

WORKERS COMPENSATION AND EMPLOYERS LIABILITY INSURANCE POLICY

WC 99 06 62

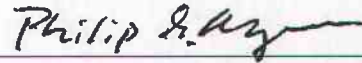
NOTICE OF CANCELLATION OR NON-RENEWAL TO SPECIFIED PERSONS OR ORGANIZATIONS

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

This endorsement effective on **6/18/2019** at **12:01 A.M.** standard time, forms a part of
(DATE)

Policy No. **54303148** of the **Federal Insurance Company**
(NAME OF INSURANCE COMPANY)

Issued to **Mamco, Inc. dba Alabbasi**



Authorized Representative

The following Condition is added to **PART SIX - CONDITIONS:**

Notice Of Cancellation Or Non-Renewal To Specified Persons Or Organizations

1. If we cancel or non-renew this policy for any reason other than non-payment, we will deliver notice of the cancellation or non-renewal to any Person(s) or Organization(s) shown in the Schedule *ten days* (10 days) prior to the effective date of cancellation or non-renewal.
2. If we cancel this policy for non-payment, we will deliver notice of the cancellation to any Person(s) or Organization(s) shown in the Schedule *thirty days* (30 days) prior to the effective date of cancellation.
3. If notice is mailed, proof of mailing will be sufficient proof of notice.
4. Any failure by us to notify such person(s) or organization(s) will not invalidate such cancellation or non-renewal with respect to any other person(s) or organization(s).

SCHEDULE

Name(s) and Address(es):

ALL PERSONS OR ORGANIZATIONS AS ON FILE WITH US.

WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY INSURANCE POLICY

WC 99 03 04 (Ed. 7- 08)

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT— CALIFORNIA

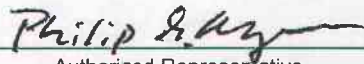
This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.

(The following "attaching clause" need to be completed only when this endorsement is issued subsequent to preparation of the policy.)

This endorsement, effective on 6/18/19 at 12:01 A. M. standard time, forms a part of
(DATE)
Policy No. 54303148 of the Federal Insurance Company
(NAME OF INSURANCE COMPANY)

issued to Mamco, Inc. dba Alabbasi

Endorsement No.


Authorized Representative

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. The additional premium for the blanket waiver offered by this endorsement shall be 0.00 % of total California premium.

	Schedule	
Person or Organization		Job Description
Where required by written contract.		Where required by written contract.

Policy Number: 1000584518191

EXCESS LIABILITY POLICY FORM

Various provisions in this Policy restrict coverage. Read the entire Policy carefully to determine rights, duties and what is and is not covered.

Throughout this Policy, the words you and your refer to the Named Insured as shown in **ITEM 1.** of the Declarations. The words we, us and our refer to the Company shown in the Declaration providing this insurance.

The word Insured means the Named Insured and any person or organization qualifying as an Insured in the First Underlying Insurance Policy(ies), but only to the extent to which such person(s) or organization(s) qualify as an Insured in the First Underlying Insurance Policy(ies) at the inception date of this Policy. Newly acquired or formed organizations must comply with **SECTION IV. CONDITIONS, D. Changes** in order to qualify for coverage.

Words and phrases that appear in quotation marks have special meaning. Refer to **SECTION III. DEFINITIONS**, or to the specific section, of this Policy where such words appear.

SECTION I. COVERAGE

- A. We will pay on behalf of the Insured, the "Ultimate Net Loss" in excess of the "Underlying Insurance" as shown in **ITEM 5.** of the Declarations, that the Insured becomes legally obligated to pay for loss or damage to which this insurance applies and that takes place in the Coverage Territory. Except for the terms, definitions, conditions and exclusions of this Policy, the coverage provided by this Policy shall follow the terms, definitions, conditions and exclusions of the applicable First Underlying Insurance Policy(ies) shown in **ITEM 5.A.** of the Declarations.
- B. Regardless of any other warranties, terms, conditions, exclusions or limitations of this Policy, if any applicable Underlying Insurance Policy(ies) does not cover "Ultimate Net Loss" for reasons other than exhaustion of its limit of liability by payment of claims or suits, then this Policy will not cover such "Ultimate Net Loss".
- C. The amount we will pay for the "Ultimate Net Loss" is limited as described in **SECTION II. LIMITS OF INSURANCE.**


SECTION II. LIMITS OF INSURANCE

- A. The Limits of Insurance shown in the Declarations and the rules below describe the most we will pay regardless of the number of:
 - 1. Insureds;
 - 2. Claims made or suits brought; or
 - 3. Persons or organizations making claims or bringing suits.
- B. The Limits of Insurance of this Policy will apply as follows:
 - 1. This Policy applies only in excess of the "Underlying Insurance" scheduled in **ITEM 5.** of the Declarations.
 - 2. If our Limits of Insurance stated in **ITEM 4.** of the Declarations are less than the total Limits of Insurance stated in **ITEM 4.** of the Declarations, then our Limits of Insurance shall be that proportion of the "Ultimate Net Loss" to which our Limits of Insurance apply to the total Limits of Insurance stated in **ITEM 4.** of the Declarations and apply only in excess of the total Limits of "Underlying Insurance" scheduled in **ITEM 5.** of the Declarations.

XS - 100 (10/08)

Page 3 of 10

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Authorized Representative

See certificate

Date



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

3/3/2020

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 have ADDITIONAL INSURED provisions or 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 Newport Beach-Alliant Insurance Services, Inc. 1301 Dove St Ste 200 Newport Beach CA 92660	CONTACT NAME: Philip Arzu	FAX (A/C, No):
	PHONE (A/C, No, Ext): 949-756-0271	E-MAIL ADDRESS: parzu@alliant.com
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A : Underwriters at Lloyds Brit Syndicate 2987		
INSURER B :		
INSURER C :		
INSURER D :		
INSURER E :		
INSURER F :		

INSURED MAMCINC-01
 Mamco, Inc.
 dba: Alabbasi
 764 West Ramona Expressway, Suite C
 Perris CA 92571

COVERAGES **CERTIFICATE NUMBER:** 993070541 **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 SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:					EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY <input type="checkbox"/> AUTOS ONLY					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY <input type="checkbox"/> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A				<input type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	Professional Liability Contractor's Pollution Liability		CPP1004919	8/17/2019	8/17/2020	Each Claim / Agg. \$1MM / \$2MM Each Occ. / Agg. \$1MM / \$2MM Deductible \$10,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 Re: Banning MDP Line H, Stage 1 Project No. 5-0-00177-01

CERTIFICATE HOLDER**CANCELLATION**

Riverside County Flood Control And Water Conservation District
 1995 Market St.
 Riverside CA 92501

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

Philip S. Arzu

Pollution Claim or **Contractors Mold Claim** first made at the time the **Insurer** receives notice of such **Mitigation Event**.

The coverage in A.2. and B. 1. above shall be subject to the Retroactive Date shown in **ITEM 7** of the Declarations Page.

C. Emergency Mitigation Coverage

The **Insurer** shall indemnify an **Insured** for **Emergency Mitigation Expense** reasonably and necessarily incurred by the **Insured** resulting from an **Emergency Mitigation Event** prior to providing notice to the **Insurer**, provided that:

1. notice of the **Emergency Mitigation Expense** is provided to the **Insurer** as soon as practicable following the discovery of the **Emergency Mitigation Event**, but in no event later than ten (10) business days from the discovery of the **Emergency Mitigation Event**, or the expiration of the **Policy Period**, whichever occurs first;
2. the **Bodily Injury** or **Property Damage** causing the underlying **Pollution Event** commenced during the **Policy Period**; and
3. the **Emergency Mitigation Event** is on, at, under or migrating from a **Job Site**.

D. Pollution Legal Liability

The **Insurer** shall pay **Loss** on behalf of an **Insured** resulting from an **Owned Location Pollution Claim** first made against such **Insured** during the **Policy Period** or Extended Reporting Period, if applicable, for a **Pollution Event**. Such **Pollution Event** must commence on or after the **Retroactive Date** and prior to the expiration of the **Policy Period**.

2. DEFINITIONS

A. "Additional Insured" means a client of an **Insured** or other entity or person, provided that:

1. prior to the discovery of a **Pollution Event**, a written contract or agreement is in effect which requires an **Insured** to name such client, entity or person as an additional insured with respect to coverage afforded by this Coverage Part;
2. **Additional Insureds** are covered solely with respect to **Loss** arising from **Covered Operations**; and
3. **Additional Insureds** are not covered for any **Loss** arising from such **Additional Insured's** own acts.

B. "Completed Operations" means work from **Covered Operations** that has been completed, including materials parts or equipment furnished in connection with such work or operations.

Covered Operations will be deemed completed at the earliest of the following times:

1. When all of the work called for in the **Insured's** contract has been completed;
2. When all of the work to be done at the **Job Site** has been completed; or
3. When that part of the work done at a **Job Site** has been put to its intended use by any person or organization other than another contractor or sub-contractor work on the same project.

11. EXTENDED REPORTING PERIOD

The applicability of Automatic Extended Reporting and the availability of Optional Extended Reporting Period is specifically detailed in each Coverage Part.

12. OTHER INSURANCE

Coverage under this Policy shall apply excess of any other valid and collectible insurance regardless of whether such other insurance is stated to be primary, excess, contributory, contingent, or otherwise unless such other insurance is written specifically as excess of this Policy by reference in such other policy to the policy number in this Policy's Declarations.

Notwithstanding any other provision of this Policy, coverage afforded to any **Additional Insured** shall apply as primary or primary and non-contributory to the extent an **Insured** is required to afford such coverage by contract, agreement, permit or ordinance in effect prior to the date the **Claim** was first made.

13. MAINTENANCE OF DESIGN SUBCONTRACTOR INSURANCE

The **Insured** shall, by written contract, require a **Design Subcontractor** to obtain, maintain, and evidence, professional liability insurance in an amount stated in the Minimum Insurance Requirement specified in **ITEM 13** of the Declarations.

14. ORGANIZATIONAL CHANGES

A. Takeover of First Named Insured

If, during the **Policy Period**:

1. any person or entity or group of persons or entities acting in concert acquires securities resulting in ownership by such person(s) or entity(ies) of more than 50% of the outstanding securities representing the present right to vote for the election of directors or equivalent positions of the first **Named Insured**; or
2. the first **Named Insured** merges into or consolidates with another organization such that the first **Named Insured** is not the surviving organization,

then coverage shall continue for any **Wrongful Act** or **Pollution Event** occurring before the effective date of such transaction. No coverage will be available for any **Wrongful Act** or **Pollution Event** occurring after the effective date of such transaction. Upon the effective date of such transaction, the entire premium for this Policy will be deemed fully earned. The **Insureds** will also give the **Insurer** written notice of such transaction as soon as practicable, but not later than 90 days after the effective date of such transaction.

B. Acquisition or Creation of New Subsidiary

If, during the **Policy Period**, any **Insured**:

1. acquires or creates a **Subsidiary**; or
2. merges with another organization such that the **Insured** is the surviving entity, then such newly acquired, created or merged **organization** shall be covered for any **Wrongful Act** or **Pollution Event** occurring within 90 days after the effective date of such transaction. The **Insureds** will also give the **Insurer** written notice of such transaction as soon as practicable, but not later than 90 days after the effective date of such transaction.

Subject to the expiration of the **Policy Period**, any continuation of coverage for such newly acquired or created organization beyond 90 days after the effective date of such

24. NAMED INSURED AUTHORITY

The first **Named Insured** shall act on behalf of all **Insureds** for all purposes, including but not limited to the payment or return of premium, receipt and acceptance of any endorsement issued to form a part of this Policy, complying with all applicable **Claim** provisions, giving and receiving notice of cancellation or nonrenewal, reimbursement to the **Insurer** of any **Retention** advanced and the exercise of the rights provided in **Section 11. Extended Reporting Period** or **Section 25 Subrogation**.

25. SUBROGATION

In the event of any payment under this Policy, the **Insurer** shall be subrogated to all the **Insured's** rights of recovery against any person or organization and the **Insured** or **Additional Insured** (if applicable) shall execute and deliver instruments and papers and do whatever else is necessary to secure such rights. The **Insured** or **Additional Insured** (if applicable) shall do nothing to prejudice such rights.

The **Insurer** shall not exercise any such right against any **Insured, Additional Insured** (if applicable) or against any **Insured's** clients if prior to the **Claim**, a waiver of subrogation was so required and accepted under a specific contractual undertaking by such **Insured**.

All recoveries obtained through subrogation shall be applied equally towards the **Insured's Retention** and the **Insurer's** costs with any remaining balance payable to the **Insurer**.

26. TITLES

The titles of the sections of and endorsements to, this Policy are for reference only. Such titles shall not be part of the terms and conditions of coverage.



EVIDENCE OF PROPERTY INSURANCE

DATE (MM/DD/YYYY)

3/18/2020

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

AGENCY Newport Beach-Alliant Insurance Services, Inc. 1301 Dove St Ste 200 Newport Beach, CA 92660		PHONE (A/C, No, Ext):	COMPANY Continental Insurance Company	
License#: 0C36861				
FAX (A/C, No): 949-756-2713	E-MAIL ADDRESS:			
CODE:	SUB CODE:			
AGENCY CUSTOMER ID #:		LOAN NUMBER		POLICY NUMBER 6080636605
INSURED Mamco, Inc. dba Alabbasi; 764 West Ramona Expressway, Suite C Perris, CA 92571		EFFECTIVE DATE 05/07/2020	EXPIRATION DATE 12/11/2020	<input type="checkbox"/> CONTINUED UNTIL TERMINATED IF CHECKED
THIS REPLACES PRIOR EVIDENCE DATED:				

PROPERTY INFORMATION

LOCATION/DESCRIPTION

Re: 2052 - Banning MDP Line H, Stage 1

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 EVIDENCE OF PROPERTY INSURANCE 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.

COVERAGE INFORMATION

PERILS INSURED

BASIC

BROAD

SPECIAL

COVERAGE / PERILS / FORMS

AMOUNT OF INSURANCE

DEDUCTIBLE

Builder's Risk Limit
 Temporary Storage
 Property in Transit
 Terrorism

\$3,255,555
 \$200,000
 \$200,000
 Included

\$2,500
 \$2,500
 \$2,500


REMARKS (Including Special Conditions)

Re: 2052 - Banning MDP Line H, Stage 1

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

ADDITIONAL INTEREST

NAME AND ADDRESS Riverside County Flood Control And Water Conservation District 1995 Market St. Riverside, CA 92501	<input type="checkbox"/> ADDITIONAL INSURED	<input type="checkbox"/> LENDER'S LOSS PAYABLE	<input type="checkbox"/> LOSS PAYEE
	<input type="checkbox"/> MORTGAGEE		
LOAN #			
AUTHORIZED REPRESENTATIVE 			

ACORD 27 (2016/03)

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GENERAL PROVISIONS

GENERAL PROVISIONS

SECTION I - DEFINITION OF TERMS

1.01 TERMS. Whenever in these specifications, or in any documents or instruments where these specifications govern, the following terms or pronouns in place of them are used, the intent and meaning shall be interpreted as follows:

(a) DISTRICT: The Riverside County Flood Control and Water Conservation District of the State of California, as created by law, also sometimes referred to as the Flood Control District, or party of the first part.

(b) BOARD OF SUPERVISORS: The Board of Supervisors of the Riverside County Flood Control and Water Conservation District as created by law, also sometimes referred to as the Board.

(c) ENGINEER: The Chief Engineer of the Riverside County Flood Control and Water Conservation District, also sometimes referred to as the Flood Control Engineer, the Chief Engineer, or the General Manager-Chief Engineer, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

(d) LABORATORY: The established laboratory of the District or laboratories authorized by the District to test materials and work involved in the contract.

(e) BIDDER: Any individual, firm or corporation submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.

(f) CONTRACTOR: The person or persons, co-partnership or corporation, private or municipal, who have entered into a contract with the District, as party or parties of the second part or his or their legal representatives.

(g) SUPERINTENDENT: The Executive representative of the Contractor, present on the work at all times during progress, authorized to receive and execute instruction from the Engineer.

(h) PLANS or PROJECT DRAWINGS: The official plans, profiles, typical cross sections, general cross sections, working drawings, and supplemental drawings, or exact reproductions thereof, approved by the Engineer, which show the location, character, dimensions and details of the work to be done, and which are to be considered as a part of the contract supplementary to these specifications.

(i) SPECIFICATIONS: The directions, provisions, and requirements contained herein as supplemented by such special provisions, as may be necessary, pertaining to the method and manner of performing the work or to the quantities and qualities of materials to be furnished under the contract. The Special Provisions are specific clauses setting forth conditions or requirements peculiar to the project under consideration and covering work or materials involved in the proposal and estimate but not satisfactorily covered by these General Provisions. Supplemental agreements

or contract change orders are written agreements executed by the Contractor and by the District, covering alterations, amendments or extensions to the project, as hereinafter provided.

(j) CONTRACT: The written agreement covering the performance of the work and the furnishing of labor and materials in the construction of the work. The contract shall include the Notice to Contractors, the Proposal, Plans, Specifications, Special Provisions, and Contract Bonds, also, any and all supplemental agreements or contract change orders amending or extending the work contemplated and which may be required to complete the work in a substantial and acceptable manner.

(k) CONTRACT PRICE: Shall mean either the lump sum, unit price, or unit prices to be named in the contract, or the total of all payments under the contract at the lump sum, unit price, or unit prices, as the case may be.

(l) SURETY OR SURETIES: The bondsmen or party or parties, approved by the Engineer, who may guarantee the fulfillment of the contract by bond, and whose signatures are attached to said bond.

(m) RIGHT OF WAY: The whole right of way which is reserved for and secured for use in constructing the improvement.

(n) THE WORK: All the work specified in the Specifications and Contract Documents, including the Special Provisions, proposal and contract, or indicated on the plans as the contemplated complete improvement covered by the contract.

1.02 SIMILARITY OF WORDS. Wherever in the specifications or upon the plans the words directed, required, permitted, ordered, designated, prescribed, or words of like import are used, it will be understood that the direction, requirements, permission, order, designation, or prescription of the Flood Control Engineer is intended, and similarly the words approved, acceptable, satisfactory, or words of like import, shall mean approved by, or acceptable to, or satisfactory to, the Flood Control Engineer, unless otherwise expressly stated.

SECTION II - SCOPE OF WORK

2.01 WORK TO BE DONE

It is the intent of these General Provisions, Special Provisions, Detailed Specifications, and the plans herein referred to, that the Contractor shall provide all labor, power, light, water, materials, equipment, tools, scaffolding, machinery, transportation, insurance, permits, bonds, temporary protection, watchmen, and superintendence necessary to construct and complete all work, and to furnish all materials included in the contract, except those furnished by the District and as specifically mentioned in these specifications.

The contract documents are complementary, and the work called for by any one shall be as binding as if called for by all.

2.02 CONSTRUCTION SCHEDULE

The Contractor shall submit at such times as may be requested by the Engineer, a schedule which shall show the order and dates in which the Contractor proposes to carry on the various parts of the work; including estimated completion dates. The District's receipt of such schedule(s) shall not indicate any concurrence by the District in the items or dates described in the schedule(s).

2.03 DRAWINGS AND SPECIFICATIONS ON THE WORK

The Contractor shall keep one copy of all drawings and specifications on the work, in good order, available to the Engineer and his representatives.

2.04 ESTIMATE OF QUANTITIES

The quantities of work to be done and the materials to be furnished under this contract are approximate only. The District is not to be held responsible for the accuracy of the estimate of quantities.

The Contractor shall judge for himself, after considering all circumstances and conditions, the costs and quantities of materials involved in the contract. The Contractor shall not at any time assert that there was any misunderstanding in regard to the depth or class of the excavations to be made, or the nature or kind or amount of materials to be furnished for the work.

The Contractor shall not at any time assert that there was any misunderstanding in regard to the nature of the work or the kind or amount of materials to be furnished for the work. The Contractor herewith agrees that he will not ask, demand, sue for, or seek to recover, for compensation in excess of the amounts payable for the various unit costs or lump sum charges for the work, as stipulated in the proposal, which he actually performs as specified.

2.05 PROTESTS

If the Contractor considers any work demanded of him to be outside of the requirements of the contract, or considers any record or ruling of the Engineer to be unfair, he shall immediately, upon such work being demanded or such record or ruling being made, ask, in writing, for written instructions covering protested items of work. Immediately on receipt of written instructions from the Engineer he shall proceed without delay to diligently perform the work in conformance with the written record or ruling. Immediately upon receipt of the written instructions or ruling and before the start of such work, and no later than five (5) business days, the Contractor shall file a written protest with the Engineer stating clearly and in detail the basis of his protest. Except for such protests as are made of record in the manner herein specified and within the time limit stated, the records, rulings, instructions, or decisions of the Engineer shall be final and conclusive.

2.06 ALTERATIONS

The Contractor understands and agrees that such reasonable alterations and modifications may be made by the Chief Engineer, as may be deemed desirable, and that this may be done without notices to the Sureties on the Contractor's bonds. If such changes result in increased or decreased quantities under the items specified in the Agreement, the Contractor will be paid on the

basis of actual quantities as measured by the Engineer, and such changes shall not affect the unit prices bid by the Contractor. If, however, such changes result in delay to the work, the Contractor may request an extension of time on the completion of his contract and the Chief Engineer may grant such extension as the Chief Engineer may deem equitable.

2.07 EXTRA WORK

A. General

The District reserves and shall have the right, for any reason whatsoever, or when confronted with unpredicted conditions, unforeseen events, or emergencies, to revise the details of the contemplated work, or to add work of a different character or function and have the Contractor perform such revised or added work as "Extra Work", when such extra work is considered by the Chief Engineer to be appurtenant to the satisfactory completion of the project.

"Extra Work" is defined as added work of a different character or function and for which no basis for payment is prescribed; or that involving revisions of the details of the work in such manner as to render inequitable payment under items upon which the Contractor bid; or that work which is indeterminate at the time of advertising and is specifically designated as extra work in the plans and Special Provisions.

The signing of the contract by the Contractor will be deemed to be an agreement on his part to perform extra work, as and when ordered by the Chief Engineer. Notice to the Sureties on the Contractor's bonds will not be given unless the estimated total value of the contract, as changed or supplemented, shall exceed the original total bid price by more than 25%.

If required extra work results in delay to the work, the Contractor will be given an equivalent extension of time.

Approval of extra work shall be obtained from the Board of Supervisors before such work is authorized to be done, if:

- a. For contracts with a total contract price of \$250,000 or less, a change due to extra work exceeds ten percent (10%) of the original contract amount; or
- b. For contracts with a total contract price of more than \$250,000, a change due to extra work exceeds \$25,000 plus one percent (1%) of the original contract amount in excess of \$250,000; or
- c. An individual change exceeds \$100,000; or
- d. Cumulative contract changes exceed ten percent (10%) of the original contract amount.

Extra work specially authorized by the Board of Supervisors shall not be included in the cost limitations above stated.

B. Procedure for Extra Work

1. Extra work may not be done by the Contractor without prior request and proper written approval by the District. Upon decision of the District to have extra work performed, the Chief Engineer will so inform the Contractor, acquainting him with the essential details of the new work. The Contractor shall thereupon present in writing a price for said work based upon his estimate of cost and submit said price and estimate to the Chief Engineer whose approval shall be secured before work is started; excepting that the Chief Engineer may, when in the best interest of the District, order the Contractor to proceed with the extra work in advance of the submission of such prices, provided that preliminary estimates, as made by the District, show that the cost will not exceed \$1,000.

2. Prices for extra work shall be prepared by the Contractor on one or both of the following methods, as requested by the District, and submitted to the Chief Engineer for approval:

a. For a stated unit price or lump sum amount based upon current prevailing fair prices for materials, labor, plant, overhead and profit.

b. On a cost basis (force account by the Contractor). The cost of all work done by the Contractor will be computed in the manner described in Section 7.03, and the compensation thus provided shall be accepted as payment in full by the Contractor, and no additional payment will be allowed for the use of small tools, superintendent's and foreman's services, timekeeper's services, pickup or yard trucks, except as specifically essential to the work, nor any other overhead expenses incurred in the prosecution of the force account work.

3. Upon receipt of the Contractor's price, the Chief Engineer will make an analysis thereof and adopt one of the following procedures:

a. Accept the Contractor's price for lump sum or unit price amount in the original or amended form and direct him to proceed with the work; or direct him to perform the work on a cost plus basis.

b. Have the work performed by District's forces or separate contract, without undue interference or hindrance to the Contractor and without claim or suit by the Contractor for damages on account thereof.

c. Direct the Contractor to proceed with the work and accept payment therefor in the amount as adjudicated later in a court of law.

4. The price agreed to by the Contractor for the extra work shall be full compensation to the Contractor for all labor, materials, equipment or other costs related to the extra work.

2.08 PAYMENT FOR EXTRA WORK

At the end of each month the Contractor shall make and deliver to the Chief Engineer a statement of the cost of the extra work completed during the current month, itemized and in a form

satisfactory to the Chief Engineer. Upon verification of said statement by the Chief Engineer, the Contractor's claim for the full amount, as shown on said statement, will be added to the monthly partial payment made in accordance with Paragraph 7.06 of the General Provisions.

2.09 RIGHTS OF WAY

The District shall provide the rights of way upon which the work under this contract is to be done, except that the Contractor shall provide land required for the erection of temporary construction facilities and storage of his material, together with right of access to same. The District will not be responsible for any delay in furnishing the rights of way and such delay shall not be made the basis for a claim for additional compensation by the Contractor. However, in case the failure of the District to furnish the required rights of way delays the prosecution of the work, the time allowed for completion will be extended by a period of time equal to that lost by the Contractor due to such delay.

