cumbre Rd @ PI	61+40	VCSM	Fd, Std, Flush	26 CR 6	26 CR 6	Not Verified	
17	La Cumbre Rd @ PI	68+62	VCSM	Fd, Std, Flush	26 CR 7	26 CR 7	Not Verified	

ID #	PALOMINO DRIVE	STATION	ONUMENT TYF	FIELD CHECK	RECORD MAP	TIE SHEET	TIES VERIFIED?	PRE-CR
18	Palamino Dr @ Palomino Circle	5+20.0	VCSM	Fd, Std, Flush	72 MR 49	54384-A		

ID #	KINGSGROVE DRIVE	STATION	ONUMENT TYF	FIELD CHECK	RECORD MAP	TIE SHEET	TIES VERIFIED?	PRE-CR
19	Kingsgrove Dr @ Greentree Dr	24+58.57	VCSM	Fd, Std, Flush	57 MR 63	51579-D		

NO.	VCSM TYPE	REQUIRED ACTION
14	Circular Lid VCSM - Standard	Adjust to Surface
5	Circular Lid VCSM - Non Standard	Adjust to Surface

**Total Monuments**



**APPENDIX M**  
**CALTRANS ENCROACHMENT**  
**PERMIT APPLICATION**





**STANDARD ENCROACHMENT PERMIT APPLICATION**

TR-0100 (REV 12/2018)

**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 VEN 111.728 & 113.186	FOR CALTRANS USE TRACKING NO.  DIST/CO/RTE/PM  SIMPLEX STAMP  DATE OF SIMPLEX STAMP
4. ADDRESS OR STREET NAME LA CUMBRE RD & BALCOM CANYON RD		5. CITY SOMIS		
6. CROSS STREET (Distance and direction from project site) SR 118				
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 8/23/2022		10. ESTIMATED COMPLETION DATE 11/30/022		
11. ESTIMATED NUMBER OF WORKING DAYS WITHIN STATE HIGHWAY RIGHT-OF-WAY 45				
12. ESTIMATED CONSTRUCTION COSTS WITHIN STATE HIGHWAY RIGHT-OF-WAY \$35,000.00				
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 type="checkbox"/> FEDERAL <input type="checkbox"/> STATE <input checked="" 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 N/A	

17. DESCRIBE WORK TO BE DONE WITHIN STATE HIGHWAY RIGHT-OF-WAY (in 20 lines or less)

Attach 6 complete sets of plans (folded to 8.5" x 11") and any applicable specifications, calculations, maps, traffic control plans, etc.

Install temporary traffic control signs along SR118 leading up to and at the intersection of La Cumbre Rd and Balcom Canyon Road near the city of Somis.

Please see exhibit for Traffic Control Placement.

Work in the County right of way will be to place Type-II slurry pavement rehab on La Cumbre. There will be no construction other than sign placement within Caltrans right of way.

Work in the County right of way will be to grind, place ARAM, and place asphalt concrete hot mix (AC) on Balcom Canyon Road. There will be no construction other than sign placement within Caltrans right of way.

18 (a). PORTION OF STATE HIGHWAY RIGHT-OF-WAY WHERE WORK IS BEING PROPOSED (check all that apply)

- ☒ Traffic lane ☒ Shoulder ☐ Sidewalk ☒ Median ☒ At or near an intersection ☐ Mobile work
- ☐ Outside of the shoulder, \_\_\_\_\_ feet from edge of pavement ☒ Other Sign placement in shoulder and in closed lane

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

**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.

**STANDARD ENCROACHMENT PERMIT APPLICATION**

TR-0100 (REV 12/2018)

TRACKING NO.

19. EXCAVATION	MAX. DEPTH (in) N/A	MIN. DEPTH (in) N/A	AVG. WIDTH (in) N/A	LENGTH (ft) N/A	SURFACE TYPE (e.g. Asphalt, concrete, soil, etc.) TYPE II SLURRY & AC HOT MIX
20. PIPES	PRODUCT BEING TRANSPORTED N/A	CARRIER PIPE DIAMETER <u>N/A</u> (in.) MATERIAL <u>N/A</u>			CASING PIPE DIAMETER <u>N/A</u> (in.) MATERIAL <u>N/A</u>
PROPOSED INSTALLATION METHOD (e.g. HDD, Bore & Jack, Open Cut, etc.) N/A					VOLTAGE / PSIG N/A

DOES THE PROPOSED PROJECT INVOLVE THE REPLACEMENT AND/OR ABANDONMENT OF AN EXISTING FACILITY?

☒ NO ☐ YES. If "YES", provide a description

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 \_\_\_\_\_☒ CATEGORICALLY EXEMPT ☐ NEGATIVE DECLARATION ☐ ENVIRONMENTAL IMPACT REPORT ☐ OTHER \_\_\_\_\_☐ NO (if "NO", check the category below which best describes the project AND answer questions A-K)☐ 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 \_\_\_\_\_**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?

B. Are there waterways (e.g. river, creek, pond, natural pool or dry streambed) adjacent to or within the limits of the proposed project?

C. Is the proposed project located within five miles of the coast line?

D. Will the proposed project generate construction noise levels greater than 86 decibels (dBA) (e.g. Jack-hammering, pile driving)?

E. Will the proposed project incorporate land from a public park, recreation area or wildlife refuge open to the public?

F. Are there any recreational trails or paths within the limits of the proposed project?

G. Will the proposed project impact any structures, buildings, rail lines or bridges within State Highway right-of-way?

H. Will the proposed project impact access to any businesses or residences?

I. Will the proposed project impact any existing public utilities or public services?

J. Will the proposed project impact any existing pedestrian facilities, such as sidewalks, crosswalks or overcrossings?

K. Will new lighting be constructed within or adjacent to State Highway right-of-way?

**STANDARD ENCROACHMENT PERMIT APPLICATION**

TR-0100 (REV 12/2018)

TRACKING 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: \_\_\_\_\_  
and estimate the area of disturbed soil outside State Highway right-of-way in acres: \_\_\_\_\_

26. Will the proposed project require dewatering? ☐ YES ☒ NO  
If "YES", estimate Total gallons AND gallons/month. \_\_\_\_\_ (Total gallons) AND \_\_\_\_\_ (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) \_\_\_\_\_

**STANDARD ENCROACHMENT PERMIT APPLICATION**

TR-0100 (REV 12/2018)

TRACKING NO.

**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, mailing, 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

ADDRESS OF APPLICANT (Include City, State and Zip Code)

800 S. VICTORIA AVE., VENTURA, CA 93009-1620

E-MAIL ADDRESS

TERRY.HANSER@VENTURA.ORG

PHONE NUMBER

805-654-3770

FAX NUMBER

N/A

**29. NAME OF AUTHORIZED AGENT / ENGINEER**

(A "Letter of Authorization" is required if different from #28)

TERRY HANSER

IS A LETTER OF  
AUTHORIZATION ATTACHED?☐ YES ☐ NO

ADDRESS OF AUTHORIZED AGENT / ENGINEER (Include City, State and Zip Code)

800 S. VICTORIA AVE., VENTURA, CA 93009-1620

E-MAIL ADDRESS

TERRY.HANSER@VENTURA.ORG

PHONE NUMBER

805-654-3770

FAX NUMBER

N/A

**30. NAME OF BILLING CONTACT (Same as #28 ☐ Same as #29 ☐)**

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)

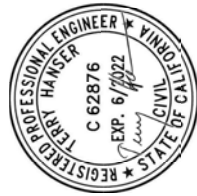
**31. SIGNATURE OF APPLICANT OR AUTHORIZED AGENT\*****32. PRINT OR TYPE NAME**

TERRY HANSER

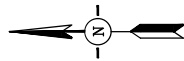
**33. TITLE  
ENGINEER II****34. DATE  
4/18/2022****ADA Notice**

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.

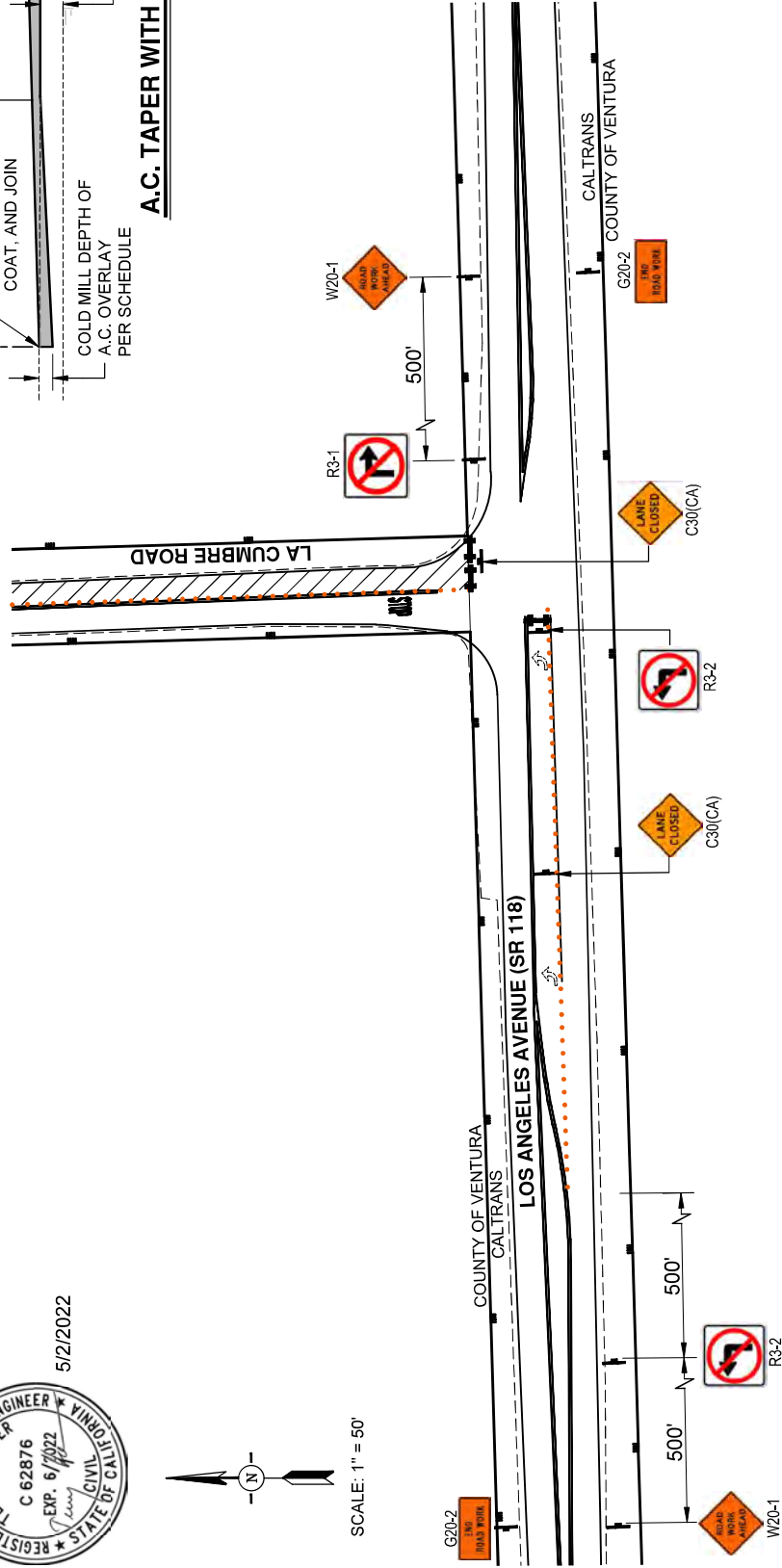
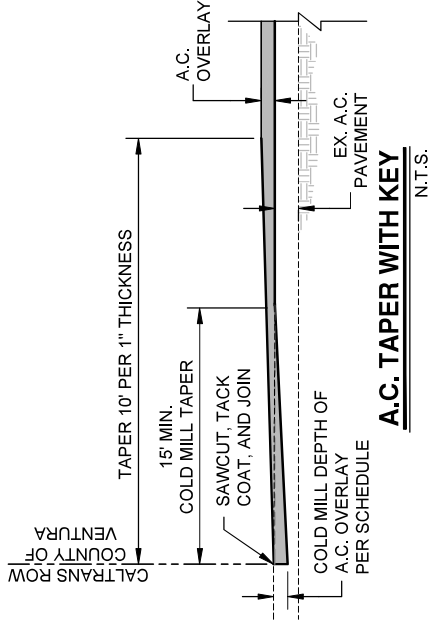
**GENERAL NOTE**  
 1. ONLY TRAFFIC CONTROL SIGNS SHALL BE PLACED WITHIN CALTRANS ROW, ALL OTHER WORK SHALL BE WITHIN COUNTY OF VENTURA ROW



5/2/2022

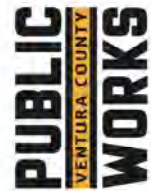


SCALE: 1" = 50'



	FLAGGER		SIGN		TYPE-III BARRICADE		CONES		WORK ZONE
--	---------	--	------	--	--------------------	--	-------	--	-----------

