

MONTEREY PENINSULA WATER
MANAGEMENT DISTRICT

CALL FOR BIDS

FOR THE
*SANTA MARGARITA DISINFECTION
FACILITY*

David J. Stoldt

, GENERAL MANAGER

August 8, 2019

DATE

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NOTICE INVITING SEALED BIDS

SANTA MARGARITA WATER TREATMENT PROJECT

NOTICE IS HEREBY GIVEN that sealed bids will be received by the Monterey Peninsula Water Management District (MPWMD) at 5 Harris Court, Building G, Monterey, California, 93940 until 2:00 pm Wednesday September 11, 2019, at which time they shall be publicly opened and read. The Contractor shall furnish all labor, materials, supplies, equipment, and services required to perform the work, except as expressly stated in the Special Conditions, necessary to construct:

- A CMU building with HVAC
- Chemical delivery, storage, and feed systems
- An exterior above-ground metering and chemical injection manifold
- Abandonment and installation of 2" to 30" pipe
- Associated appurtenances, analyzers, electrical, excavation, trenching, backfill, pavement
- All associated items shown in the Call for Bids

Site is located at 1910 General Jim Moore Boulevard in Seaside, CA 93955. Time is of the essence in the conduct of this project. The work must be substantially complete by May 31, 2020.

A mandatory pre-bid meeting will be held at 10:00 a.m. Tuesday August 27, 2019 at MPWMD office at 5 Harris Court Building G, Monterey, CA 93940. Bidders that do not attend this mandatory meeting shall be disqualified from bidding on this project. Bids received after the deadline for bid submittal will be returned unopened.

Contractor shall hold a valid Class A, General Contractors License issued by the State of California. Bids shall be accompanied by U.S. currency, certified check, cashier's check, or bid bond in an amount not less than ten percent (10%) of the bid amount, and shall be made payable to the Monterey Peninsula Water Management District.

The work shall be done in accordance with the Specifications therefore adopted, to which special reference is hereby made. Pursuant to Public Contract Code Section 3400, if MPWMD has made any findings designating certain materials, products, things, or services by specific brand or trade name, such findings and the materials, products, things, or services and their specific brand or trade names will be set forth in the Special Conditions.

The Contractor shall furnish all labor, supplies, equipment, and services required to perform the work, except as expressly stated in the Construction Specifications.

The project requires payment of the general prevailing rate of per diem wages (Labor Code 1770, et seq.), and is subject to compliance monitoring and enforcement by the Department of Industrial Relations (DIR). No contractor or subcontractor maybe listed on a bid proposal for a

public works project and no contractor or subcontractor maybe awarded a contract for public works on a public works project unless registered with the DIR pursuant to Labor Code Section 1725.5.

Responses to this Call for Bids shall incorporate the general prevailing rates in the locality in which the work is to be performed as determined by the DIR. It shall be incumbent upon the successful bidder to pay not less than the minimum hourly wage required by the Schedule of Wage Determinations to be paid to the various laborers and mechanics employed directly upon the site of the work. In the event that any change in the above rates is made, said changed rates shall apply to this public project without adjustment in bid price. A copy of said Schedule of Wage Determinations is on file at the MPWMD office. Contractor shall post job site notices, as prescribed by regulation. Contractor and subcontractor shall furnish the records specified in Labor Code Section 1776 directly to the Labor Commissioner, in the manner prescribed under Section 1771.4.

MPWMD shall award the contract for the Project to the responsible Bidder with the lowest responsive bid as determined by MPWMD. MPWMD reserves the right to reject any and all bids or to waive any irregularities or informalities in any bid or in the bidding. Bids shall remain valid for 90 days after the bid opening date. After the opening of bids, bids may only be withdrawn in strict accordance with the provisions of Public Contract Code section 5100, et seq.

Plans, Specifications, and bid forms may be secured at no charge from the Monterey Peninsula Water Management District, 5 Harris Court, Building. G, Monterey, California 93940, by email request to mhamilton@mpwmd.net, or may be downloaded from MPWMD's web page at:

<https://www.mpwmd.net/who-we-are/bid-construction-smwtf/>

Questions may be directed to mhamilton@mpwmd.net prior to 5:00 pm Thursday September 5, 2019.

INSTRUCTIONS TO BIDDERS

BID PREPARATION

Any Addenda will be posted on the website and shall be made part of the Contract Documents. It is the responsibility of each prospective bidder to check the project website <https://www.mpwmd.net/who-we-are/bid-construction-smwtf/> through the close of bids for any applicable addenda or updates. Bidder shall either include all Addenda issued by MPWMD with their Bid or write the number and date of each Addendum on the Bid Acknowledgement Form.

MPWMD does not assume any liability or responsibility based on any defective or incomplete copying, excerpting, scanning, faxing, downloading or printing of the Bid Documents.

If alternate bid items are called for in the Contract Documents, the lowest bid will be determined on the basis of the base bid only unless otherwise specified in the Notice Inviting Bids. The time required for completion of the alternate bid items has been factored into the Contract Time and no additional time will be allowed for performing any of the alternate bid items.

Regardless of whether the alternate bid items will be considered in determining the low bid, MPWMD may elect to include one or more of the alternate bid items, or to otherwise remove certain work from the Project scope of work, accordingly each Bidder must ensure that each bid item contains a proportionate share of profit, overhead and other costs or expenses which will be incurred by the Bidder.

QUESTIONS AND CLARIFICATIONS

Discrepancies in, and/or omissions from the Bid or Contract Documents or questions as to their meaning shall be immediately brought to the attention of MPWMD by submission of a written request for an interpretation or clarification to MPWMD. Such submission, if any, must be sent in writing to the Project Manager at the address for MPWMD provided in the Notice Inviting Bids or at mhamilton@mpwmd.net.

Any interpretation of the Contract Documents will be made only by written addenda duly issued by MPWMD and posted to the project bid website. MPWMD will not be responsible for any explanations or interpretations provided in any other manner. No person is authorized to make any oral interpretation of any provision in the Contract Documents to any bidder, and no bidder should rely on any such oral interpretation.

BID GUARANTY

Each bid shall be accompanied by either U.S. currency, certified check, cashier's check, or proposed Contractor's bond of a surety company acceptable to MPWMD in an amount not less

than ten percent (10%) of the bid amount, and shall be made payable to the Monterey Peninsula Water Management District.

BID PRICE

The bid price shall include everything necessary for the performance of the complete job, including but not limited to furnishing all materials, equipment, tools, superintendence, labor and services except as expressly stated in the Contract Documents.

TAXES

Bid prices shall include allowance for all federal, state, and local taxes.

BONDS

The positioning of a Faithful Performance Bond by the Contractor in the amount of one hundred percent (100%) of the total contract price as specified in Section 4 of the General Provisions will be required as part of this project.

A Material-and-Labor Bond shall also be required to be posted by the Contractor in the amount of one hundred percent (100%) of the total contract price, as specified in Section 4 of the General Provisions.

A Warranty Bond shall also be required to be posted by the Contractor in the amount of fifty percent (50%) of the total contract price for one year, as specified in the Completion section of the Special Conditions.

The Contractor has the option to substitute certain securities for a faithful performance bond, pursuant to an escrow agreement. The Contractor shall inform MPWMD in writing upon submittal of the bid of his intention to substitute securities for a faithful performance bond.

CONTRACTOR EXPERIENCE

Each Bidder, including any subcontractor for the building construction if applicable, shall complete and submit the Contractor's Experience Qualifications and Subcontractor's Experience Qualifications forms demonstrating fulfillment of the requirements stated in the Contractor's Experience Qualifications form.

PUBLIC WORKS CONTRACTOR REGISTRATION

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No contract will be entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work. If awarded a contract, the bidder and its

subcontractors, of any tier, shall maintain active registration with the Department of Industrial Relations for the duration of the Project.

In addition, each Bidder shall provide the registration number for each listed subcontractor in the space provided in the Designation of Subcontractors form. Notwithstanding the foregoing, the contractor registration requirements mandated by Labor Code Sections 1725.5 and 1771.1 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Sections 1725.5 and 1771.1.

DEBARMENT OF CONTRACTORS AND SUBCONTRACTORS

In accordance with the provisions of the Labor Code, contractors or subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant to Labor Code Sections 1777.1 or 1777.7. Any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid to a debarred subcontractor by the Contractor for the Project shall be returned to MPWMD. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the Project.

OWNER FURNISHED EQUIPMENT

MPWMD furnished equipment will be described in the Special Conditions.

EQUIPMENT SUBSTITUTIONS

Pursuant to Public Contract Code Section 3400, if MPWMD has made any findings designating certain materials, products, things, or services by specific brand or trade name, such findings and the materials, products, things, or services and their specific brand or trade names will be set forth in the Special Conditions.

BID SUBMITTAL

A sealed bid shall be made and submitted on the blank forms provided herein, without substitution or omission, in accordance with Section 1.02 of the General Conditions. The bid shall be sealed in an envelope marked "**Santa Margarita Water Treatment Facility Project**". All bids received by mail shall be sealed in a separate envelope clearly marked "**Santa Margarita Water Treatment Facility Project**" and placed inside a mailing envelope. Bids that do not meet these requirements shall not be eligible for consideration. No other method of submitting bids will be accepted. Bidders may not submit bids by fax, email, telephone, or other means.

Bids shall remain valid for 90 days after the bid opening date.

BID MODIFICATION

Bidder may, without prejudice to itself, modify or withdraw its Bid prior to the stated bid closing time. Following withdrawal of its Bid, Bidder may submit a new Bid, provided that such new Bid is received prior to the stated closing time.

Any request to withdraw a bid after bid opening must be made in accordance with Public Contract Code section 5100 et seq. and must be submitted in writing within five (5) working days, excluding Saturdays, Sundays and State holidays, specifying in detail how the mistake was made.

BID OPENING AND AWARD

Bids shall be publicly opened and read at the time and location stated in the Notice Inviting Sealed Bids. Bid award shall be made in accordance with General Conditions Section 2.

BID PROTEST

Any Bid protest relating to the form or content of the Bid Documents must be submitted in writing to MPWMD's Project Manager identified in the Notice Inviting Sealed Bids at least ten (10) business days before the original date or extension thereto set for the Bid opening. Any Bidder who fails to submit a protest before the aforementioned deadline will be deemed to have waived any protest to the form or content of the Bid Documents.

Any Bid protest unrelated to the form or content of the Bid Documents must be submitted in writing to MPWMD's Project Manager. The protest must be received before 5:00 p.m. of the fifth (5th) business day following Bid opening. The protest document must contain a complete statement with legal grounds for the basis for the protest, and include all relevant, supporting documentation. The protest must include the name, address, and telephone number of the person representing the protesting party. If the protest does not comply with each of these requirements, MPWMD may reject the protest without further review.

If the protest is timely and complies with the above requirements, MPWMD's Project Manager or other designated staff member shall review the protest, any response from the challenged Bidder(s), and all other relevant information. MPWMD's designated staff member will provide a written decision to the protestor. Failure to comply with these procedures shall constitute a failure to exhaust administrative remedies and a waiver of any right to further pursue the Bid protest, including filing a Government Code Claim or legal proceedings.

TIMING

Award of a contract and Notice to Proceed is subject to MPWMD obtaining all necessary permits and authorizations for work.

Upon authorization of a contract by MPWMD Board of Directors, a notice of award will be sent to the successful bidder.

The successful bidder will then have 10 calendar days to return a signed contract agreement, together with faithful performance bonds and any other required documentation. If the bidder fails or refuses to enter into a contract to do the work, then the bid guaranty accompanying the bid shall be paid to the MPWMD as liquidated damages (General Provisions Sect. 2.03).

Work must begin within 10 calendar days from issuance of the Notice to Proceed by MPWMD.

Work must be substantially complete on or before May 31, 2020 as defined in the Special Conditions.

BID ACKNOWLEDGEMENT

Monterey Peninsula Water Management District
5 Harris Court Bldg G., Monterey, CA 93940 (Monterey County)
or
P.O. Box 85, Monterey, CA 93942-0085

Pursuant to the foregoing Notice Inviting Sealed Bids, the undersigned Bidder hereby proposes and binds itself by the Monterey Peninsula Water Management District (MPWMD), under this Bid, to execute in accordance with such award, a contract of which this Bid and the Plans and Specifications, which include Special Conditions and all Addenda, shall be a part, to furnish any and all labor, materials, equipment, and services necessary for satisfactory performance and completing the work set forth in said documents within the time hereinafter sent forth and at the prices named in this bid.

Upon award, the Bid Form shall become a part of the final contract.

The undersigned Bidder certifies the following:

- Bidder has examined the location of the proposed work and/or is familiar with the Specifications, which include Special Conditions and all Addenda, and the local conditions in the place where the work is to be done.
- Bidder has examined and carefully studied the Call for Bids, the other related data identified in the Call for Bids, and the following Addenda, receipt of which is hereby acknowledged:

Addenda (BIDDER MUST FILL IN or include addenda with bid)

No. _____	Dated _____
No. _____	Dated _____
No. _____	Dated _____
No. _____	Dated _____
No. _____	Dated _____

- Bidder has carefully checked all of the figures shown in its Bid Form and understands that MPWMD shall not be responsible for any errors or omissions on the part of the undersigned in making up this bid.
- Bidder has carefully reviewed the accuracy of all statements in this Bid and attachments hereto.
- Bidder understands that MPWMD reserves the right to reject any or all bids, and to waive any irregularities or informalities in bids received. Award shall be made which, in the

judgement of MPWMD, is to the best interest of MPWMD. It is agreed that this bid may not be withdrawn within a period of 90 days after the date set for the opening thereof.

- Bidder has examined and is fully familiar with all of the provisions of the Contract Documents and any addenda thereto.

In accordance with the Construction Specifications, Bidder further agrees to so plan the work and prosecute it with such diligence that said work shall be commenced within 10 days after issuance of the notice to proceed. The work must be substantially completed by May 31, 2020 so that the works and facility are operational, and the remaining work must be completed by September 31, 2019.

Bidder agrees, if awarded the contract, Bidder and all subcontractors shall pay to all laborers, workpersons, and mechanics employed in the execution of such contract or any subcontract thereunder, not less than the general prevailing rate of per diem wages, and rates for overtime and legal holidays in the locality in which the work is to be performed, as established by the State Director of the Department of Industrial Relations.

Bidder and subcontractors currently possess and agree to maintain valid **Contractor's Licenses** issued by the State of California necessary to prosecute the work.

Bidder:		Tax I.D. Number:	
Business Address:			
List all Contractor's License No.:			
Telephone:	()	e-mail:	
By (signature):			
Name (printed):			
Title:		Dated:	

This form must be submitted with the bid for the bid to be responsive.

BID FORM

All labor, materials, services, tools, equipment, services and whatever else is required to perform all work in accordance with the requirements in the Call for Bids, and all documents incorporated by reference in the Call for Bids, for construction of the following:

Item	Title	Unit	Estimated Quantity	Unit Price	Total
1	Mobilization and demobilization	LS	1	\$	\$
2	Traffic control and construction area signage	LS	1	\$	\$
3	Temporary sheeting, shoring, and bracing	LS	1	\$	\$
4	Erosion, sediment, and stormwater control	LS	1	\$	\$
5	Chemical Building and HVAC	LS	1	\$	\$
6	Hypochlorite Room non-structural interior equipment and materials, including labor and all other costs to install such equipment, indicated in Plan Drawing M1A	LS	1	\$	\$
7	South entrance Flow Meter and Flow Meter Vault, including all appurtenances, electrical, instrumentation, excavation and street/sidewalk repair, all other material, labor, and cost required to install such equipment indicated in Plan Drawings C7, C9, C11 Flow Meter Vault Plan and Section Flow Meter Vault Plan.	LS	1	\$	\$
8	All other Piping and Appurtenance Improvements	LS	1	\$	\$
9	All other Electrical and Instrumentation Improvements	LS	1	\$	\$
10	All other work in accordance with the Call for Bids and incorporated documents' requirements	LS	1	\$	\$
11	Sound Walls Allowance	LS	1	\$150,000	\$150,000
12	Standby Time	Hrs	8	\$	\$
Sub-Total, Base Bid:					\$
Sub-Total In Words:					
Alternate Items					
1	Orthophosphate Room non-structural interior equipment and materials, including labor and all other costs to install such equipment, indicated in Plan Drawing M1B.	LS	1	\$	\$
2	20" Meter Section works between the above-ground 90 elbows including equipment, materials, labor, and all other costs to install such equipment, indicated in Plan Drawing C10 Detail B/C10.	LS	1	\$	\$
Sub-Total, Alternate Items:					\$
Sub-Total In Words:					

This form must be submitted with the bid for the bid to be responsive.

CONTRACTOR'S EXPERIENCE QUALIFICATIONS

The Bidder as Prime Contractor must have completed at least \$10 million in construction volume within the last five (5) years, with at least one project having a contract value of \$2,000,000.

The Prime Contractor or its subcontractor for the water supply works must have completed two (2) projects constructing potable water supply works with piping and appurtenances within the last ten (10) years.

The Bidder or its subcontractor must have completed at least two (2) CMU buildings in the last ten (10) years of at least 500 square feet in size.

The Bidder has been engaged in the contracting business, under the present business name for ten (10) years. Experience in work of a nature similar to that covered in the bid extends over a period of ten (10) years.

The Bidder, as a contractor, has never failed to satisfactorily complete a contract awarded to Bidder, except as follows:

The Bidder as Prime Contractor shall list projects meeting the Contractor's Experience Qualifications in the following table for the bid to be considered responsive:

Year	Project Location and Contracting Firm/ Agency	Contract amount (\$)	Provide Name and Telephone Number of Person(s) That Can Be Contacted Regarding Work

Please attach additional sheet(s) as needed.

Bidder

Signed _____

Title _____

Date _____

Public Works Contractor Registration
Number _____

SUBCONTRACTOR'S DESIGNATION FORM

In accordance with the State of California Public Contract Code Sections 4100-4114, the Subletting and Subcontracting Fair Practices Act, each bid shall set forth for each subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the work in an amount in excess of one-half of one percent (1/2%) of the Contractor's Total Bid Price:

- a) the name and the location of the place of business,
- b) the California contractor license number,
- c) the public works contractor registration number, and
- d) the portion of the work which will be done as a percentage of the Contractor's Total Bid Price.

Notwithstanding the foregoing, if the work involves streets and highways, then the Contractor shall list each subcontractor who will perform work or labor or render service to Contractor in or about the work in an amount in excess of one-half of one percent (1/2%) of the Contractor's Total Bid Price or \$10,000, whichever is greater. No additional time shall be granted to provide the below requested information.

If a Contractor fails to specify a Subcontractor for any portion of the work to be performed under the Contract, on or about the construction of the project, in excess of one-half of one percent (1/2%) of the Contractor's total Bid, Contractor shall be deemed to have agreed to perform such portion, using Contractor's own resources and employed personnel and Contractor shall not be permitted to sub-contract that portion of the work, except under the conditions set forth in Section 4107 of the Government Code of the State of California.

The prime contractor shall list only one subcontractor for each portion as is defined by the prime contractor in Contractor's bid.

Subcontractor Name	Subcontractor Address
California Contractor License Number	Public Works Contractor Registration Number
Description of Work to be done by Subcontractor	% of Work to be done by Subcontractor

Subcontractor Name	Subcontractor Address
California Contractor License Number	Public Works Contractor Registration Number
Description of Work to be done by Subcontractor	% of Work to be done by Subcontractor

Subcontractor Name	Subcontractor Address
California Contractor License Number	Public Works Contractor Registration Number
Description of Work to be done by Subcontractor	% of Work to be done by Subcontractor

Name of Bidder _____

Signature _____

Name & Title _____

Dated _____

SUBCONTRACTOR'S EXPERIENCE QUALIFICATIONS

The subcontractor has been engaged in the contracting business, under the present business name for _____ years. Experience in work of a nature similar to that covered in the bid extends over a period of _____ years.

The subcontractor has never failed to satisfactorily complete a contract awarded to him, except as follows:

The subcontractor shall list projects meeting the pertinent Contractor's Experience Qualifications in the following table for the bid to be considered responsive:

Year	Project Location and Contracting Firm/ Agency	Contract amount (\$)	Provide Name and Telephone Number of Person(s) That Can Be Contacted Regarding Work

Please attach additional sheet(s) as needed.

Bidder _____

Signed _____

Title _____

Date _____

Intentional Blank

SECURITY FOR COMPENSATION CERTIFICATION

TO: MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

I am aware of the provisions of Section 3700 of the Labor Code of the State of California which require every employer to be insured against liability for worker's 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:

Date

(Signature of Bidder)

Business Address:

Place of Residence:

.....

(This certification must be executed by the successful bidder prior to the award of Contract.)

FAIR EMPLOYMENT PRACTICES CERTIFICATION

TO: MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

The undersigned Contractor, in submitting a bid for performing the following work by Contract, hereby certifies Contractor has or shall meet the standards of affirmative compliance with Fair Employment Practices requirements of the special provisions contained herein:

Date

(Signature of Bidder)

Business Address:

Place of Residence:

(This certification must be executed by the successful bidder prior to the award of Contract.)

NONCOLLUSION AFFIDAVIT

State of California _____)
_____) ss.
County of _____)

Being first duly sworn, deposes and says that her or she is _____ of the party making the foregoing bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true, and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Signature

Date

The title of the affidavit provides that it is "to be executed by bidder and submitted with the bid."

Intentional Blank

CONTRACT AGREEMENT

This agreement, made and entered into this _____ day of _____ 20____ , by and between the Monterey Peninsula Water Management District, Monterey County, State of California, hereinafter called the District, and _____ hereinafter called the Contractor.

WITNESSETH: That the District and Contractor have mutually covenanted and agree, and by these presents do covenant and agree with each other as follows:

1. That for and in consideration of the covenants and agreements hereinafter contained on the part of the District, and the sums of money hereinafter designated to be paid to the Contractor by the District in the manner and form as hereinafter provided in the attached Specifications, the Contractor hereby covenants and agrees with the District to furnish all labor, tools, appliances, equipment, plan and transportation, and any and all other expenses necessary or incidental to the performance of certain work hereinafter specified, and to build, construct and complete all works for the Monterey Peninsula Water Management District, State of California, all as more particularly as set forth in these Specifications filed in the District Office, and identified by the signatures of the parties to the Agreement.

This Agreement specifically includes all items of work described in the Bid, all in accordance with the Specifications. All terms and conditions contained in any of the component parts of this contract shall apply to the above designated schedule.

2. Time of Performance. In accordance with the Specifications, the undersigned further agrees to so plan the work and to prosecute it with such diligence that the backflush basin expansion work must be substantially completed by May 31, 2020 so that the works and facility are operational, and the remaining work must be completed by September 31, 2020.

In the event the work is not completed within the time agreed upon, the provisions of General Provisions Paragraph 11.08 regarding damages shall govern.

3. Payments. Payments shall be made by check to Contractor for work performed at the times and in the manner provided in the Specifications and General Provisions, Section 11).
4. Component Parts. The Contract shall consist of the following documents, each of which is on file in the office of the District Secretary and all of which are incorporated herein and made a part herein and made a part hereof by reference thereto:

**Notice Inviting Sealed Bids
Instructions to Bidders
Bid Acknowledgement
Bid Form
Contractor's Experience Qualifications
Subcontractors Designation Form
Subcontractor's Experience Qualifications, if any
Security for Compensation Certification
Fair Employment Practices Certification
Non-Collusion Affidavit
Contract Agreement
General Provisions
Special Conditions
Construction Specifications and Plans
Attachments, if any
Addenda, if any**

5. Wage Scale. Reference is hereby made to the wage scale established by the State Director of the Department of Industrial Relations which is hereby specified as the rate of prevailing wage to paid workers on this project, and the provisions of Article 2, Chapter 1, Part 7, Division 2 (commencing with Section 1770) of the Labor Code shall be complied with. A copy of the prevailing wage rates is on file and may be inspected at the District office.

It is further agreed that no person shall be hired by the undersigned or any sub-contractor under him, who is a not a Citizen of the United States, unless the undersigned or any sub-contractor has verified the person's right to live and work in the United States as stipulated in Section 121 of the U.S. Immigration Reform and Control Act (P.L. 99-603).

The Contract is subject to compliance monitoring and enforcement by the Department of Industrial Relations. The prime contractor shall post job site notices, as prescribed by regulation. Each contractor and subcontractor shall furnish the records specified in Labor Code Section 1776 directly to the Labor Commissioner, in the manner prescribed under Section 1771.4.

6. Hours of Labor. The Contractor shall forfeit, as penalty to the District, twenty-five dollars (\$25) for each worker employed in the execution of the Contract by him or by the subcontractor, for each calendar day during which any workman is required or permitted to labor more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week, in violation of the provisions of Article 3, Chapter 1, Page 7, Division 2 (commencing with Section 1810) of the Labor Code of the State of California.

7. Apprentices. In accordance with the provisions of Section 1777.5 of the Labor Code, and in accordance with the rules and procedures of the California Apprenticeship Council, properly indentured apprentices shall be employed in the prosecution of the work. The number so employed shall be as set forth in the certificate issued by the appropriate joint apprenticeship committee unless a certificate of exemption has been issued by the Division of Apprenticeship Standards. Willful failure by the Contractor to comply with said Section 1777.5 shall result in his being denied the right to bid on a public works contract for a period of six months from the date the determination is made.

Information relative to number of apprentices, identifications, wages, hours of employment and standards of working conditions shall be obtained from the Director of the Department of Industrial Relations, who is the Administrative Officer of the California Apprenticeship Council.

8. Trenching. Trenching shall be done in accordance with Sections 6705, 6706, 6707 of the Labor Code.
9. Worker's Compensation Insurance. In accordance with the provisions of Article 5, Chapter 1, Part 7, Division 2 (commencing with Section 1860) and Chapter 4, Part 1, Division 4 (commencing with Section 3700) of the Labor Code of the State of California, the Contractor is required to secure the payment of compensation to his employees and shall for that purpose obtain and keep in effect adequate Worker's Compensation Insurance. Proof of such insurance coverage shall be provided to the District prior to commencement of any work on this project.

The undersigned Contractor is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and shall comply with such provisions before commencing the performance of the work in this Contract.

10. Security for Compensation. Contractor hereby stipulates that the provisions of Section 1775 of the Labor Code of the State of California shall be complied with. Contractor further agrees to secure the payment of compensation to his employees in accordance with the provisions of Section 3700 of the Labor Code of the State of California.
11. Discrimination. Attention is directed to Section 1735 of the Labor Code, which reads as follows:

“No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons, except as provided in Section 12940 of the Government Code and every contractor for public works violating this section is subject to all penalties imposed for a violation of this chapter.

(Amended by Stats. 1976, c. 1174, p. 5270, subsection 1; Stats. 1980, c. 992, p. 3166, subsection 10.)

In connection with the performance of work under this Contract, the Contractor agrees as follows:

- (a) The Contractor shall not willfully discriminate against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex. Such action shall include, but not be limited to the following: Upgrading, demotion or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants to employment, notices setting forth the provisions of this Fair Employment Practices section.
- (b) The Contractor shall send to each labor union or representative of workers with which Contractor has a collective bargaining agreement or other contract or understanding, a notice, advising the said labor union or worker’s representative of the Contractor’s commitments under this section, and shall post copies of the notices in conspicuous places available to employees and applicants to employment.
- (c) The Contractor shall permit access to its records of employment, employment advertisements, application forms, and other pertinent data and records by the Fair Employment Practices Commission, the awarding authority or any other appropriate agency of the State of California designated by the awarding authority, for the purposes of investigation to ascertain compliance with the Fair Employment Practices section of this Contract.

- (d) A finding of willful violation of the Fair Employment Practices section of this Contract or of the Fair Employment Practices Act shall be regarded by the awarding authority as a basis for determining the Contractor to be not a "responsible bidder" as to future contract for which such Contractor may submit bids, for revoking the Contractor's prequalification rating, if any, and for refusing to establish, reestablish or renew a prequalification rating for the Contractor.

The awarding authority shall deem a finding of willful violation of the Fair Employment Practices Act to have occurred upon receipt of written notice from the Fair Employment Practices Commission that it has investigated and determined that the Contractor has violated the Fair Employment Practices Act and has issued an order under Labor Code Section 1426 or obtained an injunction under Labor Code Section 1429.

Upon receipt of such written notice from the Fair Employment Practices Commission, the awarding authority shall notify the Contractor that unless he demonstrates to the satisfaction of the awarding authority within a stated period that the violation has been corrected, his prequalification rating will be revoked at the expiration of such period.

- (e) The Contractor agrees that should the awarding authority determine that the Contractor has not complied with the Fair Employment Practices section of this Contract, then pursuant to Labor Code Sections 1735 and 1775 the Contractor shall, as a penalty to the awarding authority, forfeit for each calendar day or portion thereof, for each person who was denied employment as a result of such non-compliance, the penalties provided in the Labor Code for violation of prevailing wage rates. Such moneys may be recovered from the Contractor. The awarding authority may deduct any such damages from any moneys due the Contractor.
- (f) Nothing contained in this Fair Employment Practices section shall be construed in any manner of fashion so as to prevent the awarding authority or the State of California from pursuing any other remedies that may be available by law.
- (g) Prior to awarding the Contract, the Contractor shall certify to the awarding authority that he has or will meet the following standards for affirmative compliance, which shall be evaluated in each case by the awarding authority.

- 1) The Contractor shall provide evidence, as required by the awarding authority, that he has notified all supervisors, foremen and other personnel officers in writing of the content of the anti-discrimination clause and their responsibilities under it.
 - 2) The Contractor shall provide evidence, as required by the awarding authority, that he has notified all sources of employees' referrals (including unions, employment agencies, advertisements, department of Employment) of the content of the anti-discrimination clause.
 - 3) The Contractor shall file a basic compliance report, as required by the awarding authority. Willfully false statements made in such reports shall be punishable as provided by law. The compliance report shall also spell out the sources of the work force and who had the responsibility for determining who to hire, or whether or not to hire.
 - 4) Personally, or through his representatives, the Contractor shall, through negotiations with the unions with whom he has agreements, attempt to develop an agreement which will:
 - a. Spell out responsibilities for nondiscrimination in hiring, referral, upgrading and training.
 - b. Otherwise implement an affirmative anti-discrimination program in terms of the unions' specific areas of skill and geography to the end that qualified minority workers shall be available and given an equal opportunity for employment.
 - 5) The Contractor shall notify the contracting agency of opposition to the anti-discrimination clause by individuals, firms or organizations during the period of its prequalification.
- (h) The Contractor shall include the provisions of the foregoing paragraphs 1 through 5 in every first-tier subcontract so that such provisions shall be binding upon each subcontractor.

12. Contract Sum. The contract sum is the total amount payable by District to Contractor for the performance of the work encompassed by the Contract documents. The contract sum is \$_____, unless modified in accordance with the Contract.
13. Disputes. Contractor shall continue to perform under this Agreement during any dispute. Contractor and the District hereby agree to make good faith efforts to resolve disputes as quickly as possible. In the event any dispute arising from or related to this Agreement results in litigation or arbitration, the prevailing party shall be entitled to recover all reasonable costs incurred, including court costs, attorney fees, expenses for expert witnesses (whether or not called to testify), expenses for accountants or appraisers (whether or not called to testify), and other related expenses. Recovery of these expenses shall be as additional costs awarded to the prevailing party, and shall not require initiation of a separate legal proceeding.
14. Successors and Assigns. This Agreement and the rights, privileges, duties, and obligations of the District and Contractor under this Agreement, to the extent assignable or delegable, shall be binding upon and inure to the benefit of the parties and their respective successors, permitted assigns, and heirs.
15. Notices. Notices required under this Agreement shall be delivered personally or by first class, postage pre-paid mail to the District's and Contractor's contract administrators at the addresses listed below:
- District: _____
- Contractor: _____
16. Conflict of Interest. Contractor represents that it presently has no interest and agrees not to acquire any interest during the term of this Agreement which would directly or indirectly conflict in any manner or to any degree with the full and complete performance of the professional services required to be rendered under this Agreement.
17. Amendment. This Agreement may be amended or modified only by an instrument in writing signed by the District and the Contractor.