2.10 CLEANING UP

The Contractor shall, as directed by the Engineer, remove from the District's right of way and from all public and private property, at his own expense, all temporary structures, rubbish and waste materials resulting from his operations.

SECTION III - CONTROL OF THE WORK

3.01 AUTHORITY OF THE ENGINEER

The Engineer shall have general supervision and direction of the contract under authority of the Board of Supervisors. He has the authority to stop the work whenever such stoppage may be necessary to ensure the proper execution of the contract. The Engineer shall decide all questions which may arise as to the quality or acceptability of materials furnished, work performed, and rate or progress of the work; all questions which may arise as to the interpretation of the plans and specifications; all questions as to the acceptable fulfillment of the contract on the part of the Contractor; and all questions as to compensation.

His determination and decision thereon shall be final and conclusive; and such determination and decision, in case any question shall arise, shall be a condition precedent to the right of the Contractor to receive any money hereunder.

3.02 DETAIL DRAWINGS

The approved plans shall be supplemented by such working drawings as are necessary to control the work adequately. All authorized alterations affecting the requirements and information given on the approved plans shall be in writing. No changes shall be made of any plan or drawing after the same has been approved by the Engineer, except by his direction.

It is expressly understood, however, that approval by the Engineer of the Contractor's working drawings does not relieve the Contractor of any responsibility for accuracy of dimensions and details. It is mutually agreed that the Contractor shall be responsible for agreement and conformity of his working drawings with the approved plans and specifications.

Full compensation for furnishing all working drawings shall be considered as included in the prices paid for the various contract items of work, and no additional allowance will be made therefor.

3.03 CONFORMITY WITH PLANS AND ALLOWABLE DEVIATIONS

Finished surfaces in all cases shall conform with the elevations, lines, grades, cross-sections, and dimensions shown on the approved plans or as described in the Specifications and Contract Documents. Deviations from the approved plans and working drawings, will in all cases be in the Engineer's discretion and as determined by the Engineer and preauthorized in writing.

3.04 INTERPRETATION OF PLANS AND SPECIFICATIONS

Should it appear that the work to be done or any of the matters relative thereto are not sufficiently detailed or explained in these specifications and the Special Provisions, the Contractor must bring this to District's attention in writing and shall apply to the Engineer for such further explanations as may be necessary and shall conform to the same part of the contract, so far as may be consistent with the original specifications; and in the event of any doubt or questions arising respecting the true meaning of the specifications; reference shall be made to the Engineer, whose decision thereon shall be final. The requirements in this Section 3.04 shall also apply during the bidding process and before submittal of the Contractor's Proposal.

In the event of any discrepancy between any drawings and the figures written thereon, the figures shall be taken as correct. The Contractor will not be allowed to take advantage of errors and omissions in the drawings and specifications. When errors or omissions are found, they will be corrected or supplied by the Engineer.

3.05 SUPERINTENDENCE

The Contractor shall keep on his work, continually during its progress, a competent Superintendent responsible for the construction of the work, and any necessary assistants; all satisfactory to the Engineer. All such persons shall be acceptable to the District continuously throughout the duration of the Project. The Superintendent shall represent the Contractor in his absence and all directions given to him shall be as binding as if given to the Contractor. Important directions shall be confirmed in writing to the Contractor. Other directions shall be so confirmed on written request in each case.

3.06 LINES AND GRADES

The Contractor shall provide reasonable and necessary opportunities and facilities for setting points and making measurements. He shall not proceed until he has made timely demand upon the Engineer for, and has received from him, such lines and grades as may be necessary as the work progresses. The work shall be done in strict conformity with such lines and grades.

The Contractor shall carefully preserve benchmarks, reference points and stakes, and in case of willful or careless destruction, he shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

3.07 INSPECTION OF WORK

The Engineer and his representatives shall at all times have access to the work during its construction, and shall be furnished with every reasonable opportunity and facility for ascertaining that the stock and materials used and employed, and the workmanship, are in accordance with the requirements and intentions of these specifications. All work done and all materials furnished shall be subject to the Engineer's inspection and approval to ensure design objectives.

The inspection of the work shall not relieve the Contractor of any of his obligations to fulfill his contracts as prescribed, and defective work shall be made good and unsuitable materials may be rejected, notwithstanding that such defective work and materials have been previously overlooked by the Engineer and accepted or estimated for payment.

3.08 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

All work which has been rejected shall be remedied, or removed and replaced by the Contractor in an acceptable manner and no compensation will be allowed him for such removal or replacement. Any work done beyond the lines and grades shown on the plans or established by the Engineer, or any extra work done without written authority, will be considered as unauthorized and will not be paid for. Work so done may be ordered removed at the Contractor's expense. Upon failure on the part of the Contractor to comply forthwith with any order of the Engineer made under the provisions of this article, the Engineer shall have authority to cause defective work to be remedied, or removed and replaced, and unauthorized work to be removed and to deduct the costs for this work from any monies due or to become due the Contractor.

3.09 EQUIPMENT AND PLANT

Equipment not suitable to produce the quality of work required will not be permitted to operate on the project. Plants shall be designed and constructed in accordance with general practice for such equipment and shall be of sufficient capacity and of such character to ensure the production of sufficient material to carry the work to completion within the time limit.

The Contractor shall provide adequate and suitable equipment and plants to meet the above requirements and, when ordered by the Engineer, shall remove unsuitable equipment from the work and discontinue the operation of unsatisfactory plants. No worn or obsolete equipment shall be used, and in no case shall the maker's rating of the capacity for any equipment be exceeded.

All vehicles used to haul materials over existing highways shall be equipped with pneumatic tires.

3.10 FINAL INSPECTION

The Engineer will not make the final inspection until the work provided for and contemplated by the contract has been completed and the final cleaning up performed.

SECTION IV - CONTROL OF MATERIAL

4.01 DISTRICT FURNISHED MATERIALS

The Contractor shall furnish all materials required to complete the work, except those specified in the Special Provisions to be furnished by the District. Materials furnished by the District will be delivered to the Contractor at the points specified in the Special Provisions.

The Contractor will be held responsible for all materials so delivered to him, and deductions will be made from any monies due him to make good any shortages and deficiencies, from any cause whatsoever, which may occur after such delivery, or for any demurrage charges due to delinquency in unloading.

4.02 SOURCE OF SUPPLY AND QUALITY OF MATERIALS

At the option of the Engineer the source of supply of each of the materials shall be approved by him before the delivery is started. Only materials conforming to the requirements of these specifications and approved by the Engineer shall be used in the work. All materials proposed for use may be inspected or tested at any time during their preparation and use. If, after trial, it is found that sources of supply which have been approved do not furnish a uniform product, or if the product from any source proves unacceptable at any time, the Contractor shall furnish approved material from other approved sources. No material which, after approval, subsequently becomes unfit for use shall be used in the work.

Wherever the name, or brand, or manufacturer of an item is specified, it is used as a measure of quality and utility or a standard. Except in those instances where the product is designated to match others presently in use, or as otherwise stated in the Contract Documents, specifications calling for a designated material, product, thing or service by specific brand or trade name shall be deemed to be followed by the words "or equal" so that the Contractor may propose in the Contractor's bid any equal material, product, thing or service. If the Contractor desires to use any other brand or manufacturer of equal quality or utility to that specified, he shall list definite particulars of that which it considers equivalent to the specified item in its bid. The District will then determine whether or not the proposed name brand or article is equal in quality and utility to that specified, and the District's determination in that regard shall be final and binding upon the Contractor.

4.03 SAMPLES AND TESTS

All tests of materials furnished by the Contractor shall be made by the District in accordance with commonly recognized standards of national organizations, and such special methods and tests as are in use at the District's approved laboratory and described in the Detailed Specifications.

Field tests of materials will also be made by the Engineer when deemed necessary and these tests shall be made in accordance with standard practices of the District.

The Contractor shall furnish such samples of all materials as are requested by the Engineer without charge. No material shall be used until it has been approved by the Engineer. Samples will be secured and tested whenever necessary to determine the quality of the material.

Promptly after the approval of the contract, the Contractor shall notify the Engineer of the proposed sources of supply of all materials to be furnished by him, using a form which will be supplied by the Engineer upon request.

Whenever reference is made in these specifications to standard tests or requirements of the laboratory of the District, the American Society for Testing Materials, the American Railway Engineering Association, or the American Association of State Highway Officials, the reference shall be construed to mean the standards that are in effect at the date of these specifications with subsequent amendments, changes, or additions as thereafter adopted and published by the organization referred to.

4.04 DIGGING TRENCHES OR OTHER EXCAVATIONS

Any work that involves digging trenches or other excavations extending deeper than four feet below the surface, then the following terms shall apply:

4.04.1 Contractor shall promptly, and before the following conditions are disturbed, notify the District, in writing, of any:

- 4.04.1.1 Material that the Contractor believes may be material that is 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.
- 4.04.1.2 Subsurface or latent physical conditions at the site differing from those indicated by information about the site made available to bidders prior to the deadline for submitting bids.
- 4.04.1.3 Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.

4.04.2 The District shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the work shall issue a change order under the procedures described in the contract.

4.04.3 In the event that a dispute arises between the District and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by the contract, but shall proceed with all work to be performed under the contract. 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.

4.04.4 Contractor shall submit to District, in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. Prior to any excavation is commenced, District shall accept said plan. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer.

4.04.5 Nothing in this section shall be deemed to allow the use of a shoring, sloping, or protective system less effective than that required by the Construction Safety Orders.

4.04.6 Nothing in this section shall be construed to impose tort liability on the awarding body or any of its employees.

4.05 STORAGE OF MATERIALS

Materials shall be so stored as to ensure the preservation of their quality and fitness for the work. When considered necessary by the Engineer, they shall be placed on wooden platforms or other hard, clean surfaces and not on the ground. They shall be placed under cover when so directed. Stored materials shall be so located as to facilitate prompt inspection.

4.06 DEFECTIVE MATERIALS

All materials not conforming to the requirements of these specifications shall be considered as defective and all such materials, whether in place or not, shall be rejected and shall be removed immediately from the site of the work unless otherwise permitted by the Engineer. No rejected materials, the defects of which have been subsequently corrected, shall be used until approval in writing has been given by the Engineer. Upon failure on the part of the Contractor to comply forthwith with any order of the Engineer made under the provisions of this article, the Engineer shall have authority to remove and replace defective material and to deduct the cost of removal and replacement from any monies due or to become due the Contractor.

4.07 ASSIGNMENT OF CLAIMS

In submitting a bid on this public works project, or any subcontractor agreeing to supply goods, services, or materials, and entering a contract pursuant thereto, the Contractor and/or subcontractor do offer and agree to assign to the District 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. Section 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 the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

SECTION V - LEGAL RELATIONS AND RESPONSIBILITY

5.01 LAWS TO BE OBSERVED

(a) Compliance with Applicable Law. Reference to and/or incorporation into the Contract Documents of a particular law, statute, ordinance, rule or regulation is not, nor is it

intended to be, a definitive statement of the law applicable to the Contract Documents and the accomplishment of the work. Contractor must keep informed as to all such applicable law - Federal, State, County, Municipal, District - as it affects the conduct of the work and comply with such law, including, but not limited to, having requisite licenses, obtaining necessary permits, paying necessary fees and taxes, posting notices and installing, operating and maintaining safety precautions and facilities. It is likewise Contractor's responsibility to see to it that his subcontractors also fully comply with such applicable law.

If at any time Contractor is of the opinion that there is a discrepancy or inconsistency in the plans, drawings, specifications or other Contract Documents, he shall immediately cease work involving such alleged discrepancies or inconsistencies and report the same in writing to the Chief Engineer and shall not proceed with such work until ordered so to do, and in the manner instructed by the Chief Engineer.

Contractor shall protect and defend District, its officers, agents and employees against any claim or liability arising from or based upon any alleged violation of such applicable law. See also Subsection 8.02.

(b) Labor Code - The Contractor shall comply with all applicable requirements of the California Labor Code including but not limited to Labor Code, Chapter 2, Subchapter 1, Article 10, Required Apprentices on Public Works Contracts. Reference is made to Chapter 1, Part 7, Division 2 of the California Labor Code (commencing with Section 1720). By this reference said Chapter 1 is incorporated herein with like effect as if it were here set forth in full. The parties recognize that said Chapter 1 deals with, among other things, discrimination, penalties and forfeitures, their disposition and enforcement, wages, working hours and securing workers' compensation insurance and directly affect the method of prosecution of the work by Contractor and subject it under certain conditions to penalties and forfeitures. Execution of the Agreement by the parties constitutes their agreement to abide by said Chapter 1. Their stipulation as to all matters which they are required to stipulate as to by the provisions of said Chapter 1, constitutes Contractor's certification that it is aware of the provisions of said Chapter 1 and will comply with them and further constitutes Contractor's certification as follows: "I am aware of the provisions of Section 3700 of the California Labor Code which requires 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." Contractor and its subcontractors shall comply with the provisions of S1777.5 of the Labor Code regarding apprentices.

Contractor shall post at each job site during the course of the work a copy of District's "Determination of Prevailing Wage Rates", copies of said Determination are available from District for this purpose and at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>.

(c) Equal Employment Opportunity

General - The Contractor shall comply with all applicable non-discrimination and equal employment laws. The Contractor shall not discriminate in its recruiting, hiring, promotion, demotion or termination practices on the basis of race, religious creed, color, national origin, ancestry, sex, age or physical handicap in the performance of this Contract and shall comply with the provisions of the California Fair Employment Practice Act (commencing with Section 1410 of

the Labor Code), the Federal Civil Rights Act of 1964 (P.L. 88-352) and all amendments thereto, Executive Order No. 11246 (30 Federal Register 12319), as amended, and all administrative rules and regulations issued pursuant to said Acts and Order. See particularly 41 Code of Federal Regulation (CFR) Chapter 60.

Contractor shall require each of its subcontractors to comply with the preceding paragraph and shall include in each subcontract language similar to the preceding paragraph.

Contractor shall permit access to its records of employment, employment advertisement, application forms and other pertinent data and records (including but not limited to certified payroll information) by District and any state or federal agency having jurisdiction for the purpose of investigation to ascertain compliance with this Section.

District may assign an affirmative action representative to monitor Contractor and its subcontractor(s) conduct required by this Section, including the right of entry to the construction site for the purpose of obtaining information from persons performing work on the project providing such inspection does not interfere with the progress of the work.

Elsewhere in the Contract Documents specific requirements may be contained covering the same subject matter of this Section. If so, such specific requirements prevail over this Section in case of conflict.

Transactions of \$10,000 or under - Contracts and subcontracts not exceeding \$10,000 are exempt from the requirements of this Section. No Contractor or subcontractor shall procure supplies and/or services in less than usual quantities to avoid applicability of this Section. With respect to contracts and subcontracts for indefinite quantities, this Section applies unless the amount required in any one year under such contract will reasonably be expected not to exceed \$10,000.

Transactions in Excess of \$10,000 but less than \$50,000 - At District's request, Contractor shall certify that it has in effect an affirmative action plan and agrees to comply with all state and federal laws and regulations regarding Fair Employment Practices. Contractor shall maintain a written copy of its affirmative action plan and furnish District a copy of the plan upon request. District may require Contractor to complete an Affirmative Action Compliance Report, on a form furnished by District, setting forth definite goals during the term of this contract.

Transactions of \$50,000 or more - If Contractor has 50 or more employees and a contract for \$50,000 or more, it shall develop and submit to District, within 30 days after award, a written affirmative action compliance program providing in detail specific steps to guarantee equal employment opportunity. Contractor shall include in its affirmative action program a table of job classifications, which table shall include but need not be limited to job titles, duties and rates of pay.

Contractor shall in each subcontract let to do a portion of the work covered hereunder, where the subcontractor involved has 50 or more employees and the subcontract is for \$50,000 or more, impose in the subcontract the above requirements.

For the purpose of determining the number of employees, the average of the Contractor's or its subcontractor's employees for the 12 month period immediately prior to award, or the total number of employees Contractor or its subcontractor will have when performing this contract, whichever is higher, shall be used.

Federally Assisted Construction - If this project is a Federally assisted construction project, then the contract provisions contained 41 CFR S60-1.4(b) are incorporated herein and Contractor shall likewise incorporate said provisions in each subcontract entered into by Contractor to perform the work. Federally assisted construction is identified as such in the Notice Inviting Bids.

(d) Registration of Contractors - In order to be considered a prospective bidder must be licensed in accordance with Division 3, Chapter 9 (commencing with Section 7000) of the Business and Professions Code.

(e) Accident Prevention - Particular attention shall be given to relevant Division of Industrial Safety Construction and Electrical Safety Orders. Said Orders are contained in Title 8 of the California Code of Regulations, Chapter 4, Subchapters 4 and 5. Specific attention shall be taken of the California Occupational Safety and Health Act of 1973 (commencing with Section 6300 of the Labor Code) and the Federal Occupational Safety and Health Act of 1970 (P.L. 91-596) and rules and regulations issued pursuant to said Acts. Specific reference is made to Article 6 of said Construction Safety Orders. Contractor shall submit to Engineer, who will accept in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping of the sides of trenches, or other provisions to be made for protection of personnel during earthwork operations. In event the Contractor's plan does not conform with the shoring system requirements of Article 6, the Contractor's proposed shoring design shall be prepared and signed by a civil or structural engineer registered in the State of California.

The Contractor shall also impose the foregoing requirements on all subcontractors involved and enforce compliance therewith.

The duties here set forth are nondelegable by Contractor who shall protect and defend District, its officers, agents and employees in connection therewith. See Subsection 8.02.

5.02 CONTRACTOR'S RESPONSIBILITY

Contractor is under the absolute duty in fulfilling its contractual obligations hereunder to proceed, and cause its subcontractors to proceed, in a safe, workmanlike manner, with adequate safeguards for the protection of the public, the workmen and persons from time to time inspecting the work. If at any time Contractor finds any of its subcontractors are allowing work to proceed in an unsafe manner and contrary to the intent of these Contract Documents, Contractor shall immediately cause such action to stop and immediately take all action necessary to protect workmen, inspectors and the general public and cause the work to proceed in a safe manner.

Contractor shall protect and defend District, its officers, agents and employees in reference to acts or omissions contrary to the above. See particularly Subsection 8.02.

District may withhold funds otherwise due Contractor whenever, in its judgment, this subsection is not being complied with.

5.03 CONTRACTOR'S RESPONSIBILITY FOR WORK

Until the formal acceptance of the work by the District, the Contractor shall have the charge and care thereof and shall bear the risk of injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before its completion and acceptance and shall bear the expense thereof, except for such injuries or damages as are occasioned by acts of the Federal Government and the public enemy. In case of suspension of work from any cause whatsoever, the Contractor shall be responsible for all materials and shall properly store them if necessary and shall erect temporary structures where necessary.

5.04 PROPERTY RIGHTS IN MATERIALS

Nothing in the contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been attached or affixed to the work or the soil. All such materials shall become the property of the District upon being so attached or affixed.

5.05 PERMITS AND LICENSES

The Contractor shall procure all permits and licenses, (including but not limited to: National Pollution Discharge Elimination System (NPDES) and South Coast Air Quality Management District (AQMD) permit requirements), pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work.

5.06 ROYALTIES AND PATENTS

The Contractor shall assume all costs arising from the use of patented materials, equipment, devices, or processes used on or incorporated on the work, and agrees to indemnify and save harmless the Riverside County Flood Control and Water Conservation District, the Board of Supervisors, the Flood Control Engineer, and their duly authorized representatives, from all suits at law, or actions of every nature for, or on account of, the use of any patented materials, equipment, devices, or processes.

5.07 SANITARY PROVISIONS

Necessary conveniences, properly secluded from public observation shall be provided by the Contractor where needed for the use of laborers on the work. Their location, construction and maintenance shall be subject to the approval of the Engineer, and their use shall be strictly enforced. The Contractor shall obey and enforce such sanitary regulations as may be prescribed by the State Department of Health or other authorities having jurisdiction.

5.08 PUBLIC SAFETY

The Contractor at his own expense shall furnish, erect, and maintain such fences, barriers, lights, and signs as are necessary to give adequate warning to the public at all times that the bridges, culverts, and work along public highways are under construction; and of any dangerous conditions to be encountered as a result thereof; and he shall erect such warning and directional signs and employ such flagmen as are required and maintain same throughout the construction period.

Full compensation for the work involved in carrying out the precautionary measures above specified shall be considered as included in the prices paid for the various contract items of work and no additional allowance will be made therefor.

5.09 USE OF EXPLOSIVES

When the use of explosives is necessary for the prosecution of the work, the Contractor shall use the utmost care not to endanger life or property.

All explosives shall be stored in accordance with the provisions of Division II, Part I, Chapter 3, of the Health and Safety Code of the State of California.

5.10 PROVISIONS FOR EMERGENCIES

Unusual conditions may arise on the work which will require that immediate and unusual provisions be made to protect the public from danger or loss or damage to life and property, due directly or indirectly to the prosecution of the work, and it is part of the service required of the Contractor to make such provisions and to furnish such protection.

The Contractor shall use such foresight and shall take such steps and precautions as his operations make necessary to protect the public from danger or damage, or loss of life or property, which would result from the interruption or contamination of public water supply, irrigation or other public service, or from the failure of partly completed work.

Whenever work is undertaken pursuant to the above provisions, Contractor shall promptly file with District a verified report setting forth the nature of the emergency and the action taken by the Contractor by reason of the emergency.

Whenever, in the opinion of the Engineer, an emergency exists against which the Contractor has not taken sufficient precaution for the safety of the public or the protection of utilities or of adjacent structures or property which may be injured by process of construction on account of such neglect; and whenever, in the opinion of the Engineer, immediate action shall be considered necessary in order to protect public or private, personal or real property interests, or prevent likely loss of human life or damage on account of the operations under the contract, then and in that event the Engineer may provide suitable protection to said interests by causing such work to be done and material to be furnished as, in the opinion of the Engineer, may seem reasonable and necessary.

The cost and expense of all such emergency work shall be borne by the Contractor, and if he shall not pay said cost and expense upon presentation of the bills therefor, duly certified by the

Engineer, then said cost and expense will be paid by the District and shall thereafter be deducted from any amounts due, or which may become due said Contractor. Failure of the District, however, to take such precautionary measures, shall not relieve the Contractor of his full responsibility for public safety.

5.11 UNFORESEEN DIFFICULTIES

All loss or damages, except as noted in Section 8.03, arising out of the nature of the work to be done under the contract, or from any unforeseen obstructions or difficulties which may be encountered during the progress of the work and in the prosecution of the same, or from the action of the elements, or from encumbrances in the line of work, shall be sustained by the Contractor.

5.12 ACCESS TO THE WORK

Access to the work from existing roads shall be provided by the Contractor at his expense and maintained in a manner so as not to create a public nuisance. The Board of Supervisors, Flood Control District and Engineer assume no responsibility for the condition or maintenance of any existing road or structure thereon that may be used by the Contractor for performing the work under these specifications and for traveling to and from the site of the work. No direct payment will be made to the Contractor for constructing temporary roads used for construction operations or for improving, repairing, or maintaining any existing road or structure thereon that may be used by the Contractor for performance of the work under these specifications. The cost of all work described in this paragraph shall be included in the prices bid in the schedule for other items of construction work.

5.13 GUARANTEE OF WORK

All work is guaranteed by Contractor for a period of one year from the recordation of the Notice of Completion against defects resulting from the use of inferior materials, equipment, or workmanship. Upon notice from District, Contractor shall promptly remedy such defects at his expense, including payment to District of its expenses in connection with remedying such defects, otherwise District shall proceed to remedy such defects and Contractor shall upon demand reimburse District for its expenses in connection therewith.

The above one year guarantee is in addition to any specific guarantee(s) provided for elsewhere in the Contract Documents.

The performance of guarantee and conditions specified in Section 5.13., shall be secured by a surety bond which shall be delivered by the Contractor to the District prior to the date on which final payment is made to the Contractor. Said bond shall be in an approved form and executed by a surety company or companies satisfactory to the District, in the amount of 10% of the final contract price. Said bond shall remain in force for the duration of the guarantee period specified in Section 5.13. Instead of providing such a bond as described above, the Contractor may, at its option, provide for the performance bond furnished under the contract to remain in force for said amount until the expiration of said guarantee period; and the amount of said performance bond may be reduced to 10% of the final contract price beginning at the time of recordation of the Notice of Completion.

5.14 DAMAGES BY ACT OF GOD

If the construction of the project herein is damaged, which damage is determined to have been proximately caused by an act of God, in excess of 5% of the contract amount, provided that the work damaged is built in accordance with applicable building standards and the plans and specifications, then the District, may, without prejudice to any other right or remedy, terminate the contract.

SECTION VI - PROSECUTION AND PROGRESS

6.01 PROGRESS OF THE WORK

The Contractor shall begin the work within ten (10) calendar days after the date of the receipt by him of notice to proceed from the Chief Engineer and shall diligently and continuously prosecute the same to completion within the time limit provided in the Special Provisions.

6.02 OVERTIME WORK AND WORK AT NIGHT

It is intended that the Contractor prosecute the work on a five (5) day, forty (40) hour work week with no work on legal holidays. If the Contractor feels it is necessary to work more than the normal forty (40) hour work week, he will make a written request for permission from the Engineer, outlining the reasons for such request. The decision of granting permission for overtime work shall be made by the Engineer and shall be final. A condition will be imposed on the granting of a request to work overtime, requiring the Contractor to pay the District the cost incurred at overtime rates for additional inspection and engineering time required in connection with the overtime work.