**TRAFFIC CONTROL PLAN**  
**LA CUMBRE ROAD**  
**AT ROUTE: SR-118**  
**PM: VEN 11.73**

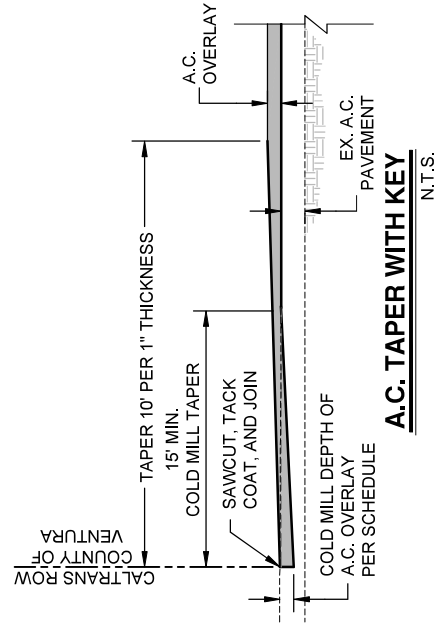
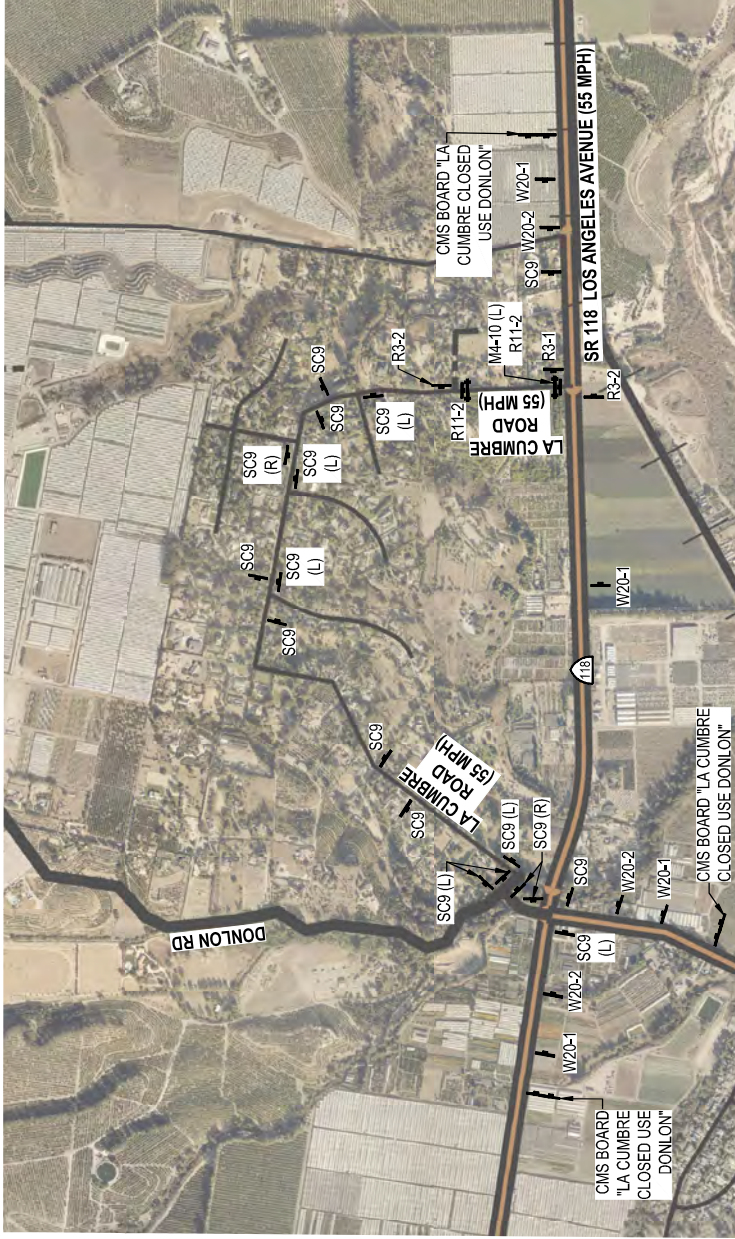


SHEET 1 OF 1

PR50627

5/2/2022











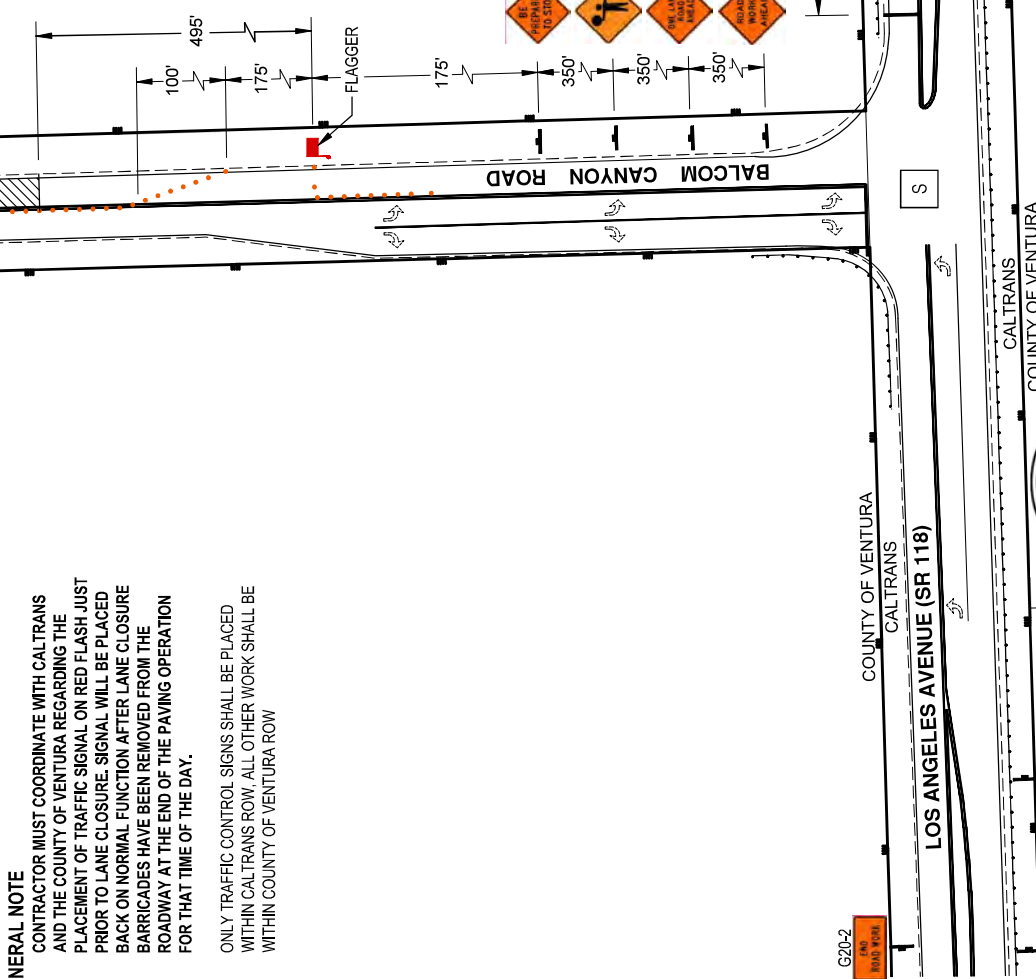
**PUBLIC WORKS**  
**DETOUR PLAN**  
**LA CUMBRE ROAD**  
**AT ROUTE: SR-118**  
**PM: VEN 11.73**

PR50627 5/2/2022

TYPE-III BARRICADE	ROAD CLOSED TO THRU TRAFFIC	ROAD CLOSED	ROAD CLOSED TO THRU TRAFFIC
SIGN	SC9 (MODIFIED) SC9 (R) SC9 (L)	R11-2	R11-4
	ROAD WORK AHEAD	DETOUR AHEAD	ROAD CLOSED AHEAD
	W20-1	W20-2	W20-3
	DETOUR	DETOUR	
	M4-10 (R OR L)	R3-1	R3-2

					
SIGNAL	FLAGGER	SIGN	TYPE-III BARRICADE	CONES	WORK ZONE

MATCH POINT HEREON



#### GENERAL NOTE

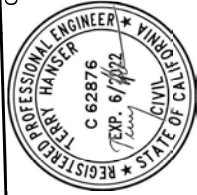
- CONTRACTOR MUST COORDINATE WITH CALTRANS AND THE COUNTY OF VENTURA REGARDING THE PLACEMENT OF TRAFFIC SIGNAL ON RED FLASH JUST PRIOR TO LANE CLOSURE. SIGNAL WILL BE PLACED BACK ON NORMAL FUNCTION AFTER LANE CLOSURE BARRICADES HAVE BEEN REMOVED FROM THE ROADWAY AT THE END OF THE PAVING OPERATION FOR THAT TIME OF THE DAY.
- ONLY TRAFFIC CONTROL SIGNS SHALL BE PLACED WITHIN CALTRANS ROW. ALL OTHER WORK SHALL BE WITHIN COUNTY OF VENTURA ROW

**PUBLIC**  
VENTURA COUNTY  
**WORKS**

**TRAFFIC CONTROL PLAN**  
**BALCOM CANYON ROAD**  
**AT ROUTE: SR-118**  
**PM: VEN 13.181**







PHASE I  
SHEET 1 OF 2

PR50627

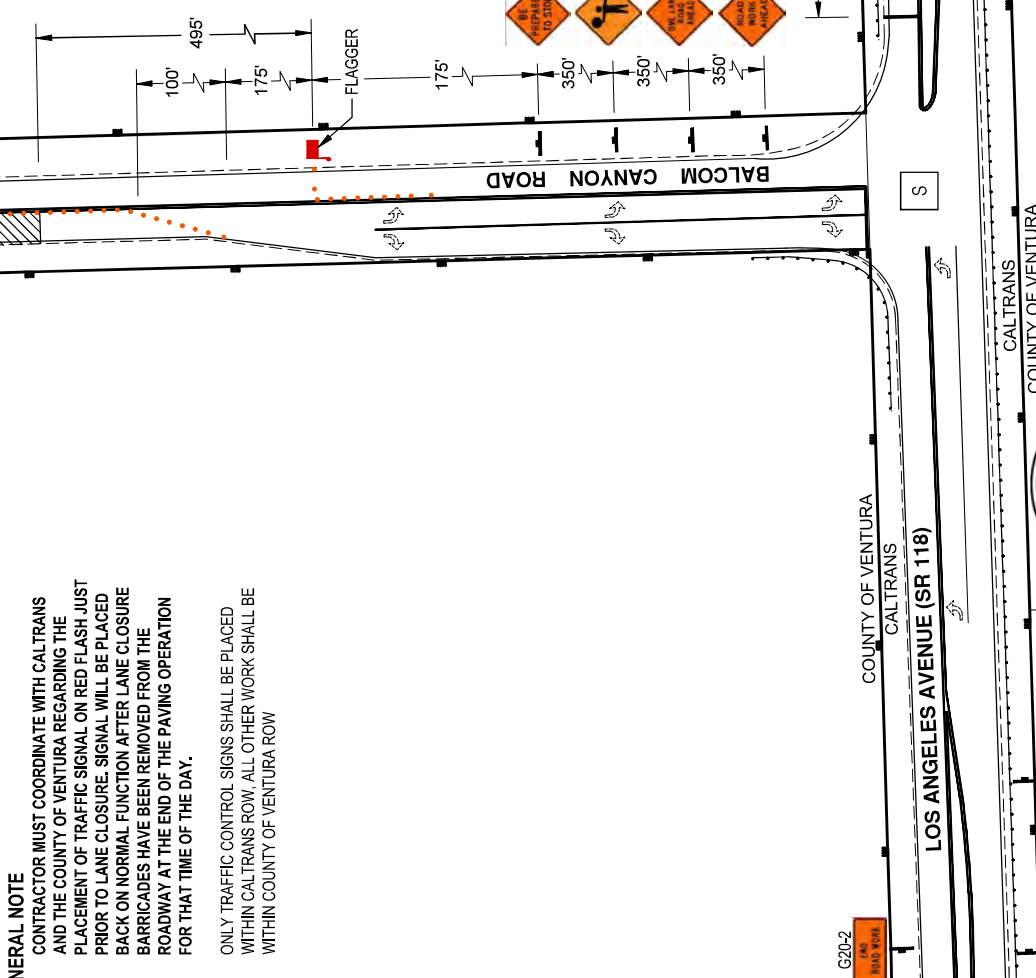


5/2/2022

5/2/2022

					
SIGNAL	FLAGGER	SIGN	TYPE-III BARRICADE	CONES	WORK ZONE

MATCH POINT HEREON



SCALE: 1" = 50'

**PUBLIC**  
VENTURA COUNTY  
**WORKS**

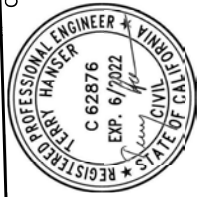
**TRAFFIC CONTROL PLAN**  
**BALCOM CANYON ROAD**  
**AT ROUTE: SR-118**  
**PM: VEN 13.181**

PHASE II  
SHEET 2 OF 2

PR50627

# GENERAL NOTE

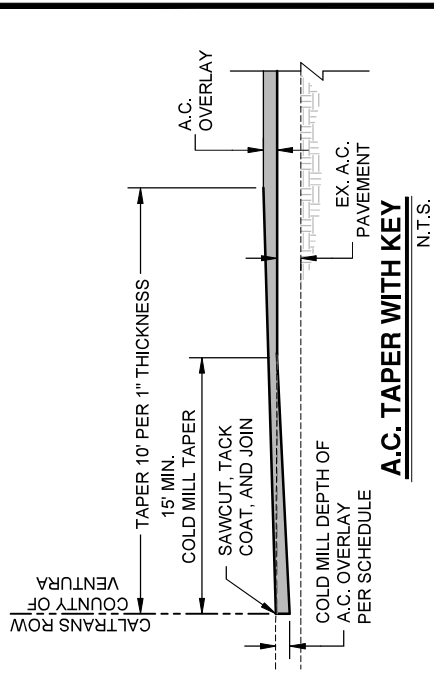
- CONTRACTOR MUST COORDINATE WITH CALTRANS AND THE COUNTY OF VENTURA REGARDING THE PLACEMENT OF TRAFFIC SIGNAL ON RED FLASH JUST PRIOR TO LANE CLOSURE. SIGNAL WILL BE PLACED BACK ON NORMAL FUNCTION AFTER LANE CLOSURE BARRICADES HAVE BEEN REMOVED FROM THE ROADWAY AT THE END OF THE PAVING OPERATION FOR THAT TIME OF THE DAY.
- ONLY TRAFFIC CONTROL SIGNS SHALL BE PLACED WITHIN CALTRANS ROW. ALL OTHER WORK SHALL BE WITHIN COUNTY OF VENTURA ROW