18. Assignment and Subcontracting. The Contractor shall not assign, sell, or otherwise transfer its interest or obligations in this Agreement without the prior written consent of the District. None of the services covered by this Agreement shall be subcontracted without the prior written approval of the District. Notwithstanding any such subcontract, Contractor shall continue to be liable for the performance of all requirements of this Agreement.
19. Waiver. Any waiver of any terms and conditions of this Agreement must be in writing and signed by the District and the Contractor. A waiver of any of the terms and conditions of this Agreement shall not be construed as a waiver of any other terms or conditions in this Agreement.
20. Headings. The headings are for convenience only and shall not be used to interpret the terms of this Agreement.
21. Governing Law. This Agreement shall be governed by and interpreted under the laws of the State of California.
22. Construction of Agreement. The District and Contractor agree that each party has fully participated in the review and revision of this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply in the interpretation of this Agreement or any amendment to this Agreement.
23. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same Agreement.
24. Authority. Any individual executing this Agreement on behalf of the District or the Contractor represents and warrants hereby that he or she has the requisite authority to enter into this Agreement on behalf of such party and bind the party to the terms and conditions of this Agreement.
25. Integration. This Agreement, including the exhibits any documents incorporated by reference, represent the entire Agreement between the District and the Contractor with respect to the subject matter of this Agreement and shall supersede all prior negotiations, representations, or agreements, either written or oral, between the District and the Contractor as of the effective date of this Agreement, which is the date that the District signs the Agreement.

26. Interpretation of Conflicting Provisions. In the event of any conflict or inconsistency between the provisions of this Agreement and the provisions of any exhibit or other attachment to this Agreement, the General Provisions of this Agreement shall prevail and control.
27. Severability. If any of the provisions contained in the Contract are held illegal, invalid, or unenforceable, the enforceability of the remaining provisions shall not be impaired thereby. Limitations of liability and indemnities shall survive termination of the Contract for any cause. If a part of this Contract is valid, all valid parts that are severable from the invalid part remain in effect. If a part of this Contract is invalid in one or more of its applications, the part remain in effect in all valid applications that are severable from the invalid applications.
28. Engineer. References to “Engineer” in these contract documents shall mean the District Engineer or designated staff of the District.
29. Owner. References to “Owner” in these contract documents shall mean the District.

IN WITNESS WHEREOF, District Board of Directors has caused these presents to be executed by its officers, thereunto duly authorized, and Contractor has subscribed same, all on the day and year first above written.

Contractor _____

By _____

Title _____

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

By _____

Title _____

GENERAL PROVISIONS

SECTION 1. BID REQUIREMENTS AND CONDITIONS

1.01 Examination of Plans, Specifications, Contract, and Site of Work.

The Contractor 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 contractor 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 site conditions including surface and subsurface conditions in areas where work is to be performed under the contract, bidders or Contractors may, upon written request, inspect the records of the District as to such investigations subject to and upon the conditions hereinafter set forth. Such investigations are made only for the purpose of study and design.

Where there has been prior construction by the District or other public agencies within the project limits, records of such prior construction that are currently in the possession of the District and which have been used by, or are known to, the designers and administrators of the project will be made available for inspection by bidders or Contractors, upon written request, subject to the conditions hereinafter set forth. Such records may include, but are not limited to, as-built drawings, design calculations, foundation and site studies, project reports and other data assembled in connection with the investigation, design, construction and maintenance of such prior projects.

Inspection of such records of investigations and project records may be made at the office of the District. The records of investigations and project records are not a part of the contract and are available 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 project records, or of the interpretations set forth therein or made by the District in its use thereof. There is no warranty or guaranty, either express or implied, that the conditions indicated by such investigations or records are representative of those existing in the project area, or that unlooked-for developments may not occur, or that materials other than, or in proportions different from those indicated, may not be encountered.

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

The availability or use of information described in this Section 1.01 is not to be construed in any way as a waiver of the provisions of the first paragraph in this Section 1.01. A bidder or Contractor is cautioned to make such independent investigation and examination as he deems necessary to satisfy himself as to conditions to be encountered in the performance of the work.

1.02 Bid Submittal.

A sealed bid shall be made of the original bid documents and any subsequent Addenda provided by the District, without substitution or omission. All bids shall be signed, with address included, by the bidding Contractor or the bidding contractor's authorized representative. Bids made by individuals must show the individual's signature and post office address; if made by a firm or partnership, the name and post office address of the firm or partnership and the signature of one or all partners must be shown. Bids submitted by corporations must show the name and post office address of the corporation, the name of the state under whose laws the corporation is chartered, and the signature and title of the person signing on behalf of the corporation.

Any bid submitted by a partnership shall be signed by an authorized general partner; any bid submitted by a corporation shall be signed by an authorized corporate officer. Deviations shall cause the bid to be rejected.

Each bid shall be enclosed in a sealed envelope and endorsed as specified in the notice to contractors. Bidding Contractors are warned against bids containing irregularities of any kind, including erasures, omissions, conditions, alterations, or additional bids, as such bids may be rejected.

1.03 Withdrawal of Bids.

Any bid may be withdrawn at any time prior to the hour fixed in the notice to contractors for the opening of bids, provided that a request in writing, executed by the bidder or his duly authorized representative, for the withdrawal of such bid, is filed with the District. The withdrawal of a bid shall not prejudice the right of the bidder to file a new bid.

1.04 Public Opening of Bids.

Bids shall be publicly opened and read at the time and place indicated in the notice to bidders. Bidding Contractors or their agents are invited to be present.

1.05 Bid Guaranty.

Each bid shall be accompanied by either a U.S. currency certified checks, cashier's check, or bidding Contractor's bond of a surety company acceptable to the District in an amount not less than ten percent (10%) of the bid amount, and shall be made payable to the District.

1.06 Qualifications of Bidders.

Each bidding Contractor shall be licensed in accordance with the provisions of Sections 7065, et seq., Business and Professions Code, State of California, and shall be skilled and regularly engaged in the general class or type of work called for under this contract.

It is the intention of the District to award a contract only to a bidding Contractor who is able to furnish satisfactory evidence that he has the requisite experience and ability and that he has sufficient capital, facilities, and plant to enable him to prosecute the work successfully and promptly, and to complete it within the time set forth in the contract.

In determining the degree of responsibility to be credited to a bidding Contractor, the District shall weigh any evidence indicating the Contractor, or personnel guaranteed to be employed in responsible charge of the work, has satisfactorily performed other contracts of like nature and magnitude. The District shall perform such an investigation of the low bidder prior to award of the Contract.

1.07 Disqualification of Bidders.

More than one bid from an individual, firm or partnership, a corporation or an association under the same or different names shall not be considered. Reasonable ground for believing that any bidding Contractor is interested in more than one bid for the work shall cause the rejection of all bids in which such bidding Contractor is interested. If there is reason to believe that collusion exists among the bidding Contractors, none of the participants in such collusion will be considered. Bids in which the prices obviously are unbalanced may be rejected.

1.08 List of Subcontractors.

In accordance with Sections 4100-4114, Public Contract Code, each bid shall have listed the name and address of each subcontractor and sub-subcontractor to whom the bidder proposes to sublet or permit to be sub-sublet portions of the work. A subcontractor is defined as one who contracts with the Contractor to furnish materials and labor, or to perform labor only for performance of work at the building site. Subcontractors shall be listed on the form provided herewith. In the list of Subcontractors, the Contractor shall specify the portion of the work which will be done by each subcontractor.

SECTION 2. AWARD AND EXECUTION OF CONTRACT

2.01 Award of Contract.

Award of contract, if it be awarded, shall be to the lowest responsible bidding Contractor whose bid complies with all the specified requirements. The award, if made, will be made within sixty (60) days after the opening of the bids. The District reserves the right to reject any and all bids. Sub-subcontractors are defined as those who contract a subcontractor to furnish materials and labor, or to perform labor only for performance of work at the building site. Sub-subcontractors shall be listed on the form provided herewith when their identity is known in advance, and shall be listed in a subsequent writing which shall be transmitted to the District without delay for those sub-subcontractors whose identity cannot presently be ascertained.

2.02 Return of Bid Guaranties.

Within sixty (60) days after the bids are opened, the District shall return the bid guaranties accompanying each of the bids that are not to be considered in making the award. All other bid guaranties shall be held until the contract has been fully executed, after which they shall be returned to the respective bidders whose bids they accompany. The District will return all bid guaranties within a reasonable time but in no event later than sixty (60) days from date of the award.

2.03 Execution of Contract.

The contract agreement shall be signed by the successful bidder and returned to the District, together with the faithful performance bonds, within five (5) days after the notice of award has been sent to the successful bidder by mail at the address given in the bid. If the bidder fails or refuses to enter into a contract to

do the work, then the bid guaranty accompanying the bid shall be paid to the District as liquidated damages.

SECTION 3. NATURE OF CONTRACT

3.01 Definitions.

Whenever any word or expression defined in this section, or pronoun used in its stead, occurs in these contract documents, it shall have and is mutually understood to have the meaning given:

- a. "District" shall mean the Monterey Peninsula Water Management District, its board of directors or any other board, body, official or officials to which or to whom the power belonging to the District has been properly delegated.
- b. "Biologist" shall mean the Biologist duly and officially appointed by the District to monitor the work of construction under this contract, acting personally or through agents or assistants duly authorized by him, such agents or assistants acting within the scope of the particular duties entrusted to them. By this designation, no requirement shall attach that such individual be licensed by the State of California.
- c. "District Engineer" shall mean the Engineer duly and officially appointed by the District to supervise and direct the work of construction under this contract, acting personally or through agents or assistants duly authorized by him, such agents or assistants acting within the scope of the particular duties entrusted to them. By this designation, no requirement shall attach that such individual be licensed by the State of California.
- d. "Engineer of Record" shall mean the Engineer who has prepared the plans and specifications. By this designation, the Engineer shall be licensed by the State of California unless the Engineer works for the District.
- e. "Inspector" shall mean the engineering or technical inspector or inspectors duly authorized or appointed by the District Engineer or District, limited to the particular duties entrusted to said inspector(s).
- f. "Contractor" shall mean the party entering into contract with the District for the performance of work covered by this contract, and his authorized agents or legal representatives. This term shall also apply to all bidding

contractors insofar as the provisions of Section 1 of the General Provisions apply.

- g. "Date of Signing of Contract" or words equivalent thereto, shall mean the date upon which this contract, with the signature of the Contractor affixed, together with the prescribed bonds, shall be or shall have been delivered to the District or its duly authorized representative.
- h. "Day" or "Days", unless herein otherwise expressly defined, shall mean a calendar day or days of twenty-four (24) hours each, beginning at 00:00 and ending at 24:00 (midnight).
- i. "The Work" shall mean the work to be done under this contract, unless some other meaning is indicated by the context.
- j. "Contract Drawings" or "Plans" shall mean and include all drawings which may have been prepared by or on behalf of the District, as a basis for bids, when duly signed and made a part of this contract by incorporation or reference; all drawings submitted in pursuance of the terms of this contract by the successful bidder with his bid and by the Contractor to the District if and when approved by the District Engineer; and all drawings submitted by the District Engineer to the Contractor during the progress of the work as provided for herein.

All such Contract drawings or plans shall be stamped by a licensed professional engineer registered within the State of California.

- k. Where "as shown", "as indicated", "as detailed", or words of similar import are used, it shall be understood that reference to the drawings accompanying these specifications is made unless stated otherwise. Where "as directed", "as permitted", "approved", or words of similar import are used, it shall be understood that the direction, requirements, permission, approval, or acceptance of the District Engineer is intended unless stated otherwise. As used herein, "provide" shall be understood to mean "provide complete in place", that is "furnish and install". "Install" shall mean the installation complete in place of an item of equipment furnished by the District.
- l. Specifications. The directions, provisions, and requirements contained here; supplemented by any special provisions as provided herein,

pertaining to the method and manner of performing the work, to kinds, quantities, and qualities of materials to be furnished under the contract, and method of measurement and payment.

- m. Superintendent. The executive representative of the Contractor, **present on the work site at all times during progress**, authorized to receive and fulfill instructions from the District Engineer and to accept orders for changed and extra work.
- n. Change Orders. A written order by the District Engineer or his authorized representative to the Contractor making changes in the plans or specifications. If the change involves items for which there is no contract unit price, the order shall so state and stipulate that the changes shall be performed as extra work or work omitted.
- o. Extra Work. Work or material, the performance or furnishing of which is found necessary for the proper completion of the improvement, the payment for which is not covered by any item of the bid schedule and for which no means of payment, direct or indirect, has been provided in the contract.

3.02 Official Copies of Contract.

This Contract shall be executed and signed in duplicate, one copy shall be filed with the District, and one copy shall be delivered to the Contractor.

3.03 Titles and Headings.

The subheadings and titles printed on the drawings, in these general provisions, in the specifications, and elsewhere in the contract documents, are inserted for the convenience of reference only, and shall not be taken or considered as having any bearing on the interpretation thereof.

3.04 Effect of Inspection and Payments.

Inspection by the District Engineer or by any Inspector, or any order, measurement, approved modification, certificate or payment of money, or acceptance of any part or whole of the work, or any extension of time, or any possession by the District or its agents, shall not operate as a waiver for any provision of this contract or of any power reserved therein to the District, or any right to damage thereunder; no breach of this contract shall be held to be a waiver

of any or subsequent breach. All remedies shall be taken and construed as cumulative.

3.05 Effect of Extension of Time.

The granting of any extension of time due to delays which in the judgment of the District are unavoidable delays, shall in no way operate as a waiver on the part of the District of its rights under this contract.

3.06 Extra Work.

If change orders requiring extra work are given in accordance with the provisions of this contract, such work shall be considered a part hereof and subject to each and all of the contract terms and requirements. No extra work which is reasonably estimated to exceed twenty percent (20%) of the cost of the contract work or project is authorized without compliance with applicable competitive bidding statutes.

3.07 Recognition of Subcontractors or Sub-Subcontractors.

No subcontractor or sub-subcontractor shall be recognized as such, and all persons engaged in the work of construction shall be considered as employees of the Contractor and their work shall be subject to the provisions of the contract, including specifically these general provisions, the specifications and the contract drawings.

SECTION 4. BONDS

4.01 Faithful Performance Bond.

As a part of the execution of this contract, the Contractor shall furnish and bear the cost of a bond of a Surety Company acceptable to the District, which bond is conditioned upon the faithful performance of all covenants and stipulations under this contract. The amount of the bond shall be one hundred percent (100%) of the total contract price, as such sum is set forth in the agreement.

As a condition precedent to satisfactory completion of this contract, an amount equal to five percent (5%) of the contract price shall be withheld for the period specified in said bond until completion and acceptance of the work by the District.

4.02 Material-and-Labor Bond.

As a part of the execution of this contract, the Contractor shall furnish and bear the cost of a bond of a Surety Company acceptable to the District in a sum not less than one hundred percent (100%) of the total contract price, as such sum is set forth in the agreement, for the payment in full of all persons, companies, or corporations who perform labor upon or furnish materials to be used in the work under this contract, in accordance with the provisions of Sections 3247 and 3248, Civil Code.

4.03 Notification of Surety Companies.

The surety companies shall familiarize themselves with all of the conditions and provisions of this contract, and they waive the right of special notification of any change or modification of this contract or of extension of time, or of decreased or increased work, or of the cancellation of the contract, or of any other act or acts by the District or the District's authorized agents, under the terms of this contract, including but not limited to change orders or extra work, and failure to so notify the aforesaid surety companies of changes shall in no way relieve the surety companies of their obligation under this contract.

4.04 Power of Attorney.

Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their Power of Attorney.

SECTION 5. INSURANCE

5.01 Indemnification Agreement.

To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless the Monterey Peninsula Water Management District, their officers, agents and employees both severally and collectively from and against all claims, damages, losses, injury, liability, costs, and expenses of whatsoever kind or nature including but not limited to attorney's fees and all defense costs howsoever the same may be caused resulting directly or indirectly from or arising out of the activities, operations, or work performed by the Contractor, its employees, agents, subcontractors, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable and without limiting the generality of the foregoing, the same shall include; (1) bodily injury, sickness,

disease or death to any person or persons or, (2) injury to or destruction of tangible and/or property including that of the Monterey Peninsula Water Management whether direct or consequential including the loss of use resulting therefrom. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described herein. The District, at its sole option, may choose to provide all or a portion of the defense of claims, damages, losses, liability, costs, and expenses as set forth above, and in such event, Contractor shall indemnify and hold harmless the District from the costs and expenses, including attorney's fees, of such defense.

5.02 General Insurance Requirements.

The Contractor shall procure, purchase at its expense and maintain in full force and effect such insurance as will protect it from claims, damages, losses, liability, costs, and expenses as set forth herein which may arise out of or result from or in any way connected with the Contractor's activities, work, services, and/or operations performed by the Contractor under the Contract, whether such activities or operations be by itself or by any subcontractor or by any sub-subcontractor or by anyone directly or indirectly employed by any of them, or by anyone else for whose acts the Contractor or any of them is or may be liable. The procurement and maintenance by the Contractor of policies required under this Contract shall not relieve, limit or satisfy Contractor's obligation to indemnify, defend and save harmless the District, their officers, directors, agents and employees.

- a. Contractor represents that he will, prior to commencement of work pursuant to this agreement, name and endorse on to his Comprehensive General Liability insurance policy the District as an "Additional Insured" as respect to liability arising out of your activities, services, operations or work performed by Contractor for District (ISO form CG 20 09 11 85 or its equivalence). Contractor shall obtain and keep in full force and effect insurance policies and in appropriate limits as specified by the Insurance Requirements and shall require any subcontractor or sub-subcontractor to provide evidence of similar liability insurance coverages.
- b. Contractor shall add to his Comprehensive General Liability insurance policy a severability or interest clause or such similar wording if his policy does not automatically have this clause already written into it. Such language shall be similar to: "The insurance afforded applies separately to each insured against whom claim is made or suit is brought, including

claims made or suits brought by any person included within the persons insured provision of this insurance against any other such person or organization."

- c. All policies carried by Contractor shall contain a provision or be endorsed to state that coverage as respects to District shall not be suspended, voided, canceled or non-renewed except after the insurance company has given to District at least thirty (30) days prior written notice to the address shown below prior to any such termination of coverage becomes effective.
- d. Contractor shall on all policies or coverages required to be carried by Contractor pursuant to this contract, agrees to give to District thirty (30) days prior written notice by certified mail, return receipt requested, to the address shown below notification of any limitations, reductions or material change in coverage or in limits available.
- e. Prior to the execution of the contract, Contractor shall file with District copies of all insurance policies, certificates of insurance of coverage actually in force, along with original endorsements effecting coverages required to be carried by Contractor pursuant to this section. With respects to each renewal or replacement of any such insurance, the requirements of this paragraph must be complied with not less than thirty (30) days prior to the expiration or cancellation of the policy being renewed or replaced.
- f. All insurance policies carried by or available to Contractor shall be primary and not excess nor contributing with any insurance issued to or available to District. Any insurance or self-insurance maintained or carried by District shall be excess of the Contractor's insurance and shall not participate in nor contribute with such insurance carried by or available to Contractor. District will not be responsible for any payment of premiums due as a result of compliance with the terms and conditions of the insurance requirements. The cost of such insurance shall be borne solely by the Contractor.
- g. District shall be under no duty either to ascertain the existence of or to examine such insurance policies or to advise Contractor in the event such insurance coverage does not comply with the requirements hereof. However, District may, at any time, and from time to time, inspect and copy any and all insurance policies, endorsements, certificates and

correspondence required to be carried by Contractor pursuant to this Contract.

5.03 Workers' Compensation Insurance.

Each Bidder shall submit concurrently with his Bid a Certificate of Insurance for Compensation, in accordance with the provisions of Labor Code Sections 1860-61 and any acts amendatory thereof. Before beginning the work the Contractor shall furnish to the District satisfactory proof that he has taken out, for the period covered by the work under this contract, full compensation insurance for all persons whom he may employ directly or through subcontractors, in carrying out the work contemplated under this Contract, in accordance with the "Workers' Compensation and Insurance Act," Sections 3200 et seq., Labor Code.

- a. The following endorsements are to be attached to the Worker's Compensation Policy:
 - (1) Waiver of Subrogation Endorsement
 - (2) Alternate Employer Endorsement
 - (3) Thirty (30) Days Prior Notice

- b. If the Contractor fails to maintain such insurance, the District may take out compensation insurance which the District might be liable to pay under the provisions of the Act by reason of any employee of the Contractor being injured or killed, and deduct and retain the amount of the premiums for such insurance from any sums due the Contractor.

- c. If any injury occurs to any employee of the Contractor for which the employee, or his dependents in the event of his death, is entitled to compensation from the District under the provisions of said Act, or for which compensation is claimed from the District, the District may retain from the sums due the Contractor under this contract an amount sufficient to cover such compensation, as fixed by said Act, until such compensation is paid, or until it is determined that no compensation is due, and if the District is compelled to pay such compensation District will deduct and retain from such sums the amount so paid.

5.04 Specific Insurance Requirements

- a. Provide evidence of valid and collectible insurance carried for those exposures indicated by an "X". [coverages to be determined for each contract]
- A. X Professional Liability Errors & Omissions
 - B. Workers Compensation and Employers Liability
 - C. X Automobile Liability – "Any Auto – Symbol 1"
 Comprehensive General Liability, including: Bodily Injury, Property Damage, Personal Injury (A, B, C, D, & E), "X, C, U" Broad Form
 - D. X Blanket Contractual, Broad Form Property Damage
 - E. Protection & Indemnity (Aviation)
- b. Minimum Limits of Insurance. For coverage specified in 5.04 (a), Contractor shall maintain limits of insurance protection no less than:
- (1) Professional Liability shall be not less than \$2,000,000 per claim and in the aggregate.
 - (2) Workers' Compensation as required by the Labor Code of the State of California and Employers Liability limits of Bodily Injury by Accident \$2,000,000 Each accident, Bodily Injury by Disease \$2,000,000 Each Employee; and Bodily Injury by Disease \$2,000,000 Policy Limit.
 - (3) Business Automobile Liability, Insurance Services Offices, "ISO" from CA 00 01 12-92 or its equivalence with limits not less than \$2,000,000 combined single limit per accident for bodily injury and property damage.
 - (4) Commercial General Liability, Insurance Services Offices, "ISO" form CG 00 01 11-88 or its equivalence with limits not less than \$2,000,000 combined single limit per occurrence for bodily injury, property damage, personal injury and shall specifically include contractual liability providing protection for liability assumed by the Contractor under this contract. Coverage for "Explosion,

Collapse and Underground" shall be specifically endorsed on to the policy for full coverage under the policy.

(5) Protection & Indemnity (Aviation) shall not be less than \$5,000,000 combined single limit, including passengers.

c. All insurance correspondence, certificates, binders, etc., shall be mailed to:

Monterey Peninsula Water Management District
Attn: Administrative Services Manager
P.O. Box 85
Monterey, CA 93942-0085

d. All policies carried by the Contractor shall be primary coverage to any and all other policies that may be in force. The "District" will not be responsible for payment of premiums due as a result of compliance with the terms and conditions of the insurance requirements.

e. All such policies of insurance shall be issued by domestic United States insurance companies with general policy holders' rating of not less than "B" and admitted to do business in the State of California.

5.05 Other Insurance Provisions.

The Contractor shall comply with the following insurance provisions:

a. Additional Insured. The "Persons Insured" provision on each policy shall include as additional insureds: (1)"Monterey Peninsula Water Management District, their officers, directors, agents and employees". Refer to Special Conditions in the Call for Bids for additional insured.

b. Waiver of Subrogation. Contractor hereby waives any and all right of recovery against (1) the Monterey Peninsula Water Management District, their officers, directors, agents, and employees for any loss or damage sustained by the Contractor which is insured under valid and collectible insurance policy or policies secured pursuant to Paragraph 5.02 or any other property insurance applicable to the activities of the Contractor.

5.06 Hold Harmless.

The following entities are to be held harmless: (1) Monterey Peninsula Water Management District and its directors, officers, agents and employees.

5.07 Property Insurance.

If required by District, the Contractor shall, before commencing the work, take out and maintain during the life of this contract, an "All Risk" Property Insurance Policy as shall protect him, any sub-contractor performing work covered by this contract, the District and its officers, directors, agents, and employees, from any damage to the work being performed under this contract, including finished structures, partially finished structures, and all materials and equipment which are to be incorporated into the work. The Contractor shall furnish the District satisfactory proof that such a policy has been secured, and which shall be for not less than the amount listed in the contract documents.

5.08 Issuance of Stop-Work Order.

The Contractor will be issued an immediate stop-work order when the District is notified of cancellation of any insurance required under this Contract. Such stop order shall continue until District is notified and provided proof of new or reinstated insurance. Neither the Contractor nor the subcontractor shall be entitled to any increase in Contract performance time, or to any adjustment in Contract price due to the effects of such a stop-work order.

SECTION 6. DUTIES AND RESPONSIBILITIES OF CONTRACTOR

6.01 Legal Address of Contractor.

The Contractor's address as shown in the bid, as well as such office or headquarters the Contractor establishes at the site of the work, hereby are designated as addresses to which drawings, samples, notices, letters, articles, or other communications to the Contractor may be mailed or delivered. The delivery at either of these places of any item or communication from the District or agents thereof to the Contractor shall be deemed sufficient service of such delivery. The Contractor's address as shown in the bid may be changed at any time by notice in writing from the Contractor to the District. Nothing herein contained shall be deemed to preclude or render inoperative the service of any drawing, sample,

notice, letter or other article or communication to or upon the Contractor personally.

6.02 Contractor's Representative and Office at Site.

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

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

The names of Contractors, Subcontractors, architects, or engineers may be displayed at the work site on removable signs. The size, location and content of each sign, however, shall require the advance written approval of the District Engineer.

During the performance of this contract the Contractor shall maintain a suitable office at the site of the work which shall be the headquarters of a representative authorized to receive drawings, instructions or other communications or articles from the District or District's agents; and any such thing given to the said representative or delivered at the Contractor's office at the site of the work in his absence shall be deemed to have been given to the Contractor. A signed receipt shall be given to the District or District's representative upon such delivery. The Contractor shall maintain a complete set of plans and specifications at the site office whenever work is in progress.

6.03 Permits and Licenses.

Unless otherwise described under Special Conditions, the Contractor shall acquire, pay for and possess such State and local permits or licenses as are required by law,

such as the general building permit, the plan check fee, utility connection fees, Department of Fish and Game permits, and Army Corps of Engineer permits, and the Contractor shall furnish satisfactory proof to the District, upon request, that such permits or licenses are and will be in effect throughout the entire life of this contract. **The Contractor shall keep all permits and licenses posted on the job site or other location approved by the District, and forward copies of all permits obtained to the District.**

The District, at its sole option, may choose to provide any or all permits and licenses.

6.04 Attention to Work.

The Contractor shall give his personal attention to and shall supervise the work to the end that it shall be prosecuted faithfully, and when he is not personally present on the work, he shall at all reasonable times be represented by a competent superintendent or foreman who shall receive and obey all instructions or orders given under this contract, and who shall have full authority to execute the same and to supply materials, tools and labor without delay, and who shall be the legally appointed representative of the Contractor. The Contractor shall be liable for the faithful observation of any instructions delivered to him or to his authorized representative.

6.05 Liability of Contractor.

The Contractor shall do all of the work and furnish and pay for all labor, materials, tools, and appliances, except as otherwise herein expressly stipulated, necessary or proper for performing and completing the work herein required in the manner and within the time herein specified. The mention of any specific duty or liability imposed upon the Contractor shall not be construed as a limitation or restriction of any general liability or duty imposed upon the Contractor by this contract, said reference to any specific duty or liability being made herein merely for the purpose of explanation.

6.06 Status of Contractor.

The right of general inspection by the District shall not make the Contractor an agent of the District, and the liability of the Contractor for all damages to persons or to public or private property, arising from the Contractor's execution of the work, shall not be lessened because of such general inspection.

6.07 Right of Appeal.

The Contractor shall have the right to appeal from any decision by any inspector to the District Engineer and from the District Engineer to the General Manager of the Monterey Peninsula Water Management District.

6.08 Protection of Persons and Property.

The Contractor shall at all times during the progress of the work, or temporary suspension of the work, provide, erect and maintain all proper and/or necessary temporary walks, roads, driveways, guards, railings, lights and warning signs, provide a sufficient number of flagmen and take all necessary precautions at all times for the protection of the work and safety of the public, and those engaged in the work. Streets and alleys closed to traffic shall be protected by effective barricades. Signs and barricades shall conform to standards approved by the District Engineer. All barricades and obstructions shall be illuminated at night with reflector signs and lights, and all lights for this purpose shall be kept burning from sunset to sunrise. If in the opinion of the District Engineer or his authorized representative, the Contractor, during the course of the work, does not provide sufficient light and barricades and other safety devices, the District may provide them and deduct the cost thereof from monies due the Contractor under this contract. The Contractor shall also furnish, install and maintain at his own expense, such temporary fences, gates and barricades as may be required to confine cattle or other stock to the limits existing before the start of construction operations.

6.08.1 Cleanup and Dust Control.

Throughout all phases of construction, including suspension of work, and until the final acceptance, the Contractor shall keep the site clean and free from rubbish and debris. The Contractor shall also abate dust nuisance by cleaning, sweeping and sprinkling with water, or other means as necessary. The use of water resulting in mud on public streets will not be permitted as a substitute for sweeping or other methods.

Materials and equipment shall be removed from the site as soon as they are no longer necessary. Before the final inspection, the site shall be cleared of equipment, unused materials, and rubbish so as to present a satisfactory clean and neat appearance. All cleanup costs shall be included in the Contractor's Bid.

Care shall be taken to prevent spillage on haul routes. Any such spillage shall be removed immediately and the area cleaned.

Failure of the Contractor to comply with the District Engineer's cleanup orders may result in an order to suspend work until the condition is corrected. No additional compensation will be allowed as a result of such suspension.

6.08.2 Water Pollution Control.

The Contractor shall exercise every reasonable precaution to protect channels, storm drains, and bodies of water from pollution. It shall conduct and schedule operations so as to minimize or avoid muddying and silting of said channels, drains, and waters. Water pollution control work shall consist of constructing those facilities which may be required to provide prevention, control, and abatement of water pollution.

6.08.3 Drainage Control.

The Contractor shall maintain drainage within and through the work areas. Earth dams will not be permitted in paved areas. Temporary dams of native material, sandbags, or other acceptable material will be permitted when necessary. Such dams shall be removed from the site as soon as their use is no longer necessary.

6.08.4 Air Pollution Control. The Contractor shall not discharge smoke, dust, or any other air contaminants into the atmosphere in such quantity as will violate the regulations of any legally constituted authority.

6.09 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. Before blasting operations are undertaken, at least twenty-four (24) hours written notice must be given to the District and the District Engineer. The Contractor shall be responsible for obtaining permits from the appropriate authorities. Explosives shall at all times be handled, used and stored in accord with all applicable regulations. Approval of the use of explosives by the District Engineer or District shall not relieve the Contractor from liability for claims caused by blasting operations.

6.10 Notice of Entrance.

If any portions of the work specified herein are to be installed in rights-of-way passing through privately owned land, it is of utmost importance that before entering any private property, the Contractor shall give the tenant and inspector a minimum of forty-eight (48) hours' notice.

6.11 Preservation and Restoration of Property.

The Contractor shall be responsible for the preservation of all public and private property along and adjacent to the work being constructed, and shall be responsible for restoring said property to the condition in which it existed before the Contractor undertook the work. The Contractor shall not be required to restore trees if they have been specifically designated for removal, but otherwise shall be required to restore all property including but not limited to trees, vegetation, lawns, land monuments, utilities, fences, driveways, and bridges which have been disturbed in performance of the work. The Contractor shall carefully protect from disturbance or damage all land monuments and property marks until an authorized agent has witnessed or otherwise referenced their location.

The Contractor shall confine his operations to the area within the limits of construction, and not disturb ground outside of construction stakes, and shall not unreasonably encumber the site with materials or equipment.

The Contractor shall be familiar with all restrictions which apply to works or activity within streambeds and watercourses and shall insure that all activities of Contractor, subcontractors, and sub-subcontractors comply with those restrictions and protect the streambed, banks, water, and water life from disturbance and/or damage.

6.12 Maintenance of Traffic.

Throughout the performance of the work in connection with this contract, the Contractor shall construct and adequately maintain suitable and safe crossings over trenches and such detours as are necessary, to care for public and private traffic, and to permit ingress and egress from public ways and private dwellings. The material excavated from trenches shall be compactly deposited along the sides of the trench in such manner as shall give as little inconvenience as possible to the traveling public and to adjoining property owners.

6.13 Protection of Utilities.

The Contractor's attention is directed to the potential existence of pipes, cables, culverts, and other above and below ground structures and improvements which may or may not be shown on the plans. It is the responsibility of the Contractor to use reasonable care to ascertain the existing location of such utilities in advance of any operations so that they shall not be disturbed or damaged by Contractor during the progress of the work. Contractor shall exercise care in avoiding damage to those utility facilities which are to remain in service subsequent to the construction of the work under this contract, and will be held responsible for their repair if damaged. There is no guarantee that all utilities or obstructions are shown on construction drawings or that locations indicated are accurate.

The Contractor shall uncover all piping, conduit or other buried utilities, to a point one foot below the pipe or conduit, where crossings, interferences or connections are indicated, prior to trenching or excavating for any work structure, to determine actual elevations. If the contractor does not expose all required utilities, he shall not be entitled to additional compensation for work necessary to avoid interferences nor for repair to damaged utilities.