When any work is performed at night, only such classes of work shall be done as can be properly inspected. Adequate light must be provided for the safety of the workers and for proper inspection.

6.03 SUBCONTRACTING

Reference is made to the Subletting and Subcontracting Fair Practice Act contained in the Public Contract Code (commencing §4100). By this reference, said Act is incorporated herein with like effect as if it were here set forth in full and the parties shall abide by its terms and substitution shall be only as allowed by that Act.

Contractor shall be responsible for the acts and omissions of its subcontractors and shall make certain that at all times its subcontractors comply with the terms of the Contract Documents and applicable law insofar as such compliance relates to the work.

District reserves the right to approve all subcontractors whether or not they are required to be listed in the Contractor's Proposal. As used in this Section "subcontractor" includes any person who fabricates or manufactures any article for incorporation into the work whether or not they install or test after installation or contract to install or test after installation, but does not include suppliers of fungible goods for incorporation into the work unless such supplier also installs or tests or contracts to install or test.

The Contractor shall give his personal attention to the fulfillment of the contract and shall keep the work under his control. The Contractor shall perform with his own organization work of a value amounting to not less than 60% of the remainder obtained by subtracting from the total original contract value the sum of any item designated herein or in the Special Provisions as Specialty Items. The furnishing and placing of reinforcing steel, when placing is performed by the supplier, will be considered as a Specialty Item for this purpose; however, he shall be designated in the list of subcontractors. The value of the work subcontracted will be based on the contract item bid price. When a portion of an item is subcontracted, the value of work subcontracted will be based on the estimated percentage of the Contract Unit Price. This will be determined from information submitted by the Contractor, and subject to approval by the Engineer.

Where a portion of the work which has been subcontracted by the Contractor is not being prosecuted in a manner satisfactory to the District, the subcontractor shall be removed immediately on the requisition of the Engineer and shall not again be employed on the work.

6.04 CHARACTER OF WORKMEN

If any subcontractor or person employed by the Contractor shall fail or refuse to carry out the directions of the Engineer or shall appear to the Engineer to be incompetent or to act in a disorderly or improper manner, he shall be discharged immediately on the requisition of the Engineer, and such person shall not again be employed on this work.

6.05 TEMPORARY SUSPENSION OF THE WORK

The Engineer shall have the authority to suspend the work wholly or in part, for such period as he may deem necessary, due to unsuitable weather, or to such other conditions as are considered unfavorable for the suitable prosecution of the work, or for such time as he may deem necessary due to the failure on the part of the Contractor to carry out orders given, or to perform any provision of the contract. The Contractor shall immediately comply with the written order of the Engineer to suspend the work wholly or in part. The work shall be resumed when conditions are favorable and methods are corrected, as ordered or approved in writing by the Engineer.

6.06 TIME OF COMPLETION AND DAMAGES

The Contractor shall complete the work called for under the contract in all parts and requirements within the number of working days specified in the Special Provisions. Liquidated damages shall apply as stated in the Special Provisions and the Contract Documents.

A working day is hereby defined as any day; except Saturdays, Sundays, and legal holidays and days on which the Contractor is specifically required by the Special Provisions to suspend construction operations; on which the Contractor is not prevented by inclement weather or conditions resulting immediately therefrom adverse to the current controlling operation or operations, as determined by the Engineer, from proceeding with at least 60% of the normal labor and equipment force engaged in such operation or operations for at least five hours toward completion of such operation or operations.

The Engineer will furnish the Contractor a weekly statement showing the number of working days charged to the contract for the preceding week, the number of working days specified

for completion of the contract, and the number of working days remaining to complete the contract. The Contractor will be allowed one week in which to file a written protest setting forth in what respects said weekly statement is incorrect, otherwise the statement shall be deemed to have been accepted by the Contractor as correct.

The following holidays will be considered as legal holidays: New Year's Day; Martin Luther King Jr.'s Birthday, Lincoln's Birthday; Washington's Birthday; Memorial Day; Independence Day; Labor Day; Columbus Day; Veteran's Day; Thanksgiving Day; Christmas; and such other days as are declared holidays by ordinance passed by the Board of Supervisors of the District.

Contractor acknowledges that failure to perform in strict accordance with the Contract Documents and within the time limit specified in the Special Provisions will cause District to suffer special damages in addition to cost of completion of the work in accordance with the provisions of the Contract Documents. Such special damage could include, but is not limited to, lease and rental cost, additional salaries and overhead, interest during construction, attorney expense, additional engineering, inspection expense, cost of maintaining or constructing alternate facilities and injury to the property of the District or others. The daily cost to the District for inspection and superintendence by the District shall be the amount specified in the Special Provisions. The District may withhold from any money due or that may become due the Contractor under the contract, such amount as the District may elect to offset the damages incurred and any withholding or failure to withhold shall not in any way limit recovery for damages actually incurred.

It is further agreed that in case the work called for under the contract is not finished and completed in all parts and requirements within the time specified, the Board of Supervisors shall have the right to extend the time for completion or not, as may seem best to serve the interest of the District, and if it decides to extend the time limit for the completion of the contract, it shall further have the right to charge to the Contractor, his heirs, assigns or sureties and to deduct from the final payment for the work all or any part, as it may deem proper, of the actual cost of engineering, inspection, superintendence, and other overhead expenses which are directly chargeable to the contract, and which accrue during the period of such extension, except that cost of final surveys and preparation of final estimate shall not be included in such charges.

The Contractor shall not be assessed damages nor the cost of engineering and inspection during any delay in the completion of the work caused by acts of God or of the public enemy, acts of the District, encountering unknown utility facilities, fire, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and severe weather or delays of subcontractors due to such causes, provided that the Contractor shall notify the Engineer in writing of the causes of delay within 10 days from the beginning of any such delay, and his findings of the facts thereon shall be final and conclusive. Contractor shall not be assessed damages for delay in the completion of the project, when such delay was caused by the failure of the District or the owner of the utility facilities.

The term "severe weather" shall be construed to mean only such weather as is unreasonable or extraordinary and in the opinion of the Engineer, the work could not be prosecuted by the Contractor during the period throughout which such weather prevailed.

6.07 DELAYS AND EXTENSION OF TIME

If delays are caused by unforeseen causes beyond the control of either the Contractor or the District, such as war, strikes, fire, floods, or other action of the elements, such delays will entitle the Contractor to an equivalent extension of time for the completion of the contract, but the Contractor shall not be entitled to damages or additional payments over and above the contract price due to delay caused by any of the above-mentioned causes. Furthermore, if the Contractor suffers any delay caused by the failure of the District to furnish the necessary right of way or materials agreed to be furnished by it, or by failure to supply necessary plans or instructions concerning the work to be done after written request therefor has been made, the Contractor shall be entitled to an extension of time equivalent to the time lost for any of the above-mentioned reasons, but shall not be entitled to any damages for such delay.

6.08 ASSIGNMENT

The contract may be assigned only upon written consent of the District. Such written consent to sublet, assign or otherwise dispose of any portion of the contract, shall not be construed to relieve the Contractor of any responsibility for the fulfillment of the contract.

6.09 TERMINATION OF CONTRACT

Subject to all applicable provisions of these specifications and/or the contract to be entered into hereunder, the Engineer is hereby empowered to direct the time and rate of delivery of materials at the site of work and to direct the time, rate and sequence of work. If the Contractor fails to begin delivery of material and equipment or to commence work within the time specified herein, and/or in the contract, or to maintain the rates of delivery of materials, or to execute the work in the manner and at such locations as directed by the Engineer, or fails to maintain a program of work in such a manner as will, in the judgment of the Engineer inure to interests of the District, or, if in the judgment of the Engineer, the Contractor is not carrying out the provisions of the contract in their true intent and meaning, written notice by the Chief Engineer may be served upon him and the Surety on his faithful performance bond demanding a satisfactory compliance with the contract, and with these specifications. If the Contractor and/or his Surety refuses or neglects to comply with such notice within five (5) days after receiving same, or after commencing so to do, fails to continue so to do, or has assigned or sublet the contract without the consent of the District, then the District may exclude him from the premises and take possession thereof, together with all material and equipment thereon, and may complete the work itself, either by force account or by letting the unfinished portion of the work to another Contractor or by a combination of such methods. In any event, the cost of the completion of said work shall be a charge against the Contractor and his Surety and may be deducted from any money due or becoming due from the District, and if the sums due under the contract are insufficient, said Contractor and/or his Surety shall pay to the District within five (5) days after the completion of the work all of such cost in excess of the contract price.

The Surety, in the event that it assumes part of the work, shall take the Contractor's place in this contract in all respects for that part and shall be paid by the District for all work performed by it in accordance with the terms of this contract. If the Surety assumes the entire contract, all monies remaining due the Contractor at the time of his default shall be made payable to the Surety as the work progresses, subject to the terms of the contract.

SECTION VII - PAYMENT

7.01 SCOPE OF PAYMENTS

The Contractor shall accept compensation, as herein provided, in full payment for furnishing all materials, labor, tools, and equipment necessary to the completed work and for performing all work contemplated and embraced under the contract; also for loss or damage arising from the nature of the work, or from the action of the elements, except as hereinbefore provided, or from any unforeseen difficulties which may be encountered during the prosecution of the work until the final acceptance by the Board of Supervisors; and for all risks of description connected with the prosecution of the work, also for all expenses incurred in consequence of the suspension or discontinuance of the work as herein specified; and for completing the work according to the plans and specifications. Neither the payment of any estimate nor of any retained percentage shall relieve the Contractor of any obligation to make good any defective work or material.

7.01A Measurement and Computation of Quantities - All items of the work to be paid for at a contract price per unit of measurement will be measured by the Engineer in accordance with United States Standard Measures. A ton shall mean 2,000 pounds, avoirdupois. Except as otherwise expressly provided in the specifications, the methods of measurement and computation of quantities of such items will be determined by the Engineer, taking into account the price of the item relative to its quantity and the costs of measurement.

The weights of metalwork, pipe, and other metal parts to be paid for by weight will be determined by the Engineer on the basis of handbook weights, scale weights, or manufacturer's catalog weights, or in the absence of any of the foregoing, on the basis of estimated weights; provided, that weights of nonmetallic coatings will be excluded.

7.01B Payment at Contract Prices - The contract price for an item of the work shall include full compensation for all costs of that item, including the costs of any work, materials and equipment incidental to the item but not specifically shown or described in the drawings and specifications, subject only to such express limitations as may be stated in the specifications defining the item or prescribing payment therefor.

The contract prices shall include full compensation for all costs of any work, materials, and equipment required by the drawings and specifications at the time of contract award, but not covered by a contract price or otherwise expressly made the subject of direct payment.

7.02 PAYMENT AND COMPENSATION FOR ALTERED QUANTITIES

When alterations in plans or quantities of work are ordered and performed, the Contractor shall accept payment in full at the contract unit price for the actual quantities of work done and no allowance will be made for anticipated profits. Increased or decreased work involving supplemental agreements will be paid for as stipulated in such agreements.

7.03 FORCE ACCOUNT PAYMENT

When extra work is to be paid for on a force account basis, compensation will be determined as follows:

7.03A Work Performed by Contractor - The Contractor will be paid for labor, materials, and equipment rental as hereinafter provided, except where agreement has been reached to pay in accordance with Section 7.03B. Only materials incorporated in the work will be paid for.

To the total computed as provided in Sections 7.03A(1), 7.03A(2) and 7.03A(3) will be added the following percentages:

Labor	-	24%
Materials	-	15%
Equipment Rental	-	15%

It is understood labor, materials, and equipment may be furnished by the Contractor or by the subcontractor or by others on behalf of the Contractor.

When extra work paid for on a force account basis is performed by forces other than the Contractor's organization, the Contractor shall reach agreement with such other forces as to the distribution of the payment made by the District for such work and no additional payment therefor will be made by the District.

7.03A(1) Labor - The Contractor will be paid the cost of labor for the workmen used in the actual and direct performance of the work. The cost of labor, whether the employer is the Contractor, subcontractor, or other forces, will be the sum of the following:

7.03A(1a) Actual Wages - The actual wages paid will be as published by the Director of Industrial Relations of the State of California for the region where work is performed and that are in effect at the time of award of the contract. The classification of workmen used shall not be in excess of the industry standard for the region where work is performed. Copies of the published labor rates are on file at the District office.

7.03A(1b) Labor Surcharge - To the actual wages as defined in Section 7.03A(1a), will be added a labor surcharge set forth in the Special Provisions, which labor surcharge shall constitute full compensation for all payments imposed by State and Federal laws and for all other payments made to, or on behalf of, the workmen, other than actual wages as defined in Section 7.03A(1a) and subsistence and travel allowance as specified in Section 7.03A(1c).

7.03A(1c) Subsistence and travel allowance paid to such workmen as required by collective bargaining agreements.

7.03A(2) Materials - The cost of materials incorporated in the work will be the cost to the purchaser, whether Contractor, subcontractor or other forces, from the supplier thereof, except as the following are applicable:

7.03A(2a) If a cash or trade discount by the actual supplier is offered or available to the purchaser, it shall be credited to the District notwithstanding the fact that such discount may not have been taken.

7.03A(2b) If the materials are procured by the purchaser by any method which is not a direct purchase from and a direct billing by the actual supplier to such purchaser, the cost of such materials shall be deemed to be the price paid to the actual supplier as determined by the Engineer. No markup except for actual costs incurred in the handling of such materials will be permitted.

7.03A(2c) If the materials are obtained from a supply or source owned wholly or in part by the purchaser, payment therefor will not exceed the price paid by the purchaser for similar materials furnished from said source on contract items or on the current wholesale price for such materials delivered to the job site whichever price is lower.

7.03A(2d) If the cost of such materials is, in the opinion of the Engineer, excessive, then the cost of such materials shall be deemed to be the lowest current wholesale price at which such materials are available in the quantities concerned delivered to the job site, less any discounts as provided in Section 7.03A(2a).

7.03A(2e) If the Contractor does not furnish satisfactory evidence of the cost of such materials from the actual supplier thereof, the cost shall then be determined in accordance with Section 7.03A(2d).

The District reserves the right to furnish such materials as it deems advisable, and the Contractor shall have no claims for costs and profit on such materials.

7.03A(3) Equipment Rates - The Contractor will be paid for the use of equipment at the rental rates listed for such equipment in the Special Provisions, regardless of ownership and any rental or other agreement, if such may exist, for the use of such equipment entered into by the Contractor. If it is deemed necessary by the Engineer to use equipment not listed in the Special Provisions, a suitable rental rate for such equipment will be established by the Engineer. The Contractor may furnish any cost data which might assist the Engineer in the establishment of such rental rate.

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

Operators will be paid for as provided under Section 7.03A(1).

All equipment shall, in the opinion of the Engineer, be in good working condition and suitable for the purpose for which the equipment is to be used.

Unless otherwise specified, manufacturer's ratings and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

Individual pieces of equipment or tools having a replacement value of \$25.00 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefor.

Rental time will not be allowed while equipment is inoperative due to breakdowns.

In computing the rental time of equipment, less than 30 minutes shall be considered ½ hour.

7.03A(3a) Equipment on the Work - The rental time to be paid for equipment on the work shall be the time the equipment is in operation on the extra work being performed, and in addition, shall include the time required to move the equipment to location of the extra work and return it to the original location or to another location requiring no more time than that required to return it to its original location, except that moving time will not be paid for if the equipment is used at the site of the extra work on other than such extra work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power, except that no payment will be made if the equipment is used at the site of the extra work on other than such extra work.

7.03A(3b) Equipment not on the Work - For the use of equipment moved in on the work and used exclusively for extra work paid for on a force account basis, the Contractor will be paid the rental rates listed in the Special Provisions or as agreed to as provided in Section 7.03A(3) and for the cost of transporting the equipment to the location of the work and its return to its original location, all in accordance with the following provisions:

(1) The original location of the equipment to be hauled to the location of the work shall be agreed to by the Engineer in advance.

(2) The District will pay the costs of loading and unloading such equipment.

(3) The cost of transporting equipment on low bed trailers shall not exceed the hourly rates charged by established haulers.

(4) The cost of transporting equipment shall not exceed the applicable minimum established rates of the Public Utilities Commission.

(5) The rental period shall begin at the time the equipment is unloaded at the site of the extra work, shall include each day that the equipment is at the site of the extra work, excluding Saturdays, Sundays, and legal holidays unless the extra work is performed on such days, and shall terminate at the end of the day on which the Engineer directs the Contractor to discontinue the use of such equipment. The rental time to be paid per day will be in accordance with the following:

<u>Hours Equipment is in Operation</u>	<u>Hours to be Paid</u>
0.....	4
0.5.....	4.25
1.....	4.5
1.5.....	4.75
2.....	5
2.5.....	5.25
3.....	5.5
3.5.....	5.75
4.....	6
4.5.....	6.25
5.....	6.5
5.5.....	6.75
6.....	7
6.5.....	7.25
7.....	7.5
7.5.....	7.75
8.....	8
Over 8.....	hours in operation

When hourly rates are listed, less than 30 minutes of operation shall be considered to be 1/2 hour of operation.

When daily rates are listed, payment for 1/2 day will be made if the equipment is not used. If the equipment is used, payment will be made for one day.

The minimum rental time to be paid for the entire rental period on an hourly basis shall not be less than 8 hours or if on a daily basis shall not be less than one day.

(6) Should the Contractor desire the return of the equipment to a location other than its original location, the District will pay the cost of transportation in accordance with the above provisions, provided such payment shall not exceed the cost of moving the equipment to the work.

(7) Payment for transporting, loading and unloading equipment, as above provided, will not be made if the equipment is used on the work in any other way than upon extra work paid for on a force account basis.

7.03B Work Performed by Special Forces or Other Special Services - When the Engineer and the Contractor, by agreement, determine that a special service or an item of extra work cannot be performed by the forces of the Contractor or those of any of his subcontractors, such service or extra work item may be performed by a specialist. Invoices for such service or item of extra work on the basis of the current market price thereof may be accepted without complete itemization of labor, material, and equipment rental costs when it is impracticable and not in accordance with the established practice of the special service industry to provide such

complete itemization. In those instances wherein a Contractor is required to perform extra work necessitating a fabrication or machining process in a fabrication or machine shop facility away from the job site, the charges for that portion of the extra work performed in such facility may, by agreement, be accepted as a specialist billing.

To the specialist invoice price, less a credit to the District for any cash or trade discount offered or available, whether or not such discount may have been taken, will be added 15% in lieu of the percentages provided in Section 7.03A.

7.03C Records - The Contractor shall maintain his records in such a manner as to provide a clear distinction between the direct costs of extra work paid for on a force account basis and the costs of other operations.

The Contractor shall furnish the Engineer report sheets in duplicate of each day's extra work paid for on a force account basis no later than the working day following the performance of said work. The daily report sheets shall itemize the materials used, and shall cover the direct cost of labor and the charges for equipment rental, whether furnished by the Contractor, subcontractor, or other forces, except for charges described in Section 7.03B. The daily report sheets shall provide names or identifications and classifications of workmen, the hourly rate of pay and hours worked, and also the size, type and identification number of equipment, and hours operated.

Material charges shall be substantiated by valid copies of vendor's invoices. Such invoices shall be submitted with the daily report sheets, or if not available, they shall be submitted with subsequent daily report sheets. Should said vendor's invoices not be submitted within 15 days after acceptance of the work, the District reserves the right to establish the cost of such materials at the lowest current wholesale prices at which said materials are available in the quantities concerned delivered to the location of the work, less any discounts provided in Section 7.03A(2a).

Said daily report sheets shall be signed by the Contractor or his authorized agent.

The Engineer will compare his records with the daily report sheets furnished by the Contractor, make any necessary adjustments, and compile the costs of work paid for on a force account basis on daily extra work report forms furnished by the District. When these daily extra work reports are agreed upon and signed by both parties, they shall become the basis of payment for the work performed, but shall not preclude subsequent adjustment based on a later audit.

The Contractor's cost records pertaining to work paid for on a force account basis shall be open to inspection or audit by representatives of the District, during the life of the contract and for a period of not less than 18 months after the date of acceptance thereof, and the Contractor shall retain such records for that period. Where payment for materials or labor is based on the cost thereof to forces other than the Contractor, the Contractor expressly guarantees that the cost records of such other forces shall be open to inspection and audit by representatives of the District on the same terms and conditions as the cost records of the Contractor. If an audit is to be commenced more than 60 days after the acceptance date of the contract, the Contractor will be given a reasonable notice of the time when such audit is to begin.

7.03D Payment as provided above in Sections 7.03A and 7.03B shall constitute full compensation to the Contractor for performance of work paid for on a force account basis and no additional compensation will be allowed therefor.

7.04 ACCEPTANCE

The work shall be inspected for acceptance by the Engineer promptly upon receipt of notice in writing from the Contractor that the work is ready for such inspection.

The structures will not be finally accepted until the completion of the entire work under the contract.

7.05 DEDUCTIONS FROM PAYMENTS

The Riverside County Flood Control and Water Conservation District, by and through the Board of Supervisors or other appropriate District officer or officers, may at its option and at any time retain out of any amounts due the Contractor sums sufficient to cover any unpaid claims, provided that sworn statements of said claims shall have been filed in the office of the District or in the office of any other District officer or officers having jurisdiction thereover.

7.06 PARTIAL PAYMENTS

On or about the last day of each month, the Engineer shall make an estimate in writing of the total amount of work done by the Contractor to the time of such estimate and the value thereof. The District shall retain 5% of such estimated value of the work done as part security for the fulfillment of the contract by the Contractor. At no time shall the amount retained by the District be less than 5% of the total value of the work completed at the time such payments are made.

After deducting all previous payments and all sums to be kept or retained under the provisions of the contract, the District shall make monthly progress payments to the Contractor. No such estimate or payment shall be required to be made when, in the judgment of the Chief Engineer, the work is not proceeding in accordance with the provisions of the contract.

In accordance with Public Contract Code Section 22300 and other applicable law, the Contractor may substitute securities for any monies withheld to ensure performance under the contract. Such substitution shall be made only upon a separate agreement between the District and the Contractor which contains terms and conditions in compliance with all laws applicable to monies withheld under the contract.

7.07 DELAYED PAYMENTS

All the monies due the Contractor under the contract will be paid by demand on the Treasurer of the District, prepared and approved as required by law, and it is understood that any delay in the preparation, approval and payment of these demands will not constitute a breach of contract on the part of the District.

7.08 FINAL PAYMENT

The Engineer, after the completion of the contract, shall make a final estimate in writing to the Board of Supervisors of the amount of work done thereunder, and the value of such work, and the District shall pay the entire sum so found to be due after deducting therefrom all previous payments and all amounts to be kept and all amounts to be retained under the provisions of the contract. All prior partial estimates and payment shall be subject to correction in the final estimate and payment. The final payment shall not be due and payable until the expiration of 45 days from the date of acceptance of the work by the Board of Supervisors.

It is mutually agreed between the parties to the contract that no certificate given or payments made under the contract, except the final payment, shall be conclusive evidence of the performance of the contract, either wholly or in part against any claim of the party of the first part, and no payment shall be construed to be an acceptance of any defective work or improper materials.

And the Contractor further agrees that the payment of the final amount due under the contract, and the adjustment and payment for any work done in accordance with any alterations of the same, shall release the Riverside County Flood Control and Water Conservation District, the Board of Supervisors, and the Engineer from any and all claims or liability on account of work performed under the contract or any alteration thereof.

7.09 CLAIMS RESOLUTION - CLAIMS UP TO \$375,000

In accordance with Public Contract Code Section 20104 - 20104.8 and other applicable law, public works claims of \$375,000 or less which arise between the Contractor and the District shall be resolved following the statutory procedure.

1. All claims shall be submitted in writing and accompanied by substantiating documentation. Claims must be filed on or before processing of the final payment unless other notice requirements are provided in the contract. "Claim" means a separate demand by the claimant for (1) a time extension, (2) payment of money or damages arising from work done by or on behalf of the claimant and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled, or (3) an amount the payment of which is disputed by the District.

(a) Claims under \$50,000. The District shall respond in writing to the claim within 45 days of receipt of the claim, or, the District may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the District may have against the claimant. If additional information is needed thereafter, it shall be requested and provided upon mutual agreement of the District and the claimant. The District's written response shall be submitted 15 days after receiving the additional documentation, or within the same period of time taken by the claimant to produce the additional information, whichever is greater.

(b) Claims over \$50,000 but less than or equal to \$375,000. The District shall respond in writing within 60 days of receipt, or, may request in writing within 30 days of receipt of the claim, any additional documents supporting the claim or relating to defenses or claims the

District may have against the claimant. If additional information is needed thereafter, it shall be requested and provided pursuant to mutual agreement between the District and the claimant. The District's response shall be submitted within 30 days after receipt of the further documents, or within the same period of time taken by the claimant to produce the additional information or documents, whichever is greater.

2. If the claimant disputes the District's response, or if the District fails to respond within the statutory time period, the claimant may so notify the District within 15 days of the receipt of the District's response or within 15 days of the District's failure to respond within the time prescribed, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon such demand, the District shall schedule a meet and confer conference within 30 days for settlement of the dispute.

3. If following the meet and confer conference, the claim or any portion thereof remains in dispute, the claimant may file a claim pursuant to Government Code § 900 et seq. and Government Code § 910 et seq. For purposes of those provisions, the time within which a claim must be filed shall be tolled from the time the claimant submits the written claim until the time the claim is denied as a result of the meet and confer process, including any time utilized for the meet and confer conference.

4. If a civil action is filed to resolve any claim, the provisions of Public Contract Code § 20104.4 shall be followed, providing for nonbinding mediation and judicial arbitration.