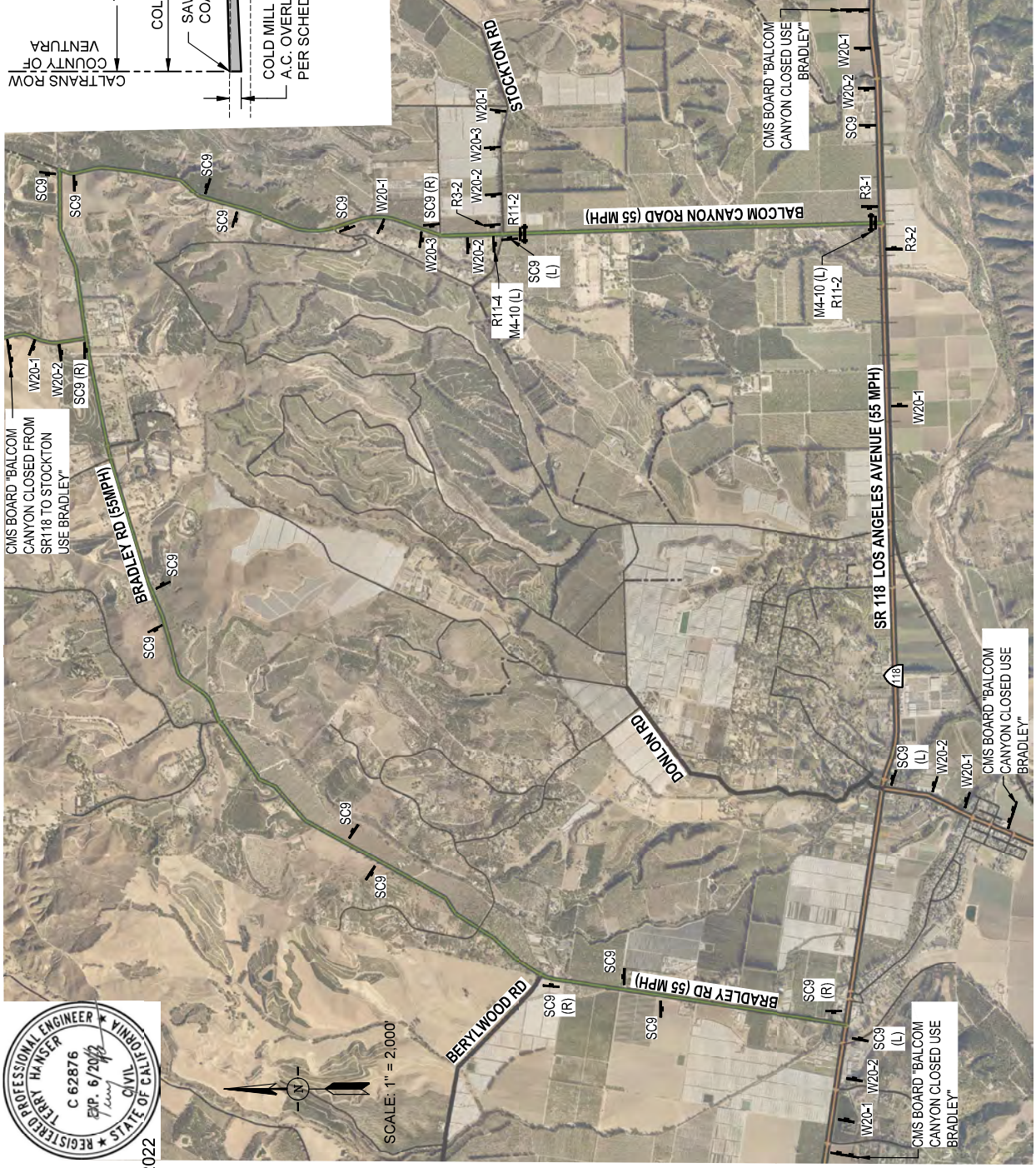
5/2/2022

5/2/2022





**A.C. TAPER WITH KEY**  
N.T.S.



5/2/2022

SC9 (MODIFIED) SC9 (R) SC9 (L)	R11-2	R11-4
W20-1	W20-2	W20-3
M4-10 (R OR L)	R3-1	R3-2
TYPE-III BARRICADE	SIGN	

**PUBLIC WORKS**  
VENTURA COUNTY  
**DETOUR PLAN**  
**BALCOM CANYON ROAD**  
**AT ROUTE: SR-118**  
**PM: VEN 13.181**

PR50627 5/2/2022



**PLANS**  
**(10 SHEETS)**



COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
PAVEMENT RESURFACING  
LAS POSAS VALLEY & BALCOM CANYON ROAD

SPECIFICATION NO. RD22-10  
PROJECT NO. 50627

INDEX

SHT	DESCRIPTION
1	TITLE SHEET
2	LOCATION MAP
3	DETAILS
4	BALCOM CANYON ROAD BRIDGE #208
5 - 7	BALCOM CANYON ROAD CULVERT DETAILS
8	HEATHERTON DRIVE DETAILS
9	TYPICAL DETAILS
10	TYPICAL DETAIL & QUANTITY SCHEDULE

APPLICABLE STANDARDS

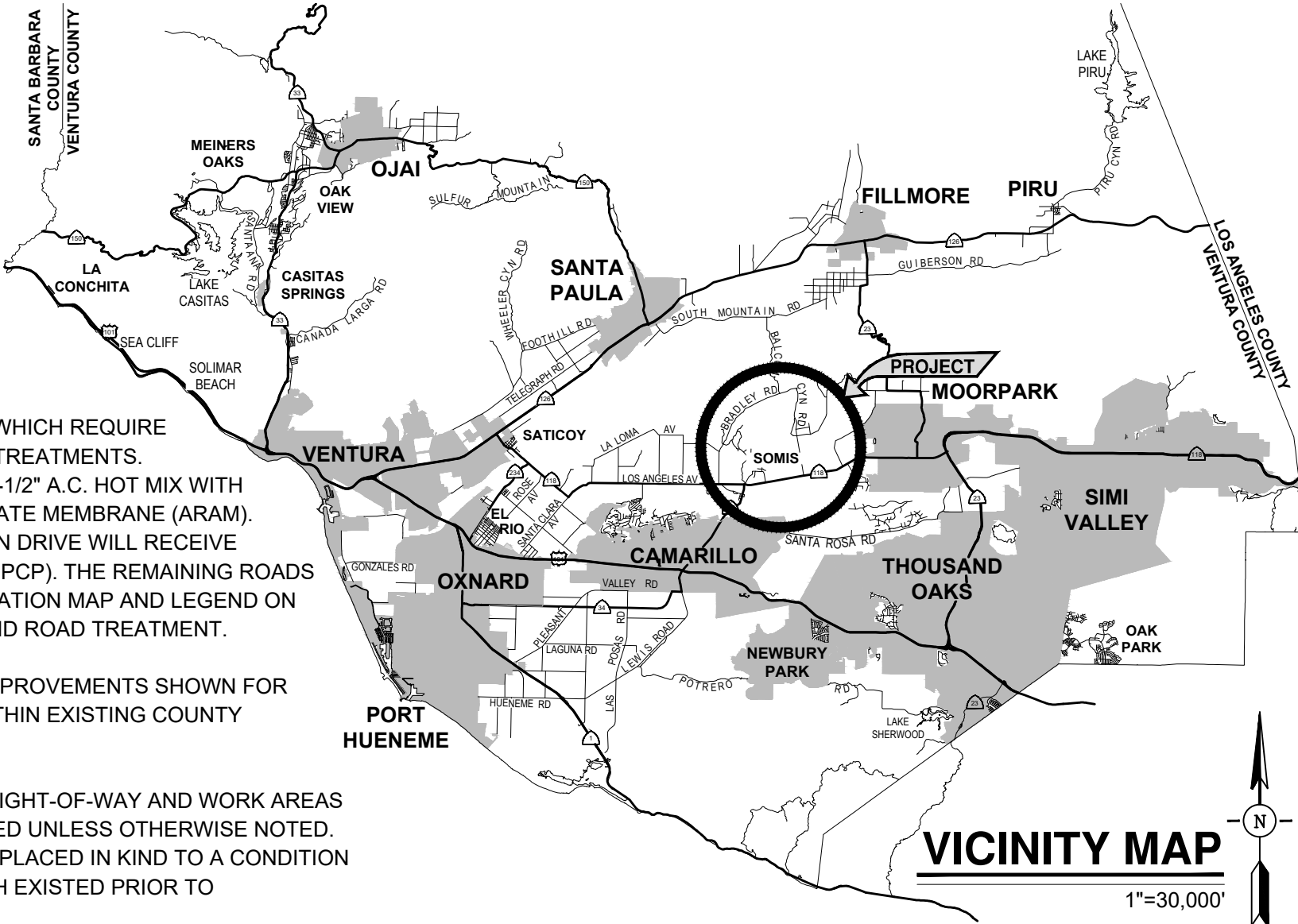
STD.	CALTRANS
A20A	PAVEMENT MARKERS
A77N2	MIDWEST GUARDRAIL SYSTEM
A77P2	MIDWEST GUARDRAIL SYSTEM
A77P4	MIDWEST GUARDRAIL SYSTEM
A77S1	MIDWEST GUARDRAIL SYSTEM
B3-7B	RETAINING WALL TYPE 6
RSPD89B	PIPE CULVERT HEADWALL
D94B	CONCRETE FLARED END SECTION
P3A	JOINTED PLAIN CONCRETE PAVEMENT
P3B	JOINTED PLAIN CONCRETE PAVEMENT
P10	CONCRETE PAVEMENT DOWEL BAR
P18	CONCRETE PAVEMENT LANE SCHEMATICS AND ISOLATION JOINT

STD.	VENTURA COUNTY ROADS
E-11	PAVEMENT REPAIR FOR TRENCHING
E-4	SURVEY MONUMENT
E-4A	RAISE EXISTING UTILITY COVER



GENERAL NOTES:

- THIS PROJECT CONSISTS OF 12 ROADS WHICH REQUIRE THREE DIFFERENT TYPES OF SURFACE TREATMENTS. BALCOM CANYON ROAD WILL RECEIVE 1-1/2" A.C. HOT MIX WITH FIBER OVER ASPHALT RUBBER AGGREGATE MEMBRANE (ARAM). APPROXIMATELY 700 LF OF HEATHERTON DRIVE WILL RECEIVE JOINTED PLAIN CONCRETE PAVEMENT (JPCP). THE REMAINING ROADS WILL RECEIVE TYPE-II SLURRY. SEE LOCATION MAP AND LEGEND ON SHEET 2 WHICH DEFINES EACH ROAD AND ROAD TREATMENT.
- ENGINEER HAS CONFIRMED THAT ALL IMPROVEMENTS SHOWN FOR CONSTRUCTION IN THESE PLANS LIE WITHIN EXISTING COUNTY RIGHT-OF-WAY.
- 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.



Chris Hooke  
DEPUTY DIRECTOR, DESIGN DIVISION  
DIRECTOR OF TRANSPORTATION  
5/5/22  
DIRECTOR OF PUBLIC WORKS

COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
ROADS & TRANSPORTATION

SPEC. NO.  
RD22-10  
PROJ. NO.  
50627

PAVEMENT RESURFACING  
LAS POSAS VALLEY & BALCOM CANYON ROAD  
TITLE SHEET

SHEET 1  
OF 10  
DRAWING NO.  
116431

**SURFACE TREATMENTS**

**BALCOM CANYON ROAD** SHALL RECEIVE A LAYER OF 1-1/2" A.C. HOT MIX WITH FIBER OVER ARAM. BASE REPAIR, A.C. SHOULDER, 3" GRIND & FILL, COLD MILLING, TRENCHING, AND A.C. TAPERS WITH KEY SHALL BE CONSTRUCTED PRIOR TO A.C. OVERLAY. EXISTING SURVEY MONUMENTS SHALL BE RAISED PER VCRS PLATE E4 AND E4A.

**HEATHERTON DRIVE** APPROXIMATELY 700 LF REMOVE AND REPLACE EXISTING CONCRETE. CONSTRUCT JOINTED PLAIN CONCRETE PAVEMENT (JPCP) PER CALTRANS STD. SEE SHEET 8 FOR MORE DETAILS.

**ROADS** SHALL RECEIVE TYPE-II EMULSION AGGREGATE SLURRY. EXISTING SURVEY MONUMENTS AND UTILITY COVERS WITHIN THE PROJECT LIMITS SHALL BE PROTECTED AND COVERED WITH TAR PAPER. BASE REPAIR SHALL BE CONSTRUCTED PRIOR TO TYPE-II EMULSION AGGREGATE SLURRY

**CONSTRUCTION NOTES**

- 1 REMOVE AND REPLACE JPCP. SEE SHEET 8 FOR MORE INFORMATION.
- 2 4' x 3" A.C. GRIND & FILL WITH MISCELLANEOUS A.C. ALONG NORTHBOUND LANE, PRIOR TO SURFACE TREATMENT BEGINNING AT MP 2.44 AND CONTINUING NORTH 4,775 LF AS MARKED IN FIELD.
- 3 REPLACE EXISTING TRAFFIC LOOPS AT THE INTERSECTION OF BALCOM CANYON ROAD AND LOS ANGELES AVENUE (SR118). LOCATIONS MARKED IN FIELD.

**LAS POSAS VALLEY AREA**

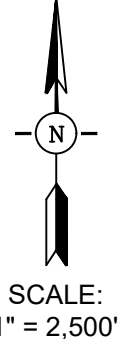
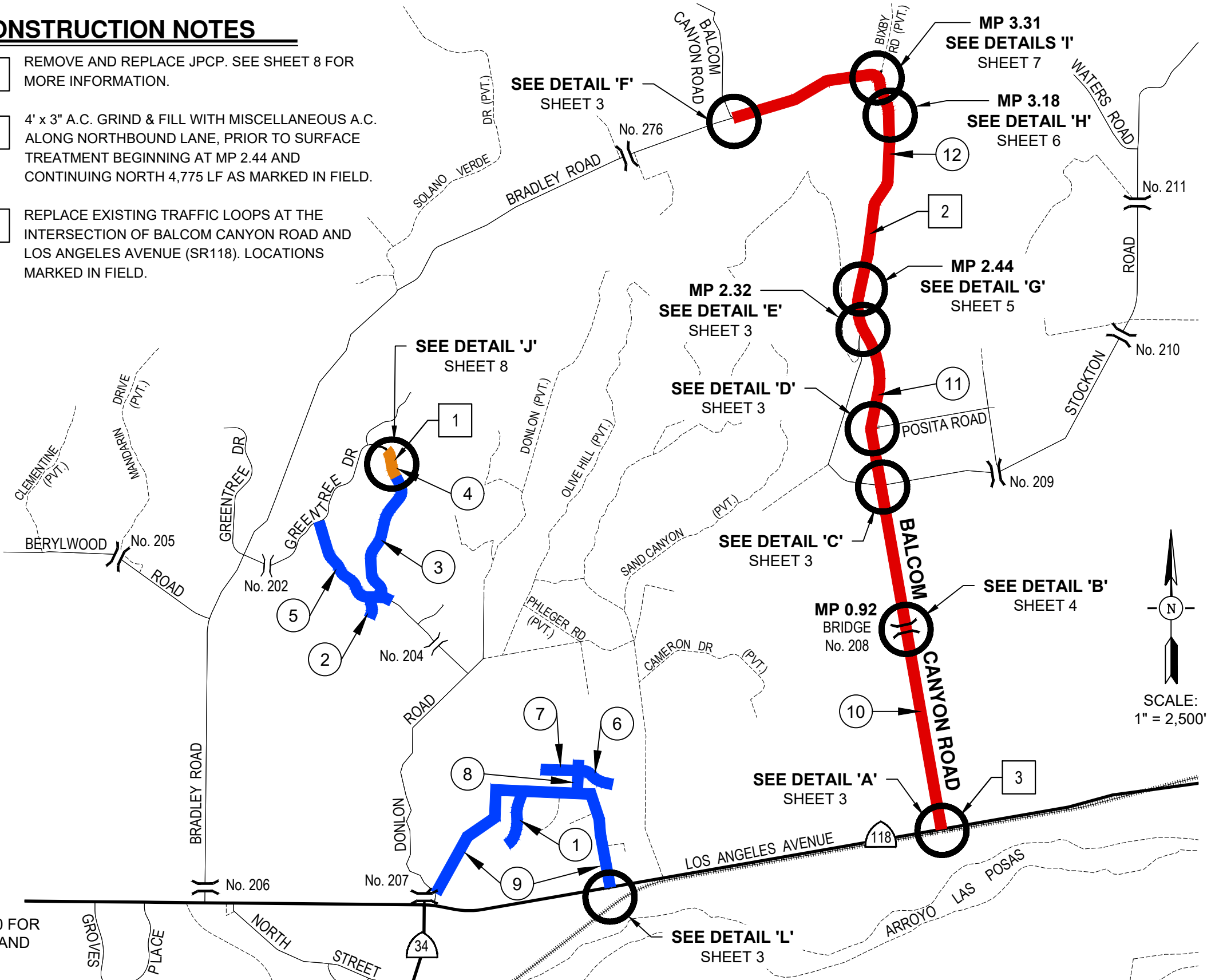
- 1 ASPEN ROAD
- 2 CRESTON LANE NORTH
- 3 HEATHERTON DRIVE
- 4 HEATHERTON DRIVE
- 5 KINGSGROVE DRIVE EAST
- 6 PALOMINO CIRCLE
- 7 PALOMINO CIRCLE
- 8 PALOMINO DRIVE
- 9 LA CUMBRE ROAD