The Contractor shall be compensated for costs of locating and repairing damages not due to the failure of the Contractor to exercise reasonable care and for the costs of removing or relocating such utility facilities and for equipment on the project necessarily idled during such work.

The Contractor shall not be assessed liquidated damages for delay in completion of the project, when such delay was caused by the failure of the District or the District Engineer or the owner of the utility to provide for removal or relocation of such utility facilities.

If the location of pipelines or other works being installed by the Contractor under this contract conflicts with the location of existing pipelines, the Contractor shall so notify the District Engineer in writing. The District Engineer shall ascertain the location of the existing utility in question and may at the Engineer's discretion relocate the pipeline or other work being installed for the convenience of the Contractor. It shall not be construed that the District or the District Engineer is in any way required or obligated to locate or relocate pipelines or other works to locations other than shown on the construction drawings.

6.14 Protection of Bridges.

The Contractor shall be responsible for any damage which he may cause to bridges, culverts and road structures. Contractor shall determine in advance the allowable safe load for each structure and, if necessary, provide special shoring and support at Contractor's expense.

6.15 Assumption of Risks.

Until the completion and final acceptance by the District of all of the work under and implied by this contract, the work shall be under the Contractor's responsible care and charge. The Contractor shall rebuild, repair, restore and make good all injuries, damages, re-erections, and repairs, occasioned or rendered necessary, by causes of any nature whatsoever, excepting only acts of God and none other, to all or any portions of the work, excepting as otherwise stipulated.

6.16 Responsibility for Damage.

To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless the District, its officers, agents and employees both severally and collectively from and against all claims, damages, losses, injury, liability, costs, and expenses of whatsoever kind or nature including but not limited to attorney's fees and all defense costs howsoever the same may be caused resulting directly or indirectly from or arising out of the activities, operations, or work performed by the Contractor, its employees, agents, subcontractors, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable and without limiting the generality of the foregoing, the same shall include; (1) bodily injury, sickness, disease or death to any person or persons or; (2) injury to or destruction of tangible and/or property including that of the District's whether direct or consequential including the loss of use resulting therefrom; (3) loss of, injury to, or destruction of materials, supplies, equipment, or tools, including those of owner, contractor, subcontractors, or sub-subcontractors. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described herein. The District, at its sole option, may choose to provide all or a portion of the defense of claims, damages, losses, liability, costs, and expenses as set forth above, and in such event, Contractor shall indemnify and hold harmless the District from the costs and expenses, including attorney's fees, of such defense. The District shall have the right to estimate the amount of such damage and to cause the District to pay the same, and the amount so paid for

such damage shall be deducted from the money due the Contractor under this contract; or the whole or so much of the money due or to become due the Contractor under this contract, as may be considered necessary by the District, shall be retained by the District until such suits or claims for damages shall have been settled or otherwise disposed of, and satisfactory evidence to that effect furnished to the District.

6.17 Protection of District Against Patent Claims.

All fees, royalties, or claims for any patented invention, article, or method that may be used upon or in any manner connected with the work under this contract shall be included in the price bid for the work, and the Contractor and his sureties shall protect and hold the District, together with all of the District's officers, agents and employees, harmless against any and all demands made for such fees or claims brought or made by the holder of any invention or patent, and before the final payment is made on account of this contract the Contractor shall, if requested by the District Engineer, furnish acceptable proof of a proper release from all such fees or claims.

Should the Contractor, his agents, or employees, or any of them, be enjoined from furnishing or using any invention, article, material or appliance supplied or required to be supplied or used under this contract, the Contractor shall promptly substitute other articles, materials or appliances, in lieu thereof, of equal efficiency, quality, finish, suitability and market value and satisfactory in all respects to the District Engineer. Or in the event that the District Engineer elects, in lieu of such substitution, to have supplied, and to retain and use, any such invention, article, material or appliance, as may by this contract be required to be supplied, in that event the Contractor shall pay such royalties and secure such valid licenses as may be requisite and necessary for the District, the District's officers, agents, and employees, or any of them to use such invention, article, material or appliance without being disturbed or in any way interfered with by any proceeding in law or equity on account thereof. Should the Contractor neglect or refuse to make the substitution promptly, or to pay such royalties and secure such licenses as may be necessary, then in that event the District Engineer shall have the right to make such substitution, or the District may pay such royalties and secure such licenses and charge the cost thereof against any money due the Contractor from the District or recover the amount thereof from him and his sureties notwithstanding final payment under this contract may have been made.

6.18 Cooperation and Collateral Work.

The Contractor shall cooperate with all other contractors who may be performing work on behalf of the District and workers who may be employed by the District on any work in the vicinity of the work to be done under this contract; and he shall so conduct his operations as to interfere to the least possible extent with the work of such contractors or Agents. He shall make good promptly, at his own expense, any injury or damage that may be sustained by other contractors or employees of the District at his hands.

The Contractor shall be responsible for ascertaining the nature and extent of any simultaneous, collateral, and essential work by others. The District, its workers and contractors and others, shall have the right to operate within or adjacent to the Work site during the performance of such work. The District, the Contractor, and each of such workers, contractors and others, shall coordinate their operations and cooperate to minimize interference. The Contractor shall include in its Bid all costs involved as a result of coordinating its work with others. The Contractor will not be entitled to additional compensation from the District for damages resulting from such simultaneous, collateral, and essential work. If necessary to avoid or minimize such damage or delay, the Contractor shall redeploy its work force to other parts of the Work. Should the Contractor be delayed by the District, and such delay could not have been reasonably foreseen or prevented by the Contractor, the District Engineer will determine the extent of the delay, the effect on the project, and any extension of time.

If the work of the Contractor is delayed because of any acts or omissions of any other contractor or of the District, the Contractor shall on that account have no claim against the District other than for an extension of time.

If any portions of the work specified herein are to be installed in any right-of-way owned by the State, County, Municipality, or other public entities or public utilities, it shall be incumbent upon the Contractor to familiarize himself with the regulations of each of these agencies, especially concerning traffic controls, lights, barricades, and backfill requirements. Such portions of the work which may fall within the right-of-way of the agencies described above will necessarily be subject to their inspection and approval before acceptance of these portions of the work by the District Engineer. Any costs for inspection by agents other than those of the District shall be borne by the Contractor. Where other agencies have jurisdiction over some portion of the work, and the requirements of the agencies are at variance with this specification, then that portion of the work shall be done in accordance with the requirements of the agency(ies), as agreed to by the District.

6.19 Compliance with Laws and Regulations.

The Contractor shall keep himself fully informed of all existing and future State and Federal laws and County, Municipal or District ordinances and regulations which in any manner affect those engaged or employed in the work, or the materials and equipment used in the work, or which in any way affect the conduct of the work and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. If any discrepancy or inconsistency is discovered in the drawings or specifications, or in this contract in relation to any such law, ordinance, regulation, order or decree, the Contractor shall forthwith report the same to the District Engineer in writing. He shall at all times observe and comply with, all such existing and future laws, ordinances, regulations, order and decrees. The Contractor shall protect and indemnify the District and all of the District's officers, agents and employees against any claim or liability arising from or based upon the violation of any such law, ordinance, regulation, order or decree, whether by the Contractor himself or by his employees or by subcontractors or sub-subcontractors.

The Contractor shall be aware of and comply with any of the following provisions of law that may apply to the performance of work under this Contract:

- a. The Fair Labor Standards Act of 1939 (20 U.S.C. 201-219);
- b. The Walsh-Healy Public Contracts Act (41 U.S.C. 35-45);
- c. The Contract Work Hours Standards Act - Overtime Compensation (40 U.S.C. 327-330, and the California state requirement under Labor Code '1810, 1811, and 1815 which define 8 hours as a legal day's work;
- d. Laws restraining the Use of Convict Labor;
- e. Utilization of Small Business and Small Disadvantaged Business Concerns (Public Law 95-507);
- f. The Equal Employment Opportunity clause in Section 202 of Executive Order (E.O.) 11246, as amended, and the implementing rules and regulations 41 CFR Part 60) are incorporated herein by reference, unless this order is exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of E.O. 11246 or provisions of any superseding E.O. As used in this clause, "Contractor" means Seller. Unless

this order is exempted, the applicable Equal Employment Opportunity Compliance Certificate previously submitted by Seller to Buyer is by reference also incorporated herein.

- g. The affirmative action for Handicapped Workers Clause in Title 41, Code of Federal Regulations, Part 60, Subsection 741.4 and the implementing rules and regulations of the Department of Labor associated therewith are incorporated herein by reference unless the contract amount is under \$2,500.
- h. The Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era Clause of Title 41, Code of Federal Regulations, Part 60, Subsection 25014 and the implementing rules and regulations of the Department of Labor associated therewith are incorporated herein by reference, unless the contract amount is under \$10,000.
- i. The requirements of Labor Code '3700 and '1860 which require the contractor to secure the payment of compensation to its employees, and which require the contractor to execute a certification form, as follows:

"I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract."
- j. The requirements of Public Contract Code '7106 which requires the contractor to execute a noncollusion affidavit.
- k. The requirements of Public Contract Code '4104 setting forth the "Subletting and Subcontracting Fair Practices Act" and which require the Contractor to identify any subcontractor who will perform work or render service in excess of one-half of one percent of the Contractor's total bid estimate.
- l. The requirements of Labor Code '1776 which requires the Contractor to keep accurate payroll records, and make them available for inspection on request, and Labor Code '1777.5 requirements for apprentice labor.

- m. Public Contract Code '7104 which requires a clause specific to hazardous waste and unforeseen conditions in any public works contract involving excavations deeper than four feet. The Code also requires the Contractor to notify the District in writing if any hazardous waste or other unforeseen latent physical conditions are found in the course of excavation. The District must promptly investigate and issue a change order if necessary.
- n. Labor Code section 6705 requires protection of workers in excavation of trenches shoring in contracts for public works in excess of \$25,000. In advance of excavation Contractor shall submit 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, for acceptance by the District or by a registered civil or structural engineer employed by the District to whom authority to accept has been delegated. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer.
- o. Business & Professions Code "7028.7 and 7028.15 pertaining to licensing requirements for Contractors who perform public works.
- p. Public Contract Code '7013(b) requires a provision regarding antitrust claims assignments. The contractor or subcontractor must "offer and agree to assign any antitrust claim arising from the purchase of goods, services or materials."
- q. Workers' compensation laws (Labor Code '3700 - insurance, Business & Professions Code "7124.6 - disclosure of complaints, 7125 - address of insurance carrier, and 7125.1 - evidence of coverage).
- r. All other federal, state and local laws; and
- s. All other federal, state and local regulations and orders issued under any applicable law.
- t. Governing Law and Venue. In the event of litigation, the contract documents and all matters related to the work shall be governed by and controlled only in accordance with the laws of the State of California. Venue shall be with the appropriate state court in the County of Monterey only.

- u. The Americans with Disabilities Act (ADA) prohibiting discrimination on the basis of disability.

6.20 Construction Utilities.

The Contractor shall be responsible for providing and bearing the cost, for and in behalf of his work under this contract, all necessary utilities, such as special connections to water supply, telephones, power lines, fences, roads, watchmen, suitable storage places, and approved sanitary facilities for his employees.

6.21 Approval of Contractor's Plans.

The approval by the District Engineer of any drawing or any method of work proposed by the Contractor shall not relieve the Contractor of any of his responsibility for any errors therein and shall not be regarded as any assumption of risk or liability by the District or any officer or employee thereof, and the Contractor shall have no claim under this contract on account of the failure or partial failure or deficiency of any plan or method so approved. Such approval shall be considered to mean merely that the District Engineer has no objection to the Contractor's using upon his own full responsibility, the plan or method proposed.

6.22 Suggestions to Contractor.

Any plan or method of work suggested by the District Engineer to the Contractor, but not specified or required, if adopted or followed by the Contractor in whole or in part, shall be used at the risk and responsibility of the Contractor; and the District Engineer and the District shall assume no responsibility therefor.

6.23 Termination of Unsatisfactory Subcontractors.

Should any subcontractor or sub-subcontractor fail to perform in a satisfactory manner the work undertaken by him, such subcontractor or sub-subcontractor shall be terminated immediately by the Contractor upon written notice from the District Engineer or such sub-subcontractor shall be terminated by the sub-contractor at the direction of the Contractor upon written notice from the District Engineer.

6.24 Hiring and Dismissal of Employees.

During the performance of this contract, the Contractor agrees as follows:

- a. The Contractor shall not discriminate against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, mental condition, marital status, or sex. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this Equal Opportunity clause.
- b. The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, religious creed, color, national origin, ancestry, physical disability, mental disability, mental condition, marital status, or sex.

The Contractor shall employ only such foremen, mechanics and laborers as are competent and skilled in their respective lines of work and whenever the District Engineer shall notify the Contractor in writing that any person on the work is, in his opinion, incompetent, unfaithful, intemperate, or disorderly, or refuses to carry out the provisions of this contract, or uses threatening or abusive language to any person on the work representing the District, or is otherwise unsatisfactory, such person shall be discharged immediately from the work and shall not be re-employed upon it except with the consent of the District Engineer.

6.25 Wages of Employees.

The Contractor shall provide a copy of his certified payroll for the project weekly to the District Engineer. The District shall investigate any discrepancies in actual payments to those required by the general prevailing rates determined by the State Director of the Department of Public relations for the locality in which the work is performed.

The time of service of any worker shall be restricted to eight (8) hours during any calendar day and forty (40) hours during a calendar week unless overtime

compensation is paid at not less than one and one-half times the basic rate of pay.

The Contractor shall forfeit, as penalty, to the District, twenty-five dollars (\$25) for each worker employed in execution of the contract by him or by any subcontractor, for each calendar day during which any worker is required or permitted to labor more than eight (8) hours in any one (1) calendar day and forty (40) hours in any one (1) calendar week in violation of the provisions of Section 1775, Labor Code.

The Contractor shall comply with Section 1776, Labor Code, by maintaining accurate and complete payroll records and making such records available for inspection. Subcontractors shall also comply with the Section 1776 provisions, but the prime responsibility for maintenance and availability of complete and accurate payroll records rests with the Contractor.

6.26 Preservation of Stakes and Marks.

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

6.27 Protection of Contractor's Work and Property.

The Contractor shall protect his work, supplies, and materials from damage due to the nature of the work, the action of the elements, trespassers, or any cause whatsoever until the completion and acceptance of the work by the District.

Neither the District nor any of the District's agents assume any responsibility for collecting indemnity from any person or persons causing damage to the work of the Contractor.

6.28 Assistance to District Engineer.

At the request of the District Engineer, the Contractor shall provide workers from his force, and tools, stakes and other materials to assist the District Engineer temporarily in making measurements and surveys and in establishing temporary or permanent reference marks. Payment for such materials and assistance will be made as provided for under the caption "Extra Work," provided, however, that

the cost of setting stakes and marks carelessly lost or destroyed by the Contractor's employees will be assessed to the Contractor.

6.29 Removal of Condemned Materials and Structures.

The Contractor shall remove from the site of the work, without delay, all rejected and condemned materials or structures of any kind brought to or incorporated in the work, and upon his failure to do so, or to make satisfactory progress in so doing, within forty-eight (48) hours after the service of a written notice from the District Engineer, the condemned materials or work may be removed by the District and the cost of such removal shall be deducted from the money that may be due or may become due the Contractor on account of or by virtue of this contract. No such rejected or condemned material shall again be offered for use by the Contractor under this contract.

6.30 Proof of Compliance with Contract.

In order that the District Engineer may determine whether the Contractor has complied with the requirements of this contract not readily ascertainable through inspection and tests of the work and materials, the Contractor, shall, at any time when requested, submit to the District Engineer properly authenticated documents or other satisfactory proofs as to his compliance with such requirements.

6.31 Approval of Variations.

The work done by the Contractor under this contract shall not vary in any manner from the specifications, drawings and contract stipulations, or from any materials, samples of which have been submitted and approved, except by written permission of the District Engineer.

6.32 Modification of Work by Contractor.

Should conditions develop during the progress of the work to make it impossible or impracticable for the Contractor to comply strictly with the terms of this contract, the Contractor shall apply in writing to the District Engineer for modification, provided that it be not detrimental to the work or of additional cost. If such modification is acceptable to the District Engineer, the Contractor shall be so notified in writing, whereupon the modification may be made. If such modification is not acceptable to the District Engineer, the Contractor shall

determine some other method of doing the work which shall be acceptable to and duly accepted by the District Engineer.

Such modifications shall in no way affect, vitiate, or make void this contract or any part thereof, except what is necessarily affected by such alterations and is clearly the evident intention of the parties to this contract.

6.33 Cleaning Up.

The Contractor shall not allow the site of the work to become littered with trash and waste material, but shall maintain the same in a neat and orderly condition throughout the construction period. The District Engineer shall have the right to determine what is or is not waste material or rubbish and the place, manner and timing of disposal.

On or before the completion of the work, the Contractor shall, without charge therefore, carefully clean out all pits, pipes, chambers or conduits and shall tear down and remove all temporary structures built by him and shall remove rubbish of all kinds from any of the grounds which he has occupied and leave them in first-class condition, to the satisfaction of the District's Representative.

6.34 Subsequent Repair.

The Contractor shall promptly make all needed repairs arising out of defective materials and equipment or faulty workmanship whether caused by the Contractor, sub-contractors or sub-subcontractors, irrespective of fault, during the period specified in the Bond of Faithful Performance after the date of completion of the work under this contract and the final acceptance of the same by the District. The District is hereby authorized to make such repairs if within ten (10) days after the mailing of a notice in writing to the Contractor, or his agent, the said Contractor shall neglect to make or undertake with due diligence the aforesaid repairs; provided, however, that in case of an emergency where, in the opinion of the District, delay would cause serious loss or damage, repairs may be made without notice being sent to the Contractor, and the Contractor shall pay the costs thereof.

6.35 Hazardous Waste and Differing Site Conditions.

- a. When the work involves digging trenches or other excavations deeper than four feet, the Contractor shall promptly, and before disturbing the site, notify the District Engineer in writing of: (1) material believed to be

hazardous waste as defined in Section 25117, Health and Safety Code; (2) subsurface or latent physical conditions at the site differing from those indicated; or (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 this Contract. The District Engineer shall promptly investigate the conditions, and if he finds that such conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work under this contract, whether or not changed as a result of such conditions, an equitable adjustment shall be made and the contract modified in writing accordingly.

- b. No claim of the Contractor under this clause shall be allowed unless the Contractor has given the notice required in (a) above; provided, however, the time prescribed therefor may be extended by the government. If a dispute arises whether the conditions materially differ or involve hazardous waste or cause a change in the cost or time for performance of the work, the Contractor shall not be excused from the scheduled completion date, but shall proceed with all work to be performed under the contract. Contractor shall retain all rights under the Contract or by law with respect to the dispute.
- c. No claim by the Contractor for an equitable adjustment hereunder shall be allowed if asserted after final payment under this contract.
- d. The removal of 100 square feet or more of surface area of asbestos-related material or of other hazardous substances as defined in Section 7058.7, Business and Professions Code, shall be encompassed by a new and separate contract undertaken with a contractor certified in accordance with Section 7058.5 (a), Business and Professions Code. If, however, an emergency condition arises by reason of the discovery of asbestos-related material or hazardous substances, the removal thereof shall be contracted and performed as day labor or by contract without giving notice for bids, or both.

The meaning of "emergency condition" shall be that as defined by Sections 10122 and 22035, Public Contract Code.

6.36 Assignment of Antitrust Claims.

In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or Subcontractor offers and agrees to assign to the District all rights, title and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 USC Sec. 15) or under the Cartwright Act (Chapter 2, commencing with Section 16700, Business and Professions Code), arising from the purchase of goods, services, or materials pursuant to this 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. (Public Contract Code, ' 7103.5).

6.37 Records and Confidentiality.

- a. Confidentiality. Contractor and its officers, employees, agents, and subcontractors shall comply with all federal, state, and local laws which provide for the confidentiality of records and other information. Contractor shall not disclose any confidential records or other confidential information received from the District or prepared in connection with the performance of this Agreement, unless District specifically permits Contractor to disclose such records or information. Contractor shall promptly transmit to District any request for disclosure of any such confidential records or information. Contractor shall not use any confidential information gained by Contractor in the performance of this Agreement except for the sole purpose of carrying out Contractor's obligations under this Agreement.
- b. District Records. When this Agreement expires or terminates, Contractor shall return to District any District records which Contractor used or received from District to perform services under this Agreement.
- c. Maintenance of Records. Contractor shall prepare, maintain, and preserve all reports and records that may be required by federal, state, and District rules and regulations related to services performed under this Agreement. Contractor shall maintain such records for a period of at least three years after receipt of final payment under this Agreement. If any litigation, claim, negotiation, audit exception, or other action relating to this Agreement is pending at the end of the three-year period, then Contractor shall retain said records until such action is resolved.

- d. Access to and Audit of Records. The District shall have the right to examine, monitor and audit all records, documents, conditions, and activities of the Contractor and its subcontractors related to services provided under this Agreement. Pursuant to Government Code section 8546.7, if this Agreement involves the expenditure of public funds in excess of \$10,000, the parties to this Agreement may be subject, at the request of the District or as part of any audit of the District, to examination and audit of matters connected with the performance of this Agreement for a period of three years after final payment under the Agreement.

- e. Royalties and Inventions. District shall have a royalty-free, exclusive and irrevocable license to reproduce, publish, and use, and authorize others to do so, all original computer programs, writings, sound recordings, pictorial reproductions, drawings, and other works of similar nature produced in the course of or under this Agreement. Contractor shall not publish any such material without the prior written approval of District.

SECTION 7. DUTIES AND POWERS OF DISTRICT

7.01 Authority of the District Engineer.

All work done under this contract shall be done in a workmanlike manner and shall be performed to the reasonable satisfaction of the District Engineer who shall have general supervision of all work included hereunder. To prevent disputes and litigation, the District Engineer shall in all cases determine the amount, quality, acceptability and fitness of the several kinds of work and materials which are to be paid for under this contract; shall decide all questions relative to the true construction, meaning, and intent of the specifications and drawings; shall decide all questions which may arise relative to the classifications and measurements of quantities and materials and the fulfillment of this contract; and shall have the power to reject or condemn any work or material which does not conform to the terms of this contract. His estimate and decision in all matters shall be a condition precedent to an appeal to the District, or the right of the Contractor to receive, demand, or claim any money or other compensation under this agreement and a condition precedent to any liability on the part of the District to the Contractor on account of this contract.

Prior to giving approval of extra work or work omitted as contemplated by Section 11.05 of this contract, the District Engineer shall obtain written approval by the District.

7.02 Substitute for District Engineer.

Whenever the District Engineer shall be unable to act, in consequence of absence or other cause, then such person as the District Engineer or the District shall designate, shall perform any and all of the duties and be vested with any or all powers herein given to the District Engineer.

7.03 Authority of Inspectors.

Properly authorized and accredited inspectors shall be considered to be the representatives of the District limited to the duties and powers entrusted to them. It will be their duty to inspect materials and workmanship of those portions of the work to which they are assigned, either individually or collectively, under instructions of the District Engineer and to report any and all deviations from the drawings, specifications, and other contract provisions which may come to their notice. Any inspector may be considered to have the right to order the work entrusted to his supervision stopped, if in his opinion such action becomes necessary, until the District Engineer is notified and has determined and ordered that the work may proceed in due fulfillment of all contract requirements.

7.04 Liability of District Officials.

No District official, nor the District Engineer, nor any authorized assistant of any of them, shall be personally responsible for any liability arising under this contract.

7.05 Termination of Contract.

If the work provided for under this contract shall be abandoned or if the contract shall be sublet or sub-sublet or assigned without the consent of the District or if at any time the District Engineer shall be of the opinion that the conditions specified as to the rate of progress are not being fulfilled, or that the work or any part thereof is unnecessarily delayed, or that the Contractor is willfully violating any of the conditions or provisions of this contract or is executing the same in bad faith, or if the Contractor is adjudged bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver is appointed on account of his insolvency, the District shall notify in writing the Contractor to fulfill the conditions of this contract, and should the Contractor fail to begin compliance with said notice within five (5) days, the District may, at the District's discretion, notify in writing the Contractor to discontinue all work under this contract, or any

part thereof, and thereupon the Contractor shall discontinue work, and the District may, by contract or otherwise, at the District's discretion, complete the work or such part thereof, and may take possession of the work and use therein such materials, machinery, implements and tools of every description as shall be found upon the work or provide whatever is needed for the completion of the work and charge the expense thereof to the Contractor.

In order to meet the expense so incurred, the District is hereby authorized by the Contractor to draw a warrant in the name of the Contractor and in favor of those persons, firms, or corporations doing the work or providing the materials or labor therefor, against the fund or appropriation set aside for the purpose of this contract, and when a warrant is so drawn it shall be conclusive upon the Contractor, and shall be to all intents and purposes the same as drawn by the Contractor in person. When any of the said demands have been audited and paid, the amount of the same shall be deducted from the fund or appropriation set aside for the purposes of this contract being so terminated. The Contractor shall immediately, upon due notice in writing from the District Engineer, remove from the premises all materials and personal property belonging to him which have not already been used in the construction of the work, or which are not in place in the work and he shall forfeit all sums due him under this contract, and both he and his sureties shall be liable on his bond for all damages caused the District by reason of his failure to complete this contract.

Neither the extension of time, for any reason, beyond the date fixed for the completion of this work, nor the doing and acceptance of any part of the work called for by the terms of this contract, subsequent to the said date, shall be deemed to be a waiver by the District of the right to abrogate, annul, or terminate this contract for abandonment or cause as provided above.

7.06 Early Termination.

Notwithstanding any provision to the contrary, if for any fiscal year of this agreement, the governing body of the District fails to appropriate or allocate funds for future periodic payments under the Agreement after exercising reasonable efforts to do so, the District, may, upon thirty (30) days notice, order work on the project to cease. The District will remain obligated to pay the work already performed but shall not be obligated to pay the balance remaining unpaid beyond the fiscal period for which funds have been appropriated or allocated and for which the work has not been done.

7.07 Access to Work.

During the performance of the work under this contract, the District and the District's agents and employees may at any time enter upon the work, or the shops where any part of such work may be in preparation, or the factories where any materials for use in the work are being or are to be manufactured or fabricated, and the Contractor shall provide proper and safe facilities therefor, and shall make arrangements with manufacturers to facilitate inspection of their processes and products to such extent as the District's interest may require. Other contractors performing work for the District may also, for all purposes required by their respective contracts, enter upon the work.

7.08 Removal or Replacement of Work Done without Lines, Grades, or Levels.

Any work done without lines, levels, or grades being given by the District Engineer or without the supervision of an inspector, or which in the opinion of the District Engineer is deficient in construction, may be ordered replaced at the Contractor's sole cost and expense, except when such work is authorized by the District Engineer in writing.

7.09 Retention of Imperfect Work.

If any portion of the work done or material furnished, under this contract, shall prove defective and not in accordance with the specifications and drawings, and if the imperfection in the same shall not be of sufficient magnitude or importance to make the work dangerous or undesirable, or, if the removal of such work is impracticable or will create conditions which are dangerous or undesirable, the District Engineer shall have the right and authority to retain such work instead of requiring the imperfect work to be removed and reconstructed, but he shall make such deductions therefor in the payments due or to become due the Contractor as may be just and reasonable. A contract modification shall be written containing any such deductions.

7.10 Modification of Work by District.

The District Engineer shall have the right, in writing, to order additions to, omissions from, or corrections, alterations and modifications in the line, grade, form, dimensions, plan or kind or amount of work or materials herein contemplated, or any part thereof, either before or after the beginning of construction.

The order of such additions, omissions, corrections, alterations, and modifications shall be in writing and signed by the District Engineer, and such order shall then be binding upon the Contractor.

Such alterations shall in no wise affect, vitiate or make void this contract or any part thereof, except that which is necessarily affected by such alterations and is clearly the evident intention of the parties to this contract.

7.11 Extra Work by District.

In case of neglect or refusal by the Contractor to perform any extra work which may be authorized by the District Engineer or to make satisfactory progress in the execution of the same, the District may employ any person or persons to perform such work and the Contractor shall not in any way interfere with the person or persons so employed.

7.12 Additional and Emergency Protection.

Wherever, in the opinion of the District Engineer, the Contractor has not taken sufficient precautions for the safety of the public or the protection of the works to be constructed under this contract, or of adjacent structures or property which may be injured by processes of construction on account of such neglect, and whenever, in the opinion of the District Engineer, an emergency shall arise and immediate action shall be considered necessary in order to protect public or private personal or property interest, then and in that event, the District Engineer, with or without notice to the Contractor, may provide suitable protection to the said interests by causing such work to be done and such material to be furnished as shall provide such protection as the District Engineer may consider necessary and adequate.

The cost and expense of such work and material so furnished shall be borne by the Contractor and if the same shall not be paid on presentation of the bills therefor, then such costs shall be deducted from any amounts due or to become due the Contractor. The performance of such emergency work under the direction of the District Engineer shall in no way relieve the Contractor from any damages which may occur during or after precaution has been taken by the District Engineer.

7.13 Use and Possession Prior to Completion.

The District shall have the right to take possession of or use any completed or partially completed part of the work. Prior to such possession or use, the District's

representative shall furnish the Contractor an itemized list of work remaining to be performed or corrected on such portions of the project as are to be possessed or used by the District, provided that failure to list any item of work shall not relieve the Contractor of responsibility for compliance with the terms of the contract. Such possession or use shall not be deemed an acceptance of any work under the contract. If such prior possession or use by the District delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment in the contract price or the time of completion will be made and the contract shall be modified in writing accordingly.

7.14 Rights-of-Way.

The District shall provide all rights-of-way and easements in or beneath pipes and other structures which will be constructed by the Contractor under this contract. If through the failure of the District to acquire or clear title to rights-of-way, the Contractor sustains loss which could not have been avoided by the judicious handling of forces and plant, there shall be paid to the Contractor such amount as the District Engineer may find to be a fair and reasonable compensation for such part of the Contractor's actual loss as the District Engineer deems unavoidable.

Actual loss shall be understood to include no items other than necessary payments, idle time of men, idle time of equipment, cost of extra moving of equipment, and cost of longer hauls, with no allowance in any case for overhead or profit.

If performance of the Contractor's work is delayed as the result of the failure of the District to acquire or clear title to rights- of-way, a commensurate extension of time will be granted.

7.15 Relocating Existing Public Utilities.

Should it be necessary to move the property of any owner of a public utility or franchise, such owner shall be notified by the District Engineer, upon proper application by the Contractor, to move the property within a specified time, and the Contractor shall not interfere with said property before the expiration of the time so specified. Should the Contractor desire to have any alterations made in public utility or private improvements in order to facilitate his operations and for his sole benefit, which alterations would not be otherwise required, he shall make whatever arrangements are necessary with the owners of that utility or private improvement and bear all expenses in connection therewith.

SECTION 8. SCOPE AND INTENT OF SPECIFICATIONS AND DRAWINGS

8.01 Interpretation of Specifications and Drawings.

The specifications and the contract drawings are intended to be explanatory of each other. Any work indicated in the contract drawings and not in the specifications, or vice versa, is to be executed as if indicated in both. Should it appear that the work to be done, or any of the matters relative thereto, are not sufficiently detailed or explained in these contract documents, including the contract drawings, the Contractor shall apply in writing to the District Engineer for such further explanations as may be necessary, and shall conform thereto as part of this contract, so far as may be consistent with the terms of this contract. In the event of any doubt or question arising respecting the true meaning of the specifications, reference shall be made to the District and its decision thereon shall be final.

8.02 Figured Dimensions.

Figured dimensions on the contract drawings shall in all cases be given precedence over scaled dimensions. If figured dimensions do not correspond to scaled dimensions, the Contractor shall request the District Engineer to verify the accuracy of the figured dimensions. It shall be the responsibility of the Contractor to ascertain the correct scale of all contract drawings in his possession including those which may have been reduced for reproduction.

8.03 Errors or Discrepancies.

If the Contractor, in the course of the work, discovers any discrepancies between the drawings and the conditions of the ground, or any errors or omissions in the drawings or in the layout given by stakes, points or instructions, it shall be his duty to inform the District Engineer immediately in writing, and the District Engineer shall promptly verify the same. Any work done after such discovery, until authorized, will be done at the Contractor's risk.

8.04 Drawings to be Furnished by Contractor.

As soon as practicable after the execution of this contract, the Contractor shall supply working drawings of devices to be furnished hereunder as are called for herein or as are required by the District Engineer to make clear the details of construction and to demonstrate fully that all materials and equipment comply

with the intent and provisions of this contract. Unless otherwise herein specified, such drawings shall be submitted to the District Engineer for his approval upon his request. Should any drawings furnished by the Contractor not be approved by the District Engineer, the Contractor shall make the revisions required and resubmit them to the District Engineer for approval. After due approval by the District Engineer, these drawings shall become a part of this contract and the work shall be done in conformity therewith. No such work shall be begun or devices purchased until the drawings detailing such items have been approved. The approval of the drawings shall not relieve the Contractor of responsibility or waive or modify any of the provisions or requirements of this contract.