5. Location for Filing of Claims, Jurisdiction. Any legal action related to the performance of the work or the terms of the Contract Documents shall be filed only in the Superior Court of the State of California located in Riverside, California.

7.10 CLAIMS RESOLUTION - ALL CLAIMS (PUBLIC CONTRACT CODE SECTION 9204)

This section is intended to help resolve disputes between the parties related to this project. Such disputes shall be brought to the attention of the District at the earliest possible time, so that such disputes may be promptly resolved, if possible, or other appropriate action or investigation may be promptly undertaken. Claims must be filed on or before the date of final payment as required in Public Contract Code Section 20104.2. Public works claims which arise between the Contractor and the District shall be resolved using the following procedure:

A "claim" means a separate demand by the Contractor sent by registered mail or certified mail 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 the District; (b) payment by the District of money or damages arising from work done by or on behalf of the Contractor and payment for which is not otherwise expressly provided or to which the Contractor is not otherwise entitled; (c) payment of an amount that is disputed by the District. The Contractor shall furnish reasonable documentation to support the claim.

A. Form and Contents of Claim(s)

The Contractor shall furnish reasonable documentation to support the Claim, which shall be sent by registered mail or certified mail with return receipt requested to the District at the address provided herein this Section 7.10. The Contractor's written Claim must include, but not limited to, the following:

- 1) A statement to identify that it is a Claim under this Section 7.10, on a company letterhead, and a request for a decision on the Claim;
- 2) A detailed description or narrative of pertinent events, act, error, omission, unforeseen condition, event or other circumstance giving rise to the Claim;
- 3) Citation to contract provisions;
- 4) Theory of entitlement that provides a detailed justification for any remedy or relief sought by the Claim. This includes, but not limited to: a detailed cost breakdown, invoices, material tickets, staff logged time, summary of quantities, other cost records and total cost calculations;
- 5) Complete pricing of all cost impacts;
- 6) A time impact analysis of all time delays that shows actual time impact on the critical path; and
- 7) Documentation, District letters, notifications, related drawings and photos supporting items (1) through (6).

The Claim must be verified under penalty of perjury by Contractor's project superintendent as to the Claim's accuracy, and shall be priced like a Change Order, and must be updated at regular intervals as to cost and entitlement if a continuing Claim. Routine contract materials, for example, correspondence, RFI, Change Order requests, or payment requests shall not constitute a Claim. Contractor shall bear all costs incurred in the preparation and submission of a Claim.

Claims and support documentation related must be sent to:

Mr. Claudio M. Padres
Chief of Design and Construction Division
Riverside County Flood Control
and Water Conservation District
1995 Market Street
Riverside, CA 92501

B. Claims Procedure

- 1) Upon receipt of a Claim and the supporting documentation, the District shall conduct a reasonable review of the Claim and within 45 days, or an extended period as may be set by mutual agreement of the District and Contractor, provide the Contractor with a written statement identifying what portion of the Claim is still disputed and what portion is undisputed.
- 2) Notwithstanding the time period set forth in B.1) above, if the District needs approval from the Board of Supervisors to provide the Contractor with a

written statement identifying the disputed portion and the undisputed portion of the Claim, and the Board of Supervisors does not meet within the 45 days or within the mutually agreed to extension of time following receipt of the Claim, the District shall have up to three (3) days following the next duly publicly noticed meeting of the Board of Supervisors after the forty-five (45) day period, or extension, expires to provide Contractor a written statement identifying the disputed portion and the undisputed portion of the Claim.

- 3) Any payment due on the undisputed portion of the Claim under this section shall be processed and made within 60 days after the District issues its written statement. Amounts not paid in a timely manner as required by this Section 7.10 shall bear interest at 7% per annum. If the District fails to issue a written statement, the Claim shall be deemed rejected in its entirety. Failure by the District 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 District's failure to have responded to the 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 Contractor.
- 4) If the Contractor disputes the District's written response, or if the District fails to respond within the time prescribed, the Contractor may demand in writing, sent by registered mail or certified mail return receipt requested, an informal meet and confer conference for settlement of the portion of the Claim in dispute. Upon receipt of the demand, the District shall schedule a meet and confer conference within 30 days.
- 5) Within 10 business days following the conclusion of the meet and confer conference, if the Claim or any portion thereof remains in dispute, the District 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 shall be processed and made within 60 days after the District 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 District and Contractor sharing the associated costs equally. The District and Contractor 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.

- 6) 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 with resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section. Unless otherwise agreed to by the District and the Contractor in writing, the mediation conducted pursuant to this Section 7.10 shall excuse any further obligation under Section 20104.4 of the Public Contract Code to mediate after litigation has been commenced.
- 7) If mediation is unsuccessful to resolve all issues, the parts of the Claim remaining in dispute shall be subject to applicable procedures outside of this section and the requirements of Public Contract Code § 9204. The Claim resolution procedures in this Section do not preclude the District from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this Article does not resolve the parties' dispute.
- 8) Following the procedures set forth in this Section 7.10, including the mediation, if the Claim or any portion of it remains in dispute, the Contractor may file a Claim as provided in Chapter 1 (commencing with § 900) and Chapter 2 (commencing with § 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.
- 9) If the Government Code claim is denied, Contractor may file an action in court. If a civil action is filed to resolve any claim, such action shall be subject to the provisions of Public Contract Code Sections 9204 or 20104.4 and shall be followed, providing for non-binding mediation and judicial arbitration. This Section applies only to claims subject to Public Contract Code Sections 9204 or 20104. If a claim is not subject to Public Contract Code Sections 9204 or 20104, the Contractor's right to file a civil action shall be as otherwise provided by law.

C. Subcontractor Claim(s)

If a subcontractor or a lower tier subcontractor has a Claim, the Contractor may present to the District 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 District shall furnish reasonable documentation as set forth in Section 7.10 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 District, and if the Contractor did not present the Claim, provide the subcontractor with a statement of the reasons for not having done so.

D. Consistency with Public Contract Code Sections 9204 and 20104

If any Claim(s) arising under this Contract is subject to the provisions of Public Contract Code Sections 9204 or 20104 et seq. (Div. 2, Part 3, Chapter 1, Article 1.5), and if provisions of those statutory sections require a procedure or procedural element different from that established in this Contract, then the provisions of those statutory sections shall apply in place of the conflicting procedure or procedural element established herein.

E. Any legal action related to the performance of the work or the terms of the Contract Documents shall be filed only in the Superior Court of the State of California located in Riverside, California.

SECTION VIII - GENERAL

8.01 COOPERATION BETWEEN CONTRACTORS

The Contractor shall be required to cooperate fully with all utility and public agency representatives engaged in construction, relocation, altering or otherwise rearranging any facilities interfering with the progress of the work.

Full compensation for any delay or inconvenience to the Contractor's operation due to such operations as described above shall be considered included in the unit price paid for other items of work and no additional allowance will be made therefor.

8.02 INSURANCE - INDEMNIFICATION/HOLD HARMLESS/DEFEND

1. Insurance.

Contractor shall not commence work under this contract until he has obtained the insurance required hereunder and satisfactory proof of said insurance has been submitted to District and has been approved as to form by Riverside County Counsel.

Without limiting or diminishing the Contractor's obligation to indemnify, defend or hold the District harmless, Contractor shall procure and maintain or cause to be maintained, at its sole cost and expense, the following insurance coverages during the term of this Contract. In respects to the requirements for the Project and as further described in this section, the District herein refers to the Riverside County Flood Control and Water Conservation District, the County of Riverside, its Agencies, Districts, Special Districts and Departments, and any municipal corporation or governmental entity in which the work is to be accomplished, their respective directors, officers, Board of Supervisors, governing boards or councils, employees, elected and appointed officials, agents, representatives as Additional Insured.

Workers' Compensation - If the Contractor has employees as defined by the State of California, the Contractor shall maintain statutory Workers' Compensation Insurance (Coverage A) as prescribed by the laws of the State of California. Policy shall include Employers' Liability (Coverage B) including Occupational Disease with limits not less than **\$1,000,000** per person per accident. The policy shall be endorsed to waive subrogation in favor of the District and County of Riverside.

Commercial General Liability - Commercial General Liability insurance coverage, including but not limited to, premises liability, contractual liability, products and completed operations liability, personal and advertising injury, cross liability coverage, and covering claims which may arise from or out of Contractor's performance of its obligations hereunder. Policy shall name the District, all Agencies, Districts, Special Districts, and Departments of the County of Riverside, together with their respective directors, officers, Board of Supervisors, employees, elected or appointed officials, agents or representatives as Additional Insureds. Policy's limit of liability shall not be less than **\$2,000,000** per occurrence combined single limit. If such insurance contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the occurrence limit.

Vehicle Liability - If Contractor's vehicles or mobile equipment are used in the performance of the obligations under this Agreement, then Contractor shall maintain liability insurance for all owned, non-owned or hired vehicles so used in an amount not less than **\$1,000,000** per occurrence combined single limit. If such insurance contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the occurrence limit. Policy shall name the District, all Agencies, Districts, Special Districts, and Departments of the County of Riverside, together with their respective directors, officers, Board of Supervisors, employees, elected or appointed officials, agents or representatives as Additional Insureds.

Builder's Risk - Contractor shall obtain, at Contractor's expense, and keep in effect until final acceptance by the District, Builder's Risk Insurance (including earthquake and flood) covering the real and personal property of others in the care, custody, and control of the Contractor. Builder's Risk Insurance shall include theft and damage coverage. The minimum amount of coverage to be carried shall be equal to the full amount of the contract. Contractor shall be financially responsible for any deductible applied to loss. This insurance shall include the District, County of Riverside, the Contractor and its subcontractors as their interests may appear.

Professional Liability - Contractor shall maintain Professional Liability Insurance providing coverage for the Contractor's performance of work included within this Agreement, with a limit of liability of not less than \$2,000,000 per occurrence and \$4,000,000 annual aggregate. If Contractor's Professional Liability Insurance is written on a claims made basis rather than an occurrence basis, such insurance shall continue through the term of this Agreement and Contractor shall purchase at his sole expense either 1) an Extended Reporting Endorsement (also, known as Tail Coverage); or 2) Prior Dates Coverage from new insurer with a retroactive date back to the date of, or prior to, the inception of this Agreement; or 3) demonstrate through Certificates of Insurance that Contractor has Maintained continuous coverage with the same or original insurer. Coverage provided under items; 1), 2), or 3) will continue as long as the law allows.

Pollution and Asbestos Liability - If hazardous material is encountered during construction, the Project Manager must be notified immediately, and if any work is done to remove it, any Contractor performing work shall obtain and keep in effect during the term of their contract with Contractor, Pollution Liability Insurance, including Asbestos Liability Insurance, covering the subcontractor's liability for bodily injury, property damage, and environmental damage resulting from "sudden accidental" or "gradual" pollution and related cleanup costs incurred by the subcontractor, all arising out of the work or services (including the transportation risk, when applicable) to be performed under this contract. Combined single limit per occurrence shall not

be less than \$2,000,000, or the equivalent. Annual aggregate limit shall not be less than \$4,000,000.

If the Contractor maintains broader coverage and/or higher limits than the minimums shown above, the District requires and shall be entitled to the broader coverage and/or 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 District.

General Insurance Provisions - All lines -

a) Any insurance carrier providing insurance coverage hereunder shall be admitted to the State of California and have an A.M. Best rating of not less than A: VIII (A:8) unless such requirements are waived, in writing, by the District Risk Manager. If the District's Risk Manager waives a requirement for a particular insurer such waiver is only valid for that specific insurer and only for one policy term.

b) The Contractor's insurance carrier(s) must declare its insurance deductibles or self-insured retentions. If such deductibles or self-insured retentions exceed \$500,000 per occurrence such deductibles and/or retentions shall have the prior written consent of the District's Risk Manager before the commencement of operations under this Agreement. Upon notification of deductibles or self-insured retentions unacceptable to the District, and at the election of the District's Risk Manager, Contractor's carriers shall either, 1) reduce or eliminate such deductibles or self-insured retentions as respects this Agreement with the District, or 2) procure a bond which guarantees payment of losses and related investigations, claims administration, and defense costs and expenses.

c) Contractor shall cause Contractor's insurance carrier(s) to furnish the District with either 1) a properly executed original Certificate(s) of Insurance and certified original copies of Endorsements effecting coverage as required herein, or 2) if requested to do so orally or in writing by the District's Risk Manager, provide original certified copies of policies including all Endorsements and all attachments thereto, showing such insurance is in full force and effect. Further, said Certificate(s) and policies of insurance shall contain the covenant of the insurance carrier(s) that 30 days written notice shall be given to the District prior to any material modification, cancellation, expiration or reduction in coverage of such insurance. In the event of a material modification, cancellation, expiration, or reduction in coverage, this Agreement shall terminate forthwith, unless the District receives, prior to such effective date, another properly executed original Certificate of Insurance and original copies of endorsements or certified original policies, including all endorsements and attachments thereto evidencing coverages set forth herein and the insurance required herein is in full force and effect. Contractor ***shall not commence operations until the District has been furnished original Certificate(s) of Insurance and certified original copies of endorsements or policies of insurance including all endorsements and any and all other attachments as required in this Section. An individual authorized by the insurance carrier to do so on its behalf shall sign the original endorsements for each policy and the Certificate of Insurance.***

d) It is understood and agreed to by the parties hereto and the insurance company(s), that the Certificate(s) of Insurance and policies shall so covenant and shall be construed as primary insurance, and the District's insurance and/or deductibles and/or self-insured retentions or self-insured programs shall not be construed as contributory.

e) The District's Reserved Rights--Insurance. If, during the term of this Agreement or any extension thereof, there is a material change in the scope of services; or, there

is a material change in the equipment to be used in the performance of the scope of work (such as the use of aircraft or watercraft), the District reserves the right to adjust the types of insurance required under this Agreement and the monetary limits of liability for the insurance coverages currently required herein, if, in the District's Risk Manager's reasonable judgment, the amount or type of insurance carried by the Contractor has become inadequate.

f) Contractor shall pass down the insurance obligations contained herein to all tiers of subcontractors working under this Agreement.

g) The insurance requirements contained in this Agreement may be met with a program(s) of self-insurance acceptable to the District.

h) Said insurance must contain an endorsement that District, County of Riverside, and any municipal corporation or governmental entity in which the work is to be accomplished, are named as an additional insured as respects the work covered hereunder. Said insurance must not contain, as respects the work covered hereunder, any exclusions as to bodily injury or death or property damage arising out of blasting, explosion, or underground damage to wire, pipes, conduits, mains, sewers, tank tunnels or any similar property, i.e., the so-called "x c u" exclusions. The insurance certificate evidencing such insurance must affirmatively state that the insurance carrier(s) will give District 30 days written notice prior to cancellation of the insurance or a reduction in coverage; must state that the "x c u" exclusions are waived or do not exist in the policy(s); and that District, County of Riverside, and any municipal corporation in which the work is to be accomplished, are named as an additional insured as respects the work covered hereunder.

The cost of this insurance shall be included in the prices bid for the various items of work and no additional compensation will be made therefor.

2. Indemnification - Hold Harmless and Defend.

Contractor shall indemnify and hold harmless the District, County of Riverside, and any municipal corporation or governmental entity in which the work is to be accomplished, together with its Agencies, Districts, Special Districts and Departments, their respective directors, officers, Board of Supervisors, elected and appointed officials, employees, agents and representatives (individually and collectively hereinafter referred to as Indemnitees) from any liability whatsoever, based or asserted upon any acts, omissions or services of Contractor, its officers, employees, subcontractors, agents or representatives arising out of or in any way relating to this Contract, relating to or in any way connected with or arising from the accomplishment of the work, whether or not in furtherance of the work, including but not limited to property damage, bodily injury, or death or any other element of any kind or nature whatsoever arising from the performance of Contractor, its officers, employees, subcontractors, agents or representatives Indemnitors from this Contract. Contractor shall defend, at its sole expense, all costs and fees including, but not limited, to attorney fees, cost of investigation, defense and settlements or awards, the Indemnitees in any claim or action based upon such alleged acts or omissions.

With respect to any action or claim subject to indemnification herein by Contractor, Contractor shall, at their sole cost, have the right to use counsel of their own choice and shall have the right to adjust, settle, or compromise any such action or claim without the prior consent of the District; provided, however, that any such adjustment, settlement or compromise in no manner whatsoever limits or circumscribes Contractor's indemnification to Indemnitees as set forth herein.

Contractor's obligation hereunder shall be satisfied when Contractor has provided to District the appropriate form of dismissal relieving the Indemnitees from any liability for the action or claim involved.

The specified insurance limits required in this Agreement shall in no way limit or circumscribe Contractor's obligations to indemnify and hold harmless the Indemnitees herein from third party claims.

In the event there is conflict between this clause and California Civil Code Section 2782, this clause shall be interpreted to comply with Civil Code 2782. Such interpretation shall not relieve the Contractor from indemnifying the Indemnitees to the fullest extent allowed by law.

3. Obligations.

The obligations assumed by Contractor cover all obligations set forth in this Subsection and elsewhere in the Contract Documents, such as Subsections 5.01, 5.02, 5.05, 5.06, 5.08, 5.09, 5.10, 10.01, and 10.02.

8.03 PUBLIC UTILITIES

The locations of all pipelines, power lines, communication lines and other utility components known to District to exist within the limits of the work, are indicated on the drawings and may be the subject of a specific Special Provision(s). Size, location and characteristics of such utilities is based upon information made available to District - primarily from the owner of the utility in question. The exactness of such information is not guaranteed but may be assumed to have been accomplished with reasonable accuracy.

In addition to the drawings and any such provision regarding utilities, Contractor is under a duty to take into account the location of service laterals or other appurtenances which can be inferred from the presence of facilities such as buildings, meters and junction boxes in or about the limits of the work.

Unless otherwise directed by the Contract Documents, all existing utilities - where shown or described or not - shall be left in place and Contractor must conduct its operations so that such utilities are protected from damage at all times during the course of the work and the work must be accomplished so as to give such utilities proper protection and support upon completion of the work by Contractor.

If during the course of the work, Contractor discovers underground utility components not indicated in the drawings, the Special Provisions or elsewhere in the Contract Documents, Contractor must immediately notify, in writing, the Engineer and the utility company (public or private) involved, stating with exactness the condition found.

When Contractor encounters a utility not shown or described in the Contract Documents, Contractor shall cease all work which would disturb such utility and its support until given specific instructions as to how to proceed regarding such utility by Engineer. All work done by Contractor to protect existing utilities shown or described in the Contract Documents, or which can be

reasonably inferred from the presence of other visible facilities, is at Contractor's expense, the cost of which is deemed included in Contractor's Proposal to do the work.

Contractor's cost of locating, repairing damage not due to the failure of Contractor to exercise reasonable care, and removing or relocating utility components and facilities not indicated in the drawings, specifications or elsewhere in the Contract Documents with reasonable accuracy, shall be paid Contractor as Extra Work as provided in Subsection 2.07 and Subsection 7.03 of these General Provisions. Compensation for idle time of equipment shall be paid as provided in Section 8-1.07C, "Payment Adjustments", of the State Standard Specifications. No surcharge rates for equipment will be applied for idled equipment.

District may direct the Contractor to do such repair or relocation work as required. When such repair or relocation work is not elsewhere provided for in these Contract Documents, or reasonably inferred therefrom, a requirement of District that Contractor perform such work shall be compensated for as Extra Work pursuant to Subsections 2.07 and 7.03 of these General Provisions.

Contractor shall not be assessed liquidated damages for delay in completion of the project, if such delay is caused by failure of District, or the owner of the utility in question, to provide for removal or relocation of the utility involved.

8.04 PROTECTION OF EXISTING STREET FACILITIES

The Contractor shall be responsible for the protection of existing signs, fences, concrete curbs, gutters and other facilities which may be encountered. The replacement or repair of any facilities which the District deems necessary as a result of the Contractor's operations shall be done by the Contractor at his own expense and to the satisfaction of the Engineer.

Excavation within the street right of way shall be conducted in a manner to cause the least interruption to traffic. Where traffic must cross open trenches, the Contractor shall provide suitable bridges at street intersections and driveways. Hydrants under pressure, valve pipe covers, valve boxes, curb stop boxes, fire or police call boxes, or other utility controls shall be left unobstructed and accessible during construction.

8.05 DIVERSION AND CONTROL OF WATER

Unless otherwise provided in the Proposal, no separate payment will be made for diversion and control of surface or groundwater. All costs incidental to maintaining dry working areas shall be included in the unit prices paid for other items of work in the schedule.

8.06 DUST ABATEMENT

During the performance of all work included in the contract, the Contractor shall take the necessary precautions to save the District free and harmless from any loss or damage resulting from his operations that raise or produce dust in such amounts that will be objectionable, and/or cause damage to adjacent property or property owners.

The Contractor will be required to have a positive and continuous method of dust control which is satisfactory to the Engineer. The methods to be used for controlling dust in the construction area and along haul roads shall be approved by the Engineer prior to starting any of the work included in the contract. All costs incidental to dust control shall be included in the unit prices paid for other items of work in the schedule.

8.07 PROJECT SIGNS

The Contractor shall erect project signs at the locations designated by the Engineer.

No separate payment will be made for erecting the project signs and all costs in connection therewith will be considered a subsidiary obligation of the Contractor.

8.08 EXAMINATION OF PLANS, SPECIFICATIONS, CONTRACT, AND SITE OF WORK

The bidder shall examine carefully the site of the work contemplated, the plans and specifications, and the proposal and contract forms therefor. The submission of a bid shall be conclusive evidence that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of work to be performed, the quantities of materials to be furnished, and as to the requirements of the proposal, plans, specifications, and the contract.

Where the District has made investigations of subsurface conditions in areas where work is to be performed under the contract, or in other areas, some of which may constitute possible local material sources, such investigations are made only for the purpose of study and design. Where such investigations have been made, bidders or Contractors may, upon request, inspect the records of the District as to such investigations subject to and upon the conditions hereinafter set forth. Such inspection of records may be made at the office of the District.

The records of such investigations are not a part of the contract and are shown solely for the convenience of the bidder or Contractor. It is expressly understood and agreed that the District assumes no responsibility whatsoever in respect to the sufficiency or accuracy of the investigations thus made, the records thereof, or of the interpretations set forth therein or made by the District in its use thereof and there is no warranty or guarantee, either expressed or implied, that the conditions indicated by such investigations or records thereof are representative of those existing throughout such areas, or any part thereof, or that unlooked-for developments may not occur, or that materials other than, or in proportions different from those indicated, may not be encountered.

When a log of test borings showing a record of the data obtained by the District's investigation or subsurface conditions is included with the contract plans, it is expressly understood and agreed that said log of test borings does not constitute a part of the contract, represents only the opinion of the District as to the character of the materials encountered by it in its test borings, is included in the plans only for the convenience of bidders and its use is subject to all of the conditions and limitations set forth in this Section 8.08.

No information derived from such inspection of records of investigations or compilation thereof made by the District or from the Engineer, or his assistants, will in any way relieve the bidder or Contractor from any risk or from properly fulfilling the terms of the contract.

SECTION IX - WATERING

9.01 DESCRIPTION

This work shall consist of developing a water supply for all water required for the work. The application of the water shall be under the control of the Engineer at all times and shall be applied in the amounts and at the locations approved by the Engineer.

At least one mobile unit of at least 1,000-gallon capacity for applying water shall be available on the project at all times.

Water for compacting embankment material and for laying dust shall be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses with nozzles that will ensure a uniform application of water.

No separate payment or additional allowances will be made for this work and all costs in connection therewith will be considered as included in other items in the schedule.

SECTION X - PUBLIC CONVENIENCE, TRAFFIC CONTROL AND DETOURS

10.01 GENERAL

The Contractor shall so conduct his operations as to offer the least possible obstruction and inconvenience to the public and he shall have under construction no greater length or amount of work than he can prosecute properly with due regard to the rights of the public.

Unless otherwise provided in the Special Provisions, all public traffic shall be permitted to pass through the work with as little inconvenience and delay as possible.

Spillage resulting from hauling operations along or across any public traveled way shall be removed immediately at the Contractor's expense.

Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners.

Convenient access to driveways, houses and buildings along the line of work shall be maintained and temporary approaches to crossings or intersecting highways shall be provided and kept in good condition.

10.02 SIGNS

It shall be the responsibility of the Contractor to provide and maintain all lights, barricades and signs, both on and off the site of work, as required by the Engineer, and all such devices shall be of a type approved by him.

If, in any case, the Engineer finds it necessary to replace, add to or erect said barricades, signs, or lights, when the Contractor fails to do so when informed, the Contractor shall be billed for all costs thereof including a daily rental fee for signs.

No separate payment, unless otherwise provided for under the Special Provisions, will be made for traffic control and detour signing and all costs incidental to these items shall be included in the unit prices paid for other items of work.

10.03 MATERIALS STORAGE

Storing or stockpiling of excavated material, imported backfill material or construction materials on any street or highway will not be permitted except as approved in writing by the Engineer.

SPECIAL PROVISIONS
AND
DETAILED SPECIFICATIONS

SPECIAL PROVISIONS

SECTION 1 - GENERAL

1.1 Drawings and Specifications - These documents are for the construction of **Banning MDP Line H, Stage 1**, located in the city of Banning, Riverside County, California. This work shall conform with the contract drawings indexed on the cover sheet of the drawings included herewith.

Referenced standard drawings are available on the District web site.

The Contractor shall copy any of the referenced District standard drawings from <http://www.rcflood.org>.

The Contractor shall be responsible to obtain referenced standard plans/drawings of various agencies from their respective office or web site.