**MOORPARK AREA**

- 10 BALCOM CANYON ROAD
- 11 BALCOM CANYON ROAD
- 12 BALCOM CANYON ROAD



NOTE: SEE QUANTITY SCHEDULE ON SHEET 10 FOR ROAD SEGMENT LIMITS AND QUANTITIES.



DESIGNED \_\_\_\_\_ CS/TH  
DRAWN \_\_\_\_\_ JH  
CHECKED \_\_\_\_\_ CS  
APPROVED \_\_\_\_\_

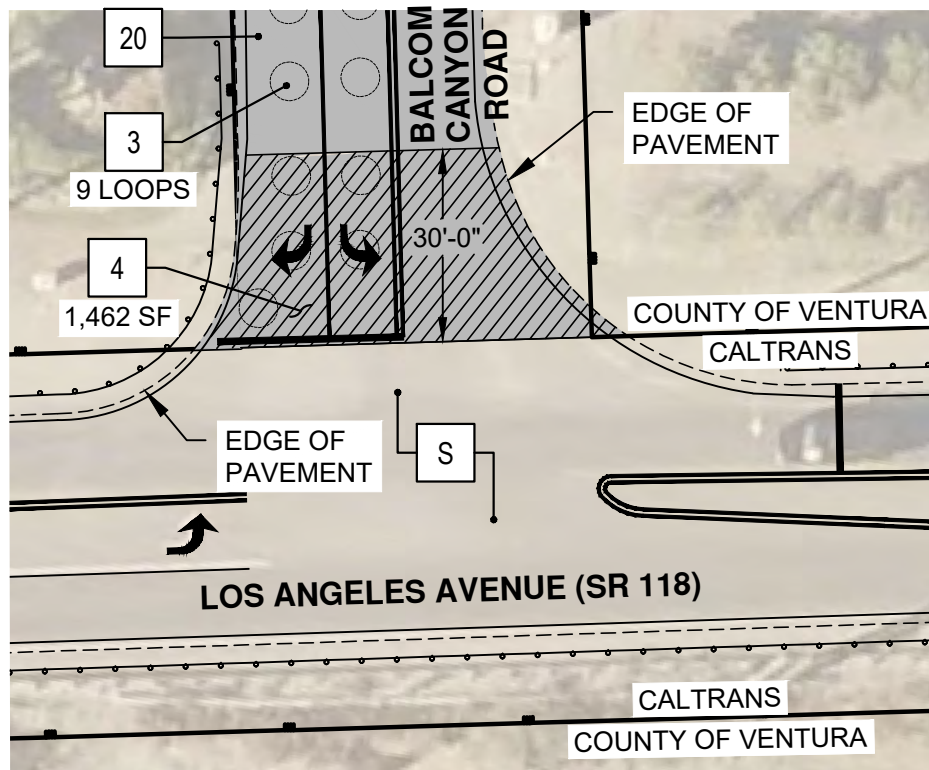
**COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
ROADS & TRANSPORTATION**

SPEC. NO.  
RD22-10  
PROJ. NO.  
50627

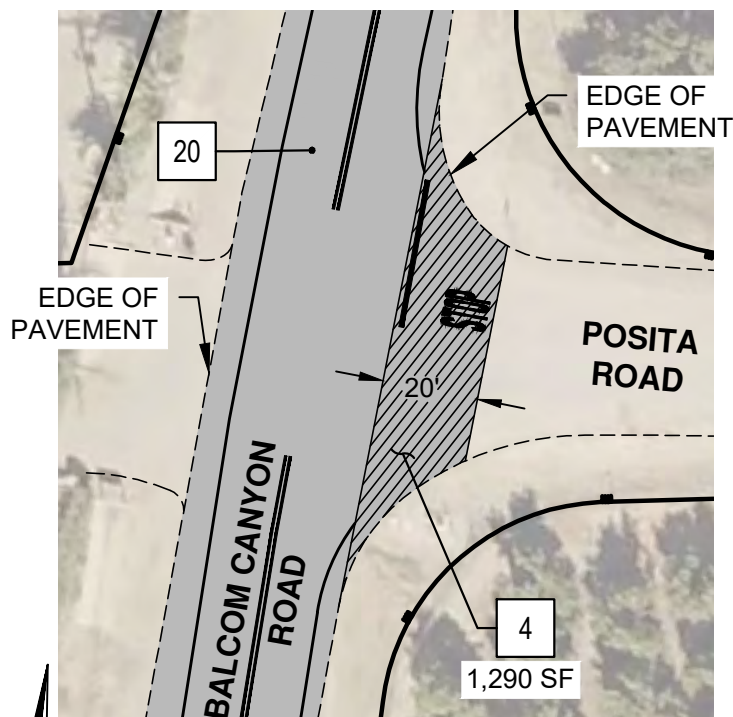
**PAVEMENT RESURFACING  
LAS POSAS VALLEY & BALCOM CANYON ROAD  
LOCATION MAP**

SHEET 2  
OF 10  
DRAWING NO.  
116432

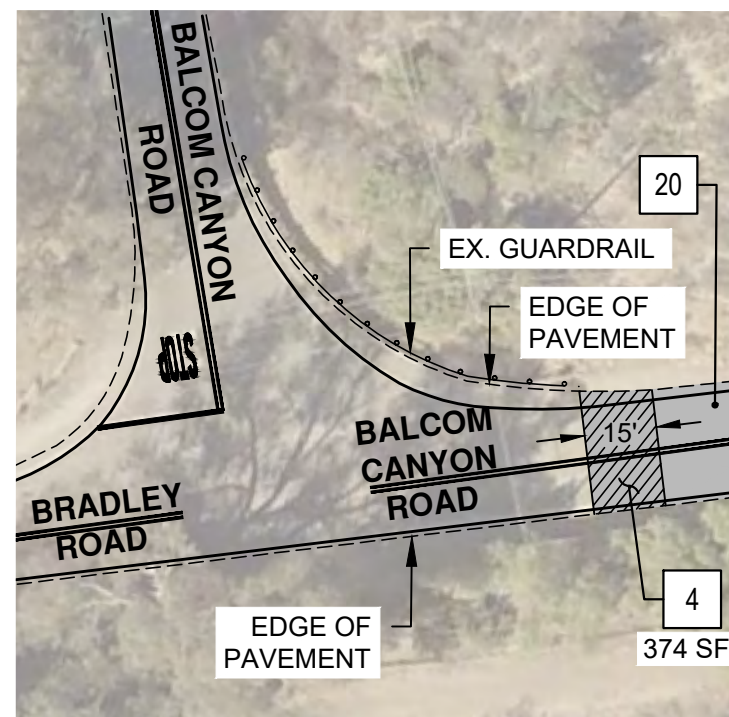




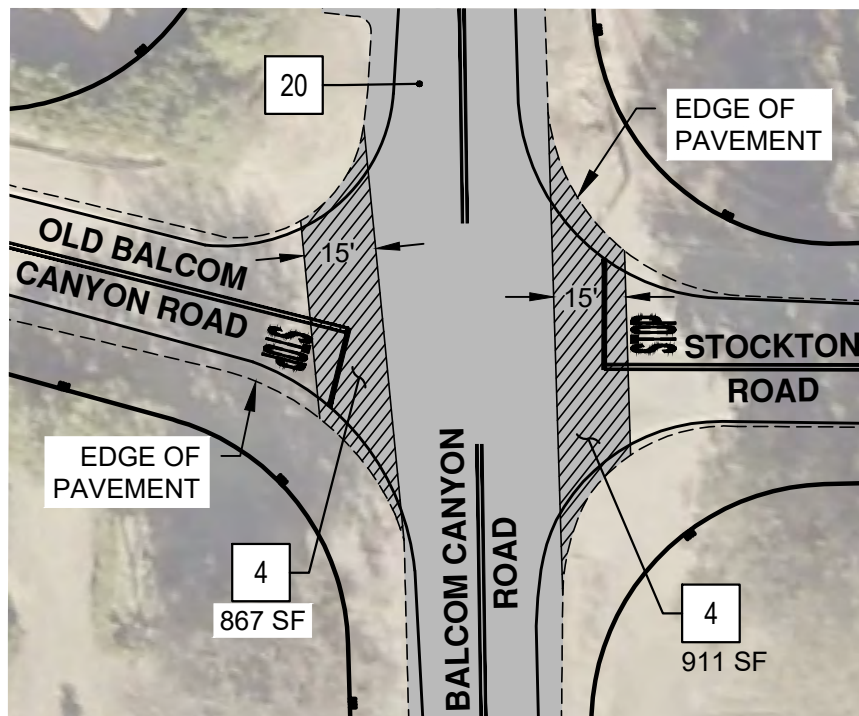
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1"=30'



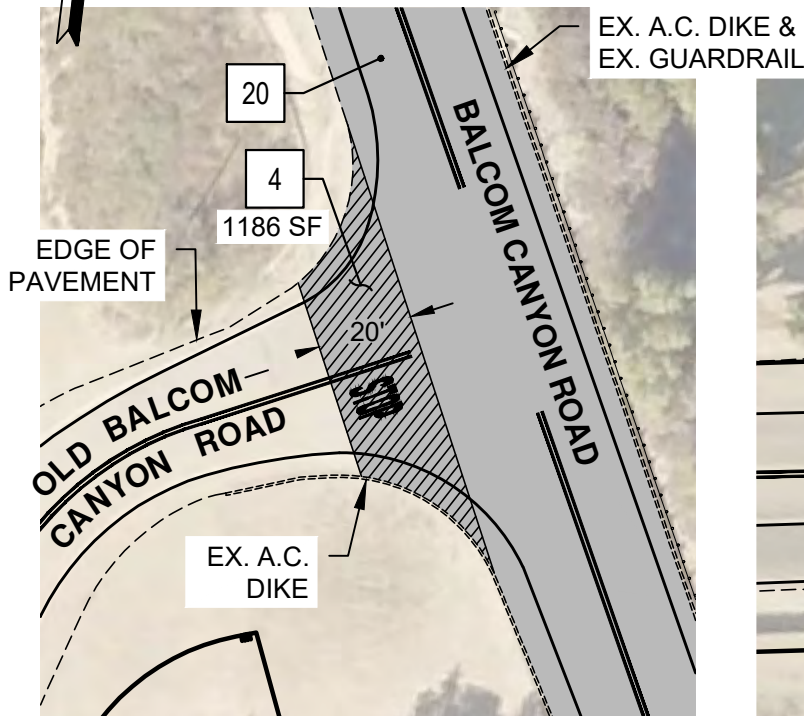
**DETAIL 'D'**  
1"=40'



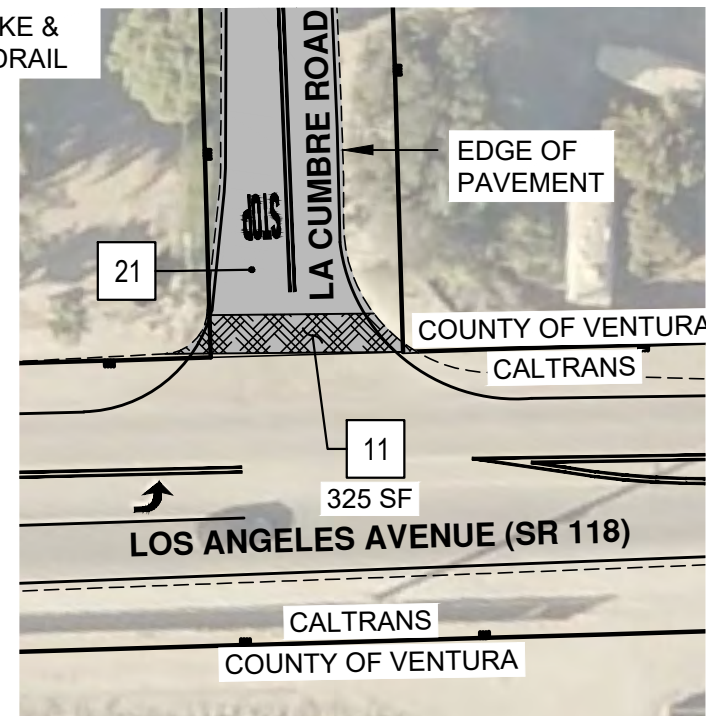
**DETAIL 'F'**  
1"=40'