All plans and drawings, whether prepared by the Contractor, Subcontractors, Architect, or District Engineer, are the property of the District.

8.05 Additional Drawings by District.

The contract drawings are intended to be comprehensive and to indicate in detail the scope of the work. However, the District Engineer may furnish the Contractor additional drawings during the progress of the work in order to clarify and define in greater detail the intent of the contract drawings or specifications. The Contractor may request such detailed drawings by submitting his request in writing to the District Engineer at least two (2) weeks in advance of the time they are required.

8.06 Lines and Grades.

All work under this contract shall be constructed to the lines and grades shown on the contract drawings which shall be furnished by the District Engineer. The Contractor shall advise the District Engineer at least forty-eight (48) hours in advance of the time and place he wishes to do work, in order that lines and grades may be furnished and necessary measurements for record and payment made with minimum inconvenience to the District Engineer and/or delay to the Contractor.

8.07 Method of Measurement.

Unless specifically stated otherwise in this contract, no extra measurement or measurements according to local custom of any kind shall be allowed in measuring the work under this contract, but only the length, area, solid contents, number, weight, or time in standard units, as the case may be, shall be considered as specified. Pipelines shall be measured horizontally.

SECTION 9. WORKMANSHIP, MATERIALS AND EQUIPMENT

9.01 General Quality.

Materials and equipment shall be new and of a quality equal to or superior to that specified or approved. Work shall be done and completed in a thorough and workmanlike manner and in strict conformance with the plans and specifications.

9.02 Quality in Absence of Detailed Specifications.

Whenever under this contract it is provided that the Contractor shall furnish materials or manufactured articles or shall do work for which no detailed specifications are set forth, the materials or manufactured articles shall be of the best grade in quality and workmanship obtainable in the market from firms of established good reputation, or, if not ordinarily carried in stock, shall conform to the usual standards for first class materials or articles of the kind required, with due considerations of the use to which they are to be put. In general, the work performed shall be in full conformity and harmony with the intent to secure the best standard of construction and equipment of the work as a whole or in part.

9.03 Domestic Preference.

The District reserves the right to specify only manufactured materials produced in the United States. If required under Special Conditions, only manufactured materials made in the United States substantially from materials produced in the United States, shall be employed in the performance of this contract, in accordance with the provisions of Sections 4300 4305 and of Sections 4330 4334 (Articles I and 2, Chapter 4, Division 5) of the Government Code of the State of California and any acts amendatory thereof and under the proviso of Title III, Section 3, of the Act of March 3, 1933, 47 Stat. 1520 (U.S. Code, Title 41, Sec. 10b).

9.04 Samples and Tests.

No material shall be used in the work until it has been approved by the District Engineer. All material and equipment are subject to test to determine their conformity with these specifications. Certified factory and mill tests normally shall be acceptable for standard manufactured items. Tests on other materials, including concrete mix designs and aggregate quality tests shall be made in a materials testing laboratory, approved by the District Engineer. All tests shall be

performed as specifically or otherwise designated by the District Engineer, and shall be completed to his satisfaction.

All tests shall be furnished by the Contractor at his expense except the following, which shall be performed at the District's expense: Initial soil compaction and stabilization tests, foundation bearing tests, concrete cylinder compression tests. In areas where soil compaction must be repeated due to failure of the compacted material to pass the initial compaction tests, the Contractor shall pay for any and all retesting required subsequent to the initial test.

9.05 Materials and Equipment Specified by Name.

Unless otherwise specified in the technical sections of these specifications, any material or equipment indicated or specified by patent, proprietary, or manufacturer's name, shall be considered as used for the purpose of describing the items desired and establishing the standard of quality and utility required. In such cases, the names shall be considered as followed by the words "or approved equal." The Contractor may supply any material or equipment which is equal in every respect to that specified, provided, however, that written approval for its use is first obtained from the District Engineer who shall be the sole judge of its quality and ability to meet the specifications. The Contractor shall append to the request for substitution sufficient data, drawings, samples, literature or other detailed information as will demonstrate to the District Engineer that the proposed substitute material is equal in quality and utility to the material specified. The Contractor shall also append the exact amount of credit or charge to be received by the District resulting from said substitution.

The District Engineer shall approve, in writing, such proposed substitution provided its quality and utility are, in his exclusive opinion, satisfactorily demonstrated and the resulting credit or charge to the District warrants such substitution. Such approval shall not relieve the Contractor from complying with the requirements of the contract documents, and the Contractor shall be responsible at his own expense for any changes caused by this proposed substitution which affects other parts of his own work or the work of other contractors.

9.06 Standard Specifications.

Wherever standard specifications are referred to, they shall be the latest revised edition of the Standard Specification referred to and shall be considered to be a

part of these specifications insofar as they apply. Standard specifications from the following may be referred to herein:

American Concrete Institute (ACI)
American Institute of Steel Construction (AISC)
American Society for Testing Materials (ASTM)
American Standards Association (ASA)
American Water Works Association (AWWA)
Federal Specifications (Fed. Specs.)
Uniform Building Code (UBC)
State of California, Division of Highways, (Caltrans.)

9.07 Inspection.

All work and materials shall be subject to inspection by the District Engineer.

The District Engineer may assign such assistants as he may deem necessary to inspect the material to be furnished and the work to be done under this contract, and to see that the same strictly conform therewith.

The District Engineer shall be notified at the time and place of preparation, manufacture, or construction of all material for work or any part of the work which he may wish to inspect, and of the time and place of making the factory tests required under this contract. Such notification shall be given a sufficient length of time in advance of the beginning of the work on such material or part or of the beginning of such test to allow arrangements to be made for inspecting and testing or witnessing, as the case may be, if such inspection and testing or witnessing are deemed practicable by the District Engineer.

When the District Engineer considers such action to be proper and practicable, he shall at the written request of the Contractor cause materials for use upon the work to be inspected at the point of production or manufacture. The District Engineer may at any time, if he so desires, cause an inspection to be made.

Any work done in the absence of an inspector that may be complete or in progress shall be subject to examination, if required by the District Engineer, and the Contractor shall furnish all tools, labor, materials, and other facilities necessary to make such examination, even to the extent of uncovering or taking down portions of the finished work. The cost of making such examination and the removal of defective work and reconstruction shall be defrayed by the Contractor.

9.08 Compliance with State Safety Code.

All necessary machinery guards, railings and other protective devices shall be provided as specified by the State Division of Industrial Relations Department. Before final acceptance of the work, the Contractor shall cause an inspection to be made by a representative of the California Occupational Safety & Health Administration Consultation Division and shall certify that all safety requirements have been complied with.

9.09 Storage of Materials.

Materials shall be so stored as to ensure the preservation of their quality and fitness for the work. They shall be so located and disposed that prompt and proper inspection thereof may be made.

9.10 Field Tests, Adjustments and Operation.

As soon as the progress of the work permits it shall be placed in service.

The Contractor shall arrange for the presence, as necessary during the succeeding thirty day (30) period, of representatives of manufacturers of all the various pieces of equipment and parts of the installation, or other qualified persons, who shall instruct the District operating personnel in the operation and care thereof. The Contractor shall superintend the operation of any equipment during the thirty day (30) period and shall be responsible for the proper operation thereof; and he shall make no claim against the District for any damage to the equipment during such operation, or for the services of the above mentioned representatives or other qualified persons. The Contractor shall make such changes, adjustments, or replacements as may be required to make the same comply with the specifications, or to replace any defective parts or material.

9.11 Warranty of Supplies, Equipment and Related Services.

Notwithstanding the inspection and acceptance by the District of all supplies, equipment and related services furnished under the Contract, the Contractor warrants that:

- a. All supplies, equipment and related services under this Contract will be free from defects in material or workmanship and will comply with the specifications of the Contract.

- b. All aspects of the shipment of supplies and equipment related to the Contract will conform to the specifications of the Contract. Failure by the Contractor to conform to the shipping requirements stated in this Contract shall constitute a breach."

9.12 Guarantees.

In addition to guarantees called for elsewhere in this Contract, Contractor shall and does guarantee all work and materials for a minimum period of one year from the date of recordation of the Notice of Completion against defective material or faulty workmanship that may arise within that period.

SECTION 10. PROSECUTION OF THE WORK

10.01 Equipment and Methods.

The work under this contract shall be prosecuted with all materials, tools, machinery, apparatus, and labor and by such methods as are necessary to complete execution of everything described, shown, or reasonably implied under this contract.

The Contractor shall give the District Engineer full information in advance as to his plans for carrying out any part of the work. If at any time before the beginning or during the progress of the work, any part of the Contractor's plant, or equipment or any of his methods of execution of the work, appear to the District Engineer to be unsafe, inefficient, or inadequate to insure the required quality or rate of progress of the work, he may order the Contractor to increase or improve his facilities or methods, and the Contractor shall comply promptly with such orders; but neither compliance with such orders or failure of the District Engineer to issue such orders shall relieve the Contractor from his obligation to secure the degree of safety, the quality of the work, and the rate of progress required of the Contractor. The Contractor alone shall be responsible for the safety, adequacy, and efficiency of his plant, equipment and methods.

10.02 Time of Completion.

The Contractor shall promptly begin the work under this contract and all portions of the project made the subject of this contract shall be begun and so prosecuted

that they shall be completed and ready for full use within the Contract performance time listed in the contract.

10.03 Avoidable Delays.

Avoidable delays in the prosecution or completion of the work shall include all delays which might have been avoided by the exercise of care, prudence, foresight, and diligence on the part of the Contractor.

Delays in the prosecution of parts of the work, which may in themselves be unavoidable but do not necessarily prevent or delay the prosecution of other parts of the work nor the completion of the whole work within the time herein specified, reasonable loss of time resulting from the necessity of submitting plans to the District Engineer for approval and from the making of surveys, measurements, and inspections, and by such interruptions as may occur in the prosecution of the work on account of the reasonable interference of other contractors employed by the District, which do not necessarily prevent the completion of the whole work within the time herein specified, will be considered by the District as avoidable delays within the meaning of this contract.

10.04 Unavoidable Delays.

Unavoidable delays in the prosecution or completion of the work under this contract shall include all delays which may result, through causes beyond the control of the Contractor and which he could not have provided against by the exercise of care, prudence, foresight and diligence. Orders issued by the District changing the amount of work to be done, the quantity of material to be furnished, or the manner in which the work is to be prosecuted, and unforeseen delays in the completion of the work of other contractors under contract with the District will be considered unavoidable delays, so far as they necessarily interfere with the Contractor's completion of the whole of the work. Delays due to adverse weather conditions may, at the discretion of the District, be considered unavoidable. However, the Contractor shall anticipate such delays and plan his work accordingly. The District shall provide an extension for weather delays as covered in the Special Provisions to the contract.

10.05 Notice of Delays.

Whenever the Contractor foresees any delay in the prosecution of the work, and in any event immediately upon the occurrence of any delay which the Contractor regards as an unavoidable delay, he shall notify the District Engineer in writing of

the probability of the occurrence of such delay and its cause, in order that the District Engineer may take immediate steps to prevent, if possible, the occurrence or continuance of the delay, or, if this cannot be done, may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the prosecution and completion of the work are to be delayed thereby.

After the completion of any part of the whole of the work, the District Engineer, in estimating the amount due the Contractor, shall assume that any and all delays which have occurred in its prosecution and completion have been avoidable delays, except such delays as shall have been called to the attention of the District Engineer in writing at the time of their occurrence and found by him to have been unavoidable. The Contractor shall make no claim that any delay not called to the attention of the District Engineer at the time of its occurrence has been an unavoidable delay.

10.06 Extension of Time.

Should any delays occur which the District Engineer may consider unavoidable, as herein defined, the Contractor shall, pursuant to his application, be allowed an extension of time, beyond the time herein set forth, proportional to said delay or delays in which to complete this contract; and liquidated damages for delay shall not be charged against the Contractor by the District during an extension of time granted because of unavoidable delay or delays.

10.07 Unfavorable Weather and Other Conditions.

During unfavorable weather and other conditions, the Contractor shall pursue only such portions of the work as shall not be damaged thereby. No portions of the work on which satisfactory quality or efficiency will be affected by any unfavorable conditions shall be constructed while these conditions remain, unless by special means or precautions approved by the District Engineer, the Contractor shall be able to overcome them.

10.08 Sunday, Holiday and Night Work.

No work shall be done between the hours of 6 p.m. and 7 a.m., nor on Sundays or legal holidays except such work as is necessary for the proper care and protection of work already performed, or except in case of an emergency, and in any case only with the permission of the District Engineer.

It is understood, however, that night work may be established as a regular procedure by the Contractor if he first obtains the written permission of the District Engineer and that such permission may be revoked at any time by the District Engineer if the Contractor fails to maintain at night adequate force and equipment for reasonable prosecution and to justify inspection of the work.

SECTION 11. PAYMENT

11.01 Progress Payments.

Payments shall be made within 30 days upon presentation of undisputed and properly submitted estimates prepared jointly by the Contractor and District's representative and received and properly certified and approved by the District Engineer. Payments shall be based upon the percentage of the work completed under each payment item during the preceding month, or upon actual quantities performed.

If the District fails to make a timely payment after receipt of an undisputed, properly submitted payment request or estimate, interest shall be paid the Contractor at the legal rate until paid.

Payment requests or estimates determined not to be properly submitted or disputed shall be returned, with written reasons therefor, to the Contractor as soon as practicable, but not later than seven (7) days after receipt.

The number of days available to the District to make a payment without incurring interest shall be reduced by the number of days, if any, exceeding the seven-day return requirement of disputed or improperly submitted payment requests or estimates.

These provisions shall not apply to that portion of the final payment designated by the Contract as retention earnings.

11.02 Retentions.

The District shall retain five percent (5%) of the amount of each progress estimate, and the accumulation of said amounts so retained from the progressive payments to the extent unencumbered shall be paid to the Contractor in no less than thirty five (35) days after the completion of the work and acceptance by the District Engineer and the District.

In lieu of retention of five percent (5%) of the amount of each progress payment, the Contractor may elect to deposit certain securities (certificate of deposit or other interest bearing securities) equivalent to the amount to be withheld. The Contractor shall notify the District in writing upon the presentation of estimates of the Contractor's intention to enter into an escrow agreement.

The Contractor also has the option, at his cost, to request the District to make payment of retentions earned, directly into an escrow agent, pursuant to the terms of Section 22300, Public Contract Code.

11.03 Acceptance.

The Contractor shall notify the District Engineer in writing of the completion of the work whereupon the District Engineer shall promptly, by personal inspection, satisfy himself as to the actual completion of the work in accordance with the terms of the contract. After receiving a recommendation for acceptance of the work from the District Engineer in writing, the District shall either accept or reject the work, stating the conditions for acceptance if the work is rejected. When the District accepts the work, it shall file a "Notice of Completion" with the County Recorder in the County of Monterey and shall promptly notify the Contractor in writing of the recordation. The Contractor warrants and guarantees that title to all work, materials and equipment accepted by the District shall pass to the District free and clear of all liens, claims, security interests or encumbrances, and that no work, materials or equipment accepted will have been acquired by the Contractor, subcontractor or sub subcontractor, or by any other person performing the work at the site or furnishing materials or equipment for the project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.

11.04 Final Quantities and Payment.

The District Engineer shall, as soon as practicable after the final acceptance of the work done under this contract, make a final determination of the amount of work done thereunder and the value thereof.

Such final determination shall be signed by the District Engineer, and after approval, the District shall pay or cause to be paid to the Contractor, in the manner provided by law, the entire sum so found to be due hereunder, after deducting therefrom all previous payments and such other lawful amounts as the terms of this contract prescribe.

In no case shall final payment be made in less than thirty five (35) days after the completion of the work and its acceptance by the District.

11.05 Extra Work and Work Omitted.

Whenever corrections, alterations, or modification of the work under this contract are ordered by the District Engineer and approved by the District and increase the amount of work to be done, such added work shall be known as extra work, and when such corrections, alterations, or modifications decrease the amount of work to be done, such subtracted work shall be known as work omitted.

When the Contractor considers that any changes ordered involve extra work, he shall immediately notify the District Engineer in writing and after receipt of the District Engineer's written authorization to proceed, and subsequently keep him informed as to when and where alleged extra work is to be performed and shall make claim for compensation therefor each month not later than the first day of the month following that in which the work claimed to be extra work was performed, and he shall submit a daily complete statement of materials used and expenses incurred on account of extra work performed, showing allocation of all materials and expenses.

All such claims shall state the date of the District Engineer's written order authorizing the work on account of which claim is made. Unless such notification is made in writing and unless complete statements of materials used and expenses incurred on account of such alleged extra work are furnished as above required, the Contractor shall not be entitled to payment on account of such alleged extra work and any future claims for compensation for such alleged extra work shall be invalidated.

When changes decrease the amount of work to be done, they shall not constitute a claim for damages on account of anticipated profits on the work that may be omitted.

11.06 Compensation for Extra Work or Work Omitted.

Whenever corrections, additions, or modifications in the work under this contract change the amount of work to be done or the amount of compensation due the Contractor and such changes have been ordered in writing by the District Engineer, then a price may be agreed upon, or failing such an agreement in price, an amount equal to the sum of the following four (4) items shall be used as the

full and proper compensation therefor, and such amount shall be added to or subtracted from, as the case may be, the price fixed by the terms of this contract for the part of the work affected:

- a. The necessary reasonable cost to the Contractor of the material required for the work as furnished by the Contractor and delivered by him at the site of the work.
- b. The necessary cost to the Contractor of the labor (including foremen devoting their exclusive attention to the work in question), required to incorporate all of said material into the work and to finish the work in accordance with directions.
- c. Appropriate overhead and profit.
- d. The cost of workers compensation insurance premiums on the labor included in item (b).

In order that a proper estimate may be made by the District Engineer of the net cost of labor and materials entering into extra work, in accordance with the procedure just stated, the Contractor shall furnish daily an itemized statement of material and labor supplied, together with the cost of such material and the wages paid, and shall furnish vouchers for quantities and prices of such labor, material, or work. In case the Contractor fails to comply with the above provisions, such failure shall be deemed a voluntary waiver of right, and Contractor thereafter shall have no claim for compensation against the District.

This method of determining the price of work shall not apply to the performance of any work which is required or reasonably implied to be performed or furnished under this contract.

11.07 Compensation to District for Extension of Time.

In case the work called for under this contract is not completed within the time limit stipulated herein, the District shall have the right, as provided hereinabove, to extend the time of completion thereof. If the time limit be so extended, the District shall have the right to charge to the Contractor and to deduct from the final payment for the work the actual cost to the District of Engineering, inspection, superintendence, and other overhead expenses which are directly chargeable to the extension of time. The cost of final surveys and preparation of the final estimate shall not be included in such charges.

11.08 Liquidated Damages for Delay.

It is agreed by the parties to the contract that time is of the essence and that in case all the work is not completed before or upon the expiration of the time limit as set forth, damage will be sustained by the District, and that it is and shall be impracticable to determine the actual amount of damage by reason of such delay, and it is therefore agreed that the Contractor will pay to the District the sum of one thousand dollars (\$1000) per day for each and every calendar day's delay beyond the time prescribed. It is agreed that such damages shall be in addition to the compensation required pursuant to paragraph 11.07 above.

In addition, the District shall have the right to charge to the Contractor and to deduct from the final payment for the work the actual cost to the District of Engineering, inspection, superintendence, and other overhead expenses, which are directly chargeable to the contract and which accrue during the period of such delay, except that the cost of final surveys and preparation of the final estimate shall not be included in such charges.

No liquidated damages shall be paid to the District for unavoidable delays pursuant to sections 6.13 and 10.06 of these General Provisions.

11.09 Progress Schedule and Report.

Before beginning work, the Contractor shall file with the District Engineer a proposed schedule of progress indicating the various subdivisions of the work and the time required to complete them. On the last day of each calendar month, a copy of the schedule shall be submitted with note thereon indicating the percentage completion of each division of work on that date. The form of the schedule shall be approved by the District Engineer. No payments shall be made to the Contractor until such schedule has been submitted and approved by the District Engineer.

11.10 Cost Breakdown.

Within fifteen (15) days after execution of the contract, the Contractor shall submit in an acceptable form a schedule showing the subdivision of his contract into its various parts, with quantities and prices, as a basis for checking and computing monthly estimates. No payments shall be made to the Contractor until such schedule has been submitted and approved by the District Engineer.

11.11 Compliance with terms of State or Federal Grant.

If this Contract has been or will be funded with monies received by the District pursuant to a contract with the state or federal government in which the District is the grantee, Contractor will comply with all the provisions of said contract, to the extent applicable to Contractor as a subgrantee under said contract, and said provisions shall be deemed a part of this Agreement, as though fully set forth herein. Upon request, District will deliver a copy of said contract to Contractor, at no cost to Contractor.

SECTION 12. EMPLOYMENT OF APPRENTICES

12.01 Apprentices.

Attention is directed to the provisions in Sections 1777.5 (Chapter 1411, Statutes of 1968) and 1777.6 of the Labor Code concerning the employment of apprentices by the Contractor or subcontractor under him. Section 1777.5, as amended, requires the Contractor or subcontractor employing tradesmen in any apprenticeable occupation to apply to the joint apprenticeship committee nearest the site of the public works project and which administers the apprenticeship program in that trade for a certificate of approval. The certificate shall also fix the ratio of apprentices to journeymen that shall be used in the performance of the contract. The ratio of apprentices to journeymen in such cases shall not be less than one to five except:

- a. When employment in the area of coverage by the joint apprenticeship committee has exceeded an average of 15 percent (15%) in the ninety (90) days prior to the request for certificate, or,
- b. When the number of apprentices in training in the area exceeds a ratio of one to five, or
- c. When the trade can show that it is replacing at least 1/30 of its membership through apprenticeship training on an annual basis statewide or locally, or
- d. When assignment of an apprentice would create a condition which would jeopardize his/her life or the life, safety, or property of fellow employees or the public at large or if the specific assigned task is of such a nature that training cannot be provided by a journeyman.

Where the Contractor properly shows that apprentices are employed in the state on all contracts on an annual average of not less than one hour of apprentice labor to five hours of journeyman labor, a certificate may be granted by the Division of Apprenticeship Standards exempting the Contractor from the one to five hourly ratio otherwise required by Section 1777.5, Labor Code.

The Contractor is required to make contributions to funds established for the administration of apprenticeship programs if he employs registered apprentices or journeymen in any apprenticeable trade on such contracts and if other contractors on the public works site are making such contributions.

The Contractor shall be responsible to comply with the requirements of Sections 1777.5 and 1777.6 in the employment of apprentices.

Information relative to apprenticeship standards, wage schedule, and other requirements may be obtained from the Division of Apprenticeship Standards at <https://www.dir.ca.gov/das/das.html>.

SPECIAL CONDITIONS

1. Owner Furnished Equipment

MPWMD is planning to purchase the chemical feed pump skids for sodium hypochlorite and the stabilizer chemical room. Confirmation of the purchase will be made at the mandatory pre-bid meeting. Equipment planned to be purchased is described in detail in Attachment F. All other equipment, material, labor, tools to install the skids shall be supplied by the Contractor at no additional cost to MPWMD.

MPWMD has purchased aluminum lettering. The Contractor shall perform the work and include the cost for all labor, materials, and supplies necessary to install the lettering on the CMU wall portion of the fence in the bid.

All other equipment, material, labor, tools to install all other work described in the Contract Documents shall be provided by the Contractor at no additional cost to MPWMD.

2. Equipment Substitutions

Pursuant to Public Contract Code Section 3400, if MPWMD has made any findings designating certain materials, products, things, or services by specific brand or trade name, such findings and the materials, products, things, or services and their specific brand or trade names will be set forth in this section of the Special Conditions.

Findings may be made by the Board of Directors at the August 19, 2019 meeting regarding specific brands for equipment for this bid including but not limited to:

- Prominent Chemical Feed Systems
- Prominent Chlorine Analyzers
- Hach Turbidimeters
- ClaVal Co modulating Valves
- Westfall Static Mixers
- Sparling "Tigermag" Magnetic Flowmeters
- Poly Processing Co "IMFO" chemical tanks
- March Manufacturing Magnetic Drive Pumps
- Endress & Hauser liquid level transmitters
- Westfall Flow Conditioners

An Addendum to these Special Conditions will be issued if the Board of Directors makes findings regarding equipment brands for this bid.

3. Insurance

The Contractor shall indemnify and hold harmless from any and all claims, demands, causes of action, costs, expenses, liabilities, losses, damages or injuries, in law or equity,

regardless of whether the allegations are false, fraudulent, or groundless, to property or persons, including wrongful death, arising out of or in connection with the performance of the work or this Contract the following parties in addition to those named in In addition to those named in Section 5 of the General Conditions:

- California American Water Company, its officers, agents and employees both severally and collectively;
- the City of Seaside, California, its officers, agents and employees both severally and collectively;
- and Fort Ord Reuse Authority, its officers, agents and employees both severally and collectively

The above parties shall be named as Additional Insured in all Commercial General Liability and Automobile Liability insurance policies required by this Section and Section 5 of the General Conditions.

The City of Seaside has additional insurance requirements that must be met to secure a Digging and Excavation on the Former Fort Ord Permit (grading permit). It is the Contractor's responsibility to understand and meet the City of Seaside insurance requirements at no additional cost to the Owner.

4. Permits

The Contractor shall pay for and acquire all necessary permits including, but not limited to,

- a. Digging and Excavating on the Former Fort Ord Permit,
- b. encroachment permits,
- c. and City of Seaside business license.

MPWMD shall assist in filing the Digging and Excavating on the Former Fort Ord permit application; the Contractor is responsible to acquire and pay for the permit.

5. Work on the Former Fort Ord

The Project is located on the former Fort Ord in a Munitions Response Area, subject to the following additional requirements and restrictions:

1. Security fencing shall be installed and maintained at all times to ensure access to the property is controlled at all times.
2. Contractor shall comply with the Unexploded Ordnance (UXO) Construction Support Plan and the Soils Management Plan prepared for the project by ARCADIS/Weston, to be attached as an Attachment B.
3. All persons disturbing soil at the site shall complete the Fort Ord Military Munitions Recognition and Safety Training *prior to* commencing work. Training consists of watching a 30 minute video and answering some questions. Any

personnel disturbing earth must have training prior to conducting work. Delivery truck drivers do not need this training. The Owner will pay for the consultant to conduct the training, no payment or fee is required from the Contractor. Contractor employee and subcontractor hours are the responsibility of the Contractor to budget.

4. Ground disturbing activities, including perimeter fence installation, shall be coordinated with a Fort Ord Reuse Authority Unexploded Ordnance Safety Specialist/Agent.
5. Soil and deleterious material from the work site shall not be placed anywhere other than the work site, even on a temporary basis.
6. Contractor shall comply with the City of Seaside Ordinance 924, "Ordinance Remediation District Regulations of the City", codified as Section 15.34 of the City Code. Minimum requirements are listed below. Additional requirements may be included in the final grading permit.
 - a. Contractor shall acknowledge liability if the Contractor removes any detected unexploded ordnance from the site or otherwise violates the City ordinance or permit. The Army will continue to have liability for removing any detected UXO. Contractor shall notify the Army of any detected UXO as required in the UXO Construction Support Plan and as listed below.
 - b. All excavation and grading shall be performed solely in accordance with the grading permit approved and issued by the City;
 - c. Prior to movement of any soil on any property located within the district, the permittee or designee shall personally deliver to each person who intends to work on the property described in the permit the safety alert.
 - d. The permittee shall cease soil disturbance activities upon discovery of any suspected unexploded ordnance. The permittee shall notify the Seaside police department, the Directorate of Law Enforcement at the Presidio of Monterey, the Army and DTSC of any suspected unexploded ordnance discovered during any excavation or soil removal immediately upon discovery. The permittee shall coordinate appropriate response actions with the Army and DTSC.
 - e. No later than thirty days following the completion of the permitted soil disturbance activity, the permittee shall prepare and file with the City, the Army and DTSC an after action report that shall state whether and where ordnance was detected, using the reporting format provided in the City Code.

Soil from west of the line marked TIP must remain west of the TIP at all times. Soil from east of the line marked TIP must not be moved west of that line.

The TIP line shall be marked by a Surveyor licensed in the state of California prior to construction. A barrier fence must be installed prior to construction and maintained throughout construction. The barbed wire fencing must be fastened to the fence constructed as a part of this project in a manner such that security meets or exceeds pre-construction security.

4. Environmental Best Practices

In accordance with Resolution No. 2006-04 made by the MPWMD Board of Directors on August 22, 2006, mitigation measures shall be implemented prior to and during construction to reduce significant environmental effects. The Mitigation Monitoring and Reporting Program (MMRP) to be included in **Attachment A** shows the approved mitigation measures and responsibilities applicable to this contract. Contractor responsibilities set forth in the MMRP are to be included in the Contractors bid and bid price.

The Contractor shall include all materials, labor, and equipment necessary to comply with the following environmental best practices at no additional expense to MPWMD:

- The Contractor shall protect trees near the construction area with protective fencing placed around the trees and extending 3' from the drip line.

- **Implement Non-Native, Invasive Species Controls.** The following measures shall be implemented to reduce the introduction and spread of non-native, invasive species:
 1. Any landscaping or replanting required for the project shall not use species listed as noxious by the California Department of Food and Agriculture (CDFA).
 2. Bare and disturbed soil shall be landscaped with CDFA recommended seed mix or plantings from locally adopted species to preclude the invasion on noxious weeds in the Project Study Area.
 3. Construction equipment shall be cleaned of mud or other debris that may contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds, before mobilizing to arrive at the construction site and before leaving the construction site.

5. Preconstruction meeting

Prior to the commencement of Work at the Site, a preconstruction meeting will be held at MPWMD's Office at a mutually agreed time, but no later than 14 days

after the Notice of Award. The preconstruction meeting shall be attended by Contractor's Project Manager, Superintendent, Quality Control Engineer, Safety Representative, and Subcontractors. Subcontractor attendance shall be requested and approved by District Engineer. Other attendees will be:

- a. District Engineer and other authorized MPWMD employees.
- b. Other Governmental Representatives, as appropriate.
- c. Utilities Representatives, as appropriate.
- d. Others as Requested by Contractor and Owner upon Approval by the District Engineer.

The purpose of the preconstruction is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established. The complete agenda will be furnished to Contractor prior to the meeting date. However, Contractor should be prepared to discuss all of the items listed below.

- a. Contractor's initial schedules.
- b. Procedures for and transmittal, review, and distribution of Contractor's submittals (normal and deferred).
- c. Processing applications for payment.
- d. Maintaining record documents.
- e. Special inspection procedures.
- f. Critical work sequencing.
- g. Field decisions and Change Orders.
- h. Use of Site, office and storage areas, security, housekeeping, and Owner's needs.
- i. Major equipment deliveries and priorities.
- j. Contractor's assignments for safety and first aid.
- k. Daily Report Form.
- l. Submittal Transmittal Form.
- m. Temporary utilities.
- n. Special Conditions

District Engineer will preside at the preconstruction meeting and will arrange for keeping and distributing the minutes to all persons in attendance. Contractor shall advise District Engineer within 5 days of receipt of minutes if Contractor does not agree with the content of minutes. No separate payment will be made for the Contractor's attendance at the meeting.

6. Stormwater Pollution Prevention

Contractor shall be required to comply with all conditions of the State Water Resources Control Board (“State Water Board”) Water Quality Order No. 2009-0009-DWQ as modified by Order No. 2010-0014-DWQ, National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Discharges of Storm Water Discharges Associated with Construction Activity (“NPDES Permit”) for all construction activity which results in the disturbance of in excess of one acre of total land area or which is part of a larger common area of development.

MPWMD has prepared the Storm Water Pollution Prevention Plan (“SWPPP”). Contractor shall be solely responsible for implementing and maintaining the SWPPP Best Management Practices (BMPs), as described in **Attachment D**. Contractor shall include in its bid all costs of implementing and maintaining the SWPPP BMPs regardless of the area of disturbance. The BMP Implementation Schedule from Table 3.1 of the SWPPP is provided in the following table.

The disturbed area for this project is estimated to be less than one (1) acre. If the Contractor disturbs more than one (1) acre, the Contractor is responsible to file a Notice of Intent, obtain the Permit, and provide monitoring to ensure compliance with the permit at no additional cost to the owner.