References made in these Special Provisions or Detailed Specifications to the "Greenbook Specifications" refer to the "Greenbook" Standard Specifications for Public Works Construction, current edition, including supplements. Standard Specifications of the American Society for Testing and Materials shall be designated by ASTM and the appropriate number of the standard. Unless otherwise specified, wherever the words "Caltrans Specifications" are used in these Special Provisions or Detailed Specifications they shall mean the Standard Specifications of the State of California, Department of Transportation, 2018 edition. Whenever the words "Caltrans Standards" are used they shall mean the Standard Plans of the State of California, Department of Transportation, 2018 edition, unless otherwise noted.

In the event that discrepancies are encountered, the option that provides the method, item or material with the greatest strength or utility shall be chosen, as directed by the Engineer.

In case of conflict between the drawings and the specifications, the drawings shall govern; in case of conflict between the referenced specifications and these specifications, the latter shall govern.

1.2 Submittals to District - Submittals shall be sent in the form of email or postal carrier to the attention of the Engineer. The Contractor shall allow the Engineer ten (10) working days from the time of receipt of the submittal (mailing time is not included) to review and respond in writing.

SECTION 2 - TIME OF COMPLETION, DAMAGES AND LEGAL HOLIDAYS

2.1 General - The Contractor shall begin work within ten (10) calendar days after the date of receipt of Notice to Proceed from the Engineer and shall diligently prosecute the same to completion before the expiration of

ONE HUNDRED AND FIFTY (150) WORKING DAYS

from the date of receipt of Notice to Proceed.

2.2 Damages - The Contractor and the District expressly agree that the cost to the District for inspection and superintendence of the work for this contract is \$1,600.00 per working day.

2.3 Legal Holidays - The Contractor will not be permitted to work on Legal Holidays (Reference Sections 6.02 and 6.06 of the General Provisions), except in cases of emergency as directed by the Engineer.

SECTION 3 - FORCE ACCOUNT PAYMENT

3.1 Labor Surcharge - Attention is directed to the provisions of Section VII, Article 7.03A(1b) of the General Provisions. The labor surcharge percentage to be applied to the actual wages paid as defined in Paragraph 7.03A(1a) will be twenty-four percent (24%).

3.2 Equipment Rental - Attention is directed to the provisions of Section VII, Article 7.03A(3) of the General Provisions. The equipment rental rates to be applied will be the rates published by the California Department of Transportation and in effect at the time of the award of the contract. A copy of said Equipment Rental Rates is on file at the District Office.

SECTION 4 - PROTECTION OF EXISTING UTILITIES

4.1 General - All existing underground utility lines, power poles and overhead wiring shall be protected in place at all times, except as noted otherwise on the plans. Any damage to utilities caused by the Contractor's operation shall be repaired or replaced at the Contractor's expense.

Prior to the commencement of any construction activities, the Contractor shall contact all utility companies and local municipalities servicing the project area to review as-built utility drawings and determine appropriate means of protecting utilities.

At the discretion of the Engineer, the Contractor may be required to verify, by potholing, the location of potentially affected utilities.

4.2 Cooperation with Utilities Relocated by Others - Some utilities may require relocation by others prior to or during construction as shown on the drawings and as specified in these specifications and Special Provisions.

Supplement to Section 8.01 of the General Provisions. The Contractor shall coordinate and cooperate with the various utilities or their contractors to ensure the work proceeds in an orderly manner during such utility relocation, if needed.

Should any utility relocation result in delays to the Contractor's work schedule, the Contractor shall be entitled only to an equivalent extension of time for the completion of the contract, and shall not be entitled to damages due to downtime and idled equipment or additional payment over and above the agreed upon contract unit prices.

SECTION 5 - PROJECT SITE MAINTENANCE

Through all phases of construction, the Contractor shall comply with the provisions of Section 3-12 of the Greenbook Specifications. Before final acceptance of the work, the Contractor shall clean the work and the site of the work of all falsework, temporary structures, other construction materials and equipment, excess materials and rubbish, and shall leave the work and the site in a neat and presentable condition. Such final cleanup work shall be performed within the time specified for completion of all of the work.

SECTION 6 - SPECIAL REQUIREMENTS

6.1 National Pollutant Discharge Elimination System (NPDES) – The Contractor shall comply with the requirements of Board Order No. R8-2010-0033 (NPDES No. CAS618033), NPDES Area-Wide Municipal Stormwater Permit, hereafter referred to in this Section as the "Permit", issued by the California Regional Water Quality Control Board (CRWQCB) – Santa Ana Region. This Permit regulates both stormwater and non-stormwater discharges associated with Contractor's construction activities. The Contractor shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) in accordance with Section 29 "Stormwater and Non-Stormwater Pollution Control" of the Detailed Specifications.

The Contractor's attention is directed to: 1) Section 29.2 "General Requirements" which allows the Engineer to withhold progress payments if the Contractor fails to fully implement Section 29 "Stormwater and Non-Stormwater Pollution Control" or is deemed to be in non-compliance with the provisions of the Permit; 2) Section 29.3 "PRDs Preparation and Approval" which requires that the PRDs be prepared and approved prior to the Pre-Construction meeting; and 3) Section 29.6 "SWPPP Implementation" which allows the Engineer to suspend construction operations if the Contractor fails to implement the approved SWPPP and any amendments thereto.

6.2 Sanitation - Sewage flows shall not be interrupted. Should the Contractor disrupt existing sewer facilities, sewage shall be conveyed in closed conduits and disposed of in a sanitary sewer system. If pumping is required it shall be done at the expense of the Contractor. A backup pumping system with equal capacity shall be provided at all times. Sewage shall not be permitted to flow in trenches or be covered by backfill.

6.3 Confined Space Compliance - The Contractor shall comply with all Cal/OSHA safety regulations including regulations concerning confined space and for maintaining a safe working environment for Contractor and District employees on the site. The Contractor shall develop and maintain a confined space procedure specific to this contract that complies with the requirements contained in California Code of Regulations, Title 8, Section 5158, Other Confined Space Operations and the District's Safety and Operations Manual (SOM) - Confined Space Procedures, SOM-18. A copy of SOM-18 can be obtained from the District office, 1995 Market Street, Riverside upon request.

Within five (5) days after the award of the contract, the Contractor shall submit three (3) copies of the procedure to the Engineer for review and approval. The Contractor shall allow the number of working days specified in Section 1.2 of these Special Provisions for the Engineer to review the procedure. If revisions are required as determined by the Engineer, the Contractor shall revise and resubmit the procedure within three (3) working days of receipt of the Engineer's comments and shall allow four (4) working days for the Engineer to review the revisions. The Contractor must submit three (3) copies of the approved procedure to the Engineer prior to the pre-construction meeting.

The procedure shall provide for recording of data to develop a history of acceptable atmosphere within the confined space. That history will include:

1. Calibration schedule of a direct reading confined space meter by trained personnel.
2. Daily monitoring and recording of the confined space atmosphere with a calibrated direct reading confined space meter.
3. Records of Items 1 and 2 shall be maintained onsite and copies given to the Engineer.
4. The records shall indicate if readings are of natural or mechanically enhanced ventilation.

In addition, the procedure shall include daily tours of the job site with the Engineer to ensure inlets to the confined space are free of obstruction or substances that might affect the atmosphere of the confined space.

The Contractor will be required to keep a direct reading confined space meter onsite for the duration of the contract. The meter shall be calibrated according to the schedule specified in the Contractor's confined space procedure and shall be made available for the Engineer's use upon request.

6.4 Heavy Equipment Working Hours - Heavy construction equipment shall be allowed to work from 7:00 a.m. to 3:30 p.m. each normal working day, unless otherwise approved by the Engineer.

6.5 Encroachment Permits - The Contractor is required to obtain an encroachment permit from the City of Banning, Public Works Department for work within City right of way. In addition, the Contractor shall obtain a separate road closure permit from the City of Banning, Public Works Department for the pre-approved planned road closures as shown in the traffic control drawings. The City of Banning, Public Works Department will not require the Contractor to pay a fee for the encroachment permit. A copy of the encroachment permit and the road closure permit shall be provided to the Engineer prior to commencement of work.

If the Contractor desires to implement any road closures beyond the pre-approved closures shown in the contract drawings, the Contractor shall be solely responsible for obtaining the additional road closure permit. As a part of the road closure permit application, the Contractor must submit a letter of justification and traffic control plans prepared and signed by a registered Traffic Engineer or a registered Civil Engineer for the unplanned road closure(s).

6.6 Toxic Material Disposal - Toxic materials including oil, fuel oil, gasoline, coolant, fluid filters and other contaminants shall not be discharged within the project site. All such materials shall be transported offsite and disposed of at a County approved facility.

6.7 Survey Crew - The Contractor shall notify the Engineer in writing at least 48 hours prior to new construction staking and shall provide safe and unobstructed access to the staking area within this period. Should the staking area be inadequately prepared, unsafe, or obstructed when the District's survey crew arrives onsite to perform the new construction staking, the Contractor shall be subject to delay charges as defined below.

Survey Crews will be available Monday through Thursday from 7:00 a.m. to 3:30 p.m., with a half-hour off for lunch. If the Contractor requires the Survey Crew to work beyond the specified time mentioned above, it shall be considered as overtime and shall be paid by the Contractor at 1.5 times the Survey Crew's hourly rates.

The Contractor shall carefully preserve benchmarks, reference points, and stakes. In case of willful or careless destruction, the Contractor shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

If the District's Survey Crew incurs delays or survey restaking is required as a result of the Contractor's operations, the Contractor shall be charged at a rate of \$250 per hour, with a minimum charge of two (2) hours for each restaking request. Payment shall be deducted from the monthly progress payment.

6.8 Survey Monuments - The Contractor shall salvage and give to the District all survey monuments and wells removed during construction. The District will reset monuments after construction.

6.9 Job Trailer Site - The Contractor is required to provide a site and install an office trailer for District personnel. This trailer shall be in good condition and located in a place acceptable to the District. The trailer shall be for the sole use of the District and shall not be used by the Contractor for any activity, including storage. The Contractor shall make provisions for the privacy and security of the office, and provide air conditioning, drinking water, electrical service, and a private portable toilet for the Inspector. The Contractor shall also provide two office chairs and a desk suitable for reviewing plans. The Contractor shall pay the monthly billings for these services. The trailer shall be fully operational and available to District personnel on the first day of work. Should the trailer or office not be available and in working condition, it is agreed by both parties at the time of entering this contract that damages in the amount of \$3,000 per month shall be assessed. It is agreed that this amount may be prorated and shall be deducted from the

first contract payment and any successive payments covering any period that the facilities are unavailable.

6.10 Construction Tolerances - Variation in alignment, grade and dimensions of the structures and structural components from the established alignment, grade and dimensions shown on the drawings shall be within the tolerances specified in the following:

Departure from established alignment		2 inches on tangents 4 inches on curves
Departure from established profile grade	Channel bottoms, channel sideslopes in cut and fill, levee and access road sideslopes in cut	Zero <u>above</u> and 3 inches <u>below</u> the specified grade
	Top surfaces of levees and access roads in both cut and fill, levee and access road sideslopes in fill	Zero <u>below</u> and 3 inches <u>above</u> the specified grade

Regardless of the construction tolerances specified, the excavation and grading shall be performed so that the finished surfaces are in uniform planes with no abrupt breaks in the surface.

Departure from established alignment		2 inches on tangents 4 inches on curves
Departure from established profile grade		1 inch
Variation in thickness of lining, sideslopes and invert		5 percent of specified thickness provided average thickness is maintained
Variation from specified width of section at any height		0.0025 times specified width W plus 1 inch. $0.0025W + 1$ inch
Variation from specified height of lining		0.005 times specified height H plus 1 inch. $0.005H + 1$ inch
Variation in surfaces (gradual)	Invert	¼ inch in 10 feet
	Sideslopes	½ inch in 10 feet
Variation in surfaces (abrupt)		¼ inch

Gradual Variation tolerance shall be measured by placing a 10-foot straightedge anywhere on the finished concrete structure within 72 hours after concrete placement. The gap at any point between the straightedge and the concrete shall not exceed the specified amount.

Departure from established alignment		1 inch on tangents 2 inches on curves
Departure from established profile grade		1 inch
Inside dimensions		0.005 times specified dimension

Variation from the plumb or the specified batter in the lines and surfaces of walls, piers and in arises	Exposed, in 10 feet Backfilled, in 10 feet	½ inch 1 inch
Variation in cross-sectional dimensions		Minus ¼ inch Plus ½ inch
Variation in surfaces (gradual)	Invert Soffits, Walls, Sideslopes	¼ inch in 10 feet ½ inch in 10 feet
Variation in surfaces (abrupt)		¼ inch

Table D - Tolerances for Reinforcing Steel Placement

Variance from indicated position	Spacing between adjacent bars and the distance between layers of bars	one bar diameter nor more than one inch
Concrete cover measured perpendicular to steel in the direction of tolerance		¼ inch

Elements not meeting these requirements shall be removed and replaced as directed by the Engineer.

6.11 Surplus Excavated Material - Any stockpiling, grading or disposal of material outside of the project limits is not covered under the District's permits and is the sole responsibility of the Contractor. Related regulatory permits that may be required include, but are not limited to, Federal Clean Water Act (Sections 401 and 404), California Fish and Game Code (Section 1602), and Federal/State Endangered Species Acts. All costs to obtain any regulatory permits related to stockpiling, grading, or disposal of material outside of the project limits shall be borne by the Contractor.

6.12 Sewer Line Inspection - Prior to the commencement of construction, the Contractor is required to video record all sewer mains (8" diameter and larger) within the project limits. Additionally, the Contractor shall video record the sewer mains after the backfilling of the storm drain has been completed. Copies of the videotapes shall be provided to the Engineer. All costs associated with this requirement shall be included in the contract price bid for Clearing and Miscellaneous Work. The Contractor is required to replace and/or repair at his own expense, any sewers damaged or misaligned as a result of his construction activities.

6.13 Pipe Order Notification - The Contractor shall submit to the District the invoice from the pipe company stating, (1) pipe order date, (2) pipe quantity, and (3) estimated date of pipe delivery within five (5) calendar days of the award of the contract.

6.14 Project Signs - Supplementing Section 8.07 of the General Provisions, the Contractor shall be required to provide two new project signs. The Contractor shall install and maintain the project signs at locations specified by the Engineer, with painting and lettering as shown in Appendix "B" of these Special Provisions. The signs shall be installed as directed by the Engineer within five (5) days after District issuance of the Notice to Proceed. Upon completion of construction, the signs shall be removed.

6.15 Liability Insurance - The Contractor's attention is directed to Section 8.02, Insurance - Indemnification/Hold Harmless/Defend, of the General Provisions. The City of Banning shall also be named as additional insureds with the liability insurance coverage required to be maintained by the Contractor.

6.16 1602 Permit Compliance - A Streambed Alteration Agreement (Agreement) was issued for this project by the California Department of Fish and Wildlife (CDFW) on October 26, 2016. A copy of the Agreement and notification including attachments will be provided to the Contractor. The Contractor shall comply with the permit conditions summarized below:

1. A copy of the Agreement and the permit notification shall be kept onsite at all times.
2. Contractor shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons including subcontractors who will be working on the project at the project site.
3. Contractor and all persons including subcontractors employed or working in the project area must attend an education program conducted by District biological monitor, which includes discussions such as biology and general behavior of sensitive species in the project area. Upon completion of the program, the Contractor and all persons including subcontractors employed or working in the project area must sign a form (signature sheet) stating that they attended the program and understand all protection measures. An overview of the biological education program shall also be provided to any new workers, and they must sign the signature sheet described above before they are authorized to work in the project area.
4. Contractor agrees that CDFW personnel may enter the project site at any time to verify compliance with the Agreement.
5. As directed by the District's monitoring biologist(s) or Engineer, the Contractor shall immediately halt any activity that does not comply with the Agreement, and/or implement any reasonable measure to avoid the violation of any measure of the Agreement.
6. The Contractor shall actively implement Best Management Practices (BMPs) to prevent erosion and the discharge of sediment and pollutants into streams during project activities. BMPs shall be monitored and repaired if necessary to ensure maximum erosion, sediment, and pollution control. The Contractor shall prohibit the use of erosion control materials potentially harmful to fish and wildlife species, such as mono-filament netting (erosion control matting) or similar material, within and adjacent to CDFW jurisdictional areas. All fiber rolls, straw waddles, and/or hay bales utilized within and adjacent to the project site shall be free of non-native plant materials. Fiber rolls or erosion control mesh shall be made of loose-weave mesh that is not fused at the intersections of the weave, such

as jute, coconut (coir) fiber, or other products without welded weaves. Non-welded weaves reduce entanglement risks to wildlife by allowing animals to push through the weave, which expands when spread.

7. The Contractor shall comply with all litter and pollution laws. All subcontractors and employees shall also obey these laws, and it shall be the responsibility of the Contractor to comply with the following:

- The Contractor shall not allow water containing mud, silt, or other pollutants from grading, aggregate washing, or other activities to enter a lake, streambed, or flowing stream or be placed in locations that may be subjected to high storm flows.
- Spoil sites shall not be located within a lake, streambed, or flowing stream or locations that may be subjected to high storm flows where spoil shall be washed back into a lake, streambed, or flowing stream where it will impact streambed habitat and aquatic or riparian vegetation.
- Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to fish and wildlife resources resulting from project related activities shall be prevented from contaminating the soil and/or entering the waters of the State. These materials placed within or where they may enter a lake, streambed, or flowing stream by the Contractor or any party working under contract or with the permission of the Contractor shall be removed immediately.
- No broken concrete, cement, debris, soil, silt, sand, bark, slash, sawdust, rubbish or washings thereof, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any lake, streambed, or flowing stream.
- No equipment maintenance shall be done within or near any lake, streambed, or flowing stream where petroleum products or other pollutants from the equipment may enter these areas under any flow.

6.17 Coordination with Paleontological/Archaeological/Historical Monitoring - The District's professional shall be present for all excavations conducted along Hathaway Street south of Bryan Street and along Wesley Street from Hathaway Street to Smith Creek. The Contractor shall coordinate and cooperate with the District's professional in monitoring the excavation.

If potential findings are uncovered during excavation activity, the Contractor's attention is directed to Section 6.20 Accidental Discovery.

6.18 Accidental Discovery - In the event that any human remains, hazardous materials, historical, tribal, archaeological, or paleontological resources are accidentally discovered within project limits, the Contractor shall immediately cease all construction or ground disturbance activity in the vicinity of find and notify the Engineer. District will provide the appropriate professional to assess the significance of the discovery and, if necessary, develop appropriate management and treatment measures. **The Contractor shall not resume construction in the affected area without Engineer's approval.**

Per State Health and Safety Code 7050.5, if human remains are encountered during construction, no further disturbance shall occur until the Riverside County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The Riverside County Coroner must be notified within 24 hours by the Engineer. If the County Coroner determines that the remains are not historic, but prehistoric, the Native American Heritage Commission (NAHC) must be contacted by the Engineer to determine the most likely descendent for this area. Once the most likely descendent is determined, treatment of the Native American human remains will proceed pursuant to Public Resources 5097.98. The NAHC may become involved with decisions concerning the disposition of the remains.

Should any of the above mentioned discoveries result in delays to the Contractor's work schedule, the Contractor shall be entitled only to an equivalent extension of time for the completion of the contract, and shall not be entitled to damages due to downtime and idle equipment or additional payments over and above the agreed upon contract prices.

6.19 Burrowing Owl Pre-Construction Survey - In compliance with the California Environmental Quality Act and the Western Riverside Multiple Species Habitat Conservation Plan, the District must conduct a presence/absence survey for Burrowing Owl (*Athene cunicularia*) no more than 30 days prior to construction/disturbance. The Contractor shall not commence any work, including equipment staging, clearing, grubbing, etc., until the District determines that Burrowing Owl is absent from the project site and the buffer area (up to 500 feet), or that an avoidance plan has been initiated should Burrowing Owl be detected. If the Contractor does not commence construction within 30 days of the presence/absence survey or if construction activities are halted for more than 30 days, the Contractor must notify the Engineer that another Burrowing Owl survey is needed.

6.20 Burrowing Owl Avoidance Measures - If any Burrowing Owl (*Athene cunicularia*) is found within the project site or within the buffer area (up to 500 feet), the District will coordinate with its biologist to establish an appropriate avoidance buffer of up to 500 feet around occupied burrows or nests. Encroachment shall not be allowed within the established avoidance buffer until it has been determined by the biologist that the burrow/nest is no longer active or until the biologist relocates the owls outside of the nesting season or is otherwise safe to do so. **The Contractor shall not resume construction in the affected area without the Engineer's approval.**

Should the presence of Burrowing Owl (*Athene cunicularia*) result in delays to the Contractor's work schedule, the Contractor shall be entitled only to an equivalent extension of time for the completion of the contract, and shall not be entitled to damages due to downtime and idle equipment or additional payments over and above the agreed upon prices.

6.21 Nesting Bird Pre-Construction Survey (except Burrowing Owl) - The nesting season is defined in the Streambed Alteration Agreement as January 1st through September 15th. Within the nesting season, the District or its biologist will conduct nesting bird surveys. If active nests are identified, the District will coordinate with its biologist to establish an appropriate buffer of up to 500 feet around the active nest, or other avoidance measures as deemed necessary by the District biologist. Encroachment will not be allowed within the established buffer until it has been determined by the biologist that the nest is no longer active or it is safe to resume work. The Contractor shall not resume construction in the affected area without Engineer's approval. If the Contractor does not resume construction within 72 hours of Engineer's approval, the Contractor must notify the Engineer that another nesting bird survey is needed. Additionally, in an effort to reduce the likelihood of potential delays, the Contractor shall ensure all construction activity from the outlet area in Smith Creek to approximate Station 17+00 be complete before the start of the nesting season for raptors. The nesting season for raptors is defined in the Streambed Alteration Agreement as between January 1st and July 31st. This section does not apply to the Burrowing Owl.

Should the presence of nesting birds result in delays to the Contractor's work schedule, the Contractor shall be entitled only to an equivalent extension of time for the completion of the contract, and shall not be entitled to damages due to downtime and idle equipment or additional payments over and above the agreed upon prices.

6.22 Pre-Construction Small Mammal Survey - Prior to installation of the temporary small mammal exclusion fencing within Smith Creek, the District's monitoring biologist will conduct a survey for the Los Angeles Pocket Mouse. The Contractor shall not begin installing the exclusion fencing without Engineer's approval.

Should the Los Angeles Pocket Mouse result in delays to the Contractor's work schedule, the Contractor shall be entitled only to an equivalent extension of time for the completion of the contract, and shall not be entitled to damages due to downtime and idle equipment or additional payments over and above the agreed upon prices.

SECTION 7 - SOILS REPORT

In conjunction with the soils investigation report prepared by Matrix Geotechnical Consulting, Inc. dated May 5, 2013, the Contractor's attention is directed to Article 8.08 of the General Provisions. The logs of the soil borings for this report are included for the convenience of the bidders, in conformance with Section 8.08 of the General Provisions, as Appendix "C" of these specifications. The soils report is on file in the District office, 1995 Market Street, Riverside and is available for review upon request or can be downloaded from http://reflood.org/Documents/Soils_Report_5000177.pdf.

SECTION 8 - NOT USED

SECTION 9 - PAYMENT

The contract prices shall include full compensation for all costs incurred under these Special Provisions and Detailed Specifications.

DETAILED SPECIFICATIONS

SECTION 10 - MOBILIZATION

10.1 Description - The contract item Mobilization shall consist of expenditures for all preparatory work and operations, including but not limited to, those costs necessary for the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of all offices, buildings, construction yards and other facilities necessary for work on the project; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site as well as the related demobilization costs anticipated at the completion of the project.

10.2 Payment - The amount credited for Mobilization on each monthly progress payment shall be equal to the total of the amounts credited for work on all the other contract items for that monthly progress payment, up to a cumulative limit of eighty percent (80%) of the lump sum price bid for Mobilization. The remaining twenty percent (20%) of the lump sum price bid for Mobilization will be paid with the final payment.

Payment of the lump sum contract price for Mobilization shall constitute full compensation for all labor, materials, equipment, and all other items necessary and incidental to completion of this item of work.

The deletion of work or the addition of extra work as provided for herein shall not affect the price paid for Mobilization.

SECTION 11 - WATER CONTROL

11.1 Description - This section covers the contract item Water Control. Watersheds and/or urban runoff areas are tributary to the project site at various locations, but do not necessarily follow the alignment of the project under current conditions. Surface water in varying quantities can be expected at any time of the year, and substantial runoff can be expected during periods of rainfall. Groundwater was not indicated at the time of the soils investigation for this project. All bidders shall make their own determination regarding what the surface and/or groundwater conditions will be at the time of construction, and their impact on the bidder's operations and construction phasing.

11.2 Water Control - The contract item Water Control includes the control and/or diversion of surface runoff as well as groundwater within the work area as required to complete the work. All work shall be carried on in areas free of water. Care should be exercised so that runoff or diversion flows do not erode, undermine or otherwise damage either facilities which have been constructed or adjacent private properties or alter the suitability of the site for proposed work. The responsibility for the protection of all existing and proposed improvements lies with the Contractor.

11.3 Measurement and Payment - The methods of controlling both surface and groundwater will be the responsibility of the Contractor. The contract lump sum price paid for Water Control

shall include full compensation for all direct and indirect costs incurred under this section, and for doing all the work involved in controlling surface runoff and groundwater within the construction area, as specified in these Detailed Specifications, and as directed by the Engineer.

Payment will be made on a basis of the percentage of the work completed on the entire project.