**DETAIL 'C'**  
1"=40'



**DETAIL 'E'**  
1"=40'



**DETAIL 'L'**  
1"=40'

## LEGEND

- A.C. PAVEMENT
- A.C. TAPER WITH KEY
- BASE REPAIR
- TRAFFIC SIGNAL



## CONSTRUCTION NOTES

- 3 REPLACE EXISTING TRAFFIC LOOPS, IN KIND, AT THE INTERSECTION OF BALCOM CANYON ROAD AND LOS ANGELES AVENUE (SR118).
- 4 CONSTRUCT A.C. TAPER WITH KEY PER DETAIL SHOWN ON SHEET 10.
- 11 CONSTRUCT BASE REPAIR AS MARKED IN FIELD AND SPECIFIED IN SPECIAL PROVISIONS.
- 20 ROAD SHALL RECEIVE A LAYER OF 1-1/2" A.C. HOT MIX WITH FIBER OVER ARAM. BASE REPAIR, A.C. SHOULDER, 3" GRIND & FILL, COLD MILLING, TRENCHING, AND A.C. TAPERS WITH KEY SHALL BE CONSTRUCTED PRIOR TO A.C. OVERLAY.
- 21 TYPE-II EMULSION AGGREGATE SLURRY

DESIGNED \_\_\_\_\_ CS/TH  
DRAWN \_\_\_\_\_ JH  
CHECKED \_\_\_\_\_ CS  
APPROVED \_\_\_\_\_ *CH*

**COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
ROADS & TRANSPORTATION**

SPEC. NO.  
RD22-10  
PROJ. NO.  
50627

**PAVEMENT RESURFACING  
LAS POSAS VALLEY & BALCOM CANYON ROAD  
DETAILS**

SHEET 3  
OF 10  
DRAWING NO.  
116433

CONSTRUCTION NOTES

- 4

CONSTRUCT A.C. TAPER WITH KEY PER DETAIL SHOWN ON SHEET 10.
- 5

REMOVE AND DISPOSE OF EXISTING GUARDRAIL AND WOOD POSTS. EXISTING STEEL POSTS SHALL REMAIN AND BE PROTECTED IN PLACE FOR INSTALLATION OF NEW GUARDRAIL.
- 6

INSTALL MIDWEST GUARDRAIL SYSTEM WITH STEEL POSTS AND PLASTIC BLOCKS PER CALTRANS STD. PLAN A77N2. OMIT BLOCKS ON EXISTING STEEL POSTS.
- 7

INSTALL FLARED TERMINAL SYSTEM END TREATMENT, TYPE FLEAT-SP-MGS PER CALTRANS STD. PLAN A77P4, TYPE 11H WITH STEEL POSTS PER CALTRANS STD. PLAN A77N2.

- 8

INSTALL MGS END ANCHOR ASSEMBLY (TYPE SFT) WITH BUFFER END GUARD PER CALTRANS STD, A77S1.
- 9

INSTALL IN-LINE TERMINAL SYSTEM END TREATMENT, TYPE SKT-350 PER CALTRANS STD. PLAN A77P2 TYPE 11D WITH STEEL POSTS PER CALTRANS STD. PLAN A77N2.
- 10

INSTALL GUARDRAIL BUTTERFLY REFLECTORS AT 12.5 FEET INTERVALS, BOLT ON, DOUBLE SIDED, WHITE.
- 11

CONSTRUCT BASE REPAIR AS MARKED IN FIELD AND SPECIFIED IN SPECIAL PROVISIONS.
- 12

3" FULL WIDTH A.C. GRIND.

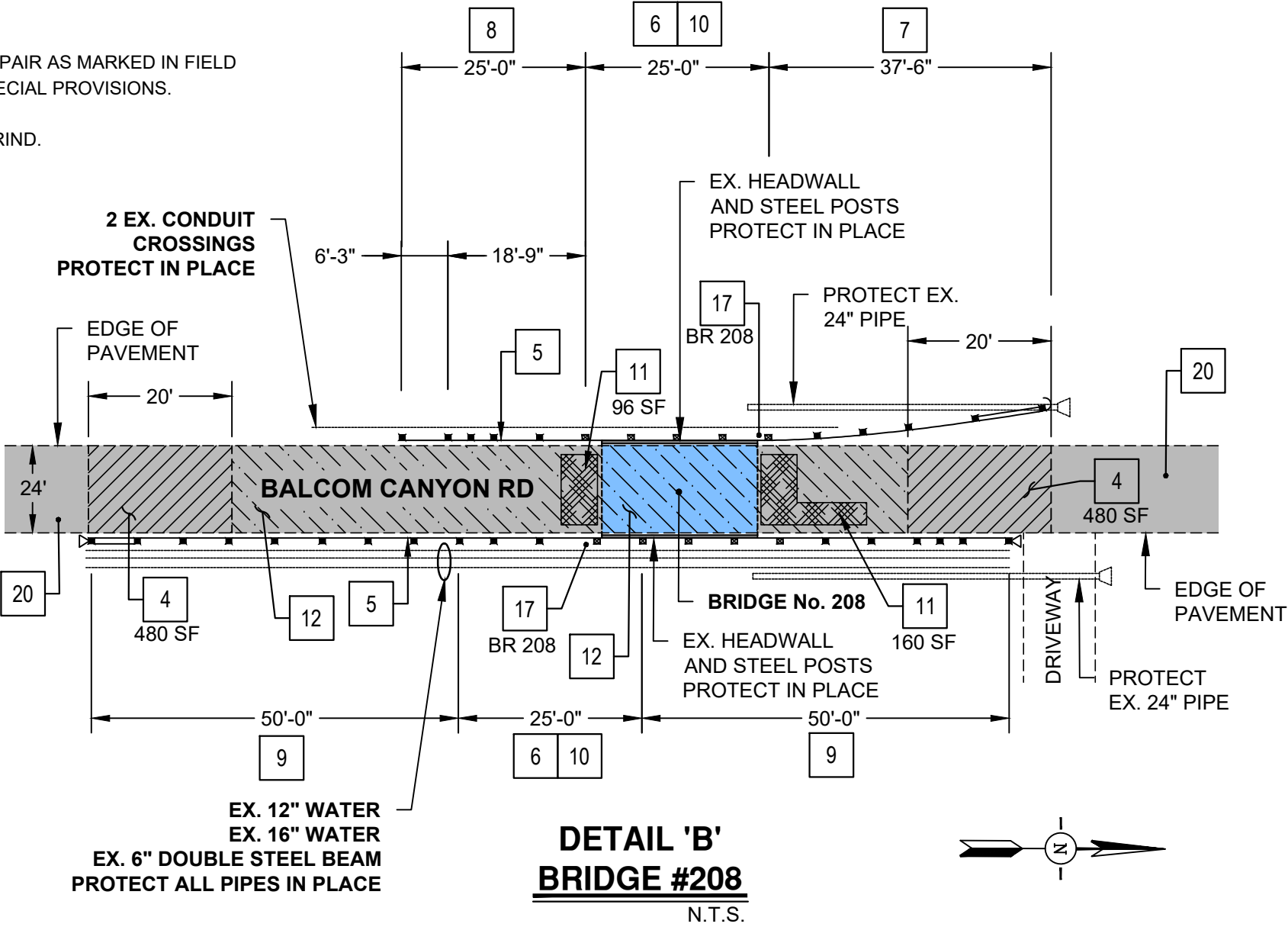
- 17

INSTALL OBJECT MARKER PER DETAIL SHOWN ON SHEET 5. ID MARKING TO REFLECT CULVERT MILE POST OR BRIDGE NUMBER.
- 20

ROAD SHALL RECEIVE A LAYER OF 1-1/2" A.C. HOT MIX WITH FIBER OVER ARAM. BASE REPAIR, A.C. SHOULDER, 3" GRIND & FILL, COLD MILLING, TRENCHING, AND A.C. TAPERS WITH KEY SHALL BE CONSTRUCTED PRIOR TO A.C. OVERLAY.

LEGEND

- A.C. PAVEMENT
- A.C. TAPER WITH KEY
- BASE REPAIR
- FULL WIDTH A.C. GRIND
- FULL WIDTH A.C. GRIND ON BRIDGE



DESIGNED \_\_\_\_\_ CS/TH  
DRAWN \_\_\_\_\_ JH  
CHECKED \_\_\_\_\_ CS  
APPROVED \_\_\_\_\_

COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
ROADS & TRANSPORTATION

SPEC. NO.  
RD22-10  
PROJ. NO.  
50627

PAVEMENT RESURFACING  
LAS POSAS VALLEY & BALCOM CANYON ROAD  
BALCOM CANYON ROAD BRIDGE #208

SHEET 4  
OF 10  
DRAWING NO.  
116434

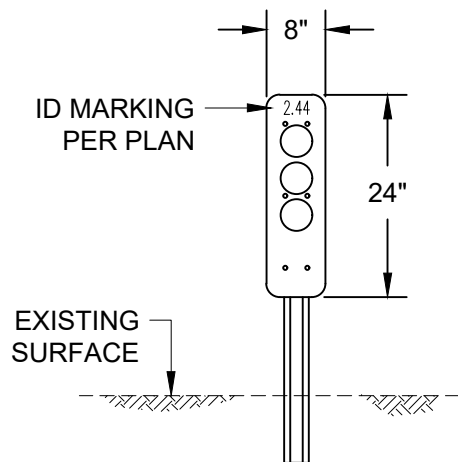


CONSTRUCTION NOTES

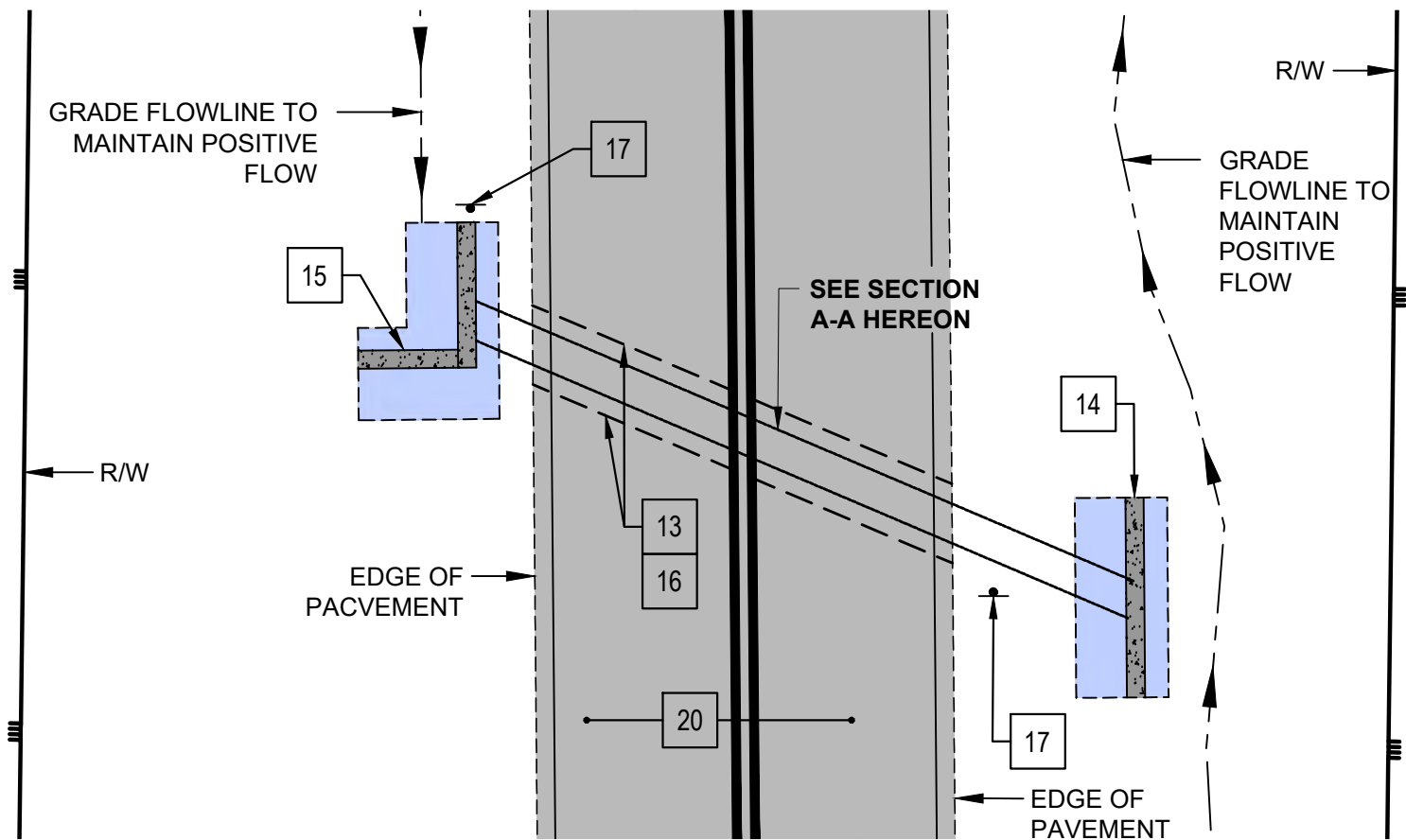
- 13 REMOVE EXISTING PIPE CULVERT AND EXISTING HEADWALLS AND INSTALL 24" Ø RCP, CLASS III. LENGTH AND SLOPE PER PLAN.
- 14 CONSTRUCT CAST-IN-PLACE STRAIGHT HEADWALL PER CALTRANS STD. PLAN RSPD89B. HEADWALL SHALL BE FLUSH WITH FINISH GRADE.
- 15 CONSTRUCT CAST-IN-PLACE "L" HEADWALL PER CALTRANS STD. PLAN RSPD89B HEADWALL SHALL BE FLUSH WITH FINISH GRADE.
- 16 TRENCH BACKFILL PER COUNTY OF VENTURA ROAD STD. PLATE E-1.
- 17 INSTALL OBJECT MARKER PER DETAIL SHOWN HEREON. ID MARKING TO REFLECT CULVERT MILE POST OR BRIDGE NUMBER.
- 20 ROAD SHALL RECEIVE A LAYER OF 1-1/2" A.C. HOT MIX WITH FIBER OVER ARAM. BASE REPAIR, A.C. SHOULDER, 3" GRIND & FILL, COLD MILLING, TRENCH, AND A.C. TAPERS WITH KEY SHALL BE CONSTRUCTED PRIOR TO A.C. OVERLAY.