BMP	Implementation	Duration
EC-1, Scheduling	Prior to Construction	Entirety of Project
EC-2, Preservation of Existing Vegetation	Start of Construction	Entirety of Project
EC-4, Hydroseeding	End of Construction	Post construction
EC-7, Geotextiles and Mats	During the Construction	During certain field activities
EC-16, Non-Vegetative Stabilization	End of Construction	Post construction
SE-1, Silt Fence	Start of Construction	Entirety of Project
SE-7, Street Sweeping and Vacuuming	Start of Construction	Entirety of Project
SE-8, Sandbag Barrier	Start of Construction	Entirety of Project
SE-10, Storm Drain Inlet Protection	Start of Construction	Entirety of Project
TC-1, Stabilized Construction Entrance/Exit	Start of Construction	Entirety of Project
TC-3, Entrance/Outlet Tire Wash	Start of Construction	Entirety of Project
WE-1, Wind Erosion Control	Start of Construction	Entirety of Project

Failure to comply with the NPDES Permit is a violation of federal and state law. Contractor hereby agrees to indemnify, defend and hold harmless MPWMD, its officials, officers, agents, employees and authorized volunteers from and against any and all claims, demands, losses or liabilities of any kind or nature which MPWMD, its officials, officers, agents, employees and authorized volunteers may sustain or incur for noncompliance with the Permit arising out of or in connection with the Work, except for liability resulting from the sole established negligence, willful misconduct or active negligence of MPWMD, its officials, officers, agents, employees or authorized volunteers. MPWMD may seek damages from Contractor for delay in completing the Work arising from Contractor's failure to comply with the NPDES Permit.

7. Trailer and Sanitation

Contractor shall provide at its own expense temporary office facilities in a location approved by MPWMD, Fort Ord Reuse Authority, and the City of Seaside if applicable. Upon Notice of Award, the Contractor shall provide a written request and map of proposed facilities to Fort Ord Reuse Authority for their approval. The trailer must be of sufficient size for use by the Construction Management team hired by MPWMD.

Power, internet service, water, and all supplies required in the office facilities shall be provided by the Contractor at no additional cost to MPWMD. The existing facility does not have available power, internet service, water, or sanitation facilities.

Contractor shall provide at its own expense sanitary temporary toilet buildings for the use by all workers. Toilets shall be kept supplied with toilet paper and shall have workable door fasteners. Toilets shall be serviced no less than once weekly. The toilets shall be maintained in a sanitary condition at all times and shall have double containment. Sanitary facilities shall be in an accessible location for service. Use of existing toilet facilities at the site shall not be permitted.

Contractor shall provide at its own expense trash containment and removal service. Trash must be contained such that it is secured from wind and wildlife. Trash must be removed from site at a frequency such that the containment is not compromised. Trash must be located in an area accessible for removal. Trash on the ground must be removed daily by the Contractor.

8. Neighborhood Complaints

The site is close to a residential area. If noise complaints due to construction are received, MPWMD will notify the Contractor in writing. The Contractor must explain the noise reducing measures in writing to MPWMD within 2 working days of a noise complaint notice.

The neighbors near the job site complain about vibration during construction. If vibration complaints due to construction are received, MPWMD will notify the Contractor in writing. The Contractor must investigate the cause of vibration and implement alternative construction methods upon receipt of the vibration notice at no additional cost to MPWMD the same day as the notice.

Response to neighborhood complaints shall be at no additional cost to MPWMD.

9. Geotechnical Reports

Geotechnical reports are included as Attachment C.

10. Progress Meetings

District Engineer will schedule and hold regular on-site progress meetings at least weekly and at other times as requested by Contractor or as required by progress of the Work. Contractor and District Engineer shall attend each meeting and other representatives of MPWMD may also attend. Contractor may at its discretion request attendance by representatives of its suppliers, manufacturers, utilities, and subcontractors. Attendance by such representatives shall be subject to approval of District Engineer.

District Engineer or Construction Manager will preside at the progress meetings and will arrange for keeping and distributing the minutes. Contractor shall advise District Engineer within 5 days of receipt of minutes if Contractor does not agree with content of minutes.

The purpose of the meetings is to review the progress of the Work including review of Contractor's three week look-ahead schedule, review submittal and Request for Information status, review change order status, review coordination with operations, maintain coordination of efforts, address field problems, and resolve other problems which may develop. During each meeting, Contractor shall present any issues that may impact its progress and propose solutions with a view to resolve these issues expeditiously.

The three-week look-ahead schedule shall include but not be limited to key upcoming activities such as major equipment deliveries to the Site, key construction activities and key testing activities. The three-week look-ahead

schedule shall be in the form of marked-up Drawings and schedules/flow charts to depict the activities.

11. Operations

The backflush basin is required for operations once each month. Water from four (4) wells will fill the basin over a two (2) day period and drain within twenty-four (24) hours leaving wet soil. The Contractor must schedule construction in coordination with MPWMD Operations to accommodate this operation.

No garbage, discharge, sediment, chemicals, or material of any kind may be placed in the backflush basin at any time. The backflush basin overlies a potable aquifer. Percolation rate must be maintained or improved following construction. If Contractor discharges to the basin and the percolation rate is reduced, the Contractor shall conduct all work approved by MPWMD to recover the percolation rate at no additional cost to MPWMD.

12. Survey

The Owner will pay for setting one set of survey control. The Contractor will set the construction stakes.

13. Inspections

Geotechnical and other inspections must be coordinated with the Owner and the Construction Manager with sufficient notice to facilitate inspection. Payment for geotechnical inspection and testing, as well as special inspections and testing of concrete, rebar, and anchors are *not* the responsibility of the Contractor. The Contractor will coordinate construction with the inspectors and Construction Manager.

14. Damage and Repair

The Contractor at its own expense shall repair all damage caused by the Contractor to a condition that equals or exceeds the condition at the start of the work.

The Contractor shall repair any damage caused by the project work to private access roads and adjacent landscaped areas. Repair work shall restore damaged areas to the original condition. Such repairs shall be made in a timely manner and shall be inspected by the District Engineer prior to completion of contract work.

Damage to stormwater protection by the Contractor, including the berm around the backflush basin and the berm along the road between the backflush basin and existing electrical building must be repaired by the Contractor at no additional expense to MPWMD. Stormwater damage to existing facilities, including the existing backflush basin, due to damaged stormwater protection by the Contractor must be repaired by the Contractor at no additional expense to MPWMD>

Replacement of earth fill or backfill, where it has settled below the required finish elevations, shall be considered as a part of such required corrective work, and any repair or resurfacing constructed by the Contractor which becomes necessary by reason of such settlement shall likewise be considered as a part of such required corrective work unless the Contractor shall have obtained a statement in writing from the affected private owner or public agency releasing MPWMD from further responsibility in connection with such repair or resurfacing.

The Contractor shall make all repairs and replacements promptly upon receipt of written order from MPWMD. If the Contractor fails to make such repairs or replacements promptly, MPWMD reserves the right to do the Work and the Contractor and its surety shall be liable to MPWMD for the cost thereof.

15. Clean-up Work

Deleterious material shall be stockpiled on the jobsite. When the work is complete the material shall be distributed within the work site as mulch at no additional cost to MPWMD.

All materials removed or demolished by the Contractor must be removed from site by the Contractor and disposed of at a licensed facility at the Contractor's expense.

Disturbed areas shall be hydroseeded with native hydroseed mix approved for use on the former Fort Ord, and covered with certified weed free mulch or straw.

Final acceptance of the Work by MPWMD will be withheld until the Contractor has satisfactorily performed the final cleanup of the site.

16. Completion

Substantial completion is defined as the project is sufficiently complete, in accordance with the **construction** contract documents, so that the owner may use or occupy the

project or designated portion thereof for the intended purpose. The water treatment facility must be fully functional, any remaining work items must be able to be completed without interruption of the operation of existing and new facilities.

- a. When the Contractor considers that the Work is substantially complete, the Contractor shall prepare for submission to the District Engineer a list of items to be completed or corrected. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all work in accordance with the Contract Documents.
- b. When the District Engineer on the basis of an inspection determines that the Work is substantially complete, the District Engineer will then prepare a Certificate of Substantial completion which shall establish the date of substantial completion; state the responsibilities of MPWMD and Contractor for security, maintenance, heat, utilities, damage to the work and insurance; and fix the time within which the Contractor shall complete the items listed therein.
- c. Warranties required by the Contract Documents shall commence on the date of substantial completion of the work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion. The Certificate of Substantial Completion shall be submitted to MPWMD and the Contractor for their written acceptance of the responsibilities assigned to them in such certificates.
- d. A warranty bond for 50% of the face value of the Contract shall be provided to MPWMD for a one-year warranty period. The bond shall guarantee repairs and/or replacement of all project works that fail or do not meet design requirements for one year after final acceptance of the Work.
- e. Upon substantial completion of the work and upon application by the Contractor and certification by the District Engineer, MPWMD shall make payment, reflecting adjustment in retainage, if any, for such work or portion thereof, as provided in the contract document.
- f. When the Contractor has informed the District Engineer that the Work has been completed, the Contractor shall participate in a final walkthrough inspection with the District Engineer at which time the final punchlist will be prepared. The punchlist shall include all previously noted preliminary punchlist items and/or non-compliance or uncompleted work items. The Contractor shall complete and sign off all punchlist items with the District Engineer.

17. Final Submittals

The Contractor, prior to requesting final payment, shall obtain and submit the following items to the District Engineer for transmittal to MPWMD:

- a) Written guarantees, as required.
- b) Completed record drawings.
- c) Certificates of inspection and acceptance by local governing agencies having jurisdiction.
- d) Copies of final inspection certificates for all required structural, piping, electrical, and mechanical works.
- e) Equipment manufacturer's startup test reports, installation certifications affidavits, and warranties if any.

CONSTRUCTION PLANS AND SPECIFICATIONS

*The Contractor must download this as a separate document from the website
<https://www.mpwmd.net/who-we-are/bid-construction-smwtf/>*

Plans and specifications are incorporated by reference into this Call for Bids. MPWMD does not assume any liability or responsibility based on any defective or incomplete copying, excerpting, scanning, faxing, downloading or printing of the Plans and Specifications.

Attachment A – Environmental Mitigation Requirements

The Contractor is responsible to fully read all of the Mitigation Measures in their totality. The contractor is obligated to provide all materials, labor, and equipment necessary to fulfill all of the following Mitigation Measures defining contractor requirements at no additional cost to MPWMD.

Item	Mitigation Measure
Bio-1	To prevent disturbance of the adjacent NRMA, management measures will be carried out during project construction and operation to minimize construction effects and the potential for introducing invasive nonnative species. The construction contractor will implement BMPs to prevent the spread outside the construction area of construction materials, oil and fuel, silt, soil, dust, or water runoff. All invasive nonnative plants, such as iceplant or pampas grass, will be removed from the construction area prior to site disturbance to avoid the spread of plant fragments or seeds.
Bio-2	Clearing of the site for inspection, maintenance and cleaning, and construction of the well and associated facilities and the pipeline, and subsequent inspection and maintenance and cleaning activities will result in the removal of trees and shrubs that provide suitable nesting habitat for migratory birds. To avoid the loss of active migratory bird nests, tree and shrub removal will be conducted only during the nonbreeding season for migratory birds (generally September 1 to February 15). Removing woody vegetation during the nonbreeding season will ensure that active nests will not be destroyed by removal of trees supporting or adjacent to active nests.
CR-1	If buried cultural resources such as chipped stone or ground stone, historic debris, building foundations, or human bone are inadvertently discovered during ground disturbing activities, the construction contractor will stop work in that area and within a 100-foot radius of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include avoidance strategies or mitigation of impacts through data recovery programs such as excavation or detailed documentation.
CR-2	<p>If human skeletal remains are encountered, the construction contractor will notify MPWMD and the county coroner immediately. MPWMD will ensure the construction specifications include this order.</p> <p>If the county coroner determines that the remains are Native American, the coroner will be required to contact the Native American Heritage Commission (pursuant to Section 7050.5 [c] of the California Health and Safety Code) and the County Coordinator of Indian Affairs. A qualified archaeologist will also be contacted immediately.</p> <p>If human remains are discovered in any location other than a dedicated cemetery, there will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:</p> <ul style="list-style-type: none"> • the coroner of the county has been informed and has determined that no investigation of the cause of death is required; and • if the remains are of Native American origin: <ul style="list-style-type: none"> • the descendants of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work for means of treating or disposing of with appropriate dignity the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98; or • the NAHC was unable to identify a descendent or the descendent failed to make a recommendation within 24 hours after being notified by the commission. <p>According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052). Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a</p>

	Native American. If the remains are determined to be Native American, the coroner must contact the NAHC.
GWH-1	All activities, vehicle storage, and discharges associated with project construction and operation, including well discharges, shall be accomplished in accordance with NPDES permits from the RWQCB to ensure no degradation of surface or groundwater quality. All performance standards contained in the permit will be met.
GWH-2	MPWMD shall operate the Proposed Project in compliance with the SWRCB's Anti-Degradation Policy (Resolution 68-16), and applicable CDPH regulations regarding drinking water quality.
NZ-1c	The construction contractor will prepare a detailed noise control plan based on the construction methods proposed. This plan will identify specific measurement that will be taken to ensure compliance with the noise limits specified above. The noise control plan will be reviewed and approved by City of Seaside staff, if required, before any noise-generating construction activity begins.
NZ-1d	The construction contractor will notify residences within 500 feet of the construction areas of the construction schedule in writing prior to construction. The construction contractor will designate a noise disturbance coordinator who will be responsible for responding to complaints regarding construction noise. The coordinator will determine the cause of the complaint and will ensure that reasonable measures are implemented to correct the problem. A contact telephone number for the noise disturbance coordinator will be conspicuously posted on construction site fences and will be included in the written notification of the construction schedule sent to nearby residents.
Haz-1	<p>Because of the proposed well site's location, the following safety precautions are required for on-site activities. The requirements may be modified upon completion of the Munitions Response Remedial Investigation/Feasibility Study (MR RI/FS) process for the munitions response sites.</p> <ul style="list-style-type: none"> • All personnel accessing the proposed well site will be trained in MEC recognition. This safety training is provided by the U.S. Army at no cost to the trainee. Training may be scheduled by contacting Fort Ord BRAC Office, Lyle Shurtleff at 831-242-7919. • If an item is discovered that is or could be MEC, it shall not be disturbed. The item shall be reported immediately to the Presidio of Monterey Police Department at 831-242-7851 so that appropriate U.S. military explosive ordnance disposal personnel can be dispatched to address such MEC as required under applicable law and regulations at the expense of the army. • Ground disturbing activities, including perimeter fence installation, will be coordinated with USA CE Unexploded Ordnance Safety Specialist so that appropriate construction-related precautions may be provided (Fisbeck pers. comm.). The USACE Pamphlet EP 75-1~2 entitled <i>Munitions and Explosives of Concern (MEC) Support During Hazardous, Toxic and Radioactive Waste (HTRW) and Construction Activities</i>, dated August I, 2004, which can be found at http://www.usace.army.mil/inet/usace-docs/engpamphlets/ep75-1-2/toc.htm shall be followed by the USACE Safety Specialist to determine the type of construction oversight that will be needed based on the type of construction activities to be performed. • Construction activities at the project site are subject to Monterey County Code, Ordinance 5012, Subsection I dated 2005, Title I 6 "Environment," Chapter 16. J "Digging and Excavating on the Former Fort Ord," which can be found at http://municipalcodes.lexisnexis.com/codes/montereyco. This ordinance prohibits excavation, digging, development, or ground disturbance unless an excavation permit is obtained and the permit requirements are followed.
PS-1	The construction contractor will contact Underground Service Alert (800/642-2444) at least 48 hours before excavation work begins in order to verify the nature and location of underground utilities. In addition, the contractor will notify and coordinate with public and private utility providers at least 48 hours before the commencement of work adjacent to any utility, unless the excavation permit specifies otherwise. In addition, the service provider will be notified in advance of all service interruptions and will be given sufficient time to

	notify customers. The timing of interruptions will be coordinated with the providers to ensure that the frequency and duration of interruptions are minimized.
PS-2	The construction contractor will be responsible for ensuring protection of all utilities slated to remain. All buried lines will be tape-coated in accordance with the requirements of American Water Works Association C214. All new water services, fire services, and water mains will be cathodically protected, in accordance with contract documents. In addition, the contractor will be required to comply with State Department of Health Services criteria for the separation of water mains and sanitary sewers, as set forth in Section 64630, Title 22, of the California Administrative Code. MPWMD will ensure this measure is included in the contract specifications.
Cume-1	<p>MPWMD will contact local agencies that have projects planned in the same area (i.e., project sites within 1 mile or projects that affect the same roadways) and that have construction schedules that overlap with construction of the Proposed Project.</p> <ul style="list-style-type: none"> • Prepare compatible traffic control plans for construction projects. • Water graded/ excavated areas at least twice daily. Frequency should be based on the type of operations, soil and wind exposure. Prohibit all grading activities during periods of high wind (over 15 mph). • Apply nontoxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations, and hydro-seed area. • Haul trucks shall maintain at least 2'0" of freeboard. • Cover all trucks hauling dirt, sand, or loose materials. • Plant vegetative ground cover in disturbed areas as soon as possible. • Cover inactive storage piles. • Install wheel washers at the entrance to construction sites for all exiting trucks.

Attachment B – Unexploded Ordnance Construction Support Plan

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On-Call Construction Support Plan
Aquifer Storage and Recovery Well Site Expansion and
Monterey Peninsula Water Supply Projects

June 18, 2018

Prepared for:

Fort Ord Reuse Authority
920 2nd Avenue, Suite A
Marina, CA 93933

Monterey Peninsula Water Management District
5 Harris Court, Building G
Monterey, CA 93940

California-American Water
511 Forest Lodge Road, Suite 100
Pacific Grove, CA 93950

Prepared by:

Arcadis, Inc. / Weston Solutions, Inc.

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1. INTRODUCTION

This On-Call Construction Support Plan (CSP) has been prepared to support the Aquifer Storage and Recovery Well Site Expansion Project (ASR Expansion Project).

- The ASR Expansion Project is being conducted by the Monterey Peninsula Water Management District (MPWMD) on Fort Ord Reuse Authority (FORA) Environmental Services Cooperative Agreement (ESCA) property identified as the Seaside Munitions Response Area (MRA; Parcels E34 and E23.1). The Seaside MRA is shown in Figure 1.
- The ASR Expansion Project is located in the City of Seaside jurisdictional boundaries and subject to excavation permit requirements as identified in City of Seaside Municipal Code Chapter 15.34 Digging and Excavation on the Former Fort Ord Ordinance (i.e., the digging and excavation ordinance).

This CSP identifies the construction support requirements and activities for applicable intrusive activities conducted within the expanded ASR Well Site boundary in accordance with the digging and excavation ordinance, while FORA owns the corresponding ESCA property.

For efficiency, this CSP also includes the proposed alignment for the below-grade Monterey Peninsula Water Supply Project (MPWSP) transmission mains supplying the ASR Well Site within the adjacent General Jim Moore Boulevard (Parcel E34) and upgrades to below-grade pipelines at the intersection of General Jim Moore Boulevard and Hilby Avenue (Parcel E24) being installed by the California-American Water Company (CalAm).

The project sites occupy land that is part of the former Fort Ord Army Installation and was historically used for military training. Because of the former military use at the project site, munitions response actions were completed to remove Department of Defense (DoD) military munitions, many of which were determined upon evaluation by qualified personnel to be Munitions and Explosives of Concern (MEC). Even with completion of munitions response actions, there is potential for munitions to be encountered.

The probability of encountering MEC on the project sites is considered low; therefore, on-call construction support is appropriate for this construction project (Section 2). Under certain circumstances, unexploded ordnance (UXO)-qualified personnel may use anomaly avoidance techniques to avoid subsurface anomalies during specific intrusive activities (e.g., fence post or well installation), if appropriate (Section 3.2).

The basis for the low probability determination was a review of the Final Seaside MRA Technical Information Papers (ESCA RP Team 2008 and 2011), Final Seaside MRA Residential Protocol Implementation (RPI) Technical Report (ESCA RP Team 2017a), Final Seaside MRA Supplemental RPI Technical Report (ESCA RP Team 2017c) and the Final Group 1 Remedial Investigation/Feasibility Study (RI/FS; ESCA RP Team 2017b).

The federal, state and local government agencies (i.e., U.S. Department of the Army [Army], U.S. Environmental Protection Agency [EPA], and California Department of Toxic Substances Control [DTSC]) and other interested parties involved with this CSP are summarized below:

- Army – Ensures FORA compliance with the ESCA; provides review and comment on the CSP
- EPA – Provides regulatory review and comment on the CSP
- DTSC – Provides regulatory review and comment on the CSP
- FORA (as property owner) – Ensures MPWMD and CalAm are in compliance with the FORA right-of-entry agreement and the City of Seaside digging and excavation ordinance requirements; and provides the UXO-support contractor on behalf of MPWMD and Cal Am to support preparation and submittal of the CSP, and associated reporting, to regulatory agencies and the Army for review and comment
- FORA (as party to the ESCA and Administrative Order on Consent [AOC]) – Review reports of munitions, including MEC, encounters (recoveries) during action addressed by this CSP to determine whether the probability determination should be revised, or additional requirements should be imposed to ensure safety and help ensure the probability of encountering MEC will remain low prior to allowing construction activities to resume
- City of Seaside – Enforces the digging and excavation ordinance
- MPWMD and CalAm – Comply with the digging and excavation ordinance on behalf of FORA in accordance with the FORA right-of-entry agreement
- Project Construction Contractors – Comply with this CSP on behalf of MPWMD and CalAm in support of the intrusive activities

This plan is limited to on-call construction support and anomaly avoidance during intrusive activities to be conducted in the northwestern portion of the Seaside MRA (Figure 2). In addition, this plan describes the military munitions recognition and safety training program to be provided to construction workers conducting intrusive activities, the procedures for conducting construction support, and the procedures for initiating a response if a munition or suspect munition is encountered. The construction support requirements that will be implemented include:

- Military munitions recognition and safety training – to ensure that workers involved in intrusive activities are informed about the possibility of encountering munitions and the actions to be taken should they encounter, or suspect they have encountered, a munition. Such actions include (a) not approaching, disturbing, touching or moving it; (b) stopping intrusive activities in the immediate and adjacent areas; and (c) reporting the suspect munitions to the appropriate personnel.
- On-call construction support and anomaly avoidance – ensures (a) intrusive activities are coordinated in advance with UXO-qualified personnel providing support; (b) munitions and suspect munitions encountered are visually evaluated to determine whether they are or

may be MEC, munitions debris (MD), or non-munitions debris (e.g., metal scrap); and such munitions or debris that poses an explosive hazard are reported and managed properly.

- Munitions and material that UXO-qualified personnel determines does not present an explosive hazard should be removed and disposed of in compliance with applicable environmental laws and regulations.
- Under certain circumstances, UXO-qualified personnel may use anomaly avoidance techniques to avoid subsurface anomalies during specific intrusive activities (e.g., fence post or well installation), if appropriate.

This CSP will be present at the project site with the construction contractor responsible personnel during intrusive activities on FORA ESCA property. This CSP will also be present with the UXO-qualified personnel at all times during intrusive activities on FORA ESCA property. Copies of the CSP will be provided to responsible personnel for MPWMD, CalAm, FORA, Arcadis, Weston, Army, EPA, DTSC and City of Seaside permitting agency. This CSP will be amended as site conditions change, if determined to be necessary.

1.1. Site Description

The project sites are located in the Seaside MRA (Parcels E24, E34 and E23.1), which is located in the western portion of the former Fort Ord (Figure 1). The project sites are within the boundaries of the Seaside MRA designated residential reuse and non-residential reuse areas (Figure 2), which is wholly contained within the jurisdictional boundaries of the City of Seaside. The Seaside MRA is bordered by the City of Seaside to the west, the historical impact area to the east, Eucalyptus Road to the north, and additional former Fort Ord property to the south. The project site generally consists of maritime chaparral with patches of non-native grassland (ESCA RP Team 2017b).

The current configuration of the ASR well site was constructed between January and February 2008. The new General Jim Moore Boulevard alignment was constructed between December 2007 and December 2010. Military munitions recognition and safety training was provided to construction personnel prior to the start of the project, with construction support provided by UXO-qualified personnel during intrusive activities (Army 2008 and ESCA RP Team 2017b). During these intrusive construction activities, neither munitions nor munitions debris were encountered.

1.2. Construction Project Description

MPWMD is expanding the current ASR Well Site, located immediately east of General Jim Moore Boulevard, from approximately 1.1 acres to approximately 1.9 acres to accommodate added capacity needs of other existing and proposed ASR well sites in the Seaside Basin. Design plans include: expansion of the existing backflush pit / percolation basin; construction of secondary ingress/egress routes; construction of a sound attenuation enclosure; placement of a truck off-loading pad; installation of underground piping and fencing; and a possible backup well installation (Figures 2 and 3).

Vegetation clearing, grading and excavation activities in support of the ASR Expansion Project will be conducted to include the following (Figure 3):

- Surveying and boundary staking
- Clearing, grubbing and grading of secondary ingress/egress routes
- Trenching in support of installation of underground piping
- Grading, excavation and scarification of the expanded backflush percolation basis
- Grading and excavation of a disinfectant off-loading facility to include trenching for underground piping, electrical and instrumentation conduits
- Digging of fencing installation and repair post holes
- Grading existing roadways
- Excavation or digging of holes for landscaping
- Drilling, development and installation of backup well (optional)
- Maintenance activities associated with below grade infrastructure
- Installation and maintenance of ASR site landscaping
- General maintenance and repair of underground infrastructure

MPWMD anticipates having UXO-qualified personnel provide anomaly avoidance for certain activities (e.g., auguring fencing post holes, drilling locations for backup wells) to ensure subsurface anomalies are avoided (Section 3.2). On-call construction support will be provided for the remaining intrusive activities (Section 3.2). Should a munition or suspect munition be encountered, workers will not approach, disturb, remove or attempt to destroy it.

CalAm is installing a below-grade MPWSP transmission main line within the adjacent General Jim Moore Boulevard, located immediately west of the ASR Well Site, from Coe Avenue to approximately the southern extent of the ASR Well Site to accommodate added capacity needs of other existing and proposed ASR well sites in the Seaside Basin. Additionally, upgrades to the below-grade pipelines at the intersection of General Jim Moore Boulevard and Hilby Avenue will be conducted. Design plans include: installation of underground piping.

- Excavation activities in support of the CalAm transmission main line installation and upgrades include trenching in support of installation and upgrades of underground piping.

CalAm anticipates having UXO-qualified personnel provide on-call construction support for the intrusive activities (Section 3.2). Should a munition or suspect munition be encountered, workers will not approach, disturb, remove or attempt to destroy it.

1.2.1 Soil Management Plan

Intrusive activities within the FORA ESCA property are subject to the following soil management practices:

- Soils within the project site may not be removed from the Seaside MRA, with the exception of small quantities of soil to allow for laboratory analysis under a chain-of custody protocol, for purposes of design specifications
- Clean fill material may be imported, if needed, in accordance with DTSC Information Advisory for Clean Imported Fill Material
- Separate soil management practices are established for the residential reuse areas (Figures 2 and 3; yellow area) and non-residential development reuse areas (Figures 2 and 3; pink area) ensuring that soils from non-residential development reuse areas are not staged, stockpiled or spread within the designated residential reuse areas
- Grading and compacting of soil along access routes will remain within the work site designated reuse area
- Excess soils generated from grading and excavation operations will be stockpiled on the ground surface within the work site designated reuse area, spread evenly with the work site designated reuse area, used as fill material with in the work site designated reuse area, or used for other project specific construction needs within the designated land use area
- Best management practices will be implemented to avoid erosion

1.3. Organizational Roles and Responsibilities

MPWMD, CalAm, and their construction contractors, which are the primary organizations involved with construction activities, have their own construction-related roles and responsibilities. MPWMD, CalAm, and their construction contractors will (a) require visitors and subcontractors to check in with the field office prior to entering the area or conducting intrusive activities; and (b) ensure that all project personnel expected to conduct intrusive activities have received military munitions recognition and safety training prior to allowing site access.

The following table identifies and documents the general roles and responsibilities of both the construction support contractor (i.e., UXO-qualified personnel) and MPWMD/CalAm and their construction personnel during intrusive activities on the project site.

Project Personnel	Role	Responsibilities
MPWMD/CalAm Contractor Site Construction Supervisor	Site Access On-call construction support plan compliance	<ul style="list-style-type: none"> • Maintain site access restrictions • Coordinate and ensure military munitions recognition and safety training has been received by workers expected to conduct intrusive activities

	<p>Primary contact to coordinate UXO-qualified personnel response</p>	<ul style="list-style-type: none"> • Maintain military munitions recognition and safety training records • If a munition or suspect munition is encountered, intrusive activities in the immediate and adjacent areas are stopped, the area where the munition was encountered is secured and clearly marked to prevent unauthorized access, and workers vacate the area • Contact UXO-qualified personnel to determine whether the munition or suspect munition poses an explosive hazard • Notify construction workers when work can resume
Intrusive Site Workers	<p>Military munitions recognition and safety training</p> <p>Munition or suspect munition notification to Site Construction Supervisor</p>	<ul style="list-style-type: none"> • Receive and acknowledge understanding of the military munitions recognition and safety training • Stop work if a munition or suspect munition is encountered, retreat to a safe location, and report encounter to the site construction supervisor • Remain at the safe location until authorized by the site construction supervisor to return
Construction Support Contractor – Arcadis/Weston	<p>Military munitions recognition and safety training support</p> <p>Identify construction support requirements</p> <p>Construction support plan implementation and compliance</p>	<ul style="list-style-type: none"> • Provide military munitions recognition and safety training to workers expecting to conduct intrusive activities • Review munitions-related background and munitions use information to verify probability of encountering MEC • Identify appropriate construction support requirements for intrusive activities • Develop construction support plan • Ensure proper implementation and compliance of the construction support plan • Complete an Army MEC Incident Recording Form for confirmed or suspect munition. • Complete FORA MEC Notification Form for confirmed or suspect munition. • Complete FORA MEC Assessment Form for confirmed or suspect munition. • Complete Construction Support After Action Report
UXO-Qualified Personnel (at a minimum, UXO)	<p>Military munitions recognition and safety training support</p>	<ul style="list-style-type: none"> • Support military munitions recognition and safety training to workers expecting to conduct intrusive activities

<p>Technician III) – Weston</p>	<p>Construction support during intrusive activities</p> <p>Notify City of Seaside Police Department of confirmed or suspect munitions encounters</p>	<ul style="list-style-type: none"> • Support military munitions recognition and safety training to new workers expected to conduct intrusive activities • Respond to reports of an encounter with munition or suspect munition, visually assess the munition to determine whether it poses or may pose an explosive hazard. Do not touch, move, disturb, or destroy it. • Manage removal, storage, and appropriate off-site disposal of munitions and MD that is determined not to pose an explosive hazard. • Notify City of Seaside Police Department of confirmed or suspect munitions encounters • Notify Construction Support Contractor and FORA of confirmed or suspect munitions encounters
<p>FORA</p>	<p>Military munitions recognition and safety training access</p> <p>Construction support plan compliance</p>	<ul style="list-style-type: none"> • Assist in coordinating military munitions recognition and safety training to workers expecting to conduct intrusive activities • Ensure compliance of the construction support plan • Review and submit the Army MEC Incident Recording Form for confirmed or suspect munitions. • Review and submit FORA MEC Notification Form for confirmed or suspect munitions. • Review and submit FORA MEC Assessment Form for confirmed or suspect munitions. • Review and submit Construction Support After Action Report

Additional information on construction support, including on-call construction support after-action reporting, and responses to suspect munition is provided in Sections 3 and 4 of this CSP, respectively.

2. MILITARY MUNITIONS BACKGROUND

The project site is located within the northwestern portion of the Seaside MRA where MEC were found and MEC removal actions were completed. The northwestern portion of the Seaside MRA contains portions of munitions response sites (MRSs) that were used for live-fire training with military munitions (Section 2.1). These MRSs were the subject of investigations and removal actions with detected munitions removed (Section 2.2). In addition, the effectiveness of munitions removal actions to reduce the risk associated with the potential presence of munitions to levels acceptable for construction and maintenance personnel who perform intrusive activities, with the appropriate levels of construction support, has been documented for the Seaside MRA, which encompasses the project site (Section 2.2).