SECTION 12 - TRAFFIC CONTROL

12.1 Description - The contract item Traffic Control shall include labor, flagmen, lights, barricades, signs, materials, temporary bridges and equipment necessary to ensure that the vehicular and pedestrian traffic conforms to requirements as set forth in this section and as shown on the drawings.

12.2 Notification of Agencies - The Contractor shall notify the following agencies a minimum of 48 hours in advance of start of any street work and inform them of the proposed construction schedule and provide any additional pertinent information they may request:

Ambulance Services	800.549.1004
Banning Fire Services	951.922.3210
Banning Municipal Airport	951.922.3320
Banning Pass Transit	951.922.3243
Banning Unified School District	951.922.0210
California Highway Patrol	951.769.2000
Caltrans	909.383.7516
City of Banning Electric Utility	951.922.3260
City of Banning Police Department	951.922.3170
City of Banning, Public Works	951.922.3130
City of Banning Water/Wastewater	951.922.3281
Frontier (Terrance Laury)	909.793.4764
Questar Southern Trails Pipeline	801.324.3340
Riverside County Department of Public Social Services (Banning Office)	951.922.7585
Riverside County Sheriff's Department	951.955.2400
Riverside County Transportation Department	951.955.6880
Riverside Transit Agency	951.565.5002
San Geronio Memorial Hospital	951.769.2194
The Gas Company – Transmission (Kevin Kuennen)	951.845.0709
The Gas Company – Distribution (Geary Ambers)	909.335.7955
Time Warner Cable (Lee Hobson)	760.674.5455
Underground Service Alert	800.227.2600
United States Postal Service	951.849.2447
Waste Management	800.423.9986

The Contractor is not relieved of his responsibility of notifying the various departments and agencies mentioned above, even if their telephone numbers may have changed without notice.

The above agencies shall also be advised by the Contractor of any major change in the construction schedule that could restrict pedestrian or vehicular traffic.

The Contractor shall notify the public a minimum of ten (10) working days prior to start of road closure. The Contractor is also required to notify, in writing, the following as applicable: Fire Department, Sheriff, California Highway Patrol, local newspaper, trash pickup, school districts, Riverside Transit Agency, Post Master, UPS, colleges, local businesses, local residents, and state and local agencies involved, if affected.

12.3 Public Convenience and Access - The Contractor shall comply with the requirements of Section X of the General Provisions and shall provide continuous access to all private property. Additional provisions shall be made as necessary to protect the public and accommodate traffic with a minimum of inconvenience.

Closures or partial closures of the traveled way implemented by the Contractor shall be related to actual work being performed at the time. Closures shall not be maintained if work is not being performed. If the existing closure is not essential to the type of work being performed at the time, the traveled way shall immediately be restored to a safe condition for public use.

The Contractor shall provide temporary bridge crossings for all driveway entrances to be closed to vehicular access for any period exceeding 4 hours.

Temporary bridges shall have a minimum width of 12 feet for residential driveways and 24 feet for business driveways, and shall be designed for an AASHTO H20 truck loading. Steel plates placed over the trench shall have a minimum thickness of 1.25" and the surface shall be roughened or coated to provide a non-skid surface. For spans greater than 4 feet, a structural design shall be prepared by a Registered Civil Engineer and submitted to the District for review and approval.

The Contractor shall notify each resident in writing three (3) days in advance of working adjacent to resident's property or excavating past the affected driveway entrance. Such notice shall contain the expected day and period of time (not to exceed 4 hours) that the driveway is to be out of service or the expected duration of construction when working adjacent to resident's property. A copy of each letter shall be submitted to the Engineer.

12.4 Construction Signs and Traffic Control Plans - All construction signs, barricades, delineators, etc., shall conform with the U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), Part 6, latest edition", and the MUTCD California Supplement, Part 6 along with the Uniform Sign Chart as shown on the drawings.

12.5 Flaggers - All personnel utilized as flaggers must be trained in the proper fundamentals of flagging and signaling per the latest standard WATCH Handbook procedures.

12.6 Striping and Pavement Marking - Temporary and permanent striping shall be performed by the Contractor at his expense as directed by the Engineer. The Contractor shall restore the permanent striping immediately after resurfacing of the streets is completed. The Contractor shall notify the City of Banning, Public Works Department, Telephone: 951.922.3130 at least 48 hours prior to restriping.

All temporary traffic striping and pavement markings shall conform to Section 84 of the Caltrans Specifications and shall be acceptable to the City of Banning, Public Works Department.

All pavement markings such as arrows, "STOP", "ONLY", reflectors, etc., shall be replaced by the Contractor using thermoplastic. Thermoplastic crosswalk, traffic stripes and pavement markings shall conform to the provisions in Section 84-1, "General" and 84-2, "Traffic Stripes and Pavement Markings" of the Caltrans Specifications and these Detailed Specifications.

12.7 Payment - The contract prices paid for Traffic Control shall include full compensation for all material and labor costs incurred under this section. Contractor is advised that traffic plans as shown on the drawings may be modified as field conditions require. No additional payment shall be made for modifications to the traffic plan.

This payment will be made on a basis of the percentage of work completed on the entire project.

SECTION 13 - CLEARING AND MISCELLANEOUS WORK

13.1 Description - This section covers the contract item Clearing and Miscellaneous Work as required for construction of the work. All objectionable materials shall be removed and legally disposed of outside of the limits of the construction easements and permanent rights of way.

13.2 Clearing and Miscellaneous Work - The contract item Clearing and Miscellaneous Work includes the removal and legal disposal of all vegetation, trees, roots, stumps, fences, block walls, pipes, abandoned facilities, culverts, rocks, structures, curbs, gutters, cross gutters, sidewalk, concrete and asphalt excluding those items defined specifically as Excavation in the appropriate sections.

Included in this item are the following:

1. The Contractor shall leave all improved parkways undisturbed where possible. When this is impractical he shall re-turf in kind, areas disturbed in the parkways including removing and replacing interfering portions of sprinkler systems. Sod shall be used to restore disturbed grass. All work is to be done to the satisfaction of the Engineer.

2. The protection and/or temporary relocation of signs and mailboxes, and their reinstallation. Work involving mailboxes shall be coordinated with the Postal Service.
3. The stenciling and signage on top of all catch basins and drop inlets. Stenciling and signage will be provided by the District.
4. Manual excavation within three (3) feet of the 36" steel high pressure gas line as shown on Sheets 5 through 8 inclusive and Sheet 13.

This contract item excludes the required sand backfill/zero-sack slurry material as shown on the drawings which shall be paid under Zero-Sack Slurry Cement Backfill, Section 14.11.

5. The removal, legal disposal, and hauling offsite of the existing items as shown on the drawings and more specifically described as follows:
 - (a) Remove interfering fence and gate, and replace in kind (Sheet 2, Note 34).
 - (b) Saw cut and remove existing 4-inch concrete slope protection (Sheets 2, 17, and 22, Note 81) and all other saw cutting and removal of existing curbs, AC pavement, dikes, curbs and gutter, sidewalks, existing catch basins for the purpose of constructing catch basins, local depressions, and concrete apron inlet structures as shown on the drawings.
 - (c) Grade to drain (Sheet 2, Note 82 and Sheet 17).
 - (d) Protecting existing trees, curbs and gutters, electrical poles, guy wires, utilities, and all other features shown on the drawings as protect in place throughout the drawings.
 - (e) Pothole both ends of existing sewer encasement and provide encasement support (Sheet 3, Note 85).
 - (f) Remove interfering portion of existing 30" RCP (Sheet 5, Note 25).
 - (g) Saw cut and remove existing cross gutter a spandrel (Note 35 on Sheets 6, 8, 12, and 13).
 - (h) Remove existing 7' catch basin (Sheet 5, Note 59).
 - (i) Remove interfering portion of existing fence and replace in kind (Sheet 6, Note 36).
 - (j) Remove existing landscape features and shrubs (Sheet 6, Notes 27 and 28).
 - (k) Remove and dispose of existing parkway drain (Sheet 6, Note 30).
 - (l) Remove and dispose of interfering trees within public right of way (Sheet 6, Note 33).

Finally, included in this item are those types of work as shown on the drawings not specified for pay under any other individual contract item.

13.3 Payment - The contract price paid for Clearing and Miscellaneous Work shall be full compensation for all labor, equipment, material costs, and incidentals required for the items incurred under this section.

This payment will be made on a basis of the percentage of work completed on the entire project.

SECTION 14 - EARTHWORK

14.1 Description - This section covers the contract items Excavation; Asphalt Concrete Excavation; Street Pavement Excavation; Backfill; Dirt Berm Backfill; Controlled Low Strength Material (CLSM); Zero-Sack Slurry Cement Backfill; and Filter Material.

14.2 General Excavation Requirements - Excavation shall be in conformance with Section 306 of the Greenbook Specifications. Structure Excavation shall be in conformance with Section 300-3 of the Greenbook Specifications. Trench access ladders shall be in conformance with Section 306-3.6 and the manner of shoring and bracing shall be in conformance with Section 306-4 of the Greenbook Specifications.

Excavation shall be kept to the minimum widths required for efficient placing of the pipe or structure and the construction of the various other concrete structures. The maximum length of open trench shall be in conformance with Section 306-3.5 of the Greenbook Specifications.

In excavating for surfaces against which concrete is to be placed, care shall be exercised in removing the final lift. The foundation for all concrete structures including concrete channels and sideslopes will be inspected and tested after excavation. The subgrade shall be ninety percent (90%) relative compaction prior to the placement of concrete. Surfaces against which concrete is to be placed shall be free of debris, mud or ponded water. If subgrade compaction is deficient, subgrade shall be scarified, moisture conditioned to or slightly above optimum moisture content, and the surface proof rolled to a minimum ninety percent (90%) relative compaction. Subgrade preparation will not be measured or paid separately and no additional compensation will be allowed unless overexcavation is directed by Engineer.

Material which will not provide a suitable foundation shall be removed and replaced with compacted select material as directed by the Engineer.

Any overexcavation shall be filled with select material compacted to ninety percent (90%) relative compaction and meeting the material requirements for backfill.

The Contractor shall remove slides and materials eroding into the work, and the slopes and grades refinished to original grades as specified.

The Contractor shall legally dispose of all surplus excavated material outside of the limits of the construction easements and permanent rights of way.

The removal of rock material from within the excavation paylines which requires the use of blasting or equipment beyond that normally necessary to accomplish the excavation (as determined by the Engineer) shall be paid for in accordance with Section VII, Article 7.03 of the General Provisions. The cost of removal and disposal (including trucking) of rock away from the jobsite will be paid for under the contract item Excavation and no additional compensation will be allowed.

Blasting, when necessary, as approved by the Engineer shall be in accordance with Section 19-2.03E of the Caltrans Specifications.

The Contractor's attention is directed to the General Provisions, Section V, Article 5.09 on the use of explosives and Article 5.11 in regard to unforeseen difficulties.

14.3 Excavation - The contract item Excavation covers all costs associated with the excavation necessary for the construction and installation of the reinforced concrete box, concrete slope protection, reinforced concrete pipes, and the associated junction structures, headwalls, manholes, Transition No. 1, Transition No. 3, collars, and bulkheads as shown on the project drawings, standard drawings, and as directed by the Engineer. Included in this item is the saw cutting (where necessary excluding the items mentioned in Section 13), removal and the legal disposal of all surplus excavated material including asphalt, aggregate base, abandoned pipelines, and concrete from within the excavation paylines as specified and as required. All surplus material and items not suitable for use as backfill shall be legally disposed of outside the limits of the temporary and permanent rights of way. All HMA and P.C.C. shall be sawcut unless otherwise specified.

This contract item also includes the excavation necessary for the installation of riprap within Smith Creek as specified on the project drawings and as directed by the Engineer.

This contract item excludes any manual excavation within three (3) of the 36" steel high pressure gas line as specified on the project drawings. Such manual excavation shall be paid under Clearing and Miscellaneous Work, Section 13.2.

14.4 Asphalt Concrete Excavation - The contract item Asphalt Concrete Excavation covers the asphalt grinding/header cut to the depths and dimensions as specified and as shown on the project drawings and the legal disposal of all surplus material. All HMA and P.C.C. shall be sawcut unless otherwise specified.

Included in this contract item is the recompaction of the existing aggregate base to 95% relative compaction should the aggregate base be exposed after removal of existing asphalt concrete.

Exclusive of this contract item is the asphalt concrete excavation within the trench excavation limits which will be measured and paid by the contract item Excavation.

The cold planing machine shall have a cutter head at least 72 inches wide and shall be operated so as not to produce fumes or smoke.

The final cut shall result in a uniform surface conforming to the typical cross sections. The outside lines of the planed area shall be neat and uniform. The road surfacing to remain in place shall not be damaged in any way.

The material planed from the roadway surface, including material deposited in existing gutters or on the adjacent traveled way, shall be immediately removed from the work site and disposed of outside the right of way. The removal crew shall follow within 50 feet of the planer unless otherwise directed by the Engineer.

14.5 Street Pavement Excavation - The contract item Street Pavement Excavation covers removal of all materials, including asphalt concrete pavement and aggregate base, to depth and dimension of the new pavement as specified and as shown on the project drawings.

Included in the contract item is the legal disposal of all surplus material.

Exclusive of this contract item is the asphalt concrete excavation within the trench excavation limits, which is included in the contract item Excavation.

All HMA and P.C.C. shall be saw cut unless otherwise specified.

14.6 General Backfill Requirements - Whenever fill is specified or required (except for pipe and box backfill, or where otherwise specified herein) the work shall be performed as set forth in Sections 300-4.1 to 300-4.8 of the Greenbook Specifications. Backfill for pipe and box shall conform to Section 306-12 of the Greenbook Specifications, except jetting is not allowed.

All fill material placed shall be moistened and shall be free of sod, roots, brush, debris, trash, and other objectionable material.

No backfill materials shall be placed against the outside walls of cast-in-place concrete structures until the concrete has developed eighty percent (80%) of its design strength. No fill or traffic will be permitted on the top of any cast-in-place concrete structure until the concrete in the structure has attained its design strength. Compressive strength will be determined by test cylinders taken by the Engineer. A maximum of six (6) test cylinders per structure will be made and paid by the District for the following day breaks: 7, 14, 21, 28, 28 days, and one break to be agreed upon by the Engineer and Contractor. Any additional test cylinders requested by Contractor shall be deducted from the monthly progress payment at a rate of \$500.00/cylinder.

Regardless of the method of densification, backfill material shall not be placed against any reinforced concrete structure until the structure has been inspected and approved for backfilling by the Engineer.

Except where otherwise specified on the drawings, backfill will be accomplished by either mechanical methods or by placement of Controlled Low Strength Material (CLSM) as described in (1) and (2) below.

- (1) Mechanical Compaction - Backfill shall be mechanically compacted by means of tamping rollers or other mechanical tampers. Impact-type pavement breakers (stompers) will not be permitted unless otherwise approved by the Engineer.

All backfill material for structures shall be placed in uniform layers and shall be brought up uniformly on each side of the structure. The thickness of each layer of backfill shall not exceed 8 inches before compaction unless otherwise approved by the Engineer. For hand directed mechanical compactors, the thickness of each layer shall not exceed 4 inches before compaction.

All relative compaction tests will be made by the Engineer in conformance with ASTM D1557. Whenever relative compaction is specified to be determined by ASTM D1557.

- (2) Controlled Low Strength Material (CLSM) – Controlled Low Strength Material (CLSM) placement for backfill shall be used when specified or approved by the Engineer. CLSM shall conform to Section 201-6 of the Greenbook Specifications and as specified in Section 16.

Approval to use specific methods and compaction equipment shall not be construed as guaranteeing or implying that the use of such methods and equipment will not result in damage to adjacent ground, existing improvements or improvements installed under the contract, nor shall it be construed as guaranteeing proper compaction. The Contractor shall make his own determination in this regard.

All backfill around structures and pipe shall be compacted to not less than ninety percent (90%) relative compaction. Where such material is placed under existing or proposed paved roadways, the top three (3) feet, measured from the subgrade plane, shall be compacted to ninety-five percent (95%) and shall be compacted by Method (1).

Trench bottoms for structures and pipe shall be graded to provide firm and uniform bearing throughout the entire length of the structures and pipe.

14.7 Testing - District personnel shall perform compaction tests as described below using either the ASTM D1556 (sand cone) or ASTM D6938 (nuclear) test method. These tests represent the minimum required. Additional tests may be taken at the Engineer's discretion.

1. Mainline Trenches – A complete series of compaction tests will be taken for each 4-foot thickness of backfill placed. Each series will consist of tests taken at approximate maximum intervals of 300 feet. Each series will begin above the structure.
2. Connector Pipe Trenches – Compaction tests will be taken on 50% of the laterals, one test for each 4-foot of depth.
3. Any failed test will result in a retest.

14.8 Backfill - The contract item Backfill covers all costs associated with storing and the transporting of suitable surplus excavated material from the overall project, and the placement and compaction of such material around the various concrete structures, reinforced concrete box, and pipe, and the associated junction structures, headwalls, manholes, Transition No. 1, Transition No. 3, collars, and bulkheads within the paylines as shown on the project drawings, standard drawings, and as directed by the Engineer.

This contract item also includes any necessary grading to achieve proper drainage around concrete structures, and to achieve finished grades as shown on the project drawings.

This contract item excludes the required sand backfill/zero-sack slurry material for the 36" high pressure gas line as specified on the project drawings.

14.9 Dirt Berm Backfill - The contract item Dirt Berm Backfill covers all costs associated with the placement and compaction of material to establish a dirt berm to the lines and grades as shown on the project drawings and as directed by the Engineer.

All backfill used in the establishment of said dirt berm shall be in conformance with Section 14.6 of these Detailed Specifications.

14.10 Controlled Low Strength Material (CLSM) - The contract item Controlled Low Strength Material (CLSM) shall cover all costs and materials associated with the placement of CLSM as specified on drawings and as directed by the Engineer.

CLSM material conformance is specified in Section 16 of these specifications.

14.11 Zero-Sack Slurry Cement Backfill - The contract item Zero-Sack Slurry Cement Backfill shall cover all costs and materials associated with the placement of slurry backfill as specified around the 36" high pressure gas line as shown on the project drawings, or as directed by the Engineer.

The aggregate for this contract item must be commercial-quality concrete sand and the water must be free from oils, salts, and other impurities that adversely affect the backfill and subject to the approval of the Engineer or the utility representative.

14.12 Filter Material - The contract item Filter Material includes all filter material to be placed below the reinforced concrete pipe, box, and various other structures.

The Contractor should note that the placing of filter material will be determined from field conditions as directed by the Engineer.

The materials for filter material shall conform to Sections 90-1.02C and 90-1.02C(4)(a) of the Caltrans Specifications. Grading shall meet the requirements for 1" x No. 4 coarse aggregate as per Section 90-1.02C(4)(b) of the Caltrans Specifications. The filter material shall be consolidated and the surface trimmed to final grade as directed by the Engineer.

14.13 Measurement - Excavation; Asphalt Concrete Excavation; Street Pavement Excavation; Backfill; Dirt Berm Backfill; Controlled Low Strength Material (CLSM); Zero-Sack Slurry Cement Backfill; and Filter Material beyond the limits established by the project drawings and standard drawings, unless ordered in writing by the Engineer, will not be measured for payment.

The excavated material shall be measured from the ground surface existing at the start of excavation, as determined from surveyed cross sections taken by the District, to the lines, grades and dimensions shown on the drawings. Longitudinal limits of the excavations as shown on the profile drawings terminate at a vertical plane at the limits of the structure, measured along the longitudinal axis of the various structures.

Measurement for payment for the contract item Excavation will be the number of cubic yards of material excavated as shown on the drawings. Longitudinal limits of the excavations terminate at a vertical plane at the limits of pipe or structures, measured along the longitudinal axis of the pipe or structure.

Measurement for payment for the contract item Asphalt Concrete Excavation will be the number of square feet of material excavated as shown on the project drawings, or as directed by the Engineer.

Measurement for payment for the contract item Street Pavement Excavation will be the number of cubic yards of material excavated to the depths required for the new pavement section as shown on the drawings or as directed by the Engineer.

Measurement for payment for the contract items Backfill; will be the number of cubic yards of fill material placed in final position as specified and within the limits of the payment lines shown on the project drawings and standard drawings. Existing (pre-project) grades will be established by the District based on surveyed cross sections. Where Backfill is specified to be placed above existing (pre-project) grades, the volumes above the existing grade will be measured from the existing ground surface prior to placement of any fill compared to the approved finished grades, as determined from surveyed cross sections taken by the District. The longitudinal limits for Backfill shall terminate at a vertical plane at the limits of the pipe or structure, measured along the longitudinal axis of the various pipe or structures. Volumes occupied by structures, aggregate base, asphalt concrete and other features for which a separate payment is made will be deducted from the gross volume.

Measurement for payment for the contract item Dirt Berm Backfill will be the number of cubic yards of fill material placed in final position as specified and within the limits as shown on the project drawings or as directed by the Engineer.

Measurement for payment for the contract item Controlled Low Strength Material (CLSM) will be the number of cubic yards of material placed in final position as specified and within the limits of the payment lines as shown on the drawings. The longitudinal limits for CLSM shall terminate at a vertical plane at the limits of the pipe or structure, measured along the longitudinal axis of the various pipe or structures. Volume occupied by structures, aggregate

base, asphalt concrete and other features for which a separate payment is made will be deducted from the gross volume.

Measurement for payment for the contract item Zero-Sack Slurry Cement Backfill will be the number of cubic yards of material placed in final position as specified and within the limits of the payment lines as shown on the drawings. The longitudinal limits for Zero-Sack Slurry Cement Backfill shall terminate at a vertical plane at the limits of the pipe or structure, measured along the longitudinal axis of the various pipe or structures. Volume occupied by structures, aggregate base, asphalt concrete and other features for which a separate payment is made will be deducted from the gross volume.

Measurement for payment for the contract item Filter Material will be the number of cubic yards of material placed in final position as specified to the lines, grades and dimensions as shown on the project drawings or as directed by the Engineer.

14.14 Payment - The contract prices paid for Excavation; Asphalt Concrete Excavation; Street Pavement Excavation; Backfill; Dirt Berm Backfill; Controlled Low Strength Material (CLSM); Zero-Sack Slurry Cement Backfill; and Filter Material shall include full compensation for all costs incurred under this section.

SECTION 15 - TRENCH SAFETY SYSTEM AND FALSEWORK

15.1 Description - This section covers the contract item Trench Safety System and Falsework. This item is defined as a method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Trench safety systems include support systems, shield systems and other systems that will provide necessary protection except open-cut sloping and benching within public rights of way are not allowed. The item includes the furnishing and implementation of the safety system as required by Section 306-4 of the Greenbook Specifications or as directed by the Engineer.

15.2 Trench Safety System - Excavation for any trench five (5) feet or more in depth shall not begin until the Contractor has provided to the Engineer, a detailed plan for worker protection from the hazards of caving ground during the excavation of the trench. The plan shall show the details of the design of shoring, bracing, sloping or other provisions to be made for worker protection including any design calculations done in the preparation of the plan. No such plan shall allow the use of shoring, sloping or a protective system less effective than that required by the Construction Safety Orders of the California Department of Industrial Relations, Division of Occupational Safety and Health Administration (Cal-OSHA). The plan shall be prepared and signed by an engineer who is registered as a Civil Engineer in the State of California, and the plan and design calculations shall be submitted for review at least two (2) weeks before the Contractor intends to begin trenching operations.

All safety plans shall reflect surcharge loadings imparted to the side of the trench by equipment and stored materials. Surcharge loads shall be monitored to verify that such loads do not exceed the design assumptions for the system.

The Contractor should not assume that only one type of trench safety system such as a shield or "trench box" will be adequate for all trenching situations encountered on a given project. The Contractor should be prepared with alternative safety system designs (such as solid sheeting) should construction circumstances dictate the use of such.

Trench safety system designs for support systems, shield systems or other protective systems whether drawn from manufacturers' data, other tabulated data or designed for this particular project must be signed by a Civil Engineer registered in the State of California prior to submittal to the District for review. A shoring plan for the specific use of a shield shall be prepared. Catalogs or engineering data for a product should be identified in the plan as supporting data. All specific items or applicable conditions must be outlined on the submittal.

The State of California Department of Transportation "Trenching and Shoring Manual" will be used as a guide for plan review and approval.

Also included in this item is the fencing and barricading of the open trench as required for the safety of pedestrians and vehicular traffic as directed by the Engineer.

15.3 Falsework - Falsework for the construction of bridges and reinforced concrete boxes shall conform with Section 48-2 Falsework of the Caltrans Specifications.

The Falsework plan shall be prepared and signed by an engineer who is registered as a Civil Engineer in the State of California, and the plan and design calculations shall be submitted for review at least 4 weeks before the Contractor intends to begin Falsework construction.

The State of California Department of Transportation "Falsework Manual" will be used as a guide for plan preparation and review.

15.4 Measurement and Payment - The contract price paid for the item Trench Safety System and Falsework shall include full compensation for all costs incurred under this section.

This payment will be made on a basis of the percentage of the work completed on the items related to trenching operations.