LEGEND

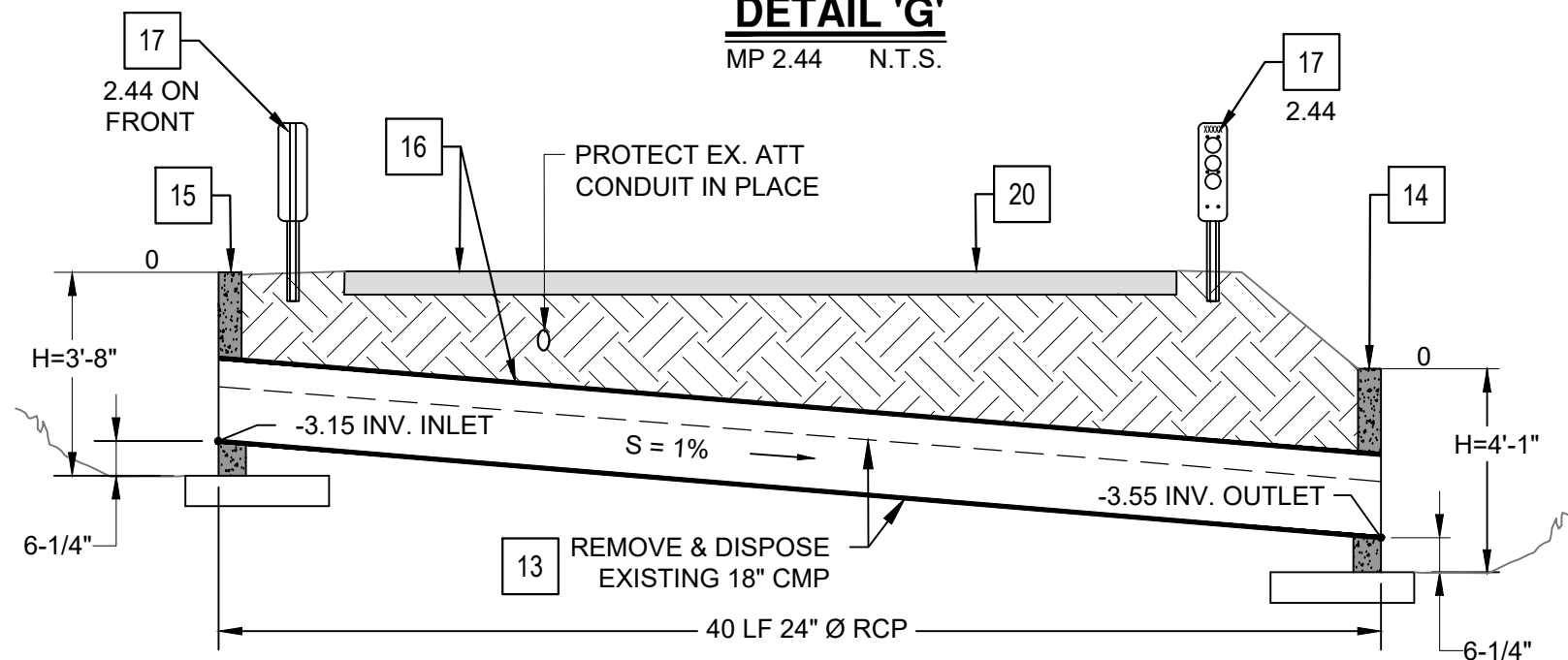
- A.C. PAVEMENT
- BACKFILL PER VCRS PLATE E-1
- HEADWALL FOOTING
- HEADWALL



OBJECT MARKER  
TYPE L-1(CA) N.T.S.



DETAIL 'G'  
MP 2.44 N.T.S.



SECTION A-A  
MP 2.44 N.T.S.

DESIGNED CS/TH  
DRAWN JH  
CHECKED CS  
APPROVED

COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
ROADS & TRANSPORTATION

SPEC. NO.  
RD22-10  
PROJ. NO.  
50627

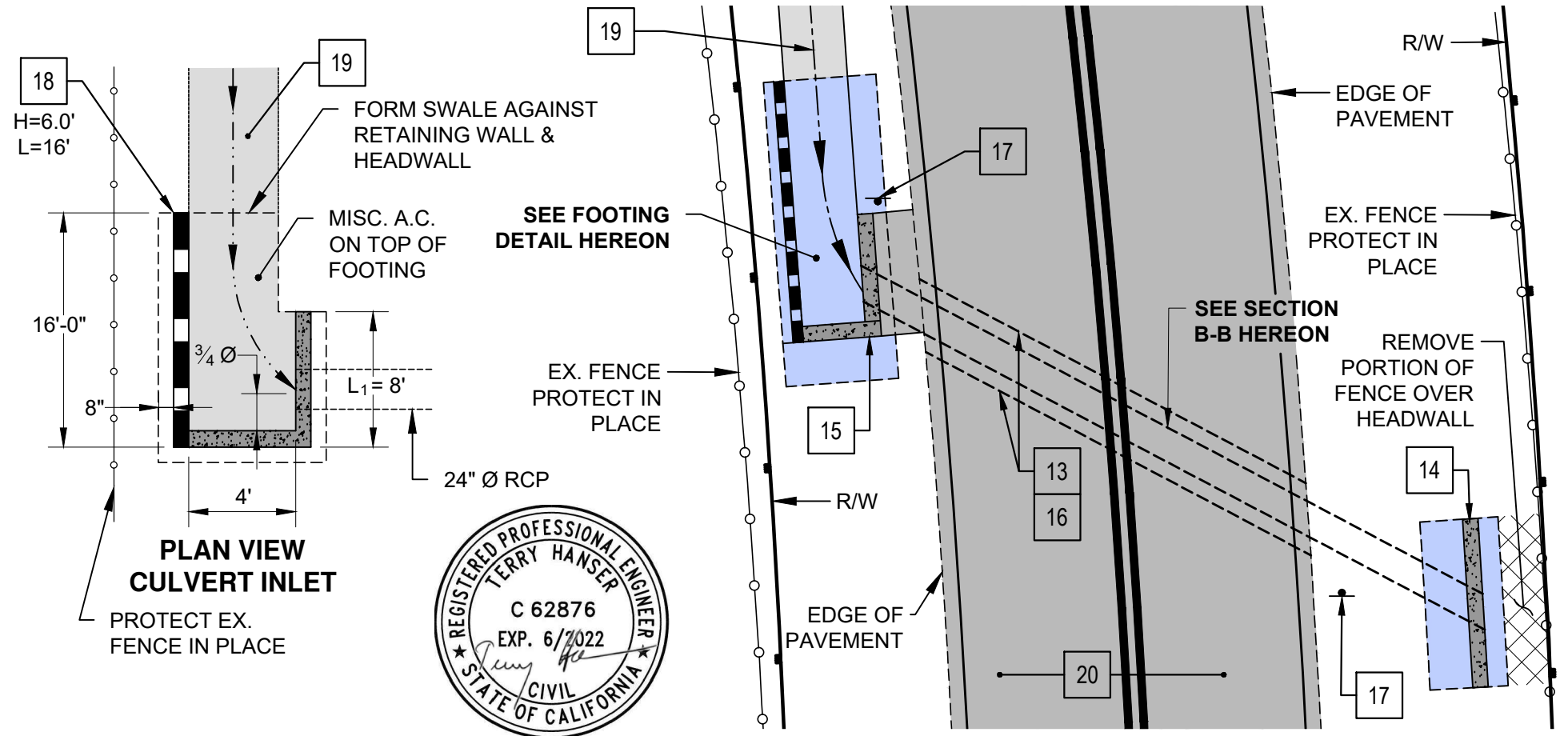
PAVEMENT RESURFACING  
LAS POSAS VALLEY & BALCOM CANYON ROAD  
BALCOM CANYON CULVERT DETAILS

SHEET 5  
OF 10  
DRAWING NO.  
116435



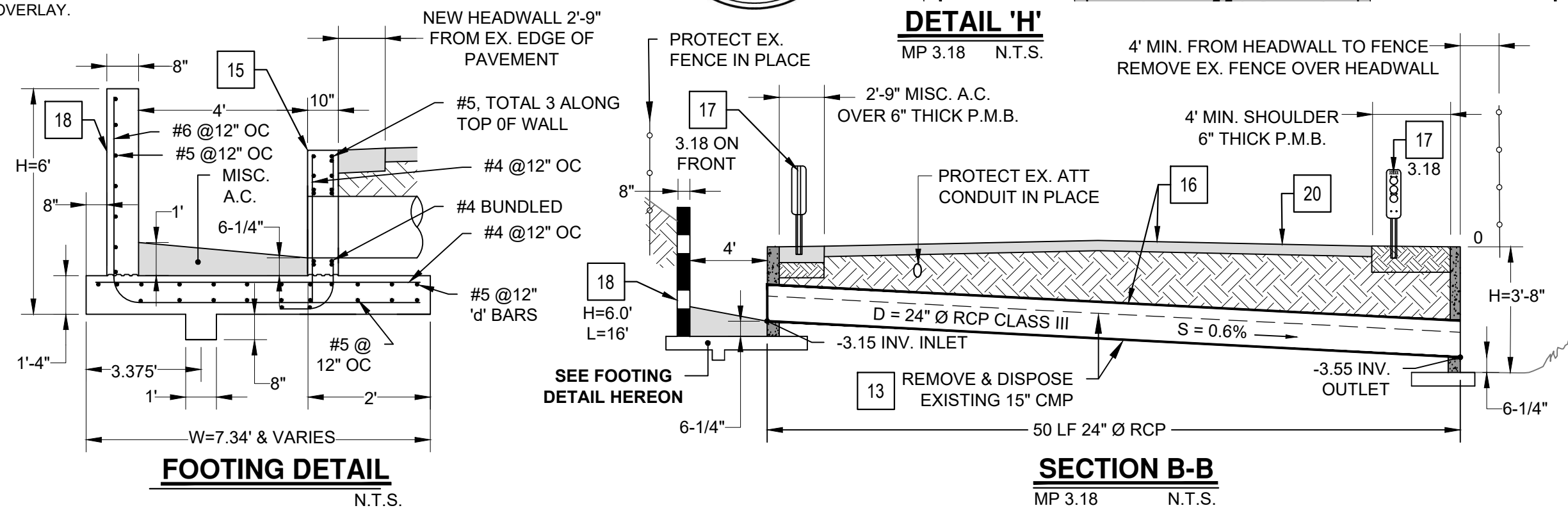
**CONSTRUCTION NOTES**

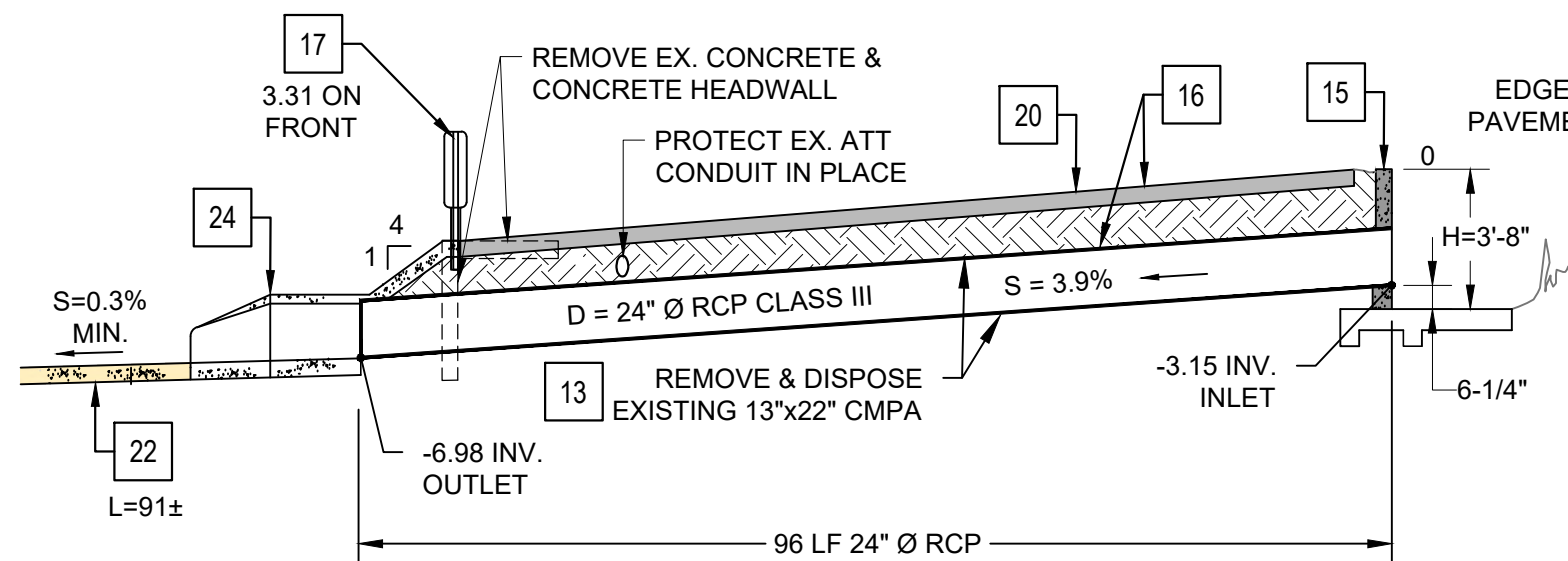
- 13 REMOVE EXISTING PIPE CULVERT AND EXISTING HEADWALLS AND INSTALL 24" Ø RCP, CLASS III. LENGTH AND SLOPE PER PLAN.
- 14 CONSTRUCT CAST-IN-PLACE STRAIGHT HEADWALL PER CALTRANS STD. PLAN RSP D89B. HEADWALL SHALL BE FLUSH WITH FINISH GRADE.
- 15 CONSTRUCT CAST-IN-PLACE "L" HEADWALL PER CALTRANS STD. PLAN RSP D89B. HEADWALL SHALL BE FLUSH WITH FINISH GRADE.
- 16 TRENCH BACKFILL PER COUNTY OF VENTURA ROAD STD. PLATE E-1.
- 17 INSTALL OBJECT MARKER PER DETAIL SHOWN ON SHEET 5. ID MARKING TO REFLECT CULVERT MILE POST OR BRIDGE NUMBER.
- 18 CONSTRUCT RETAINING WALL TYPE 6A (CASE 2) PER CALTRANS STD. PLAN B3-7B AND AS MODIFIED PER FOOTING DETAIL HEREON.
- 19 REPAIR A.C. SWALE WITH 2" MISCELLANEOUS A.C. MAINTAIN POSITIVE FLOW.
- 20 ROAD SHALL RECEIVE A LAYER OF 1-1/2" A.C. HOT MIX WITH FIBER OVER ARAM. BASE REPAIR, A.C. SHOULDER, 3" GRIND & FILL, COLD MILLING, TRENCHING, AND A.C. TAPERS WITH KEY SHALL BE CONSTRUCTED PRIOR TO A.C. OVERLAY.