2.1. Historical Military Training

The Seaside MRA is approximately 423 acres in size and had previously been used for weapons and troop training. Three MRSs (MRS-15 SEA 01 [Parcel E24], MRS-15 SEA 02 [Parcel E34] and MRS-15 SEA 03 [Parcel E23.1]) with historical uses were identified in the project site (Figure 4). The historical uses included:

MRS-15 SEA 01 (Parcel E24)

- Small arms ammunition training
- Non-firing target range training
- Pre-World War II munitions training
- Hand grenade training
- Troop maneuvers

MRS-15 SEA 02 and MRS-15 SEA 03 (Parcels E34 and E23.1)

- Troop maneuvers

The types of munitions most likely to be encountered within 100 feet of the project sites include the following:

MRS-15 SEA 01 (Parcel E24)

- Stokes mortars

MRS-15 SEA 02 and MRS-15 SEA 03 (Parcels E34 and E23.1)

- Hand grenade fuzes
- Smoke hand grenade

- Illumination signals

2.2. Summary of Previous Munitions Response Actions

The Final Group 1 RI/FS summarized the available data and evaluation of the risk associated with munitions that may remain present for the Seaside MRA (ESCA RP Team 2017b). The following bullet points summarize the munitions responses (investigation and removal actions) conducted at the project site based on the referenced document:

- Army Munitions (MEC) Removal Action – completed removal action using digital geophysical survey equipment and analog equipment to the depth of detection in 2004, removing and disposing of munitions, many of which were determined by qualified personnel to be MEC, and MD, which was evaluated to document its explosive safety status, within the project site, with the exception of areas referred to as Special Case Areas (SCAs).
- FORA ESCA Remediation Program (RP) Removal Action – completed the Seaside MRA Phase II removal action for the SCAs using digital geophysical survey equipment and analog equipment to the depth of detection in 2009, removing and disposing of detected munitions (MEC) and MD, which was evaluated to document its explosive safety status, within the SCA portions of the project site.

The munitions, including MEC, recovered during previous investigation and response actions within the project site are shown in Figure 5.

The Final Seaside MRA Residential Protocol Implementation (RPI) Technical Report and Final Seaside MRA Supplemental RPI Technical Report summarized the available data and verified the acceptability for residential use for the Seaside MRA designated residential reuse area (ESCA RP Team 2017a and 2017c). Based on an evaluation of the Final Group 1 RI/FS, Final Seaside MRA RPI Technical Report, and Final Seaside MRA Supplemental RPI Technical Report (ESCA RP Team 2017b, 2017a, and 2017c, respectively), the following conclusions support a low probability of encountering MEC determination at the project site:

- Completed removal action to the depth of detection with no documentation or quality assurance/quality control (QA/QC) concerns and an overall MEC risk of “lowest” in the designated residential reuse areas and non-residential development reuse areas of Parcels E24, E23.1 and E34 based on the Final Group 1 RI/FS
- No remaining evidence of high hazard munitions (i.e., items that will cause major injury or death if functioned or detonated by an individual’s activities), no remaining technical challenges, no remaining detection depth concerns, and no remaining documentation or QA/QC concerns in the designated residential reuse portions of Parcels E23.1 and E34 based on the Final Seaside MRA RPI Technical Report
- Further assessment or verification was not required in the designated residential reuse portions of Parcels E23.1 and E34 and the parcels were recommended as acceptable for

residential reuse in the designated residential reuse areas based on the Final Seaside MRA RPI Technical Report

- Further assessment and verification was conducted in the designated residential reuse portion of Parcel E24. The Parcel was recommended as acceptable for residential reuse in the designated residential reuse area based on the Final Seaside MRA RPI Technical Report and the Final Seaside MRA Supplemental RPI Technical Report

3. CONSTRUCTION SUPPORT PROCEDURES

Training and construction support will be provided for intrusive activities to fulfill the requirements of the excavation permit under the City of Seaside Excavation and Digging on the Former Fort Ord Ordinance (City of Seaside Code of Ordinances, Chapter 15.34), and includes:

- Military Munitions Recognition and Safety Training (Section 3.1)
- On-Call Construction Support (Section 3.2)
- After-Action Reporting (Section 3.3)

3.1. Military Munitions Recognition and Safety Training

Excavation permitting requirements indicate that all personnel involved in intrusive activities obtain military munitions recognition and safety training. Site workers involved in intrusive activities will be provided military munitions recognition and safety training by FORA in English and Spanish (translation of additional languages may be available upon request). The objective of military munitions recognition and safety training is to ensure that site workers involved or potentially involved in intrusive activities are informed about the possibility of encountering munitions and the actions to be taken should they encounter, or suspect they have encountered, a munition. Such actions include (a) not approaching, disturbing, touching or moving it; (b) stopping intrusive activities in the immediate and adjacent areas; and (c) reporting the suspect munitions to the appropriate personnel.

The military munitions recognition and safety training will be provided through a training video that covers the below topics and access to UXO-qualified personnel to address questions:

- Background Information
 - Who is the training for and why is training needed?
 - What are munitions and types of munitions used on Fort Ord?
 - What was done to remove munitions?
 - If munitions cleanup occurred, why training is still needed?
 - What should you do if you encounter a munition or suspect munition?
- Munitions recognition and hazard awareness
 - Not all munition look like munitions
 - Munitions are dangerous
 - Fort Ord specific munitions recognition (by type)
 - Munition hazard identification
- Details of munitions safety – emphasizing the 3Rs

- Recognize (when you may have encountered a munition and that munitions are dangerous)
- Retreat (do not approach, touch, move or disturb it, but carefully leave the area)
- Report (notify your site supervisor to contact the UXO-qualified personnel)

MPWMD, CalAm, and their construction contractors will ensure that site workers conducting intrusive activities have received the required military munitions recognition and safety training from FORA, which includes the Army Safety Alert, the Fort Ord Military Munitions 3Rs Explosives Safety Guide, and the training video attendance. Site workers receiving military munitions recognition and safety training will be required to sign a training log acknowledging their attendance and understanding of the training material. The training records are required to be maintained by each contractor on the site and be available for inspection upon request by FORA, Army, EPA and/or DTSC. Copies of the training records will also be maintained by FORA and provided to the UXO-qualified personnel for tracking and on-call construction support after-action reporting.

3.2. On-Call Construction Support

This section presents procedures for implementing on-call construction support for a project site where the probability of encountering MEC is low (Section 2). UXO-qualified personnel must meet the qualification requirements of DoD Explosives Safety Board's Technical Paper 18, Minimum Qualifications for Personnel Conducting Munitions and Explosives of Concern-Related Activities, for a UXO Technician III. Additionally, they will possess the appropriate training to include 40-hour Hazardous Waste Operations and Emergency Response and associated 8-hour Hazardous Waste Operations and Emergency Response refresher course (within the past 12 months).

UXO-qualified personnel will comply with any MPWMD, CalAm, and their construction contractors approved safety plans. Additionally, they will conduct required actions in accordance with applicable company health and safety requirements, which are not presented in this CSP.

UXO-qualified personnel, who will be on standby (i.e., on-call), will be available to assist if a munition or suspect munition is encountered. Support can be provided from offsite, when called, or be on location and available to provide immediate support if a munition or suspect munition is encountered. MPWMD, CalAm, and their construction contractors may elect to have UXO-qualified personnel available on-location for a portion of the intrusive activities to expeditiously facilitate a response if a munition or suspect munition is encountered (Section 4.1). The UXO-qualified personnel responsibilities will include the following tasks:

- Possess a copy of this CSP at all times during the intrusive activities on FORA ESCA property
- Maintain a copy of Military Munitions Recognition and Safety Training sign-in sheets/logs
- Conduct anomaly avoidance activities, if requested
- If on the project site, attend daily informational or tailgate safety briefings conducted by MPWMD, CalAm, and their construction contractors

- Respond to reports of an encounter with a munition or suspect munition as described below and in Section 4 of this CSP
- Produce daily field reports of on-call/on-location activities and submit to FORA on a weekly basis
- Prepare after-action reporting to construction support contractor (i.e., Arcadis and Weston) as described in Section 3.3

If requested, anomaly avoidance will consist of a technology-aided surface inspection using a handheld geophysical detection instrument (e.g., magnetometer and Whites All-Metals detector) to avoid contact with potential subsurface anomalies. If an anomaly is detected, the anomaly's location will be cordoned off, if necessary, to prevent disturbance. Additionally, ground-disturbing or intrusive activities will be relocated to another location in coordination with project personnel.

If a munition or suspect munition is encountered during intrusive activities, it is imperative that the munition not be touched, moved, or disturbed, but be reported immediately to the site construction supervisor. Workers should:

- Mark the area near or otherwise note the location of the munition or suspect munition (Recognize)
- Stop work, take a photograph of the munition, if possible, but do not approach or disturb it to get a better view, and leave the work area (Retreat)
- Report the suspect munition to their site construction supervisor (Report)

The site construction supervisor will ensure that construction-related activities within a 200-foot radius of the munition or suspect munition is stopped, workers evacuate to a safe area, and access to the 200-foot radius prohibited. The site construction supervisor will then contact the UXO-qualified personnel for support.

UXO-qualified personnel will respond to the area and visually inspect the munition or suspect munition. UXO-qualified personnel will not touch, disturb, remove or attempt to destroy it. UXO-qualified personnel will determine whether it poses or may pose an explosive hazard. After this evaluation, munitions determined to be MEC and debris that poses an explosive hazard will be reported, secured in place and managed properly. Munitions and material that UXO-qualified personnel determines does not present an explosive hazard should be removed and disposed of in compliance with applicable environmental laws and regulations. UXO-qualified personnel will follow the appropriate procedures identified in Section 4 of this CSP, which generally include the following.

If UXO-qualified personnel classify the encountered munition as:

- A confirmed or suspect MEC or that debris poses an explosive hazard, the procedures presented in Section 4.2 will be implemented.

- MD, the debris will be evaluated to ensure it does not pose an explosive hazard and removed from the site. The debris will be securely stored at the Future East Garrison MRA Explosives Storage Location (i.e., the former Ammunition Supply Point) for appropriate off-site disposal at project's conclusion. Following removal of the MD, the UXO-qualified personnel will notify the site construction supervisor that intrusive activity may resume within the 200-foot radius area. The UXO-qualified personnel will contact FORA as an informational notification of each MD find (Section 4.1). Recovered MD will be certified as materials documented as safe (MDAS) by the construction support contractor using Form 1348 prior to releasing the MD to an appropriate foundry or recycler at the project's conclusion. (Section 3.3).
- Non-munitions related debris (e.g., household scrap metal, horse shoes) will be removed from the project site by the construction contractor and managed as appropriate. Following removal of the non-munitions related debris, UXO-qualified personnel will notify the site construction supervisor that intrusive activity may resume within the 200-foot radius area. Notification to FORA regarding non-munitions related debris or inclusion of non-munitions related debris in the on-call construction support after-action report is not required.

3.3. After-Action Reporting

Following completion of the construction support activities conducted on FORA ESCA property, FORA as the property owner will submit an on-call construction support after-action report to the excavation permitting agency, Army, EPA, and DTSC (Attachment B). The on-call construction support after-action report will be submitted within 30 days of project completion and will include at a minimum: a map of the excavation footprint with munition finds plotted; table summarizing munitions encountered by type, munitions determined to be MEC, munitions debris, or military training-related items (range-related debris) recovered from the project site; applicable military munitions recognition and safety training logs; and applicable construction support daily reports.

4. RESPONSE TO SUSPECT MUNITIONS ITEM PROCEDURES

Only UXO-qualified personnel will respond to reports of an encounter with a munition or suspect munition. The exception is when uniformed DoD explosive ordnance disposal (EOD) or law enforcement bomb squad personnel respond. The response procedures are presented in this section and are summarized as follows:

- Response to Suspect Munitions Item (Section 4.1) – In the event a munition or suspect munition is encountered by site workers (i.e., Recognize), intrusive activities within the immediate and adjacent areas will cease (i.e., Retreat), workers evacuate to a safe area, and a 200-foot radius area will be secured from unauthorized entry. The site construction supervisor will then contact the UXO-qualified personnel for support (i.e., Report).
- Response to Confirmed or Suspect MEC Item (Section 4.2) – In the event the encountered item is classified by UXO-qualified personnel as a confirmed or suspect MEC item work outside the 200-foot radius area may continue; however, work should not interfere with security measures set in place for the suspect munitions item or authority's response to the suspect munitions item. UXO-qualified personnel will immediately notify the City of Seaside Police Department (Table 1) followed by FORA of the confirmed or suspect MEC find. FORA will immediately contact the Army, EPA and DTSC of the confirmed or suspect MEC find.
- MEC Find Notification Form (Section 4.3) – If, after disposal, the suspect item is confirmed to be MEC or remains a suspect MEC, the UXO-qualified personnel will complete the Army MEC Incident Recording Form (Attachment C) and MEC Find Notification to FORA Form (Attachment D) and transmit the two forms to FORA.
- MEC Find Assessment Form (Section 4.4) – If, after disposal, the suspect MEC item is confirmed to be MEC or remains a suspect MEC, FORA will assess the probability of encountering MEC and will submit the assessment to Army, EPA and DTSC for concurrence using the FORA MEC Find Assessment Form (Attachment E).
- Restart of Work after MEC Find (Section 4.5) – Intrusive activities will not resume within the 200-foot radius exclusion zone until any additional necessary investigation is completed based on the MEC find assessment and Army, EPA and DTSC concurrence that the probability of encountering MEC is low.

4.1. Response to Suspect Munitions Item

Each individual is responsible for reporting suspect munitions items discovered during construction activities. If a suspect munitions item is discovered at the project site (i.e., Recognize), all work activities will cease within a 200-foot radius of the suspect munitions item, all workers will vacate the 200-foot radius area (i.e., Retreat), and the 200-foot radius area will be secured from unauthorized entry. No attempt should be made by workers to disturb, remove, or destroy the suspect munitions item. The site workers will notify their site construction supervisor, who will contact the UXO-qualified personnel to mobilize to the project site and assess the suspect munitions item (i.e., Report). Contact information is provided in Table 1.

The general sequence of work stoppage in response to a suspect munitions item is as follows:

- Intrusive activities will cease, heavy equipment and/or site vehicles are to stay in place, workers are to vacate a 200-foot radius area of the suspect munitions item and the 200-foot radius area will be secured from unauthorized entry.
 - If feasible and safe to do, the general location of the suspect munitions item should be marked, global position system (GPS) coordinates should be recorded and pictures of the item taken.
- Site personnel will immediately contact the site construction supervisor to report the suspect munitions item.
- Site construction supervisor will confirm that all work has stopped within a 200-foot radius of the suspect munitions item, workers have retreated to a safe location at least 200-feet from the suspect munitions item and the 200-foot radius area is secured from unauthorized entry.
- Site construction supervisor will immediately contact the on-call UXO-qualified personnel (Table 1) and provide GPS coordinates and/or pictures of the suspect munitions item, if available.
 - If the UXO-qualified personnel cannot respond within the normal work day, MPWMD, CalAm, and their construction contractors will maintain control of the 200-foot radius area to prevent intrusive activities and to prevent unauthorized entry.
- On-call UXO-qualified personnel will mobilize to the location of the suspect munitions item and ensure the item is evaluated and classified as confirmed or suspected MEC, MD, or non-munitions related debris (e.g., scrap metal).
 - If feasible, a visual assessment of any photographs will be conducted by the UXO-qualified personnel prior to mobilization to the site to determine if the item is munitions-related or non-munitions-related debris (e.g., metal scrap).
- **If the item is classified by the UXO-qualified personnel as confirmed or suspect MEC, the UXO-qualified personnel will implement the procedures outlined in Section 4.2.**
- If the item is classified by the UXO-qualified personnel as MD, the item will be removed by the UXO-qualified personnel and securely stored at the Future East Garrison MRA Explosives Storage Location (i.e., the former Ammunition Supply Point) for appropriate off-site disposal at project conclusion.
 - Following removal of the MD, the UXO-qualified personnel will notify the site construction supervisor that intrusive activities may resume within the 200-foot radius area.
 - Following notification that intrusive activities may resume, the UXO-qualified personnel will contact FORA within 24 hours as an informational notification of the MD find. A summary of the recovered MD will be provided in the on-call construction support after-action report (Section 3.3).

- If the item is confirmed to be non-munitions-related debris (e.g., scrap metal), the item will be removed from the project site by the construction contractor and managed as appropriate.
 - Following removal of the non-munitions-related debris, the UXO-qualified personnel will notify the site construction supervisor that intrusive activities may resume within the 200-foot radius area.
 - Notification to FORA regarding non-munitions-related debris or inclusion of non-munitions-related debris in the on-call construction support after-action report is not required.

4.2. Response to Confirmed or Suspect MEC Item

At no time should a confirmed MEC or suspect MEC item be disturbed, removed, or destroyed by workers or UXO-qualified personnel. If an item is classified as a confirmed or suspect MEC item by the UXO-qualified personnel, all work within the 200-foot radius area may not resume until further notice. If it is determined that the confirmed or suspect MEC item requires detonation by uniformed DoD EOD personnel or local bomb squad with equivalent training, all work on the entire project site will immediately cease and all site workers will gather at a location designated by the construction contractor under their emergency evacuation plan.

The general sequence of work stoppage and construction support actions in response to a confirmed or suspect MEC item is as follows:

- Intrusive work within the immediate and adjacent areas will cease (i.e., Retreat), workers evacuate to a safe area, and a 200-foot radius area will be secured from unauthorized entry. The site construction supervisor will then contact the UXO-qualified personnel for support. Work outside the 200-foot radius area may continue, if necessary. However, work should not interfere with security measures set in place around the munition or suspect munition encountered.
- UXO-qualified personnel will secure the location of the munition or suspect munition encountered, or of a munition or munition determined to be MEC or munition for which UXO-qualified personnel could not make a determination, to prevent unauthorized access.
- UXO-qualified personnel will record the GPS location and take photographs of the munition.
- UXO-qualified personnel will immediately contact the City of Seaside Police Department to mobilize to the project site and secure the location of a munition or munition determined to be MEC or munition for which UXO-qualified personnel could not make a determination.
- Upon arrival, the City of Seaside Police Department will secure the area, consult with the UXO-qualified personnel, and request uniformed DoD EOD personnel or local bomb squad with equivalent training, support of an explosives or munitions emergency.
 - If the City of Seaside Police Department, uniformed DoD EOD personnel, or local bomb squad with equivalent training, cannot respond within the normal work day,

MPWMD, CalAm, and their construction contractors will maintain control of the 200-foot radius area to prevent intrusive activities and to prevent unauthorized entry.

- UXO-qualified personnel will immediately notify FORA and Arcadis/Weston that a munition or suspect munition was encountered and provide status of response by City of Seaside Police Department, uniformed DoD EOD personnel, or local bomb squad with equivalent training.
- FORA will immediately contact the Army, EPA, and DTSC regarding the situation.
- If the munition determined to be MEC or a munition for which they could not make a determination requires detonation by uniformed DoD EOD personnel or local bomb squad personnel with equivalent training, work activities within an area determined by the responding uniformed DoD EOD personnel or local bomb squad team leader will be stopped, with construction and UXO-qualified personnel evacuated to a designated area in accordance with an emergency evacuation plan for an accurate head-count.
- Once the uniformed DoD EOD or local bomb squad personnel provide an all clear, UXO-qualified personnel will assist Arcadis/Weston with completion of necessary notifications and reports (Section 4.3).
 - If MEC was encountered, intrusive activities may not resume within the 200-foot radius until the appropriate reporting in accordance with Section 4.3 has been completed; additional investigation, if determined to be necessary, is completed; and Army, EPA and DTSC concur that the probability of encountering MEC remains low. Based on the type of MEC encountered, the 200-foot radius may be expanded for activities moving forward, if recommended by the construction support contractor in consultation with UXO-qualified personnel.
 - If uniformed DoD EOD or local bomb squad personnel determine the munition, or munition for which the determination initially could not be made, is MD that does not pose an explosive hazard, intrusive activities may resume as described in Section 4.1, seventh bullet.

4.3. MEC Find Notification to FORA Form

After disposal of a confirmed MEC or of a munition for which a determination could not be made, the construction support contractor (i.e., Arcadis/Weston) in coordination with the UXO-qualified personnel will complete an Army MEC Incident Recording Form (Attachment C) and a MEC Find Notification to FORA Form (Attachment D) and submit the forms to FORA for distribution to the Army, EPA, and DTSC. The Army MEC Incident Recording Form will be submitted to FORA within 24 hours of the disposal of MEC. FORA will distribute the completed MEC Incident Recording Form to the Army, EPA and DTSC with 48 hours of the disposal. The construction support contractor will provide FORA with the MEC Find Notification to FORA Form within 48 hours of disposal to support the munitions find assessment (Section 4.4).

4.4. MEC Find Assessment Form

FORA will propose to the Army, EPA, and DTSC an appropriate probability of encountering MEC (low or moderate/high) and a recommendation for the level of construction support (on-call or on-site) appropriate for the site conditions. FORA will document the munitions, including MEC, encounters assessment and proposed determination on the FORA MEC Find Assessment Form (Attachment E) and will submit the form with required attachments to the Army, EPA, and DTSC for review within 20 days of a munitions encounters.

The probability of encountering MEC and the resulting level of construction support will be jointly determined by the Army, EPA, and DTSC. If determined that additional investigation is required as part of the assessment, FORA will conduct the investigation in accordance with an approved work plan, if within the scope of its obligations. Army, EPA, and DTSC will review the results of the investigation to support the munitions find assessment.

If the probability of encountering MEC is determined to remain low, intrusive activities may resume using on-call construction support and this CSP (Section 4.5). FORA will receive written determination from the Army, EPA, and DTSC of their assessment and provide a copy of the written determination to MPWMD, CalAm and their construction contractors prior to resuming intrusive activities within the 200-foot radius. If the probability of encountering MEC is determined to be moderate to high, intrusive work at the project site will cease until further notice.

The agency consultation process will be completed as expeditiously as practicable. Intrusive activities on the FORA ESCA property may not restart until the assessment is completed, the Army, EPA, and DTSC have made a determination of the probability of encountering MEC, and any required additional action has been conducted by FORA. FORA will receive written determination from the Army, EPA, and DTSC on the MEC finds assessment completion and provide a copy of the determination to MPWMD, CalAm, and their construction contractors prior to resuming intrusive activities on the FORA ESCA property using on-call construction support and this CSP (Section 4.5).

4.5. Restarting Work after a MEC Find

After disposal of a confirmed MEC or of a munition for which a determination could not be made, intrusive activities may not resume within a 200-foot radius until the munitions find assessment has been completed; the Army, EPA and DTSC have concurred with the assessment; and required additional actions or procedures have been conducted. Based on the type of MEC encountered, the 200-foot radius may be expanded for activities moving forward, if recommended by the construction support contractor in consultation with UXO-qualified personnel. FORA will receive written determination from the Army, EPA, and DTSC on the MEC finds assessment completion and provide a copy of the determination to the permittee prior to resuming intrusive site activities using on-call construction support and this CSP.

5. REFERENCES

- Environmental Services Cooperative Agreement Remediation Program Team (ESCA RP Team). 2008. Final Technical Information Paper, Phase II Seaside Munitions Response Area, Roadway Alignment and Utility Corridor (Pollution Report and Removal Action Activity Report), Former Fort Ord, Monterey County, California. September 26. (Fort Ord Administrative Record No. ESCA-0117)
- . 2011. Final Technical Information Paper, Phase II Seaside Munitions Response Area Outside Roadway Alignment and Utility Corridor (Pollution Report and Removal Action Activity Report), Former Fort Ord, Monterey County, California. March 25. (Fort Ord Administrative Record No. ESCA-0251B)
- . 2017a. Final Residential Protocol Implementation Technical Information Paper, Seaside Munitions Response Area, Former Fort Ord, Monterey County, California. March 29. (Fort Ord Administrative Record No. ESCA-0306C)
- . 2017b. Final Group 1 Remedial Investigation/Feasibility Study, Seaside Munitions Response Area and Parker Flats Munitions Response Area Phase II, Former Fort Ord, Monterey County, California. May 04. (Fort Ord Administrative Record No. ESCA-0318B)
- . 2017c. Final Supplemental Residential Protocol Implementation Technical Information Paper, Seaside Munitions Response Area, Former Fort Ord, Monterey County, California. December 12. (Fort Ord Administrative Record No. ESCA-0342B)
- United States Department of the Army (Army). 2008. Memorandum: Unexploded Ordnance (UXO) Construction Support for Monterey Peninsula Water Management District (MPWMD) Aquifer Storage and Recovery (ASR) Project (Santa Margarita Well), Former Fort Ord. July 16. (Fort Ord Administrative Record No. OE-0718)

6. ATTACHMENTS

Table 1 – List of Contacts

Figure 1 – Seaside Munitions Response Area

Figure 2 – Seaside MRA Reuse Plan

Figure 3 – Seaside MRA ASR Well Site Expansion and MPWS Project Site

Figure 4 – Seaside MRA ASR Well Site Expansion and MPWS Project Site Munitions Response Site Boundaries

Figure 5 – Seaside MRA ASR Well Site Expansion and MPWS Project Site Recovered MEC

Figure 6 – Seaside MRA MPWS Project Site Recovered MEC

- A Project Site Grading and Soil Management Areas (as applicable)
- B On-Call Construction Support After-Action Report Template
- C Army MEC Incident Recording Form (<http://www.fodis.net/mec/public>)
- D FORA MEC Find Notification Form
- E FORA MEC Find Assessment Form
- F Regulatory Approval Letters

**Table 1
 List of Contacts**

Company		Position	Name	Phone Number
FORA (Land Owner)	Primary	FORA ESCA Program Manager (Land Owner Representative)	Stan Cook	(831) 883-3672 (office) (831) 293-4077 (cell)
	Alternate	FORA ESCA Coordinator	Laura Vidaurri	(831) 883-3672 (office)
MPWMD	Primary	Project Engineer	Steve Tanner	(805) 883-2238 -
	Alternate	Water Resources Engineer	Maureen Hamilton	(831) 658-5622 (office) (831) 242-0191 (cell)
CalAm	Primary	Engineering Manager	Chris Cook, PE	(831) 646-3241 (office) (831) 277-2405 (cell)
	Alternate	Vice President, Engineering	Ian Crooks	(916) 568-4296 (office) (831) 236-7014 (cell)
Arcadis	Primary	Certified Project Manager	Christopher Spill	(510) 387-3765 (cell) (415) 432-6922 (office)
	Alternate	Task Manager	Noel Handley	(831) 674-3075 (office) (256) 655-3478 (cell)
Weston Solutions - UXO-Qualified Personnel Coordination	Primary	Project Manager	Linda Temple	(831) 229-1668 (cell)
	Primary	UXO-Qualified Personnel (on-call)	TBD	TBD
MPWMD Construction Contractor Supervisor	Primary	On-Site Construction Supervisor	TBD	TBD (field office) TBD (cell)
	Alternate	On-Site Construction Supervisor	TBD	TBD (field office) TBD (cell)
CalAm Construction Contractor Supervisor	Primary	On-Site Construction Supervisor	TBD	TBD (field office) TBD (cell)
	Alternate	On-Site Construction Supervisor	TBD	TBD (field office) TBD (cell)
City of Seaside Police Department	Primary	Dispatch	NA	(831) 394-6881
	Alternate	Emergency Hotline	NA	911
Travis Air Force Base	Primary	Explosive Ordnance Disposal (EOD)	NA	(707) 424-5517

Attachment C – Geotechnical Investigation and Update to Geotechnical Investigation Report

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GEOTECHNICAL INVESTIGATION
FOR
NEW ELECTRICAL & CHEMICAL
FEED BUILDING
SEASIDE, CALIFORNIA

FOR
PUEBLO WATER RESOURCES
VENTURA, CALIFORNIA

BY
PACIFIC CREST ENGINEERING INC.
CONSULTING GEOTECHNICAL ENGINEERS
0922-M242-E12
APRIL 2009
www.4pacific-crest.com

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444 Airport Blvd, Suite 106
Watsonville, CA 95076
Phone: 831-722-9446
Fax: 831-722-9158

April 30, 2009

Project No. 0922-M242-E12

Pueblo Water Resources
4478 Market Street, Suite 705
Ventura, CA 93003

Attention: Mr. Steve Tanner, PE

Subject: Geotechnical Investigation
New Electrical & Chemical Feed Building
Santa Margarita Aquifer Storage and Recovery Project
1110 General Jim Moore Boulevard
Seaside, California

Dear Mr. Tanner,

In accordance with your authorization, we have performed a geotechnical investigation for the above referenced project located at 1110 General Jim Moore Boulevard, in Seaside, California.

The accompanying report presents our conclusions and recommendations as well as the results of the geotechnical investigation on which they are based. If you have any questions concerning the data, conclusions or recommendations presented in this report, please call our office.

Very truly yours,

PACIFIC CREST ENGINEERING INC.



Cara L. Russo
Staff Geologist



Michael D. Klempes
President/Principal Geotechnical Engineer
G.E. 2204
Exp. 3/31/10

Copies: 4 to Client

GEOTECHNICAL INVESTIGATION

PURPOSE AND SCOPE

This report describes the geotechnical investigation and presents results, including recommendations, for your new electrical and chemical feed building project located at 1110 General Jim Moore Boulevard in Seaside, California. Our scope of services for this project has consisted of:

1. Discussions with you and the members of the design team including Mr. Joe Oliver of the Monterey Peninsula Water District.
2. Review of the pertinent published material concerning the site including County planning maps, preliminary site plans, geologic and topographic maps, and other available literature.
3. The drilling and logging of 2 test borings.
4. Laboratory analysis of retrieved soil samples.
5. Engineering analysis of the field and laboratory results.
6. Preparation of this report documenting our investigation and presenting recommendations for the design of the project.

LOCATION AND DESCRIPTION

The project site is located at 1110 General Jim Moore Boulevard on the east side of the road. Please refer to Figure No. 1, Regional Site Map, for the general vicinity of the project site. The project site is just south of the intersection with Eucalyptus Road and is located at the following coordinates:

Latitude = 36.620227 degrees
Longitude = -121.816631 degrees

At the time of our site visits, the vicinity of the proposed new electrical and chemical feed building was vacant. The plot was graded, stepped cut, and sloped to the west. A few native plants were scattered about, but the Older Dune Deposits were visible at the ground surface. The site of the proposed project was completely surrounded by a gravel loop. An existing trailer, wood shed on a concrete pad, a metal shed, and wells were present within the same parcel as the proposed new building.

It is our understanding that the project involves the construction of a one-story utility building with a total floor area of approximately 1,200 square feet. The existing building pad consists of a graded and stepped cut pad. The pad at the higher elevation will be excavated an additional 12 to 18 inches from its present location in order to bring the pad to one elevation. The southwestern portion of the building will have a 4 to 5 foot deep basement in the lower section of the building for double containment of fluids and spill control in the storage room. It is our understanding that the basement will be a concrete structure with a concrete slab-on-grade floor.

FIELD INVESTIGATION

Soil Borings

Two 6 inch diameter test borings were drilled on the site on April 17, 2009. The location of the test borings are shown on Figure No. 2, Site Map Showing Test Borings. The drilling method used was hydraulically operated continuous flight augers. A geologist from Pacific Crest Engineering Inc., was present during the drilling operations to log the soil encountered and to choose soil sampling type and locations.

Relatively undisturbed soil samples were obtained at various depths by driving a split spoon sampler 18 inches into the ground. This was achieved by dropping a 140 pound down hole safety hammer through a vertical height of 30 inches. The number of blows needed to drive the sampler for each 6 inch portion is recorded and the total number of blows needed to drive the last 12 inches is reported as the Standard Penetration Test (SPT) value. The outside diameter of the samplers used in this investigation was 3 inches and is noted respectively as "L" on the boring logs. All standard penetration test data has been normalized to a 2 inch O.D. sampler so as to be the SPT "N" value.

The soils encountered in the borings were continuously logged in the field and visually described in accordance with the Unified Soil Classification System (ASTM D2488 (Modified), Figure No. 3). The soil classification was verified and or modified upon completion of laboratory testing.

Appendix A contains the site plan showing the locations of the test borings and the Log of Test Borings presenting the soil profile explored in each boring, the sample locations, and the SPT "N" values for each sample. Stratification lines on the boring logs are approximate as the actual transition between soil types may be gradual.

LABORATORY INVESTIGATION

The laboratory testing program was developed to help in evaluating the engineering properties of the materials encountered on the site. Laboratory tests performed include:

- a. Moisture Density relationships in accordance with ASTM test D2937.
- b. Gradation tests in accordance with ASTM test D1140.
- c. Corrosivity testing including pH, resistivity, chloride concentration, and sulfate concentration.

The results of the laboratory tests are presented on the boring logs opposite the sample tested or within Appendix A.

SOIL CONDITIONS

Regional Geologic Maps

The surficial geology in the area of the project site is mapped as Older Coastal Dunes (Clark, Dupre', and Rosenberg, 1997). The Older Coastal Dunes are described as weakly consolidated, poorly graded fine to medium grained sand deposits. Some of these deposits are covered with a thin lens of eolian deposits. The native soils encountered in the test borings are consistent with this description.

Soil Borings

Our borings encountered a variety of soil including silty sand, sand with silt, and sand. Both test borings were drilled within the footprint of the proposed new electrical and chemical feed building. The following describes the soil conditions encountered within each test boring.