SECTION 16 - CONCRETE CONSTRUCTION

16.1 Description - This section includes the contract items related to the various classes of Concrete.

16.2 General Requirements - Concrete for all purposes shall be composed of Portland Cement, aggregates and water of the quantities and qualities herein specified, and in the required proportions. The ingredients are to be well mixed (a minimum of 70 drum revolutions, and a maximum of 250 drum revolutions are required to provide sufficient agitation to the concrete mix) and brought to the proper consistency and to have a compressive strength at the age of 28 days of not less than the amount shown in the following tabulation for each type of work listed:

CONCRETE CLASS	MINIMUM SACKS CEMENT/C.Y.	TYPE OF WORK	POUNDS PER SQUARE INCH
A	6	Reinforced Concrete Boxes, Transition Structure Nos. 1 and 3, Junction Structure Nos. 2 and 4, Wing Walls, Collars, Bulkheads, Parapet Walls, and Headwalls	5000
A	6	Slope Paving and Footing, Spillways, Catch Basins, Drop Inlets, Cross Gutters, and Spandrels	3250
B	5	Curb, Gutter, Curb Transitions, Sidewalk, Concrete Surrounding Manhole Covers, Driveways, Local Depressions, Pipe Seals, Aprons, Sanitary Sewer Protection (Encasements), Transverse Cutoff Walls, and Miscellaneous Concrete not otherwise specified	3000
E	1/2 Max.	Controlled Low Strength Material (CLSM)	50-100 (hand excavatable)

16.3 Material and Methods - All concrete materials, methods, forms and proportioning shall conform to Sections 51 and 90, and additionally, curb construction shall conform to Section 73 of the Caltrans Specifications. Concrete test specimens will be made in accordance with ASTM Designation C-31 and C172. Test for concrete compressive strengths will be performed in accordance with ASTM Designation C-39. Combined aggregate grading for all concrete shall be in conformance with Section 90-1.02C(4)(d) of the Caltrans Specifications and the following tabulation for each type of work listed:

TYPE OF WORK	COMBINED AGGREGATE GRADING
The inverts of: Spillways, Reinforced Concrete Box, Junction Structures, Transition Structures, and Manholes.	1-1/2" Maximum
Slope Paving, Box Deck and Walls, Headwalls, Catch Basins, Drop Inlets, Parapet Walls, Local Depressions,	1" Maximum

Spandrels, Curb and Gutter, Driveways, Sidewalk, Transverse Cutoff Walls, Bulkheads, Collars, Aprons, and Concrete Surrounding Manhole Covers, and Miscellaneous Concrete not otherwise specified.

Controlled Low Strength Material (CLSM)

*See below

*Note: Controlled Low Strength Material (CLSM) gradation shall conform to Section 201-6.2.2 of the Greenbook Specifications except that the Contractor has the option to use reclaimed concrete material for the CLSM. The reclaimed material shall meet the same grading requirements as non-reclaimed material set forth in Greenbook Specifications Section 201-6.2.2.

The Contractor may also elect to use an air entrained agent or an accelerant (2% PolarSet or equivalent) to speed up the set time of the CLSM. The Contractor shall submit mix designs for review and approval.

Fly Ash, Class F may be substituted for cement, up to a maximum of 15 percent by weight for all concrete. Fly Ash shall meet the standards of ASTM Designation: C-618. Water reducing agents meeting ASTM Designation: C-494 will be permitted in amounts recommended by the supplier and approved by the Engineer in writing.

No other admixture shall be used in any class of concrete without written permission from the Engineer.

Supplementing Section 90-1.01 of the Caltrans Specifications, prior to placement of any concrete the Contractor shall submit mix designs, for all types of concrete to be placed, to the Engineer for approval. Supplementing Section 90-1.02G(3) of the Caltrans Specifications, concrete delivered to the job site shall be accompanied by a ticket containing the weight of each of the individual ingredients in the mix.

16.4 General Reinforcing Steel Requirements - Reinforcing steel for all reinforced concrete structures shall be Grade 60 Low-Alloy or Grade 60 Billet-Steel. The reinforcing steel for use in structures constructed from State of California, Department of Transportation Standard Plans shall be of Grade 60 or as called for on those plans. Cleaning, bending, placing and spacing of reinforcement shall conform to the applicable provisions of Section 52 of the Caltrans Specifications and to the drawings. The Contractor shall furnish a "Certificate of Compliance" with the specification of ASTM Designation: A-706/A or A-615/A. All splices shall conform to the requirements of A.C.I. Manual, Standard 318, latest edition. Splices requested by the Contractor for his convenience shall be subject to approval by the Engineer. Longitudinal lap shall be 16 inches minimum for #4 bars and 19 inches minimum for #5 bars.

16.5 Consistency - The consistency of the concrete shall be such as to allow it to be worked into place without segregation. Unless otherwise specified, the slump shall be 3 inches plus or minus 1 inch for all concrete.

Controlled Low Strength Material (CLSM) flow characteristics shall be determined by the producer to meet job site conditions and shall be approved by the Engineer.

The slump test shall be performed in accordance with the requirements of ASTM Designation: C-143. Slumps greater than those specified may be cause for rejection of the concrete by the Engineer.

16.6 Placing - Supplementing Section 51-1.03D(1) of the Caltrans Specifications, concrete shall not be placed except in the presence of the Engineer. The Contractor shall give reasonable notice to the Engineer each time he intends to place concrete. Such notice shall be far enough in advance to give the Engineer adequate time to inspect the subgrade, forms, steel reinforcement and other preparations for compliance with the specifications before concrete is delivered for placing.

Formed concrete shall be placed in horizontal layers in lifts of not more than 20 inches. Hoppers and chutes, pipes and "elephant trunks" shall be used as necessary to prevent segregation of the concrete.

16.7 Form Removal and Finish - Forms shall be removed only when the Engineer has given his approval. Forms shall be removed in such a way as to prevent damage to the concrete. Supports shall be removed in a manner that will permit the concrete to take stresses due to its own weight uniformly.

Forms shall not be removed sooner than the following minimum time or strength after the concrete is placed. These times represent cumulative number of days and fractions of days, not necessarily consecutive, during which the temperature of the air adjacent to the concrete is above 50 degrees Fahrenheit. If the temperature falls below 50 degrees Fahrenheit at any time after the concrete is placed in the forms, the Engineer will advise the Contractor of additional time required before forms can be removed.

<u>Element</u>	<u>Strength or Time</u>
Reinforced Concrete Boxes with spans 14 feet or less, and not at pavement grade, Manhole Structures, Transition Structure Nos. 1 and 4	1600 psi
All other structures	16 hours

The finish on all exposed formed surfaces shall conform to Section 51-1.03F(3) Class 1 Surface Finish of the Caltrans Specifications. The exposed concrete surfaces shall be broomed in a transverse direction with a fine textured hair push broom to produce a uniform surface and eliminate float marks. Brooming shall be done when the surface is sufficiently set to prevent deep scarring. If directed by the Engineer, a fine spray of water shall be applied to the surface immediately in advance of brooming.

Exposed corners of all concrete structures shall be finished with a 3/4" chamfer.

Concrete flatwork shall match adjacent surfaces. The concrete shall be struck off and tamped or vibrated until a layer of mortar has been brought to the surface. The top surface and face of curbs, gutters, catch basins and sidewalks shall be finished to match adjacent surfaces.

16.8 Curing - All concrete shall be prevented from drying for a curing period of at least seven (7) days after it is placed. Surfaces exposed to air during the curing process shall be kept continuously moist for the entire period or until curing compound is applied.

Formed surfaces shall be thoroughly wetted immediately after forms are removed and shall be kept wet until patching and repairs are completed. Water or covering shall be applied in such a way that the concrete surface is not eroded or otherwise damaged. Water for curing shall be clean and free from any substances that will cause discoloration of the concrete.

Concrete may be coated with curing compound in lieu of the continued application of moisture. The curing compound shall comply with the requirements of Section 90-1.03B(3) of the Caltrans Specifications and ASTM Designation C-309. The curing compound shall be No. 2 White Pigmented Curing Compound, Type 2, Class B for all concrete surfaces other than for flatwork which shall be coated with No. 6 Nonpigmented Curing Compound, Type 1-D, Class A containing a red fugitive dye.

The curing compound shall be sprayed on the moist concrete surfaces as soon as free water has disappeared, but shall not be applied to any surface until patching, repairs and finishing of that surface are completed. The curing compound shall be thoroughly mixed immediately before applying, and shall be applied at a uniform rate of not less than one gallon per 150 square feet of surface. No separate payment will be made for the curing compound or its application.

16.9 Controlled Low Strength Material (CLSM) Curing - Controlled Low Strength Material (CLSM) must achieve a maximum indentation diameter of three (3) inches as determined under ASTM D6024 before covering.

16.10 Joints - Joints shall be made at the locations shown on the drawings, or as approved by the Engineer.

The Contractor shall construct, in one continuous concrete placing operation, all work comprised between such joints. Joints shall be kept moist until adjacent concrete is placed.

All construction joints having a keyed, stepped, or roughened surface shall be cleaned by sandblasting prior to placement of the adjacent concrete, unless otherwise directed by the Engineer.

The sandblasting operations shall be continued until all unsatisfactory concrete, laitance, coatings, stains, debris, and other foreign materials are removed. The surface of the concrete shall be washed thoroughly to remove all loose material.

Construction joints, when required, shall be located between the transverse joints and, unless otherwise specified on the plans, shall utilize 1/2 inch diameter deformed bars 30 inches long, spaced at 18-inch centers as tie bars. The construction joints shall be straight and finished in a workmanlike manner.

Surfaces of construction joints shall be cleaned as set forth in Section 51-1.03D(4) of the Caltrans Specifications.

For cast-in-place reinforced concrete boxes, keyed transverse construction joints shall be placed not more than 50 feet or be less than 10 feet. Transverse joints in the invert, walls and deck shall be in the same plane. Transverse construction joints shall be constructed per details on the Standard Drawings.

A complete curtain of transverse steel shall be placed 3 inches from the face of the joints and longitudinal steel will not be continuous through the joints.

16.11 Use of the RCB Invert and Spillway - Dump trucks, concrete trucks and earth moving equipment (whether full or empty) will not be allowed to operate on the concreted invert of the RCB.

Equipment loading and vehicular use of box invert and rectangular channel shall not be allowed until concrete reaches its compressive strength specified in Section 16.2.

No other category of equipment, except that specifically approved by the Engineer in writing will be permitted to use the invert of the channel for access to the work area.

In any event, vehicular access to the invert will not be permitted until the concrete has achieved its design strength. Approval for access to use the invert shall not relieve the Contractor of the responsibility to avoid damage to the concrete. Cracking, displacement or other damage which occurs to the invert will be cause to restrict some or all of the categories of equipment allowed access to the channel. Repair or replacement of damaged concrete will be required.

16.12 Class "A" Concrete, Reinforced Concrete Box - The contract item Class "A" Concrete, Reinforced Concrete Box includes the complete construction of all cast-in-place reinforced concrete boxes, parapet walls, and headwalls. Included in the pay item is all reinforcing steel required, but exclusive of earthwork.

Reinforced concrete box walls shall be constructed by placing the concrete directly against timber or steel sheeting used as the outside form and shoring. Sheeting shall be closely fitted and extend a minimum of 12 inches above the ground surface. Unless otherwise directed, all sheeting shall be removed and the void created shall be immediately backfilled with a well graded sand and thoroughly jetted to the relative densities specified in Backfill.

The Contractor has an option of forming both sides of the reinforced concrete box walls, however, due to additional loads on the box structure resulting from this trench condition, the

Contractor will be required to submit an alternate box design prepared by a Civil Engineer registered in the State of California. All alternate box designs are subject to the approval of the Engineer and no additional payment will be made for the alternate box if approved.

If the box is constructed from State of California, Department of Transportation Standard Plans, either method of forming noted in the above paragraphs may be used without an alternate box design being submitted.

Loading and vehicular use of box deck slab shall comply with the requirements of Section 51-1.03B of the Caltrans Specifications (also apply to bridge deck slab).

16.13 Class "A" Concrete, Wing Wall - The contract item Class "A" Concrete, Wing Wall includes the complete construction of the wing wall as specified on the project drawings. Included in the pay item is all earthwork and reinforcing steel required.

16.14 Class "A" Concrete, Collars and Bulkheads - The contract item Class "A" Concrete, Collars and Bulkheads includes the complete construction of collars and bulkheads as specified on the project drawings. Included in the pay item is all reinforcing steel required, but exclusive of earthwork.

16.15 Class "A" Concrete, Minor Structures - The contract item Class "A" Concrete, Minor Structures includes the complete construction of the catch basins drop inlets, cross gutters, and spandrels, as specified on the project drawings. Included in the pay item is all costs associated with earthwork for catch basins and drop inlets, subgrade preparation for cross gutters/ribbon gutters and spandrels, and reinforcing steel required for these structures, but exclusive of the required miscellaneous iron and steel. The subgrade preparation shall be in conformance with Section 14.6 General Backfill Requirements for cross gutters, ribbon gutters, and spandrels. In addition, it shall be scarified to a depth of twelve inches (12") and compacted to ninety-five percent (95%) relative compaction prior to the placement of concrete.

16.16 Class "A" Concrete, Slope Paving and Spillway - The contract item Class "A" Concrete, Slope Paving and Spillway includes the slope paving of the concrete lined soft bottom channel, footing, and spillway. Included in the pay item is all reinforcing steel required, but exclusive of earthwork.

Finish surface of the slope paving and spillway shall be true to line and grade and concrete shall be not less than the minimum thickness indicated on the drawings, and as specified in Section 6.10 Construction Tolerances of the Special Provisions.

16.17 Class "B" Concrete, 2' Cutoff Wall - The contract item Class "B" Concrete, 2' Cutoff Wall includes the complete construction of the entire longitudinal (continuous) 2' deep cutoff walls as indicated on the project drawings or as directed by the Engineer. Included in the pay item is all earthwork and reinforcing steel.

16.18 Class "B" Concrete, 1' Cutoff Wall - The contract item Class "B" Concrete, 1' Cutoff Wall includes the complete construction of the entire longitudinal (continuous) 1' deep cutoff

walls as indicated on the project drawings or as directed by the Engineer. Included in the pay item is all earthwork and reinforcing steel.

16.19 Class "B" Concrete, Sidewalk - The contract item Class "B" Concrete, Sidewalk includes the complete construction of sidewalks as shown on the drawings or as directed by the Engineer. Included in the pay item is all earthwork and subgrade preparation. The subgrade preparation shall be in conformance with Section 14.6 General Backfill Requirements and shall be scarified to a depth of twelve inches (12") and compacted to ninety percent (90%) relative compaction prior to the placement.

16.20 Class "B" Concrete, Miscellaneous - The contract item Class "B" Concrete, Miscellaneous includes the complete construction of the curb and gutters, curb transitions, driveways, local depressions, pipe seals, aprons, sanitary sewer protection (encasements), concrete around manhole cover and any other concrete not specified. Included in the pay item is all earthwork, subgrade preparation, and reinforcing steel required. The subgrade preparation shall be in conformance with Section 14.6 General Backfill Requirements for driveways. In addition, it shall be scarified to a depth of twelve inches (12") and compacted to ninety-five percent (95%) relative compaction prior to the placement of concrete.

16.21 Transition Structures - The contract items Transition Structure Nos. 1 and 3 covers the complete construction of these various structures, including reinforcing steel but exclusive of earthwork.

16.22 Junction Structures - The contract items Junction Structure Nos. 2 and 4 covers the complete construction of these structures, including reinforcing steel, exclusive of earthwork.

16.23 Manholes - The contract items Manhole Nos. 1, 2, 3, and 4 covers the complete construction of these various structures, including reinforcing steel, exclusive of earthwork and the miscellaneous iron and steel.

The manhole rings are required and shall conform to ASTM Designation: C-478 and the drawings. The rings shall be laid up using Type II modified cement with a 1:2 mix mortar and with 1/2-inch minimum thickness pointed joints. On completion, vertical wall section shall not be out of plumb by more than 1/2-inch in 10 feet of vertical height. The manhole rings shall also be accurately aligned. The cast iron manhole frame and cover shall be installed, with frame accurately set to finished grade of pavement, in mortar well tamped around the perimeter of frame to ensure full bearing.

16.24 Measurement - Measurement for payment for the contract items Class "A" Concrete, Reinforced Concrete Box; Class "A" Concrete, Wing Wall; Class "A" Concrete, Collars and Bulkheads; Class "A" Concrete, Minor Structures; Class "A" Concrete, Slope Paving and Spillway; and Class "B" Concrete, Miscellaneous will be the number of cubic yards placed as specified, measured to the neat lines as shown on the drawings.

Measurement for payment for the contract item Class "B" Concrete, 2' Cutoff Wall will be the number of lineal feet placed, measured parallel to the top of the wall.

Measurement for payment for the contract item Class "B" Concrete, 1' Cutoff Wall will be the number of lineal feet placed, measured parallel to the top of the wall.

Measurement for payment for the contract item Class "B" Concrete, Sidewalk will be the number of square feet placed.

Measurement for payment for the contract items Transition Structure No. 1; Transition Structure No. 3; Junction Structure No. 2; Junction Structure No. 4; Manhole No. 1; Manhole No. 2; Manhole No. 3 and Manhole No. 4 will be the number of each type constructed as specified.

No measurement or payment will be made for dowels, tie bars, tie wires, blocks, chairs and other accessories.

16.25 Payment - The contract prices paid for the various Concrete items shall include full compensation for all costs incurred under this section.

SECTION 17 - CONCRETE PIPE

17.1 Description - This section covers the contract item Reinforced Concrete Pipe of the various sizes as required for the work.

17.2 General Pipe Requirement - Pipe materials, manufacture and quality, shall conform to ASTM Designation: C-76 or C-655. The Engineer shall be furnished a "Certificate of Compliance" signed by the manufacturer of the pipe certifying that the pipe conforms to the ASTM requirements. All pipe and pipe material supplied by the Contractor shall be new.

The District will also require the D-load bearing strength test conforming to ASTM C497 for new pipe 30" or greater, in conformance with Sections 207-2.9.1(1) and 207-2.9.2 of the Greenbook Specifications as a basis for acceptance of the pipe. The test shall be performed in the presence of the Engineer.

Pipe shall be laid in a trench free of ponded water in conformance with Section 306-5, with joints in conformance with Section 306-7.3 of the Greenbook Specifications.

Pipe ends shall be cleaned and moistened prior to making up joint.

17.3 Reinforced Concrete Pipe - The contract items for the various Reinforced Concrete Pipe include the furnishing and installing of the various pipe as specified, exclusive of earthwork.

17.4 Pipe on Curves - Unsymmetrical closure of pipe joints shall not exceed 1 inch pull on the outside of the curve when pull is measured at the springline on the inside of the pipe. Mortar joints on curves shall conform in strength, texture of mortar finish and tightness to the joints for straight ended pipe.

When beveled pipe is used the maximum deflection angle shall not exceed 6 degrees unless shown on the plans or approved by the Engineer.

17.5 Video Inspection - All storm drains with a height or diameter of 60 inches or less shall be recorded by closed circuit television (CCTV) prior to final inspection. The recorded video and report shall be provided to the District for review. For storm drains within paved roadway, the video inspection and report shall be approved by the District prior to paving. Any additional video required to address video quality or construction deficiencies shall be completed by the Contractor at no additional expense to the District. All video inspection shall follow the RCFC Video Procedures (Appendix "D") and any re-inspection shall be at a minimum of a storm drain segment as defined in the RCFC Video Procedures.

17.6 Measurement - Measurement for payment of the contract items Reinforced Concrete Pipe of the various sizes and classes will be the number of lineal feet of each class installed as specified measured along the centerline of the pipe in place including curves.

17.7 Payment - The contract prices paid for the Reinforced Concrete Pipe shall include full compensation for all costs incurred under this section.

SECTION 18 - NOT USED

SECTION 19 - FLEXIBLE PAVEMENT CONSTRUCTION

19.1 Description - This section covers the contract items Aggregate Base, Class 2; Hot Mix Asphalt (HMA); and Temporary Resurfacing.

19.2 Aggregate Base, Class 2 - The contract item Aggregate Base, Class 2 includes furnishing and placing such material as indicated on the drawings. Aggregate Base, Class 2 shall be clean and free from roots, organic material and other deleterious substances, and be of such character that when wet it will compact to form a firm stable base. Material and placing shall be in accordance with Section 26 of the Caltrans Specifications using ¾-inch maximum size.

The aggregate base shall also have a sand equivalent value of not less than 35 when tested in conformance with California Test Method 217.

The aggregate base material shall be spread as specified in Sections 26-1.03A and 26-1.03D of the Caltrans Specifications. The aggregate base material shall be compacted as specified in Section 26-1.03E of the Caltrans Specifications.

The aggregate material used for exposed surfaces, such as shown on Sheet 17 and where specified elsewhere, shall not contain recycled concrete products.

19.3 General Hot Mix Asphalt (HMA) Requirements - The Contractor shall not start paving Hot Mix Asphalt (HMA) until all compaction on the aggregate base is tested and approved by the Engineer.

The HMA shall be proportioned, mixed, spread and compacted in accordance with the applicable provisions in Section 39-2 of the Caltrans Specifications and these Detailed Specifications.

The Contractor shall ensure the safe transportation, storage, use and legal disposal of HMA.

The Contractor shall prevent the formation of carbonized particles caused by overheating HMA during manufacturing or construction.

19.4 Hot Mix Asphalt (HMA) Aggregate - Aggregates shall be clean and free from decomposed materials, organic material, and other deleterious substances. Coarse aggregate is material retained on the No. 4 sieve and fine aggregate is material passing the No. 4 sieve. Supplemental fine aggregate is added fine material passing the No. 30 sieve including, but not limited to, cement and stored fines from dust collectors.

The aggregate grading of the different types of Hot Mix Asphalt (HMA) shall conform to the following, unless otherwise specified on the plans:

HMA Type	Grading
A	¾-inch and/or ½-inch

The base course of the HMA shall consist of ¾-inch aggregate for Type A and the final surface course for Type A shall consist of ½-inch aggregate.

The combined aggregate gradation and quality characteristics for HMA Type A aggregate(s), prior to addition of asphalt binder, shall conform to the requirements found in the following tables:

**Aggregate Gradation HMA Type A
(Percentage Passing)**

¾-inch HMA Type A

Sieve Sizes	Target Value Limits	Allowable Tolerance
1-inch	100	-
¾-inch	90-98	TV ±5
½-inch	70-90	TV ±6
No. 4	42-58	TV ±5
No. 8	29-43	TV ±5
No. 30	10-23	TV ±4
No. 200	2.0-7.0	TV ±2.0

**Aggregate Gradation HMA Type A
(Percentage Passing)**

½-inch HMA Type A

Sieve Sizes	Target Value Limits	Allowable Tolerance
¾-inch	100	-
½-inch	95-98	TV ±5
3/8-inch	72-95	TV ±5
No. 4	52-69	TV ±5
No. 8	35-55	TV ±5
No. 30	15-30	TV ±4
No. 200	2.0-8.0	TV ±2.0

HMA Type A Aggregate Quality

Quality Characteristic	Test Method	Requirement
Percent of crushed particles ¹		
Coarse aggregate (min, %)		
One-fractured face	AASHTO T 335	95
Two-fractured faces		90
Fine aggregate (min, %)		
(Passing No. 4 sieve and retained on No. 8 sieve)		70
One-fractured face		
Los Angeles Rattler (max, %) ¹		
Loss at 100 Rev.	AASHTO T 96	12
Loss at 500 Rev.		40
Sand equivalent ^{1, 2} (min.)	AASHTO T 176	47
Flat and elongated particles ¹ (max, % by weight at 5:1)	ASTM D479	10
Fine aggregate angularity (min, %) ^{1, 3}	AASHTO T 304, Method A	45

Note: ¹Combine aggregate in the job mix formula proportions.

²The reported value must be the average of 3 tests from a single sample. Use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker", 7.1.2, "Alternate Method No. 2", and 8.4.3, "Hand Method", do not apply. Prepare the stock solution as specified in Section 4.8.1, "Stock solution with formaldehyde", except omit the addition of formaldehyde.

19.5 Asphalt Binder - The asphalt binder to be mixed with aggregate shall conform to these Detailed Specifications and shall be as designated below or as determined by the Engineer:

- Grade PG 70-10 (Desert)

The Contractor shall furnish and place the HMA with all asphaltic emulsions required.

Asphalt binder shall consist of refined petroleum or a mixture of refined liquid asphalt and refined solid asphalt, prepared from crude petroleum. Asphalt binder shall be:

- Free from residues caused by the artificial distillation of coal, coal tar or paraffin
- Free from water
- Homogeneous

The Contractor shall furnish asphalt binder from a supplier that conforms to the State of California Department of Transportation's "Certification Program for Suppliers of Asphalt". The Department maintains the program requirements, procedures, and a list of approved suppliers at <https://dot.ca.gov/programs/engineering-services/asphalt-supplier-certification-program>.

The amount of asphalt binder to be mixed with the mineral aggregate shall be between three percent (3%) and seven percent (7%) by weight, of the dry mineral aggregate. The exact amount of asphalt binder to be mixed with the mineral aggregate shall be determined by a special mix design.