**LEGEND**

- A.C. PAVEMENT
- BACKFILL PER VCRS PLATE E-1
- HEADWALL FOOTING
- HEADWALL
- RETAINING WALL





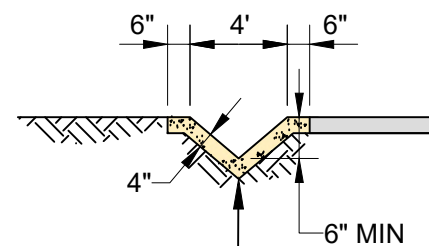
**SECTION C-C**  
MP 3.31 N.T.S.

## CONSTRUCTION NOTES

- 4 CONSTRUCT A.C. TAPER WITH KEY PER DETAIL SHOWN ON SHEET 10.
- 13 REMOVE EXISTING PIPE CULVERT AND EXISTING HEADWALLS AND INSTALL 24" Ø RCP, CLASS III. LENGTH AND SLOPE PER PLAN.
- 15 CONSTRUCT CAST-IN-PLACE "L" HEADWALL PER CALTRANS STD. PLAN RSP D89B. HEADWALL SHALL BE FLUSH WITH FINISH GRADE.
- 16 TRENCH BACKFILL PER COUNTY OF VENTURA ROAD STD. PLATE E-1.
- 17 INSTALL OBJECT MARKER PER DETAIL SHOWN ON SHEET 5. ID MARKING TO REFLECT CULVERT MILE POST OR BRIDGE NUMBER.
- 20 ROAD SHALL RECEIVE A LAYER OF 1-1/2" A.C. HOT MIX WITH FIBER OVER ARAM. BASE REPAIR, A.C. SHOULDER, 3" GRIND & FILL, COLD MILLING, TRENCHING, AND A.C. TAPERS WITH KEY SHALL BE CONSTRUCTED PRIOR TO A.C. OVERLAY.
- 21 CONSTRUCT A.C. MISCELLANEOUS PAVEMENT 6" THICK, ON 95% COMPACTED SUBGRADE. LOCATION MARKED IN FIELD.
- 22 CONSTRUCT CONCRETE SWALE PER DETAIL SHOWN HEREON.
- 23 REMOVE AND REPLACE RUMBLE STRIP, IN KIND.
- 24 CONSTRUCT FLARED END SECTION PER CALTRANS STD. PLAN D94B, TYPE A.

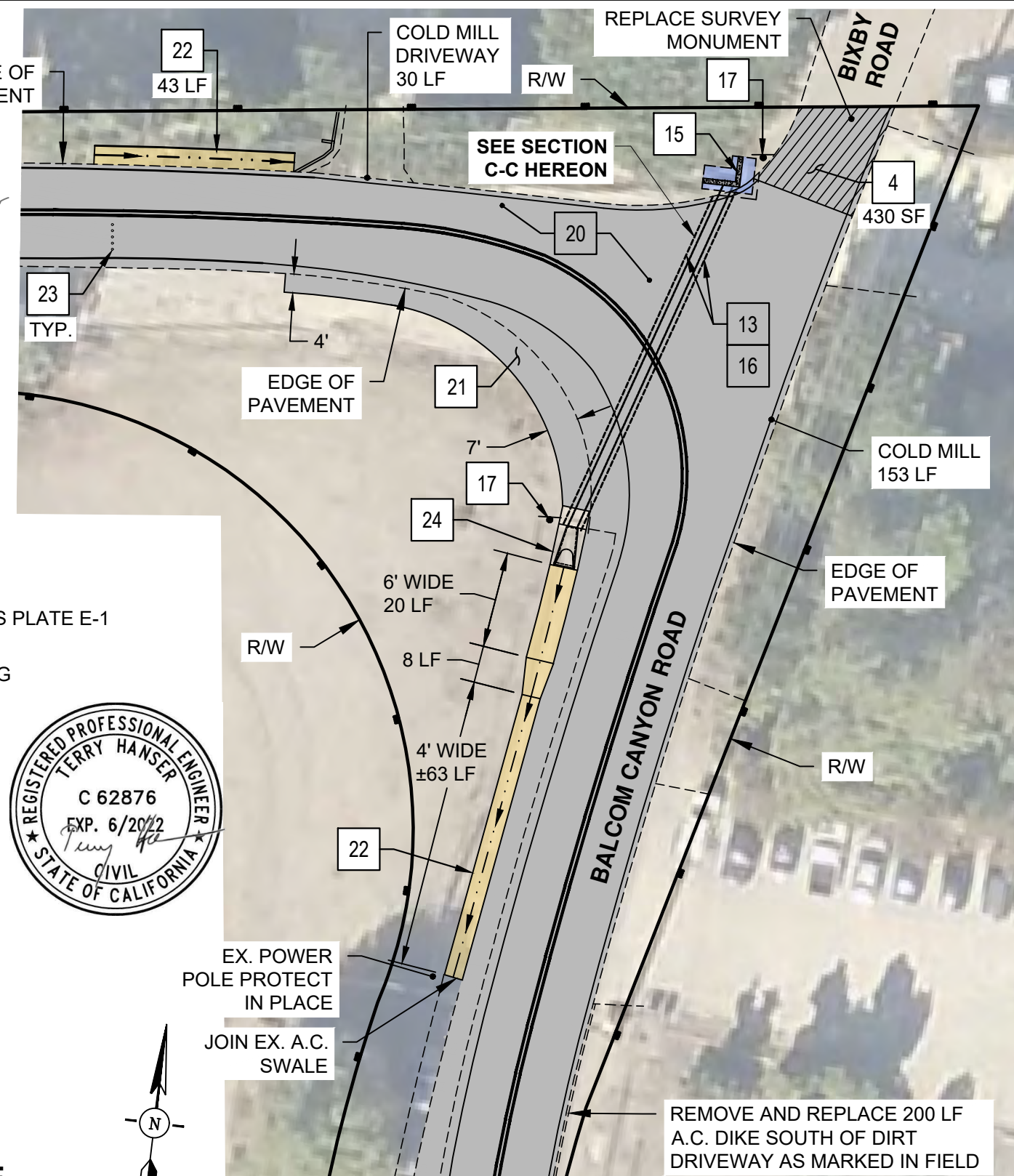
## LEGEND

- A.C. PAVEMENT
- BACKFILL PER VCRS PLATE E-1
- HEADWALL FOOTING
- CONCRETE SWALE
- HEADWALL



4" THICK PCC ON 95%  
COMPACTED  
SUBGRADE. REMOVE  
EXISTING A.C. SWALE

**CONCRETE SWALE**  
N.T.S.



**DETAIL 'I'**  
MP 3.31 1"=30'



DESIGNED CS/TH  
DRAWN JH  
CHECKED CS  
APPROVED CJT

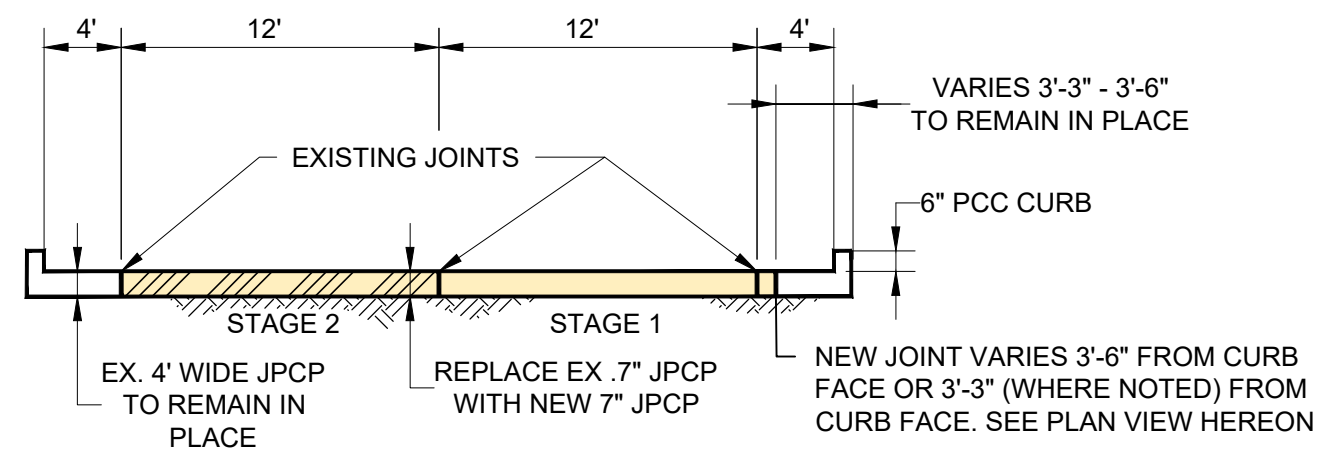
**COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
ROADS & TRANSPORTATION**

SPEC. NO.  
**RD22-10**  
PROJ. NO.  
**50627**

**PAVEMENT RESURFACING  
LAS POSAS VALLEY & BALCOM CANYON ROAD  
BALCOM CANYON ROAD DETAILS**

SHEET 7  
OF 10  
DRAWING NO.  
**116437**








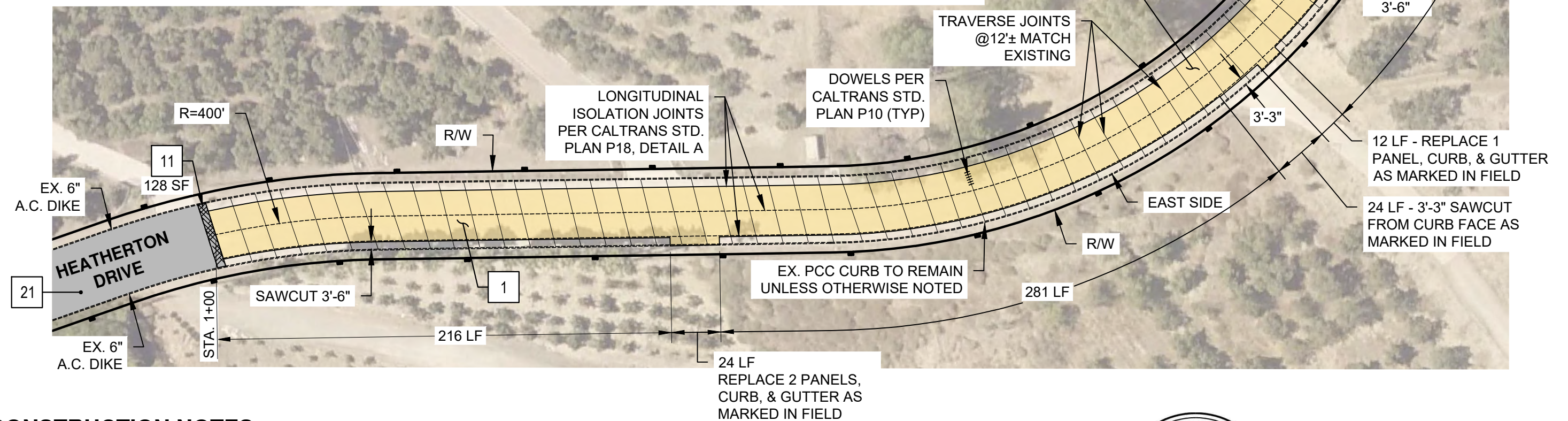
## STAGING DETAIL

N.T.S.

## LEGEND

-  A.C. PAVEMENT
-  BASE REPAIR
-  NEW JPCP

NOT PART OF PROJECT

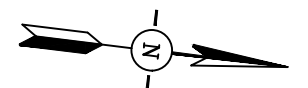


## CONSTRUCTION NOTES

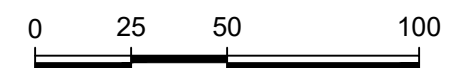
- 1 PLACE 7" PCC JOINTED PLAN CONCRETE PAVEMENT (JPCP) PER CALTRANS STD PLAN. P3A AND P3B FROM STA. 1+00 TO STA. 8+11. PLACE IN TWO STAGES PER STAGING DETAIL HEREON TO MAINTAIN LOCAL ACCESS.
- 11 CONSTRUCT BASE REPAIR AS MARKED IN FIELD AND SPECIFIED IN SPECIAL PROVISIONS.
- 21 TYPE-II EMULSION AGGREGATE SLURRY.

## DETAIL 'J'

1" = 50'



## GRAPHIC SCALE



1 inch = 50 ft.