Boring No. 1 encountered brown silty sand in the upper 24 feet. The sand was fine to medium grained, sub-angular to sub-rounded shaped, and poorly graded. Mica flakes were scattered throughout the obtained samples and the samples tended to coarsen with depth. Trace rounded chert pebbles were noted near 6 ½ feet. The surface soils within the cut were fairly well compacted as the density near 3 ½ feet was described as hard. Overall, the density ranged from medium dense to hard. From 24 feet to the maximum explored depth of 36 feet the soil was described as yellowish tan sand. The sand was fine to medium grained with trace coarse grains, sub-angular to sub-rounded shaped, and poorly graded. Mica flakes were scattered throughout the collected samples. The density ranged from medium dense to very dense.

Boring No. 2 encountered dark brown sand with silt in the upper 5 feet. The sand was very fine to medium grained, sub-angular to sub-rounded shaped, and poorly graded. Mica flakes and trace rounded chert pebbles were scattered throughout the obtained sample. Trace granitic gravel was noted near 3 ½ feet. At this depth the density was described as medium dense. From 5 feet to the maximum depth explored of 16 ½ feet the boring encountered dark reddish brown sand with silt. The sand was fine to medium grained with trace coarse grains, sub-angular to sub-rounded shaped, and poorly graded. Mica flakes were scattered

throughout the collected samples. Trace rounded chert pebbles were noted from 11 to 11 ½ feet. At these depths the density was described as medium dense.

Groundwater was not encountered in any of the test borings to a maximum explored depth of 36 feet.

REGIONAL SEISMIC SETTING

The seismic setting of the site is one in which it is reasonable to assume that the site will experience significant seismic shaking during the lifetime of the project.

Based upon our review of the fault maps for the for the Monterey area (Clark, Dupre', and Rosenberg, 1997), and the Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada (CDMG, 1998), active or potentially active faults which may significantly affect the site include those listed in the Table No. 1, below.

TABLE No. 1, Faults in the Monterey Bay Area

Fault Name	Distance (miles)	Distance (km.)	Direction	Slip Rate* (mm/yr.)	M _w Max*
San Andreas – 1906 Segment	21.7	35.0	Northeast	24	7.9
Palo Colorado – Sur	12.0	19.3	Southwest	3	7.0
Rinconada	5.0	8.1	Northeast	1	7.5
Monterey Bay – Tularcitos	3.6	5.8	Southwest	0.5	7.3

*Source: CDMG, February, 1998

SEISMIC HAZARDS

A detailed investigation of seismic hazards is beyond our scope of services for this project. In general however, seismic hazards which may affect project sites in the Monterey Bay area include ground shaking, ground surface fault rupture, liquefaction and lateral spreading, and seismically induced slope instabilities. Geotechnical aspects of these issues are discussed below:

Ground Shaking

Ground shaking will be felt on the site. Structures founded on thick soft soil deposits are more likely to experience more destructive shaking, with higher amplitude and lower frequency, than structures founded on bedrock. Generally, shaking will be more intense closer to earthquake epicenters. Thick soft soil deposits large distances from earthquake

epicenters, however, may result in seismic accelerations significantly greater than expected in bedrock. Structures built in accordance with the latest edition of the California Building Code have an increased potential for experiencing relatively minor damage which should be repairable. The seismic design of the project should be based on the 2007 California Building Code (CBC) as it has incorporated the most recent seismic design parameters. The following values for the seismic design of the project site were derived or taken from the 2007 CBC:

TABLE No. 2, The 2007 CBC Seismic Design Parameters

Design Parameter	Specific to Site	Reference (See Note 1)
Site Class	D, Stiff Soil	Table 1613.5.2
Mapped Spectral Acceleration for Short Periods	$S_s = 1.302 \text{ g}$	Fig. 22-3, ASCE 7-05
Mapped Spectral Acceleration for 1-second Period	$S_1 = 0.558 \text{ g}$	Fig. 22-4, ASCE 7-05
Short Period Site Coefficient	$F_a = 1.0$	Table 1613.5.3(1)
1-Second Period Site Coefficient	$F_v = 1.5$	Table 1613.5.3(2)
MCE Spectral Response Acceleration for Short Period	$S_{MS} = 1.302 \text{ g}$	Section 1613.5.3
MCE Spectral Response Acceleration for 1-Second Period	$S_{M1} = 0.837 \text{ g}$	Section 1613.5.3
5% Damped Spectral Response Acceleration for Short Period	$S_{DS} = 0.868 \text{ g}$	Section 1613.5.4
5% Damped Spectral Response Acceleration for 1-Second Period	$S_{D1} = 0.558 \text{ g}$	Section 1613.5.4
Seismic Design Category (See Note 2)	D	Section 1613.5.6

Note 1: Design values may also have been obtained by using the Ground Motion Parameter Calculator available on the USGS website at <http://earthquake.usgs.gov/research/hazmaps/design/index.php>. Refer to the "Liquefaction" section for further information on how the Site Class may have been derived.

Note 2: Seismic Design Category assumes Class II occupancy per 2007 CBC Table 1604.5. Pacific Crest Engineering Inc. should be contacted for revised Table 2 seismic design parameters if the building has a different occupancy rating from the one assumed.

Ground Surface Fault Rupture

Ground surface fault rupture occurs along the surficial trace(s) of active faults during significant seismic events. Pacific Crest Engineering Inc. has not performed a specific investigation for the presence of active faults on the project site. Since the nearest known active or potentially active fault is mapped approximately 3.6 miles (approximately 5.8 km) from the site (Clark, Dupre', Rosenberg, 1997, and CDMG, 1998), the potential for ground surface fault rupture at this site is low.

Liquefaction

Liquefaction tends to occur in loose, saturated fine grained sands, coarse silts or clays with a low plasticity. Based upon our review of the regional liquefaction maps (Dupre' and Tinsley, 1980; Rosenberg, 2001) the site is located in an area classified as having a low potential for liquefaction. We did encounter loose, cohesionless clean sands within our test borings, however, we did not encounter groundwater in the upper 36 feet. Neither did we encounter clays with a Plasticity Index of 7 or lower (refer to the paper "Liquefaction Susceptibility Criteria for Silts and Clays" by Boulanger and Idriss, 2006). The soils encountered in are test borings were generally silty or poorly graded sands that were loose to medium dense near the surface and became very dense with depth.

Generally, we would not expect a significant amount of liquefaction to occur at this site, given the lack of groundwater in the upper 36 feet and the increasing density of the soils with depth. Our site specific investigation of this project site, including the nature of the subsurface soil, the location of the ground water table, and the estimated ground accelerations, leads to the conclusion that the liquefaction potential is low.

Liquefaction Induced Lateral Spreading

Liquefaction induced lateral spreading occurs when a liquefied soil mass fails toward an open slope face, or fails on an inclined topographic slope. Our analysis of the project site indicates that the potential for liquefaction to occur is low, and consequently the potential for lateral spreading is also low.

Landsliding

Seismically induced landsliding is a hazard with low potential for affecting your site since the site is relatively flat.

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

GENERAL

1. The results of our investigation indicate that from a geotechnical engineering standpoint the property may be developed as proposed provided these recommendations are included in the design and construction.
2. Our laboratory testing indicates that the near surface soils possess low expansive properties. This analysis was based on several sieve analyses and our visual classification of the soils by a Staff Geologist based on the Unified Soil Classification System.
3. Grading and foundation plans should be reviewed by Pacific Crest Engineering Inc. during their preparation and prior to contract bidding.
4. Pacific Crest Engineering Inc. should be notified at least four (4) working days prior to any site clearing and grading operations on the property in order to observe the stripping and disposal of unsuitable materials, and to coordinate this work with the grading contractor. During this period, a pre-construction conference should be held on the site, with at least you or your representative, the grading contractor, a City or County representative and one of our engineers present. At this meeting, the project specifications and the testing and inspection responsibilities will be outlined and discussed.
5. Field observation and testing must be provided by a representative of Pacific Crest Engineering Inc., to enable them to form an opinion as to the degree of conformance of the exposed site conditions to those foreseen in this report, the adequacy of the site preparation, the acceptability of fill materials, and the extent to which the earthwork construction and the degree of compaction comply with the specification requirements. **Any work related to grading or foundation excavation that is performed without the full knowledge and direct observation of Pacific Crest Engineering Inc., the Geotechnical Engineer of Record, will render the recommendations of this report invalid, unless the Client hires a new Geotechnical Engineer who agrees to take over complete responsibility for this report's findings, conclusions and recommendations.** The new Geotechnical Engineer must agree to prepare a Transfer of Responsibility letter. This may require additional test borings and laboratory analysis if the new Geotechnical Engineer does not completely agree with our prior findings, conclusions and recommendations.

PRIMARY GEOTECHNICAL CONSIDERATIONS

6. The project site is located within a seismically active area and strong seismic shaking is expected to occur within the design lifetime of the project. Improvements should be designed and constructed in accordance with the most current CBC and the recommendations

of this report to minimize reaction to seismic shaking. Structures built in accordance with the latest edition of the California Building Code have an increased potential for experiencing relatively minor damage, which should be repairable, however strong seismic shaking could result in architectural damage and the need for post-earthquake repairs.

SITE PREPARATION

7. The initial preparation of the site will consist of the removal of any existing on-site debris. Septic tanks and leaching lines, if found, must be completely removed. The extent of this soil removal will be designated by a representative of Pacific Crest Engineering Inc. in the field. This material must be removed from the site.

8. Any voids created by removal of tree and root balls, septic tanks, and leach lines must be backfilled with properly compacted native soils that are free of organic and other deleterious materials or with approved imported fill.

9. Any wells encountered shall be capped in accordance with the requirements and approval of the County Health Department. The strength of the cap shall be equal to the adjacent soil and shall not be located within 5 feet of a structural footing.

10. Surface vegetation, tree roots and organically contaminated topsoil should then be removed ("stripped") from the area to be graded. In addition, any remaining debris or large rocks must also be removed (this includes asphalt or rocks greater than 2 inches in greatest dimension). This material may be stockpiled for future landscaping.

11. It is anticipated that the depth of stripping may be 2 to 4 inches, however the required depth of stripping must be based upon visual observations of a representative of Pacific Crest Engineering Inc., in the field. The depth of stripping will vary upon the type and density of vegetation across the project site and with the time of year. Areas with dense vegetation or groves of trees may require an increased depth of stripping.

12. It is possible that there are areas of man-made fill on the project site that our field investigation did not detect. Areas of man-made fill, if encountered on the project site will need to be completely excavated to undisturbed native material. The excavation process should be observed and the extent designated by a representative of Pacific Crest Engineering Inc., in the field. Any voids created by fill removal must be backfilled with properly compacted approved native soils that are free of organic and other deleterious materials, or with approved imported fill.

13. Following the stripping and backfilling of voids, the area should be excavated to the design soil subgrade elevation. The exposed soils in the building and paving areas should be scarified to a minimum depth of 8 inches, moisture conditioned, and compacted as an engineered fill except for any contaminated material noted by a representative of Pacific Crest Engineering Inc. in the field. The moisture conditioning procedure will depend on the

time of year that the work is done, but should result in the soils being 1 to 3 percent over their optimum moisture content at the time of compaction. Compaction of the exposed subgrade soils should extend 5 feet horizontally beyond all slabs, footings and pavement areas.

Note: If this work is done during or soon after the rainy season, the on-site soils and other materials may be too wet in their existing condition to be used as engineered fill. These materials may require a diligent and active drying and/or mixing operation to reduce the moisture content to the levels required to obtain adequate compaction as an engineered fill. If the on-site soils or other materials are too dry, water may need to be added. In some cases the time and effort to dry the on-site soil may be considered excessive, and the import of aggregate base may be required.

14. The soil on the project site should be compacted as follows:

- a. In pavement areas the upper 8 inches of subgrade, and all aggregate subbase and aggregate base, should be compacted to a minimum of 95% of its maximum dry density,
- b. In pavement areas all utility trench backfill should be compacted to 95% of its maximum dry density,
- c. All remaining soil on the project site should be compacted to a minimum of 90% of its maximum dry density.

15. The maximum dry density will be obtained from a laboratory compaction curve run in accordance with ASTM Procedure #D1557. This test will also establish the optimum moisture content of the material. Field density testing will be performed in accordance with ASTM Test #D2922 (nuclear method).

16. Native or imported soil used as engineered fill on this project should meet the following requirements:

- a. free of organics, debris, and other deleterious materials,
- b. free of "recycled" materials such as asphaltic concrete, concrete, brick, etc.,
- c. granular in nature, well graded, and contain sufficient binder to allow utility trenches to stand open,
- d. free of rocks in excess of 2 inches in size.

In addition to the above requirements, import fill should have a Plasticity Index between 4 and 12, and a minimum Resistance "R" Value of 30, and be non-expansive.

17. All native and import fill should be placed in maximum 8 inch lifts, before compaction, at a water content which is within 1 to 3 percent of the laboratory optimum value.

18. We recommend field density testing be performed in maximum 2 foot elevation differences. In general terms, we would recommend at least one compaction test per 200 linear feet of utility trench or retaining wall backfill, and at least one compaction test per

2,000 square feet of building or structure area. This is a subjective value and may be changed by the Geotechnical Engineer based on a review of the final project layout and exposed field conditions.

19. Samples of any proposed imported fill planned for use on this project should be submitted to Pacific Crest Engineering Inc. for appropriate testing and approval not less than ten (10) working days before the anticipated jobsite delivery. Imported fill material delivered to the project site without prior submittal of samples for appropriate testing and approval must be removed from the project site.

CUT AND FILL SLOPES

20. All fill slopes should be constructed with engineered fill meeting the minimum density requirements of this report and have a gradient no steeper than 3:1 (horizontal to vertical). Fill slopes should not exceed 15 feet in vertical height unless specifically reviewed by Pacific Crest Engineering Inc. Where the vertical height exceeds 15 feet, intermediate benches must be provided. These benches should be at least 6 feet wide and sloped to control surface drainage. A lined ditch should be used on the bench.

21. Fill slopes should be keyed into the native slopes by providing a 10 foot wide base keyway sloped negatively at least 2% into the bank. The depth of the keyways will vary, depending on the materials encountered. It is anticipated that the depth of the keyways may be 3 to 6 feet, but at all locations shall be at least 2 feet into firm material.

22. Subsequent keys may be required as the fill section progress upslope. Keys will be designated in the field by a representative of Pacific Crest Engineering Inc. See Figure No. 8 for general details.

23. Cut slopes shall not exceed a 3:1 (horizontal to vertical) gradient and a 15 foot vertical height unless specifically reviewed by a representative of Pacific Crest Engineering Inc. Where the vertical height exceeds 15 feet, intermediate benches must be provided. These benches should be at least 6 feet wide and sloped to control surface drainage. A lined ditch should be used on the bench.

24. The above slope gradients are based on the strength characteristics of the materials under conditions of normal moisture content that would result from rainfall falling directly on the slope, and do not take into account the additional activating forces applied by seepage from spring areas. Therefore, in order to maintain stable slopes at the recommended gradients, it is important that any seepage forces and accompanying hydrostatic pressure encountered be relieved by adequate drainage. Drainage facilities may include subdrains, gravel blankets, rock fill surface trenches or horizontally drilled drains. Configurations and type of drainage will be determined by a representative of Pacific Crest Engineering Inc. during the grading operations.

25. The surfaces of all cut and fill slopes should be prepared and maintained to reduce erosion. This work, at a minimum, should include track rolling of the slope and effective planting. The protection of the slopes should be installed as soon as practicable so that a sufficient growth will be established prior to inclement weather conditions. It is vital that no slope be left standing through a winter season without the erosion control measures having been provided.
26. The above recommended gradients do not preclude periodic maintenance of the slopes, as minor sloughing and erosion may take place.
27. If a fill slope is to be placed above a cut slope, the toe of the fill slope should be set back at least 8 feet horizontally from the top of the cut slope. A lateral surface drain should be placed in the area between the cut and fill slopes.

EROSION CONTROL

28. The surface soils are classified as having a high potential for erosion. Therefore, the finished ground surface should be planted with ground cover and continually maintained to minimize surface erosion. For specific and detailed recommendations regarding erosion control on and surrounding the project site, you should consult your civil engineer or an erosion control specialist.

FOUNDATIONS - SPREAD FOOTINGS

29. At the time we prepared this report, the grading plans had not been completed and the structure location and foundation details had not been finalized. We request an opportunity to review these items during the design stages to determine if supplemental recommendations will be required.
30. Considering the soil characteristics and site preparation recommendations, it is our opinion that an appropriate foundation system to support the proposed structures will consist of reinforced concrete spread footings bedded into firm native soil. This system could consist of continuous exterior footings, in conjunction with interior isolated spread footings or additional continuous footings or concrete slabs.
31. Footing widths and depths should be based upon the allowable bearing value but not less than the minimum widths and depths as shown in the table below. The footing excavations must be free of loose material prior to placing concrete. The footing excavations should be thoroughly saturated prior to placing concrete.

TABLE No. 3, Minimum Footing Widths and Depths

Number of Stories	Footing Width	Footing Depth
1	12 inches	12 inches
2	15 inches	18 inches
3	18 inches	24 inches
Multi-story	24 inches	24 inches

Please note: The minimum footing embedment is measured from the lowest existing and adjacent soil grade and should not include any concrete slab-on-grade, capillary break and sand cushion in the total depth of embedment.

32. Footings constructed to the given criteria may be designed for the following allowable bearing capacities:

- a. 2,000 psf for Dead plus Live Load
- b. a 1/3rd increase for Seismic or Wind Load

Please note: In computing the pressures transmitted to the soil by the footings, the embedded weight of the footing may be neglected.

33. Expected total settlement due to applied dead and live loads is not expected to exceed 1 inch across the length of the structure, with differential settlement of about 0.5 to 0.6 inches.

34. No footing should be placed closer than 8 feet to the top of a fill slope nor 6 feet from the base of a cut slope.

35. No footing shall be placed on slopes steeper than 4:1 (h:v). If the intent is to place the foundation on sloping ground which exceeds 4:1 (h:v), Pacific Crest Engineering Inc. should be contacted for an alternative pier and grade beam foundation design.

36. All footings should be excavated into firm native soil. No footings shall be constructed with the intent of placing engineered fill against the footing after the footing is poured, and counting that engineered fill as part of the embedment depth of the footing.

37. Footings may be assumed to have a resistance to lateral sliding of 0.35.

38. Footings may be assumed to have a lateral bearing pressure resistance value of 250 psf/ft.

39. All grade beams, thickened slab edges and other foundation elements which impart structure loads to the soil (from dead, live, wind or seismic loads) should be considered "footings" and constructed according to the recommendations of this section, including required depths below lowest adjacent soil grade.

40. Footing excavations must be observed by a representative of Pacific Crest Engineering Inc. before placement of formwork, steel and concrete to ensure bedding into proper material.

41. The footings should contain steel reinforcement as determined by the Project Civil or Structural Engineer in accordance with applicable CBC or ACI Standards.

SLAB-ON-GRADE CONSTRUCTION

42. Concrete slab-on-grade floors may be used for ground level construction on native soil or engineered fill. The upper 8 inches of slab subgrade should be processed and compacted to a minimum of 95% relative dry density.

43. Slabs may be structurally integrated with the footings. If the slabs are constructed as "free floating" slabs, they should be provided with a minimum ¼ inch felt separation between the slab and footing. The slabs should be separated into approximately 15' x 15' square sections with dummy joints or similar type crack control devices.

44. All concrete slabs-on-grade should be underlain by a minimum 4 inch thick capillary break of ¾ inch clean crushed rock (no fines). It is recommended that neither Class II baserock nor sand be employed as the capillary break material.

45. Where floor coverings are anticipated or vapor transmission may be a problem, a vapor/waterproof membrane should be placed between the capillary break layer and the floor slab in order to reduce the potential for moisture condensation under floor coverings. We recommend a high quality vapor retarder at least 10 mil thick and puncture resistant (Stego Wrap or equivalent). The vapor barrier must be a least 10 mil in thickness and meet the specifications for ASTM E 1745, Standard Specification For Water Vapor Retarder A 2-inch layer of moist sand on top of the membrane will help protect the membrane and will assist in equalizing the curing rate of the concrete.

Please Note: Recommendations given above for the reduction of moisture transmission through the slab are general in nature and present good construction practice. Moisture protection measures for concrete slabs-on-grade should meet applicable ACI and ASTM standards. Pacific Crest Engineering Inc. are not waterproofing experts. For a more complete and specific discussion of moisture protection within the structure, a waterproofing expert should be consulted.

46. Requirements for pre-wetting of the subgrade soils prior to the pouring of the slabs will depend on the specific soils and seasonal moisture conditions and will be determined by a representative of Pacific Crest Engineering Inc. at the time of construction. It is important that the subgrade soils be properly moisture conditioned at the time the concrete is poured. Subgrade moisture contents should not be allowed to exceed our moisture recommendations for effective compaction, and should be maintained until the slab is poured.

47. Slab thickness, reinforcement, and doweling should be determined by the Project Civil or Structural Engineer. The use of welded wire mesh is not recommended for slab reinforcement.

UTILITY TRENCHES

48. Utility trenches that are parallel to the sides of the building should be placed so that they do not extend below a line sloping down and away at a 2:1 (horizontal to vertical) slope from the bottom outside edge of all footings.

49. Utility pipes should be designed and constructed so that the top of pipe is a minimum of 24 inches below the finish subgrade elevation of any road or pavement areas. Any pipes within the top 24 inches of finish subgrade should be concrete encased, per design by the Project Civil Engineer.

50. For the purpose of this section of the report, backfill is defined as material placed in a trench starting one foot above the pipe, and bedding is all material placed in a trench below the backfill.

51. Unless concrete bedding is required around utility pipes, free-draining clean sand should be used as bedding. Sand bedding should be compacted to at least 95 percent relative compaction.

52. Approved imported clean sand or native soil should be used as utility trench backfill. Backfill in trenches located under and adjacent to structural fill, foundations, concrete slabs and pavements should be placed in horizontal layers no more than 8 inches thick. This includes areas such as sidewalks, patios, and other hardscape areas. Each layer of trench backfill should be water conditioned and compacted to at least 95 percent relative compaction. Clean sand is defined as 100 percent passing the #4 sieve, and less than 5 percent passing the #200 sieve.

53. All utility trenches beneath perimeter footing or grade beams should be backfilled with controlled density fill (such as 2-sack sand\cement slurry) to help minimize potential moisture intrusion below interior floors. The width of the plug should be at least three times the width of the footing or grade beam at the building perimeter, but not less than 36 inches. A representative from Pacific Crest Engineering Inc. should be contacted to observe the placement of slurry plugs. In addition, all utility pipes which penetrate through the footings, stemwalls or grade beams (below the exterior soil grade) should also be sealed water-tight, as determined by the Project Engineer or Architect.

54. A representative from our firm should be present to observe the bottom of all trench excavations, prior to placement of utility pipes and conduits. In addition, we should observe

the condition of the trench prior to placement of sand bedding, and to observe compaction of the sand bedding, in addition to any backfill planned above the bedding zone.

55. Jetting of the trench backfill is not recommended as it may result in an unsatisfactory degree of compaction.

56. Trenches must be shored as required by the local agency and the State of California Division of Industrial Safety construction safety orders.

LATERAL PRESSURES

57. Retaining walls with full drainage should be designed using the following criteria:

- a. The following lateral earth pressure values should be used for design:

TABLE No. 4, Active and At-Rest Earth Pressure Values

Backfill Slope (H:V)	Active Earth Pressure (psf/ft of depth)	At-rest Earth Pressure (psf/ft of depth)
Level	30	40
3:1	35	45
2:1	45	55

58. Active earth pressure values may be used when walls are free to yield an amount sufficient to develop the active earth pressure condition (about 1/2% of height). The effect of wall rotation should be considered for areas behind the planned retaining wall (pavements, foundations, slabs, etc.). **When walls are restrained at the top or to design for minimal wall rotation, use the at-rest earth pressure values.**

- a. For resisting passive earth pressure use 250 psf/ft of depth.
- b. A "coefficient of friction" between base of foundation and soil of 0.35.
- c. Exterior or interior wall footings may be designed for an allowable bearing capacity of 2,000 psf for Dead plus Live Load, with a 1/3rd increase for short term loads.
- d. To develop the resisting passive earth pressure, the retaining wall footings should be embedded a minimum of 18 inches below the lowest adjacent grade. There should be a minimum of 5 feet of horizontal cover as measured from the outside edge of the footing.
- e. Any live or dead loads which will transmit a force to the wall, refer to Figure No. 9.

- f. For flexible (yielding) retaining walls, the resultant seismic force on the wall is $8H^2$ and acts at a point $0.6H$ up from the base of the wall. This force has been estimated using the Mononobe-Okabe method of analysis as modified by Whitman (1990), and assumes a yielding wall condition.
- g. For rigid (non-yielding) retaining walls, the resultant seismic force on the wall is $12H^2$ and acts at a point $0.6H$ up from the base of the wall.

Please note: Should the slope behind the retaining walls be other than shown in Table No.4, supplemental design criteria will be provided for the active earth or at rest pressures for the particular slope angle.

59. The above criteria are based on **fully drained conditions**. Therefore, we recommend that permeable material meeting the State of California Standard Specification Section 68-1.025, Class 1, Type A, be placed behind the wall, with a minimum width of 12 inches and extending for the full height of the wall to within 1 foot of the ground surface. The permeable material should be covered with Mirafi 140N filter fabric or equivalent and then compacted native soil placed to the ground surface. A 4 inch diameter perforated rigid plastic drain pipe should be installed within 3 inches of the bottom of the permeable material and be discharged to a suitable, approved location such as the project storm drain system. The perforations should be located and oriented on the lower half of the pipe. Neither the pipe nor the permeable material should be wrapped in filter fabric. Please refer to Figure No. 10, Typical Retaining Wall Drain Detail.

60. The area behind the wall and beyond the permeable material should be compacted with approved material to a minimum relative dry density of 90%.

SURFACE DRAINAGE

61. Following completion of the project we recommend that storm drainage provisions and performance of permanent erosion control measures be closely observed through the first season of significant rainfall, to determine if these systems are performing adequately and, if necessary, resolve any unforeseen issues.

62. Surface water must not be allowed to pond or be trapped adjacent to the building foundations nor on the building pad nor in the parking areas.

63. All roof eaves should be guttered, with the outlets from the downspouts provided with adequate capacity to carry the storm water from the structures to reduce the possibility of soil saturation and erosion. The connection should be in a closed conduit which discharges at an approved location away from the structures and the graded area. The discharge location should not be located at the top of, or on the face of any topographic slopes. We would recommend a discharge point which is at least 10 feet down slope of any foundation or fill areas.

64. Final grades should be provided with a positive gradient away from all foundations in order to provide for rapid removal of the surface water from the foundations to an adequate discharge point. Soil grades should slope away from foundation areas at least 5 percent for the first 10 feet. Impervious surface areas should slope away from foundations at least 2 percent for the first 10 feet. The Project Civil Engineer, Architect or Building Designer should refer to 2007 CBC Section 1803.3 for further information. Concentrations of surface water runoff should be handled by providing necessary structures, such as paved ditches, catch basins, etc.

65. Cut and fill slopes shall be constructed so that surface water will not be allowed to drain over the top of the slope face. This may require berms along the top of fill slopes and surface drainage ditches above cut slopes. All cut, fill and disturbed native slope areas should be hydro-seeded or other means of erosion control provided, as determined by the Project Civil Engineer.

66. Irrigation activities at the site should not be done in an uncontrolled or unreasonable manner.

67. The building and surface drainage facilities must not be altered nor any filling or excavation work performed in the area without first consulting Pacific Crest Engineering Inc. Surface drainage improvements developed by the project civil engineer must be maintained by the property owner at all times, as improper drainage provisions can produce undesirable affects.

PAVEMENT DESIGN

68. The design of the pavement section was beyond our scope of services for this project. To have the selected pavement sections perform to their greatest efficiency, it is very important that the following items be considered:

- a. Properly scarify and moisture condition the upper 8 inches of the subgrade soil and compact it to a minimum of 95% of its maximum dry density, at a moisture content 1 to 3% over the optimum moisture content for the soil.
- b. Provide sufficient gradient to prevent ponding of water.
- c. Use only quality materials of the type and thickness (minimum) specified. All aggregate base and subbase must meet Caltrans Standard Specifications for Class 2 materials, and be angular in shape. All Class 2 aggregate base should be ¾ inch maximum in aggregate size.
- d. The use of “recycled” materials, such as asphaltic concrete for aggregate base or subbase is not recommended.

- e. Compact the base and subbase uniformly to a minimum of 95% of its maximum dry density.
- f. Use ½ inch maximum, Type “A” medium graded asphaltic concrete. Place the asphaltic concrete only during periods of fair weather when the free air temperature is within prescribed limits by Cal Trans Specifications.
- g. Place ¼ gallon per square yard of SG-70 prime coat over the aggregate base section, prior to placement of the asphaltic concrete.
- h. **Porous pavement systems which consist of porous paving blocks, asphaltic concrete or concrete are generally not recommended due to the potential for saturation of the subgrade soils and resulting increased potential for a shorter pavement life. At a minimum, porous pavement systems should include a layer of Mirafi HP370 geotextile fabric placed on the subgrade soil beneath the porous paving section. These pavement systems should only be used with the understanding by the Owner of the increased potential for pavement cracking, rutting, potholes, etc.**
- i. Maintenance should be undertaken on a routine basis.

SOIL CORROSIVITY

69. Corrosivity tests were run on one representative surface soil sample collected on the project site. These results are summarized as follows:

TABLE No.5, Corrosivity Test Summary

Sample	Soil Resistivity	Chloride mg/kg	Sulfate (water soluble)	pH
	Ohm-cm		mg/kg	
2-1-1	3737	8	<5	7.6

70. Cal Trans considers a site to be corrosive to foundation elements if one or more of the following conditions exist at the site:

- a. The soil resistivity is less than 1,000 ohm-cm
- b. Chloride concentration is greater than or equal to 500 mg/Kg (ppm)
- c. Sulfate concentration is greater than or equal to 2000 mg/Kg (ppm)
- d. The soil pH is 5.5 or less

Refer to Cal Trans Corrosion Guidelines, version 1.0 (September, 2003) for additional information.

71. Based on the results of the chloride, sulfate and pH, it appears that the conditions in the shallow existing soil should be assumed to be non-corrosive based on Cal Trans guidelines. The corrosion potential for any imported select fill should also be checked for corrosivity.

72. Please refer to Appendix A for the specific results of the corrosivity testing by the analytical laboratory.

PLAN REVIEW

73. We respectfully request an opportunity to review the project plans and specifications during preparation and before bidding to ensure that the recommendations of this report have been included and to provide additional recommendations, if needed. These plan review services are also typically required by the reviewing agency. Misinterpretation of our recommendations or omission of our requirements from the project plans and specifications may result in changes to the project design during the construction phase, with the potential for additional costs and delays in order to bring the project into conformance with the requirements outlined within this report. Services performed for review of the project plans and specifications are considered "post-report" services and billed on a "time and materials" fee basis in accordance with our latest Standard Fee Schedule.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. This Geotechnical Investigation was prepared specifically for you and for the specific project and location described in the body of this report. This report and the recommendations included herein should be utilized for this specific project and location exclusively. This Geotechnical Investigation should not be applied to nor utilized on any other project or project site. Please refer to the ASFE "Important Information about Your Geotechnical Engineering Report" attached with this report.
2. The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the borings. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that planned at the time, our firm should be notified so that supplemental recommendations can be provided.
3. This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are called to the attention of the Architects and Engineers for the project and incorporated into the plans, and that the necessary steps are taken to ensure that the Contractors and Subcontractors carry out such recommendations in the field.
4. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural process or the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or partially, by changes outside of our control. This report should therefore be reviewed in light of future planned construction and then current applicable codes. This report should not be considered valid after a period of two (2) years without our review.
5. This report was prepared upon your request for our services in accordance with currently accepted standards of professional geotechnical engineering practice. No warranty as to the contents of this report is intended, and none shall be inferred from the statements or opinions expressed.
6. The scope of our services mutually agreed upon for this project did not include any environmental assessment or study for the presence of hazardous or toxic materials in the soil, surface water, groundwater, or air, on or below or around this site.

Important Information About Your Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply the report for any purpose or project except the one originally contemplated.*

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that

have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely on Your ASFE-Member Geotechnical Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.