Performance grade paving asphalt shall conform to the testing requirements in the table below:

Performance Graded Asphalt Binder

Property	AASHTO Test Method	Specification Grade			
		PG 64-10	PG 64-16	PG 70-10	PG 64-28PM ⁱ
Original Binder					
Flash Point, Minimum °C	T48	230	230	230	230
Solubility, Minimum % ^b	T44	99	99	99	97.5
Viscosity ^c at 135 °C, Maximum, Pa·s	T316	3.0	3.0	3.0	3.0
Dynamic Shear, Test Temp. at 10 rad/s, °C	T315	64	64	70	64
Minimum G*/sin(delta), kPa		1.00	1.00	1.00	1.00
RTFO Test ^e , Mass Loss, Maximum, %	T240	1.00	1.00	1.00	1.00
RTFO Test Aged Binder					
Dynamic Shear, Test Temp. at 10 rad/s, °C	T315	64	64	70	64
Minimum G*/sin(delta), kPa		2.20	2.20	2.20	2.20
Ductility at 25 °C Minimum, cm	T51	75	75	75	-

Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum (delta), %	T315	-	-	-	Note g 80
PAV ^f Aging, Test Temperature, °C	R28	100	100	110	100
Elastic Recovery ^h , Test Temp., °C Minimum recovery, %	T 301	-	-	-	25 75
RTFO Test and PAV Aged Binder					
Dynamic Shear, Test Temp. at 10 rad/s, °C Maximum G*/sin(delta), kPa	T315	31 ^d 5000	28 ^d 5000	34 ^d 5000	22 5000
Creep Stiffness, Test Temperature, °C Maximum S-value, Mpa Minimum M-value	T313	0 300 0.300	-6 300 0.300	0 300 0.300	-18 300 0.300

Notes:

- a. Not used.
- b. The Engineer will waive this specification if the supplier is a Quality Supplier as defined by Department's "Certification Program for Suppliers of Asphalt".
- c. The Engineer will waive this specification if the supplier certifies the asphalt binder can be adequately pumped and mixed at temperatures meeting applicable safety standards.
- d. Test the sample at 3 °C higher if it fails at the specified test temperature. G*/sin(delta) shall remain 5000 kPa maximum.
- e. "RTFO Test" means the asphaltic residue obtained using the Rolling Thin Film Oven Test, AASHTO Test Method T240 or ASTM Designation: D2827.
- f. "PAV" means Pressurized Aging Vessel.
- g. Test temperature is the temperature at which G*/sin(delta) is 2.2 kPa. A graph of log G*/sin(delta) plotted against temperature may be used to determine the test temperature when G*/sin(delta) is 2.2 Kpa. A graph of (delta) versus temperature may be used to determine delta at the temperature when G*/sin(delta) is 2.2 kPa. The Engineer also accepts direct measurement of (delta) at the temperature when G*/sin(delta) is 2.2 kPa.
- h. Test without a force ductility clamp may be performed.
- i. Do not modify PG Polymer Modifier using acid modification.

Certificates of compliance shall be furnished to the Engineer certifying that the asphaltic emulsions and paving asphalts conform to the referenced Greenbook Specifications.

19.6 Hot Mix Asphalt (HMA) Paint Binder/Tack Coat - Asphaltic emulsion for paint binder (tack coat) shall conform to the provisions in Section 94 "Asphaltic Emulsion" of the Caltrans Specifications for the rapid-setting or slow-setting type and grade approved by the Engineer. Grade CQS1 shall be used if not otherwise specified by the Engineer. Tack coat shall be applied to all vertical surfaces of existing pavement, curbs, gutters, and construction joints in the surfacing against which additional material is to be placed, to a pavement to be surfaced, and to other surfaces designated in the Detailed Specifications. The application rate shall be from 0.02

to 0.10 gallon per square yard of surface covered. The exact rate and number of applications will be determined by the Engineer.

19.7 Hot Mix Asphalt (HMA) Placement - Hot Mix Asphalt (HMA) shall be spread and compacted in the number of layers of the thicknesses indicated in the following table:

Total Thickness Shown on Plans ¹	Minimum No. of Layers	Top Layer Thickness (ft.)		Next Lower Layer Thickness (ft.)		All Other Lower Layer Thickness (ft.)	
		Min.	Max.	Min.	Max.	Min.	Max.
0.24-foot or less	1	-	-	-	-	-	-
0.25-foot	2	0.12	0.13	0.12	0.13	-	-
0.26 - 0.46-foot	2	0.12	0.21	0.14	0.25	-	-
0.47-foot or more	3 or more	0.15	0.21	0.15	0.25	0.17	0.25

¹When pavement reinforcing mat is shown to be placed between layers of HMA, the thickness of HMA above the pavement reinforcing mat shall be considered to be the "total thickness shown on plans".

The straightedge for smoothness determination on the top layer of HMA pavement shall conform to the straightedge tolerances specified in Section 36-3.01D(4) of the Caltrans Specifications.

Areas of the top surface of the uppermost layer of HMA pavement that do not meet the specified surface tolerances shall be brought within tolerance by abrasive grinding. Areas which have been subjected to abrasive grinding shall receive a seal coat. The corrective method for each area shall be selected by the Contractor and shall be approved by the Engineer prior to beginning the corrective work.

When abrasive grinding is used to bring the top surface of the uppermost layer of HMA surfacing within the specified surface tolerances, additional abrasive grinding shall be performed as necessary to extend the area ground in each lateral direction so that the lateral limits of grinding are at a constant offset from, and parallel with, the nearest lane line or pavement edge, and in each longitudinal direction so that the grinding begins and ends at lines normal to the pavement centerline, within a ground area. Ground areas shall be neat rectangular areas of uniform surface appearance.

19.8 Hot Mix Asphalt (HMA) - The contract item Hot Mix Asphalt (HMA) covers the furnishing and installation of HMA necessary for the repair and resurfacing of streets damaged or removed due to construction operations, or as otherwise specified on the plans, including all aggregate, asphalt binder, prime coat, and tack coat/paint binder as specified herein, exclusive of any excavation or pavement grinding.

19.9 Temporary Resurfacing - The contract item Temporary Resurfacing is required for short reaches of the mainline and connector pipe trenches whenever excavation is made through pavement on which traffic must be allowed immediately after backfilling, only as directed by the Engineer. Otherwise the leveling course of the HMA may be used to open the work area to

traffic until the final paving is completed. Measurement and payment of the leveling course will be made as a HMA item, not Temporary Resurfacing.

Temporary Resurfacing shall be 2" (0.17') and in conformance with Section 306-13 of the Greenbook Specifications.

19.10 Measurement - Measurement for payment of the contract item Aggregate Base, Class 2 will be the number of cubic yards placed to the lines, grades and dimensions shown on the drawings. **No allowance will be made for aggregate base placed outside said dimensions unless otherwise ordered by the Engineer.**

Measurement for payment of the contract item Hot Mix Asphalt (HMA) will be the number of tons placed to the lines, grades and dimensions shown on the drawings. The HMA pay quantity shall be determined by using a conversion factor of 144 pounds per cubic foot for all HMA placed within standard paylines. No measurement for payment will be made for asphalt emulsions, including asphalt binder, HMA prime coat, HMA tack coat/paint binder required for this portion of the work, all costs for these items shall be included in the price paid for HMA. **No allowance will be made for HMA placed outside said dimensions unless otherwise ordered by the Engineer.**

Measurement for payment of the contract item Temporary Resurfacing will be the number of tons placed as specified in Section 19.9 and as directed by the Engineer.

19.11 Payment - The contract prices paid for Aggregate Base, Class 2; Hot Mix Asphalt (HMA); and Temporary Resurfacing shall include full compensation for all costs incurred under this section.

SECTION 20 - FENCES AND GATES

20.1 Description - This section covers the contract items Temporary Fencing; Cable Railing; Remove and Reinstall Fence; Remove and Reinstall Gate; and Small Mammal Exclusionary Fencing.

20.2 Temporary Fencing - The contract item Temporary Fencing shall include all labor, materials and equipment necessary for installing, maintaining, and removing the temporary fencing. The temporary fencing shall be a 6-foot high chain link fence and shall include a privacy screen fabric mesh subject to the Engineer's approval. Fencing materials need not be new and fence posts need not be set in concrete. The final location of such temporary fencing shall be as specified by the Engineer.

20.3 Cable Railing - The contract item Cable Railing covers all costs associated with the furnishing and installing of Cable Railing shown on the project drawings. Included in this item is all hardware, parts, posts, and fitting in conformance with Section 83-2.07 of the Caltrans Specifications.

20.4 Remove and Reinstall Fence - The contract item Remove and Reinstall Fence covers all costs associated with removal and reinstallation of fence as shown on the project drawings for the house frontage located at 1224 Hathaway Street in the city of Banning. The work shall be as directed by the Engineer and within District acquired temporary construction easement. Materials salvaged shall be subject to the Engineer's approval prior to reinstallation. Otherwise, if not approved by the Engineer, the salvaged material shall be legally disposed of offsite.

20.5 Remove and Reinstall Gate - The contract item Remove and Reinstall Gate covers all costs associated with the removal and reinstallation of gate as shown on the project drawings for the house frontage located at 1224 Hathaway Street in the city of Banning. The work shall be as directed by the Engineer and within District acquired temporary construction easement. Materials salvaged shall be subject to the Engineer's approval prior to reinstallation. Otherwise, if not approved by the Engineer, the salvaged material shall be legally disposed of offsite and new material shall be used and shall match quality and color.

20.6 Small Mammal Exclusionary Fencing - The contract item Small Mammal Exclusionary Fencing includes the material, equipment, and labor necessary to install the fencing as shown on the drawings.

Exclusionary fencing shall consist of a solid material with a smooth finish (e.g., silt fence). The fence shall be buried at least 12 inches and have a minimum height of two feet above the existing ground elevation.

20.7 Measurement - Measurement for payment for the contract item Temporary Fencing will be the number of lineal feet of fencing installed for the temporary fencing and relocations.

Measurement for payment for the contract item Cable Railing will be the number of lineal feet of new cable railing installed along the top of the railing parallel to the ground.

Measurement for payment for the contract item Remove and Reinstall Fence will be the number of lineal feet of fence installed measured along the top of the fence parallel to the ground.

Measurement for payment for the contract item Remove and Reinstall Gate will be for each pair of removed gate installed.

Measurement for payment for the contract item Small Mammal Exclusionary Fencing will be the number of lineal feet installed.

20.8 Payment - The contract price paid for Temporary Fencing; Cable Railing; Remove and Reinstall Fence; Remove and Reinstall Gate; and Small Mammal Exclusionary Fencing shall include full compensation for all costs incurred under this section.

SECTION 21 - MISCELLANEOUS

21.1 Description - This section covers the contract items Miscellaneous Iron and Steel; Object Markers; Adjust Manhole to Grade; Adjust Valve to Grade; and Extra Directed Work.

21.2 Miscellaneous Iron and Steel - The contract item Miscellaneous Iron and Steel covers all ferrous metal used in the various hydraulic structures. Materials, parts and fittings shall conform with the following:

- (a) Manhole Frames and Covers - Per ASTM Designation: A-48, Class 35B. Manhole frames and covers shall be minimum weight as shown on the plans, and the weight of each frame and cover shall be indicated thereon in white paint. Style and markings shall be approved by the Engineer. The castings shall be free from cracks, blowholes or other imperfections, straight, true to pattern and have a uniform finish. The castings for manholes in streets shall be thoroughly cleaned and coated with asphaltum paint of approved composition; all other castings for frames and covers shall be cleaned and galvanized. The cover shall fit firmly into the frame without rocking, with the frame accurately placed so that cover is flush with finish paving. All covers shall be provided with socket set screw locking devices. Drill and tap two holes to a depth of one-inch at 90 degrees to pick hole and install 3/4-inch x 3/4-inch stainless steel socket set screws with 3/8-inch recessed hex head. All threads shall be National Coarse threading.
- (b) All other Miscellaneous Metal - Per ASTM Designation: A-36.
- (c) Galvanizing - Except for manhole frames and covers described above, all exposed ferrous metal shall be galvanized per Section 210-3 of the Greenbook Specifications.

21.3 Object Markers - The contract item Object Markers covers all costs associated with the installation of Object Markers as shown on the project drawings and as directed by the Engineer.

The Object Markers shall be in accordance with State of California, Department of Transportation Standard Plan A73-A, Class 1, Type L-1 and shall conform to Section 82 of the Caltrans Specifications.

21.4 Adjust Manhole to Grade - The contract item Adjust Manhole to Grade covers all costs associated with the complete adjustment of all manholes within the limits of the street improvements to meet the finished street grade. Adjustments shall be performed in accordance with Section 301-1.6 of the Greenbook Specifications and the City of Banning Sewer Standard Drawing No. S-5.

21.5 Adjust Valve to Grade - The contract item Adjust Valve to Grade covers all costs associated with the complete adjustment of all valves within the limits of the street improvements to meet the finished street grade. Adjustment for the valve box installation shall be performed per the City of Banning Specifications and Water Standard Drawing No. W-20.

21.6 Extra Directed Work - The contract item Extra Directed Work shall consist of necessary work that is not included in other contract bid items and not shown on the drawings, as determined by the Engineer. All Extra Directed Work shall be performed only as directed by the Engineer and in accordance with all applicable standards and specifications.

21.7 Measurement - Measurement for payment for the contract item Miscellaneous Iron and Steel will be the number of pounds used in the work as specified. Should manhole frames and covers exceed the minimum weights as shown on the drawings by more than two percent (2%) that weight in excess of the allowable two percent (2%) increase will not be measured for payment. Manhole frames and covers to be salvaged and reused will not be measured for payment.

Measurement for payment for the contract item Object Markers will be for each Object Marker installed.

Measurement for payment for the contract item Adjust Manhole to Grade shall be the number of manholes that are adjusted to meet the finished street grade.

Measurement for payment for the contract item Adjust Valve to Grade shall be the number of valves that are adjusted to meet the finished street grade.

21.8 Payment - The contract prices paid for Miscellaneous Iron and Steel; Object Markers; Adjust Manhole to Grade; and Adjust Valve to Grade shall include full compensation for all costs incurred under this section.

Full compensation for the contract item Extra Directed Work shall be as "Extra Work" and shall be paid pursuant to Section 2.07 of the General Provisions. The total accumulated costs for Extra Directed Work shall not exceed the amount specified in the contract bid item unless otherwise increased by change order.

SECTION 22 THROUGH SECTION 25 – NOT USED

SECTION 26 - STONEMWORK

26.1 Description - This section covers the contract items Class IX (2-Ton) Rock; Class V (1/4-Ton) Rock; No. 2 Backing; Coarse Aggregate; and Rock Slope Protection (RSP) Fabric.

26.2 General - All rock materials (except Coarse Aggregate) shall meet the gradation requirements of Section 72-2.02B of the Caltrans Specifications and the quality requirements of Sections 200-1.6.1 and 200-1.6.3 of the Greenbook Specifications, unless otherwise specified.

Rock materials shall be blocky and predominantly angular in shape. Not more than 25% of the rock shall have a length more than 2.5 times the breadth or thickness. No rock shall have a length exceeding 3.0 times its breadth or thickness. All oversize rocks, as determined by the Engineer, shall be removed.

Rock materials shall be placed on a firm dry foundation in conformance with either Method A for Class IX (2-Ton) Rock or Method B for Class V (1/4-Ton) Rock of Section 72-2.03 of the Caltrans Specifications as directed on the plans, however, additional placement effort shall be required to meet the lines and grades as shown on the drawings and to fill and chink oversize voids with selected rock to establish a stable interlock.

26.3 Class IX (2-Ton) Rock; and Class V (1/4-Ton) Rock - The contract items Class IX (2-Ton) Rock; and Class V (1/4-Ton) Rock covers the rock furnished and placed as shown on the project drawings. Rock shall conform to Class V (1/4-Ton) Rock, Method B placement, and Class IX (2-Ton) Rock, Method A placement per Section 72-2.02B of the Caltrans Specifications.

This contract item excludes the earthwork necessary for installation as specified on the project drawings. Such earthwork shall be paid under Excavation, Section 14.3.

26.4 No. 2 Backing - The contract item No. 2 Backing covers the layer of rock placed over Rock Slope Protection (RSP) Fabric prior to placing Class IX (2-Ton) or Class V (1/4-Ton).

The No. 2 Backing layer placed shall be permeable material and conform to the following table:

Rock Size	Percentage larger than ¹
2 ton	--
1 ton	--
1/2 ton	--
1/4 ton	--
200 lb	--
75 lb	0-5
25 lb	25-75
5 lb	90-100
1 lb	--

¹The percentage of rock smaller than the smallest rock size must be determined on the basis of weight. For all other rock sizes within a class, the percentage must be determined on the basis of the ratio of the number of individual rocks larger than the smallest size shown for that class compared to the total number of rocks.

The No. 2 Backing layer shall be placed to the lines and grades as shown on the plans. Material shall be placed on firm, dry foundation. Soft, spongy material shall be removed and replaced with acceptable compacted material as directed by the Engineer. The cost of foundation preparation shall be included in the price bid for excavation and no additional allowance will be made for such work. The permeable material shall be consolidated and the surface trimmed to final grade as shown on the drawings or as directed by the Engineer.

26.5 Coarse Aggregate - The contract item Coarse Aggregate covers the complete installation of crushed rock on access roads, turn arounds, and within District right of way as shown on the project drawings and as directed by the Engineer. Grading for the Coarse Aggregate shall meet the requirements for 1" x No. 4 coarse aggregate as per Section 90-1.02C(4)(b) of the Caltrans

Specifications. Crushed Rock shall additionally meet the spreading and compaction requirements of Sections 26-1.03D and 26-1.03E of the Caltrans Specifications, respectively.

Any exposed crushed rock used on access roads or other areas as shown on the project drawings shall not contain recycled concrete products.

26.6 Rock Slope Protection (RSP) Fabric - Rock Slope Protection (RSP) Fabric placed beneath rock and shall conform to Section 96-1.02I of the Caltrans Specifications and shall be Class 8 for Class V (1/4-Ton) Rock and Class 10 for Class IX (2-Ton) Rock.

Prior to placing RSP fabric, the surfaces upon or against which the fabric is to be placed shall be free of loose or extraneous material and sharp objects that may damage the fabric during installation. Placement of RSP fabric shall not occur on paved slope areas.

RSP Fabric shall be handled and placed in conformance with the manufacturer's recommendations and as directed by the Engineer. RSP fabric shall be placed loosely upon or against the surface to receive the fabric so that the fabric conforms to the surface without damage when the cover material is placed.

RSP Fabric shall be joined, at the option of the Contractor, either with overlapped joints or stitched seams.

When fabric is joined with overlapped joints, adjacent borders of the finished fabric shall be overlapped not less than 24 inches. The fabric shall be placed such that the fabric being placed shall overlap the adjacent section of fabric in the direction the cover material is being placed.

When the fabric is joined by stitched seams, the fabric shall be stitched with yarn of a contrasting color. The size and composition of the yarn shall be as recommended by the fabric manufacturer. The number of stitches per inch of seam shall be approximately 5 to 7. The strength of stitched seams shall be the same as specified for the fabric, except when stitched seams are oriented up and down a slope, the strength shall be a minimum of eighty percent (80%) of that specified for the fabric.

Equipment or vehicles shall not be operated or driven directly on the RSP Fabric.

RSP Fabric damaged during placement shall be replaced or repaired, as directed by the Engineer, by the Contractor at the Contractor's expense. Fabric damaged beyond repair, as determined by the Engineer, shall be replaced. Repairing damaged fabric shall consist of placing new fabric over the damaged area. The minimum fabric overlap from the edge of the damaged area shall be 3 feet for overlap joints. If the new fabric joints at the damaged areas are joined by stitching, the stitched joints shall conform to the requirements specified above.

A layer of Backing No. 2 shall be placed over the fabric prior to placing Class IX (2-Ton) or Class V (1/4-Ton) rock unless otherwise shown on the plans. Payment for furnishing and installing Backing No. 2 shall be paid under its own contract item.

26.7 Measurement - Measurement for payment for the contract items Class IX (2-Ton) Rock; Class V (1/4-Ton) Rock; No. 2 Backing; and Coarse Aggregate shall be the number of cubic yards placed as specified.

Measurement for payment for the contract item Rock Slope Protection (RSP) Fabric shall be the number of square yards placed to neat lines as required per the project drawings, or as otherwise directed by the Engineer. No measurement for payment will be made for laps required for installation or for convenience to the Contractor.

26.8 Payment - The contract prices paid for Class IX (2-Ton) Rock; Class V (1/4-Ton) Rock; No. 2 Backing; Coarse Aggregate; and Rock Slope Protection (RSP) Fabric shall include full compensation for all costs incurred under this section.

SECTION 27 - DUST ABATEMENT

27.1 Description - This section covers the implementation of dust control measures necessary to prevent harm and nuisance from dust. Supplementing Section 8.06 of the General Provisions, the Contractor shall comply with all the provisions of the South Coast Air Quality Management District (SCAQMD) Rule 403 as described in Appendix "A".

27.2 Dust Abatement - The contract item Dust Abatement includes the action necessary to prevent, reduce or control dust within the work area as required to complete the work. The Contractor shall carry out proper and efficient measures to prevent his operations from producing dust in amounts damaging to property or causing a nuisance, or harm to persons living nearby or occupying buildings in the vicinity of the work. The methods to be used for controlling dust in the construction area and along haul roads shall be approved by the Engineer prior to starting any work included in this contract. The Rule 403 Implementation Handbook published by the SCAQMD contains a detailed listing of reasonably available dust control measures and is available for inspection at the District office.

27.3 Payment - The contract lump sum price paid for Dust Abatement shall include full compensation for all direct and indirect costs incurred under this section.

This payment will be made on a basis of the percentage of work completed on the entire project.

SECTION 28 - HYDROSEEDING

28.1 Description - This section covers the contract item Hydroseeding as directed by the Engineer and will be applied within the District's easement and temporary construction easement located within disturbed areas of Smith Creek.

28.2 Hydroseeding - This item includes the furnishing of all materials, incidentals, labor and equipment necessary to complete the work as specified herein, and as directed by the Engineer. All hydroseeding work shall be done by fully qualified and experienced personnel.

The hydroseeding materials shall not be stored onsite without prior approval of the Engineer as to location, duration and method of storage. All debris and excess materials shall be removed on a daily basis, unless otherwise authorized by the Engineer. The Contractor shall leave the work area in a clean and finished appearance upon completion of hydroseeding.

28.3 Equipment and Materials - The equipment shall be a mobile mounted unit in a fully operational and well maintained condition, meeting the requirements of Section 21-2.03D of the Caltrans Specifications. Fiber shall be produced from natural or recycled (pulp) fiber and shall meet the requirements of Section 21-2.02D of the Caltrans Specifications. Stabilizing binder upon drying shall allow water and air penetration, shall be non-flammable, shall have an effective life of at least 1 year, and shall not be toxic to plants and animals.

All seed shall be delivered to the site tagged and labeled in accordance with the California Agricultural Code. Seed shall be of a quality which has a minimum pure live seed content (% of purity x % germination) as specified and weed seed shall not exceed 0.5% of the aggregate of pure live seed and other material.

A commercial Ammonium Phosphate fertilizer shall be used containing a minimum of 16% nitrogen, 20% available phosphoric acid and 0% water soluble potash, uniform in composition, dry and free flowing, pelleted or granular. All fertilizer shall be delivered in unbroken or unopened containers, labeled in accordance with applicable State regulations and bearing the warranty of the producer for the grade furnished.

28.4 Application - The Engineer shall review and approve completion of all construction and grading prior to any section being approved as ready for hydroseeding application.

The Contractor shall provide a written per load mix tabulation, ratioed to the tank capacity of the equipment to be used on the project, for review and approval by the Engineer well in advance of anticipated start of hydroseeding.

The Contractor shall provide a sample demonstration area for application by preparing one load of hydroseed mix. The demonstration areas shall be wet down thoroughly prior to application. The Engineer shall review and approve the sample section for compliance and workmanship. Upon approval, this area shall become the sample for all remaining application. No hydroseeding shall take place during high winds or during periods of rainfall.

Areas designated for hydroseeding shall receive an application made with an overlapping fan motion to provide a full and even spread throughout the coverage area.

The hydroseed mix, per acre of coverage, shall be as follows:

Conwed 1000 Wood Mulch	2,000 lbs/acre
Hydropost Premium Compost	1,000 lbs/acre
BioSol Forte 7-2-1 Fertilizer	600 lbs/acre
Ecology Controls Guar Gum Binder	150 lbs/acre

Species	Lbs/ac	Min. % Pure Live Seed
Salvia mellifera	2.0	45
Acemison micranthus	1.5	40
Acemison glaber	3.0	60
Lepidospartum squamatum	1.5	3
Eschscholzia californica	2.0	70
Lupinus microcarpus	3.0	65
Stipa pulchra	4.0	75
Festuca microstachys	5.0	80
Lasthenia californica	0.5	40
Encelia farinosa	2.0	20
Isocoma acradenia	1.5	4

28.5 Measurement - Measurement for the contract item Hydroseeding will be made on the basis of the actual area treated to the nearest one hundredth (0.01) acre as measured by the Engineer.

28.6 Payment - The contract price paid for Hydroseeding shall include full compensation for all costs incurred under this section.

SECTION 29 – STORMWATER AND NON-STORMWATER POLLUTION CONTROL

29.1 Description - The contract item Stormwater and Non-Stormwater Pollution Control shall include preparing, obtaining approval of, amending and implementing the Permit Registration Documents (PRDs) as required by the State Water Resources Control Board (SWRCB) and the California Regional Water Quality Control Board (CRWQCB) - Colorado River Basin Region. The contract item Non-Stormwater Discharge or Dewatering shall include compliance with Colorado River Basin Water Quality Board Order No. R7-2015-0006.

29.2 General Requirements - All activities performed by the Contractor for this project shall conform to the requirements of the State-wide National Pollutant Discharge Elimination System (NPDES) General Permit (Board Order No. 2009-0009-DWQ, NPDES No. CAS000002 as amended by Board Order No. 2010-0014-DWQ) for Stormwater Discharges Associated with Construction and Land Disturbance Activities, hereafter referred to as the "General Permit", issued by the SWRCB. This General Permit regulates both stormwater and non-stormwater discharges associated with Contractor's construction activities. This General Permit can be downloaded at http://www.swrcb.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

The PRDs mentioned above consist of:

1. Notice of Intent
2. Risk Assessment (Section VIII of the General Permit)
3. Site Map