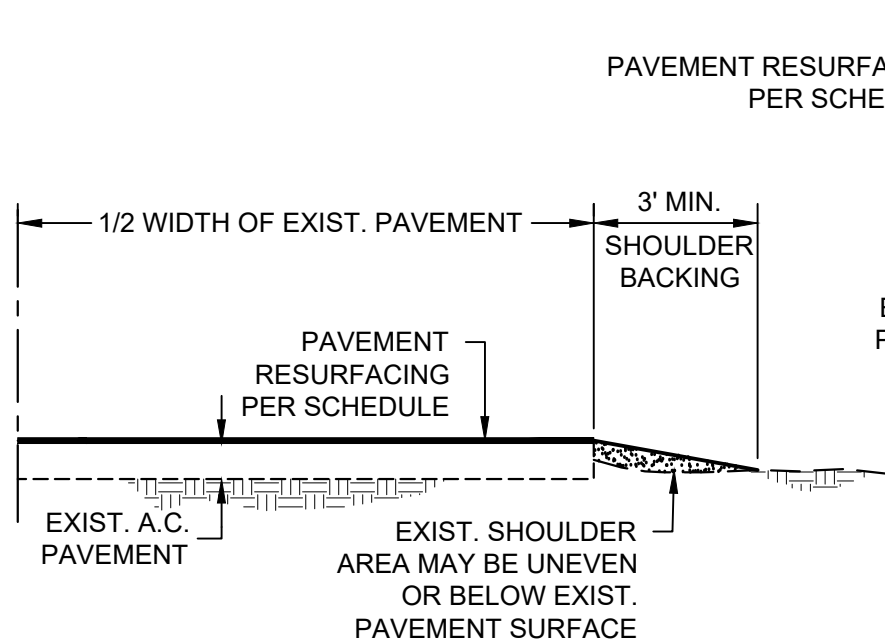
DESIGNED CS/TH  
DRAWN JH  
CHECKED CS  
APPROVED *CH*

**COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
ROADS & TRANSPORTATION**

SPEC. NO.  
RD22-10  
PROJ. NO.  
50627

**PAVEMENT RESURFACING  
LAS POSAS VALLEY & BALCOM CANYON ROAD  
HEATHERTON DRIVE DETAILS**

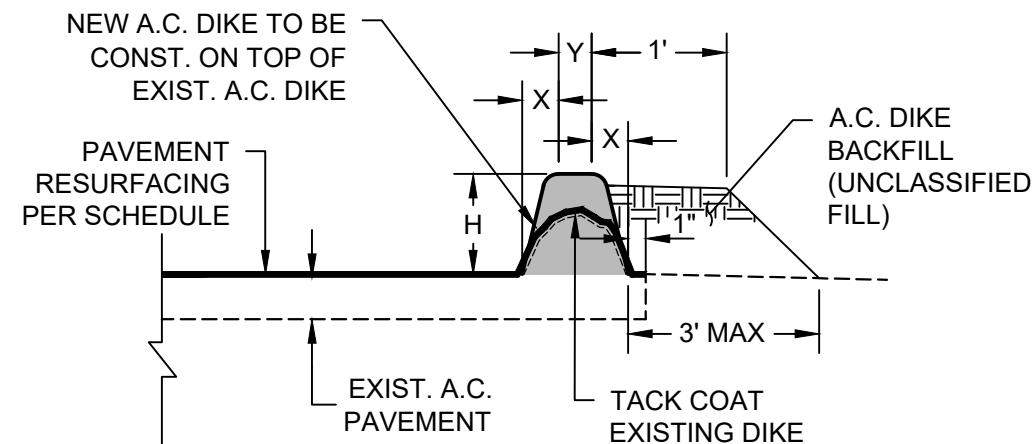
SHEET 8  
OF 10  
DRAWING NO.  
116438



### PAVEMENT REHABILITATION AT SHOULDER

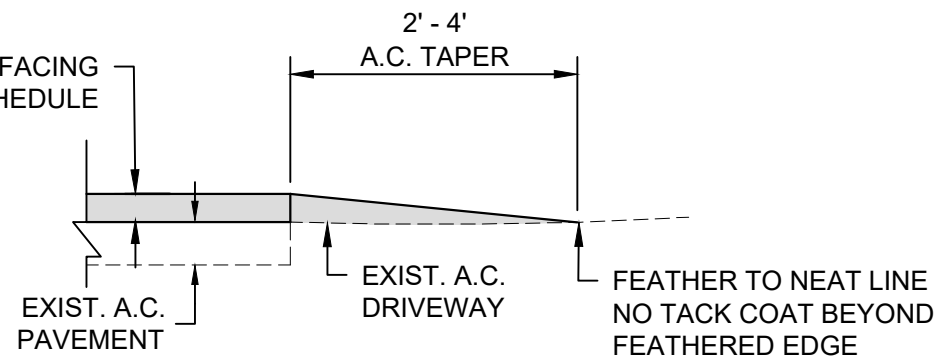
N.T.S.

A.C. DIKE DATA TABLE		
H	X	Y
6"	3"	5"



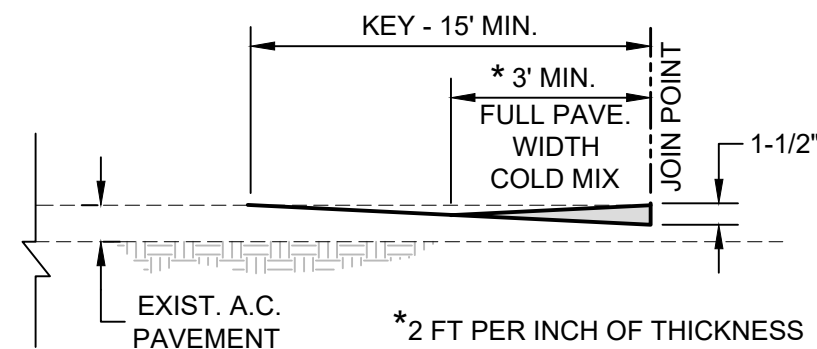
### A.C. DIKE REHABILITATION

N.T.S.



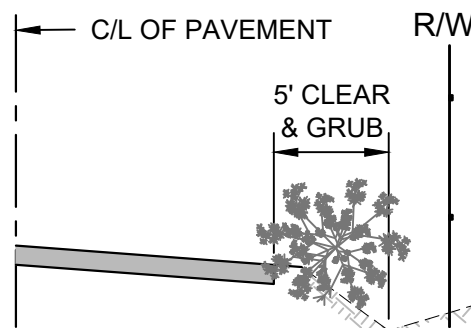
### A.C. DRIVEWAY DETAIL

MISCELLANEOUS PAVING N.T.S.



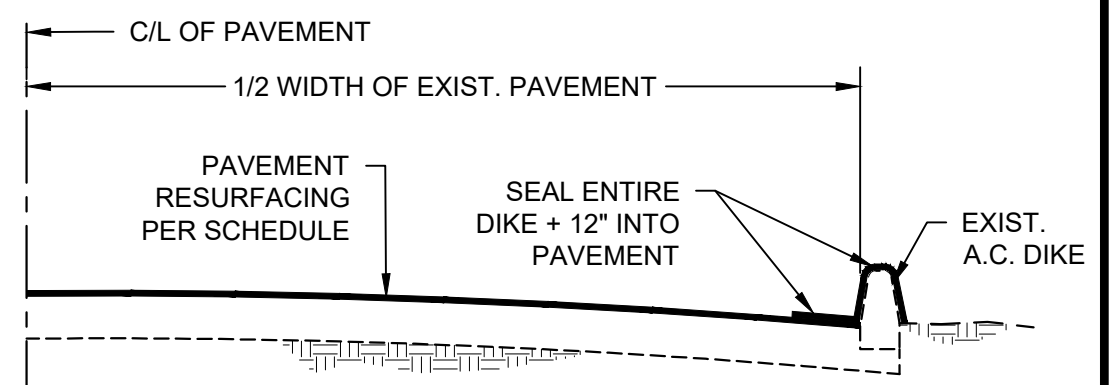
### TYPICAL TEMPORARY RAMP DETAIL AT KEY

N.T.S.



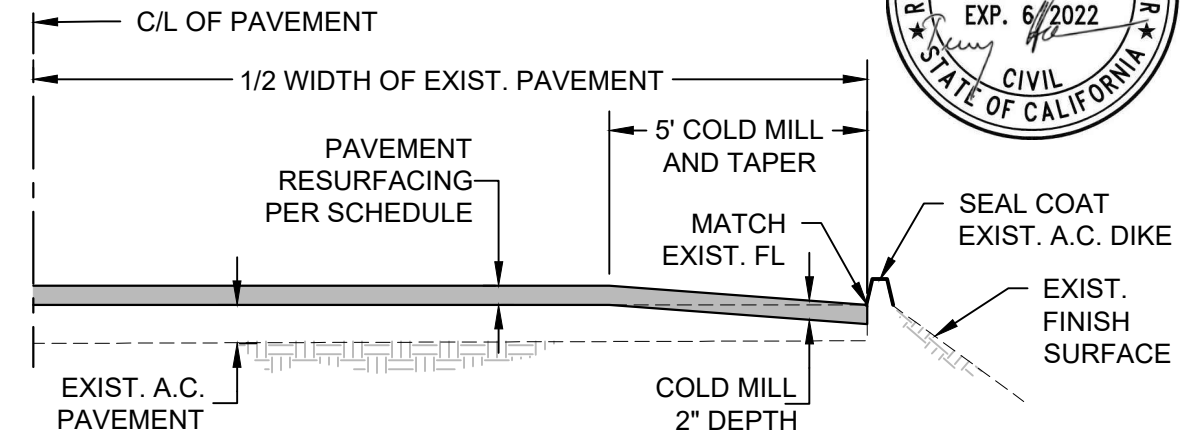
### CLEAR & GRUB

N.T.S.



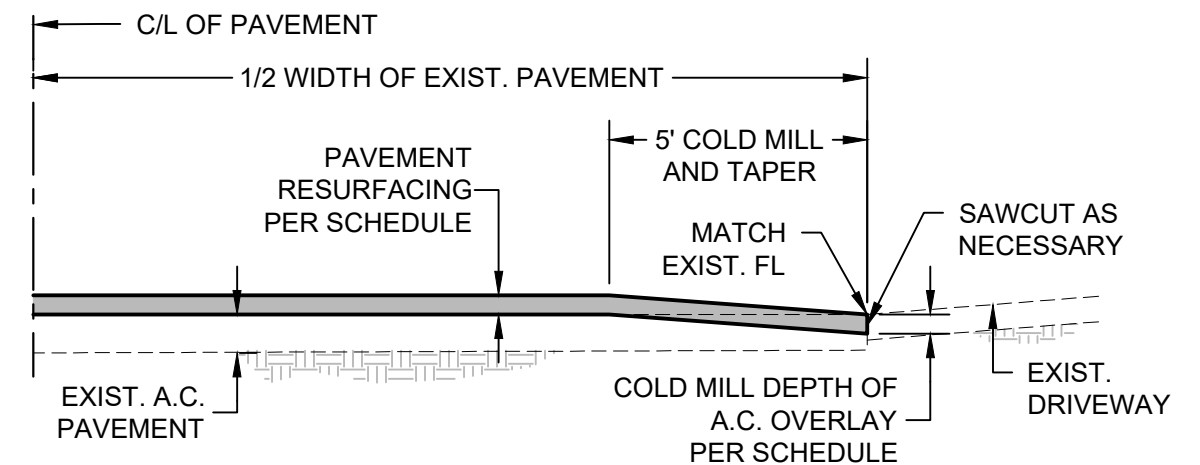
### A.C. DIKE SEAL

N.T.S.



### COLD MILLING

N.T.S.



### COLD MILLING AT CONCRETE DRIVEWAY

N.T.S.

DESIGNED CS/TH  
DRAWN JH  
CHECKED CS  
APPROVED *CJH*

**COUNTY OF VENTURA  
PUBLIC WORKS AGENCY  
ROADS & TRANSPORTATION**

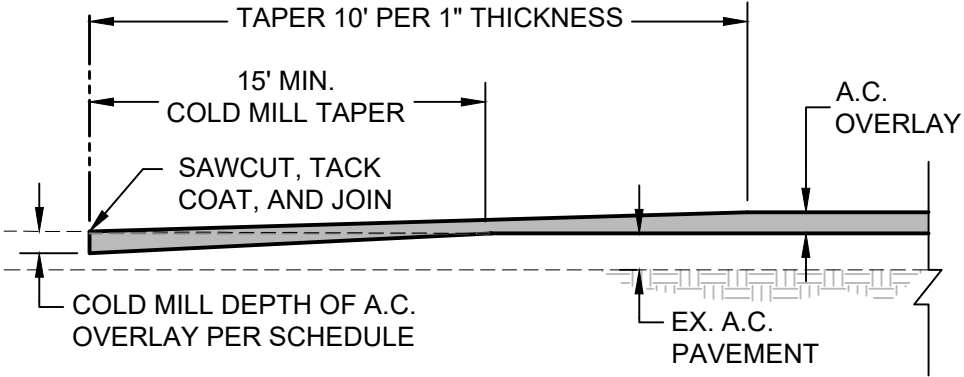
SPEC. NO.  
RD22-10  
PROJ. NO.  
50627

**PAVEMENT RESURFACING  
LAS POSAS VALLEY & BALCOM CANYON ROAD  
TYPICAL DETAILS**

SHEET 9  
OF 10  
DRAWING NO.  
116439



ROAD ID NO.	SUB AREA	ROAD NAME	ROADE LIMITS FROM - TO (EAST TO WEST)	LENGTH (MI)	WIDTH (FT)	TYPE-II SLURRY (SY)	1-1/2" A.C. HOT MIX WITH FIBER (TN)	ARAM (SY)	JOINTED PLAIN CONCRETE PAVING (CY)	MISC. A.C. (TNS)	A.C. BASE REPAIR (TNS)	COLD MILLING (5' WIDE) (LF)	SEAL COAT (SF)	A.C. GRIND (SF)	A.C. TAPER W/KEY (SF)	CLEAR & GRUB (MI)	A.C. DIKE REHAB (LF)	PMB SHLDER BACKING (MI)	A.C. SHLDER (TNS)	SURVEY MON. ADJUST/ REPLACE (EA)
1	LPV	Aspen Lane	CDS - La Cumbre Rd	0.25	28	4107					24		5280							
2	LPV	Creston Lane North	CDS - Kingsgrove Dr	0.08	32	1502							1576							
3	LPV	Heatherton Drive	Kingsgrove Dr -945s Ridgecrest	0.6	32	11264					12		10874							
4	LPV	Heatherton Drive	945s - 258s Ridgecrest Ln	0.13	29				390											
5	LPV	Kingsgrove Drive East	Greentree - 155e Heatherton Dr	0.5	36	10560							9940							1
6	LPV	La Cumbre Road	Donlon Rd - SR 118	1.35	24	19008					22		9240							
7	LPV	Palomino Circle	CDS - Palomino Dr	0.16	32	3004					2		3210							
8	LPV	Palomino Circle	Palomino Dr - CDS	0.16	36	3400							3210							
9	LPV	Palomino Drive	La Cumbre Rd - End	0.14	40	3285							2810							
10	MPK	Balcom Canyon Road	SR 118 - Stockton Rd	1.5	24		1797	21120		52	15	313		2040	4202	1.50		3.0		6
11	MPK	Balcom Canyon Road	Stockton Rd - 4277 north	0.81	32		1293	15206		14		5401	15231		2253	0.81		1.6		2
12	MMK	Balcom Canyon Road	4277n Stockton Rd - Bradley Rd	1.71	22		1877	22070		488	15	2225	8510	19100	3045	1.71	200	3.4	34	4
TOTAL				7.39		56130	4967	58396	390	554	90	7939	69881	21140	9500	4.02	200	8	34	13



**A.C. TAPER WITH KEY**

N.T.S.



DESIGNED _____ CS/TH	<b>COUNTY OF VENTURA PUBLIC WORKS AGENCY ROADS &amp; TRANSPORTATION</b>	SPEC. NO. RD22-10	<b>PAVEMENT RESURFACING LAS POSAS VALLEY &amp; BALCOM CANYON ROAD TYPICAL DETAIL &amp; QUANTITY SCHEDULE</b>	SHEET 10
DRAWN _____ JH		PROJ. NO. 50627		OF 10
CHECKED _____ CS				DRAWING NO.
APPROVED _____ <i>CH</i>				116440