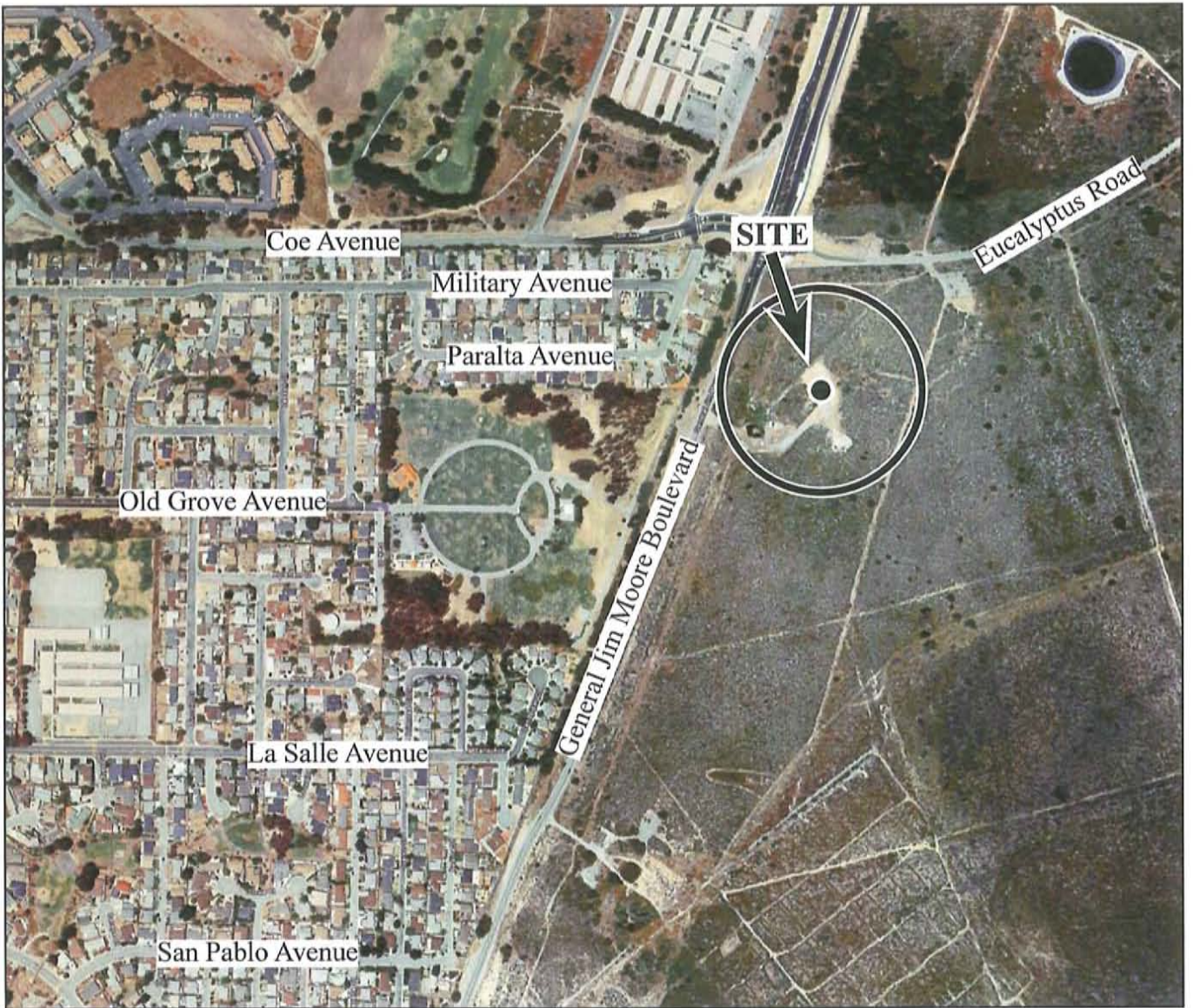


8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@asfe.org www.asfe.org

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APPENDIX A

Regional Site Map
Site Map Showing Test Borings
Boring Log Explanation
Log of Test Borings
Caltrans Corrosivity Test Summary
Keyway Detail
Surcharge Pressure Diagram
Typical Retaining Wall Drain Detail



Base Map from Regal Map Company

Pacific Crest Engineering Inc.
444 Airport Blvd., Suite 106
Watsonville, CA 95076

Regional Site Map
Electrical & Chemical Feed Building
Seaside, California

Figure No. 1
Project No. 0922
Date: 4/30/09

Base Map Provided by:
Pueblo Water Resources
Dated February 4, 2009



Approximate Boring Location

Pacific Crest Engineering Inc.
444 Airport Blvd., Suite 106
Watsonville, CA 95076



Site Map Showing Test Boring Locations
Electrical and Chemical Feed Building
Seaside, California

Figure No. 2
Project No. 0922
Date: 4/30/09

UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D2488 (Modified)

PRIMARY DIVISIONS		GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN #200 SIEVE SIZE	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN #4 SIEVE	CLEAN GRAVELS (LESS THAN 5% FINES)	GW Well graded gravels, gravel-sand mixtures, little or no fines
		GRAVELS (MORE THAN 12% FINES)	GP Poorly graded gravels or gravels-sand mixtures, little or no fines
	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN #4 SIEVE	CLEAN SANDS (LESS THAN 5% FINES)	GM Silty gravels, gravel-sand-silt mixtures, non-plastic fines
			GC Clayey gravels, gravel-sand-clay mixtures, plastic fines
		SANDS (MORE THAN 12% FINES)	SW Well graded sands, gravelly sands, little or no fines
			SP Poorly graded sands or gravelly sands, little or no fines
FINE GRAINED SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN #200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT IS LESS THAN 35%	SM Silty sands, sand-silt mixtures, non-plastic fines	
		SC Clayey sands, sand-clay mixtures, plastic fines	
		ML Inorganic silts and very fine clayey sand silty sands, with slight plasticity	
	SILTS AND CLAYS LIQUID LIMIT IS BETWEEN 35% AND 50%	CL Inorganic clays of low to medium plasticity, gravelly, sand, silty or lean clays	
		OL Organic silts and organic silty clays of low plasticity	
		MI Inorganic silts, clayey silts and silty fine sands of intermediate plasticity	
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50%	CI Inorganic clays, gravelly/sandy clays and silty clays of intermediate plasticity	
		OI Organic clays and silty clays of intermediate plasticity	
		MH Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	
		CH Organic clays of high plasticity, fat clays	
HIGHLY ORGANIC SOILS		OH Organic clays of medium to high plasticity, organic silts	
		PT Peat and other highly organic soils	

BORING LOG EXPLANATION

Depth, ft.	Sample No. and Type	Symbol	SOIL DESCRIPTION	Unified Soil Classification	SPT "N" Value	Plasticity Index	Dry Density, p.c.f.	Moisture % of Dry Wt.	MISC. LAB RESULTS
1			← Ground water elevation						
2	1-1		← Soil Sample Number ← Soil Sampler Size/Type L = 3" Outside Diameter M = 2.5" Outside Diameter T = 2" Outside Diameter ST = Shelby Tube BAG = Bag Sample						
3									
4									
5									

RELATIVE DENSITY

SANDS AND GRAVELS	BLOWS/FOOT
VERY LOOSE	0-4
LOOSE	4-10
MEDIUM DENSE	10-30
DENSE	30-50
VERY DENSE	OVER 50

CONSISTENCY

SILTS AND CLAYS	BLOWS/FOOT
VERY SOFT	0-2
SOFT	2-4
FIRM	4-8
STIFF	8-16
VERY STIFF	16-32
HARD	OVER 32

Pacific Crest Engineering Inc.
444 Airport Blvd., Suite 106
Watsonville, CA 95076

Boring Log Explanation
Electrical & Chemical Feed Building
Seaside, California

Figure No. 3
Project No. 0922
Date: 4/30/09

LOGGED BY <u>CLR</u> DATE DRILLED <u>4/17/09</u> BORING DIAMETER <u>6"</u> BORING NO. <u>1</u>									
Depth (feet)	Sample No. and Type	Symbol	Soil Description	Unified Soil Classification	SPT "N" Value	Plasticity Index	Dry Density (pcf)	Moisture % of Dry Wt.	Misc. Lab Results
1	1-1 L		Brown Silty SAND, fine to medium grained, sub-angular to sub-rounded shaped, poorly graded, mica flakes scattered throughout the sample, trace coarse grains scattered throughout the sample, damp, hard, (Older Dune Deposits)	SM	35		121.3	8.9	17.1% Passing #200 Sieve
2									
3									
4	1-2 L		Color changed to dark reddish brown, trace rounded chert pebbles scattered throughout the sample, damp, medium dense		17		108.7	5.4	
5									
6									
7	1-3 L		Color change to yellowish tan, slight decrease in coarseness of sand, very fine to medium grained, slightly damp, medium dense		18		108.4	2.0	
8									
9									
10	1-4 L		Slight reddish tan mottling scattered throughout the sample, slight increase in coarseness of sand, damp, medium dense		19		104.9	4.4	
11									
12									
13	1-5 L		Lack of mottling, slight decrease in coarseness of sand, damp, medium dense		30		100.2	3.5	
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									

Pacific Crest Engineering Inc.
444 Airport Blvd., Suite 106
Watsonville, CA 95076

Log of Test Borings
Electrical & Chemical Feed Building
Seaside, California

Figure No. 4
Project No. 0922
Date: 4/30/09

LOGGED BY <u>CLR</u> DATE DRILLED <u>4/17/09</u> BORING DIAMETER <u>6"</u> BORING NO. <u>1</u>									
Depth (feet)	Sample No. and Type	Symbol	Soil Description	Unified Soil Classification	SPT "N" Value	Plasticity Index	Dry Density (pcf)	Moisture % of Dry Wt.	Misc. Lab Results
25	1-6 L		Yellowish tan SAND, fine to medium grained, trace coarse grains, sub-angular to sub-rounded shaped, mica flakes scattered throughout the sample, poorly graded, damp, medium dense, (Older Dune Deposits)	SP	29		94.0	3.7	1.6% Passing #200 Sieve
26									
27									
28	1-7 L		Lack of coarse grains, slightly damp, very dense		50/6"		103.6	4.0	
29									
30									
31	1-8 L		Slightly damp, very dense		50/5"		103.6	4.2	1.8% Passing #200 Sieve
32									
33									
34			Boring terminated at 36 feet. No groundwater encountered.						
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									

Pacific Crest Engineering Inc.
444 Airport Blvd., Suite 106
Watsonville, CA 95076

Log of Test Borings
Electrical & Chemical Feed Building
Seaside, California

Figure No. 5
Project No. 0922
Date: 4/30/09

LOGGED BY <u>CLR</u> DATE DRILLED <u>4/17/09</u> BORING DIAMETER <u>6"</u> BORING NO. <u>2</u>									
Depth (feet)	Sample No. and Type	Symbol	Soil Description	Unified Soil Classification	SPT "N" Value	Plasticity Index	Dry Density (pcf)	Moisture % of Dry Wt.	Misc. Lab Results
1	2-1 L		Dark brown SAND with Silt, very fine to medium grained, sub-angular to sub-rounded shaped, poorly graded, trace rounded chert pebbles scattered throughout the sample, trace granitic gravel near 3 1/2 feet, mica flakes scattered throughout the sample, damp, medium dense	SP-SM	17				
2									
3									
4									
5	2-2 L		Dark reddish brown SAND with Silt, fine to medium grained, trace coarse grains, sub-angular to sub-rounded shaped, poorly graded, mica flakes scattered throughout the sample, damp, loose, (Older Dune Deposits)	SP-SM	7		110.8	6.4	10.0% Passing #200 Sieve
6									
7									
8	2-3 L		Color change to yellowish tan, trace rounded chert pebbles scattered throughout the sample,, slightly damp, medium dense		19		99.4	2.8	
9									
10									
11									
12	2-4 L		Color change to tan, lack of rounded chert pebbles, slightly damp, medium dense		23		99.2	3.2	
13									
14									
15									
16	Boring terminated at 16 1/2 feet. No groundwater encountered.								
17									
18									
19									
20									
21									
22									
23									
24									

Pacific Crest Engineering Inc.
444 Airport Blvd., Suite 106
Watsonville, CA 95076

Log of Test Borings
Electrical & Chemical Feed Building
Seaside, California

Figure No. 6
Project No. 0922
Date: 4/30/09

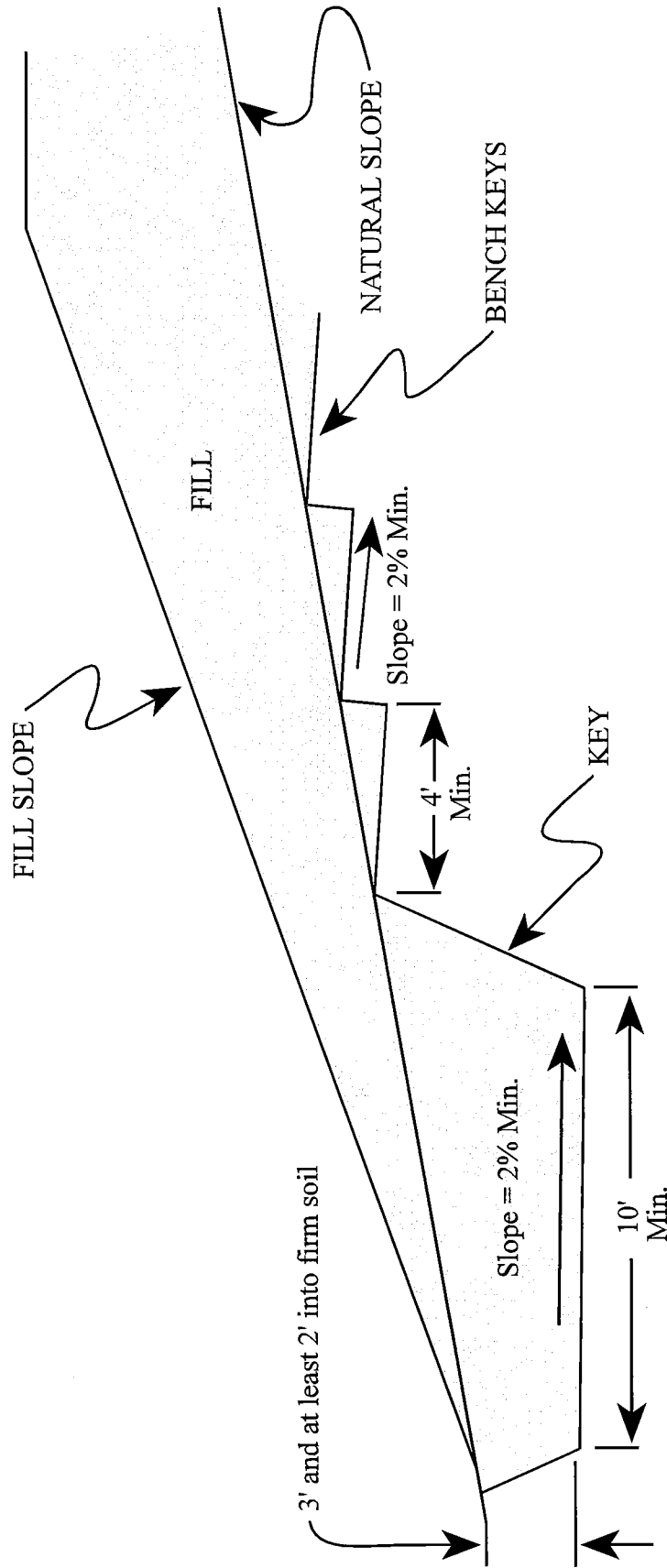


Corrosivity Test Summary

CTL # 416-391 Date: 4/30/2009 Tested By: PJ Checked: PJ
Client: Pacific Crest Engineering Project: New Electric & Chemical Feed Building Proj. No: 0922

Remarks:

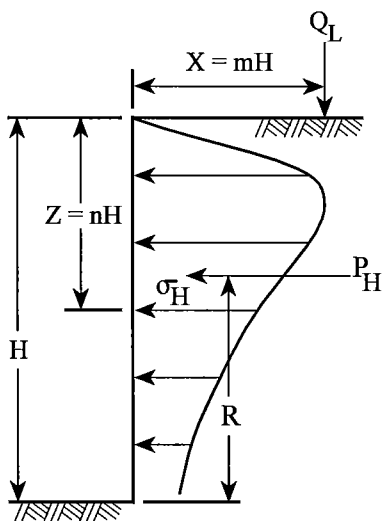
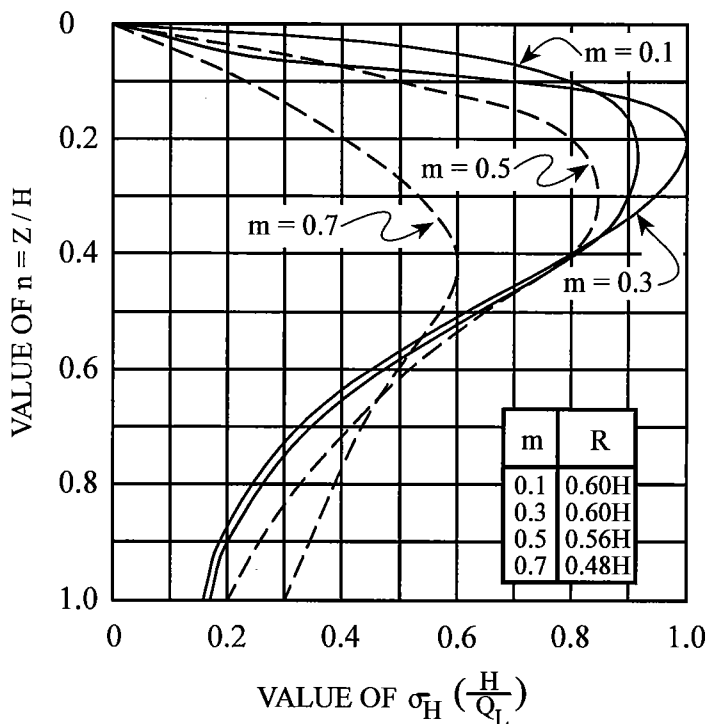
Boring	Sample Location or ID	Sample, No.	Depth, ft.	Resistivity @ 15.5 °C (Ohm-cm)		Chloride mg/kg Dry Wt.	Sulfate		pH	ORP (Redox) mv	Moisture As Received %	Soil Visual Description
				As Rec.	Minimum		Saturated	mg/kg Dry Wt.				
-	2-1-1	-	-	ASTM G57	Cal 643	Cal 643	ASTM G57	Cal 417-mod. Cal 417-mod.	Cal 643	SM 2580B	ASTM D2216	Dark Brown Silty SAND
				-	3737	8	-	<5 <0.0005	7.6	-	9.2	



TYPICAL KEY AND BENCHES

not to scale

LINE LOAD



FOR $m \leq 0.4$:

$$\sigma_H \left(\frac{H}{Q_L} \right) = \frac{0.20 n}{(0.16 + n^2)^2}$$

$$P_H = 0.55 Q_L$$

FOR $m > 0.4$:

$$\sigma_H \left(\frac{H}{Q_L} \right) = \frac{1.28 m^2 n}{(m^2 + n^2)^2}$$

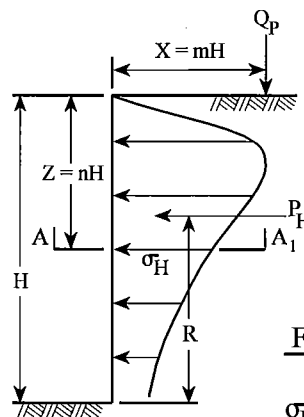
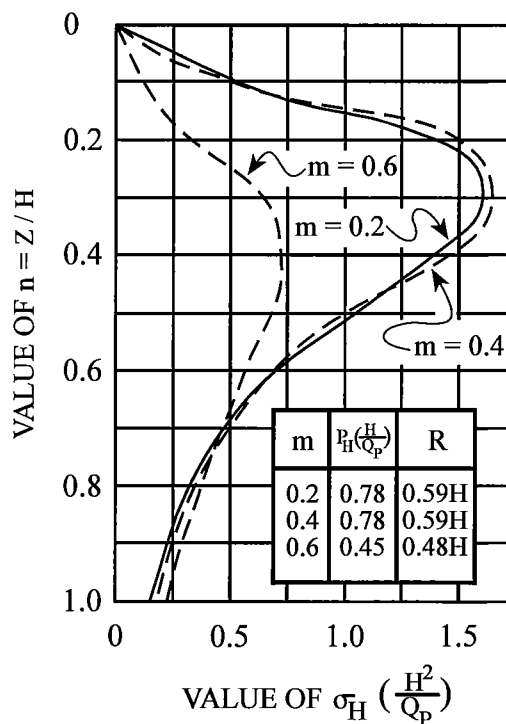
$$\text{RESULTANT } P_H = \frac{0.64 Q_L}{(m^2 + 1)}$$

PRESSURES FROM LINE LOAD Q_L

(BOISSINESQ EQUATION MODIFIED BY EXPERIMENT)

REFERENCE: Design Manual
NAVFAC DM-7.02
Figure 11
Page 7.2-74

POINT LOAD



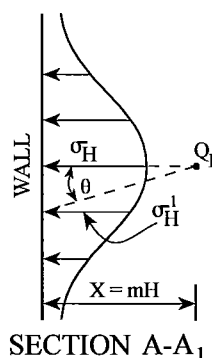
FOR $m \leq 0.4$:

$$\sigma_H \left(\frac{H^2}{Q_P} \right) = \frac{0.28 n^2}{(0.16 + n^2)^3}$$

FOR $m > 0.4$:

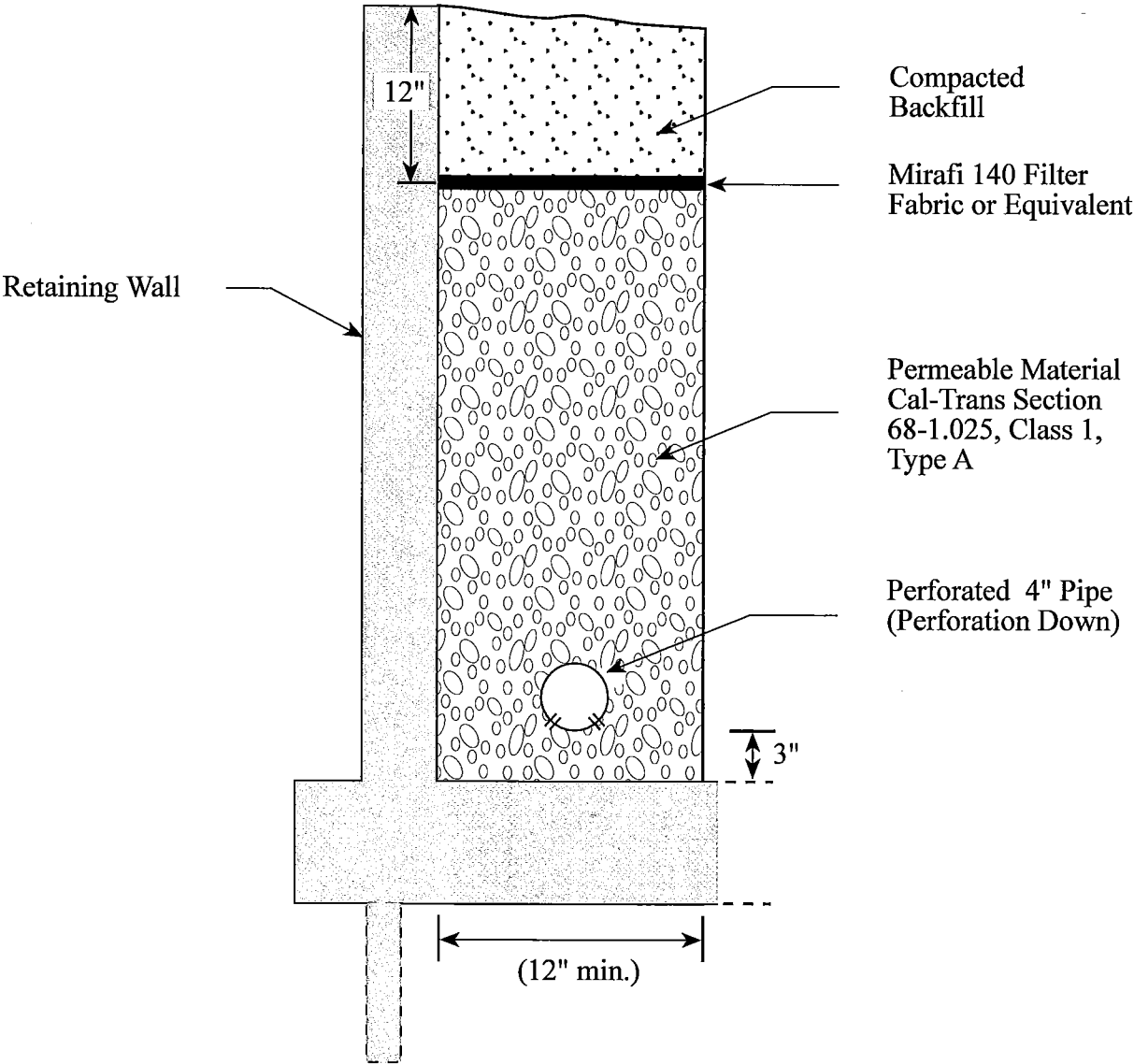
$$\sigma_H \left(\frac{H^2}{Q_P} \right) = \frac{1.77 m^2 n^2}{(m^2 + n^2)^3}$$

$$\sigma_H^1 = \sigma_H \cos^2(1.1 \theta)$$



PRESSURES FROM POINT LOAD Q_P

(BOISSINESQ EQUATION MODIFIED BY EXPERIMENT)



Not to Scale

February 4, 2018

Project No. 0922.1-M242-E12

Revised February 23, 2018

Mr. Steve Tanner, PE
Pueblo Water Resources
4478 Market Street, Suite 705
Ventura, CA 93003

Subject: Update to Geotechnical Investigation Report
MPWMD – ASR Site Expansion
Backflush Pit at Santa Margarita Well Site
1910 General Jim Moore Boulevard
Seaside, California

Reference: Pacific Crest Engineering, Inc.
Geotechnical Investigation For New Electrical & Chemical Feed Building
Project No. 0922-M242-E12
Dated April 30, 2009

Dear Mr. Tanner,

As requested, we are providing this addendum letter to the referenced geotechnical investigation report that was prepared by our firm in 2009. The purpose for this letter is to evaluate the planned improvements in order to develop geotechnical recommendations pertinent to the proposed pond expansion and update our 2009 report to include the most recent CBC design criteria. The recommendations outlined below are based on our review of the referenced soil report, preliminary grading and drainage plans provided by your firm, and a visit to the site on January 30, 2018.

Based on our review of Preliminary Grading and Drainage Plan and Cross Section sheets dated 4/17/17, it is our understanding that the proposed improvements will consist of expanding the existing backflush pit to the north, construction of a CMU wall adjacent to General Jim Moore Boulevard, and construction of a chemical loading rack along the northwest corner of the expanded pond. Also proposed are construction of two 30" treated water lines and

The north and west side of the expanded pond slopes will be constructed of cut and fill. The east side slopes will be comprised entirely of cuts up to 11 feet in height. The proposed pond slopes are currently designed at 1:1 horizontal to vertical.

The CMU wall will screen views from General Jim Moore Boulevard and will retain inboard fills generated as part of the pond expansion. The proposed chemical loading rack will be supported by a reinforced concrete slab and will be accessed by a new AC roadway the connects to the existing entry road. The

new road and chemical loading rack pad will be underlain by fill ranging from approximately one to five feet in depth.

UPDATED RECOMMENDATIONS

Based on our review of the proposed improvement plans, it is our opinion that, except as modified below, the recommendations of our 2009 geotechnical report continue to remain applicable to this project. All recommendations of the 2009 Geotechnical Report and this Update Report should be closely followed during the design and construction phases of the project. Any unexplained discrepancies between the original report and this update should be brought to the immediate attention of the Geotechnical Engineer for clarification.

In our opinion unreinforced 1:1 horizontal to vertical side slopes for the proposed backflush pit are too steep for long term stability under saturated conditions. Side slopes constructed to these gradients without slope reinforcement will be subject to erosion and sloughing, requiring continued maintenance over the lifetime of the project, and could potentially undermine improvements adjacent to the top of slope.

The proposed pond expansion will require raising existing grades along the north and west sides with up to 4 to 5 feet of fill. In addition, existing grades at the base of the expanded pond will be lowered by about 5 to 6 feet. This will create a condition where the pond slopes will be comprised of cut overlain by fill. As recommended in the soil report, fill slopes to be constructed above cut slopes should be set back a minimum of 8 feet horizontally from the top of the cut slope. This is especially important where structural improvements such as the chemical loading rack, new access roads or new utility corridors will come within close proximity to the pond slopes. Alternatively, the slope below the chemical loading rack pad may be constructed of engineered fill at a maximum gradient of 2:1 horizontal. The fill slope should be constructed in accordance with the recommendations of the 2009 geotechnical report and Figure No. 1 attached.

If space constraints preclude the construction of 2:1 fill slopes, the pond slope below the chemical loading rack area may be constructed at a maximum gradient of 1:1 horizontal to vertical provided the slope is designed and constructed as a reinforced soil slope (RSS) with geosynthetic reinforcing. Please refer to Figure No. 2 for a general schematic of a reinforced soil slope. The geosynthetic reinforcement layers should extend a minimum length of 1.0 times the total vertical height of the RSS system, with vertical spacing not exceeding 2 feet. The reinforcing should be wrapped at the slope face with a minimum 3-foot overlap as shown on Figure No. 2. Final spacing, reinforcing type and length should be determined by the project design professional. All engineered fill should be placed and compacted in accordance with the recommendations of our 2009 report. It is anticipated that the onsite soils will be suitable for use as engineered fill for this project.

Reinforced soil slopes should be constructed where ever structural, roadway and/or pipelines will come within 20 feet of the adjacent slope face, or 10 feet beyond the perimeter of the chemical loading rack pad, whichever is greater. The RSS system should be faced with an erosion control blanket as determined by



the project civil engineer. The performance of erosion control measures should be routinely monitored and areas where the geosynthetic has been exposed should be repaired and replanted.

In other areas of the backflush pit expansion where there is low potential for undermining adjacent improvements consideration should be given to constructing side slopes at gradients no steeper than 2:1 horizontal to vertical. Where site constraints preclude these gradients the Owner should be made aware of the potential for erosion, sloughing and long term instability requiring continued maintenance. As a minimum, erosion control measures should be considered for oversteepened pond slopes.

Pipelines or other utility improvements should be setback a minimum of 15 feet horizontally from the outboard edge of all unreinforced slopes. We note that 30" RW line may be in close proximity to the backcut for a RSS slope below the chemical loading rack pad and this will need to be considered when planning backfill methods for the utility trench. Care should be taken not to damage the reinforcing layers when performing earthwork adjacent to RSS slopes.

The proposed CMU wall may be designed and constructed using the lateral earth pressures and foundation design criteria provided in the 2009 geotechnical report for fully drained conditions.

The following updated CBC design criteria should be used in the design of structural improvements for this project. Structural improvements should be designed and constructed in accordance with the recommendations of the 2009 geotechnical report and the most recent CBC requirements as outlined below.

Table No. 1 - 2016 CBC Seismic Design Parameters¹

Seismic Design Parameter	ASCE 7-10 Value
Site Class	D
Spectral Acceleration for Short Periods	$S_s = 1.471g$
Spectral Acceleration for 1-second Period	$S_1 = 0.529g$
Short Period Site Coefficient	$F_a = 1.0$
1-Second Period Site Coefficient	$F_v = 1.5$
MCE Spectral Response Acceleration for Short Period	$S_{MS} = 1.471g$
MCE Spectral Response Acceleration for 1-Second Period	$S_{M1} = 0.794g$
Design Spectral Response Acceleration for Short Period	$S_{DS} = 0.981g$
Design Spectral Response Acceleration for 1-Second Period	$S_{D1} = 0.529g$
Seismic Design Category ²	D

Note 1: Design values have been obtained by using the Ground Motion Parameter Calculator available on the USGS website at <http://earthquake.usgs.gov/hazards/designmaps/usdesign.php>.

Note 2: The Seismic Design Category assumes a structure with Risk Category I, II or III occupancy as defined by Table 1604.5 of the 2016 CBC. Pacific Crest Engineering Inc. should be contacted for revised Table 1 seismic design parameters if the proposed structure has a different occupancy rating than that assumed.



February 4, 2018

Revised February 23, 2018

This report is issued as an addendum to our April 30, 2009 geotechnical report and should be reviewed in conjunction with that document. Except as modified herein, all recommendations of the April 2009 geotechnical report remain applicable to the design and construction of the project.

We respectfully request an opportunity to review the project plans and specifications during preparation and before bidding to ensure that the recommendations of this report have been included and to provide additional recommendations, if needed. These plan review services are also typically required by the reviewing agency. Misinterpretation of our recommendations or omission of our requirements from the project plans and specifications may result in changes to the project design during the construction phase, with the potential for additional costs and delays in order to bring the project into conformance with the requirements outlined within this report. Services performed for review of the project plans and specifications are considered "post-report" services and billed on a "time and materials" fee basis in accordance with our latest Standard Fee Schedule.

We appreciate the opportunity to be of service. If you have any questions regarding this update letter, please contact our office.

Sincerely,

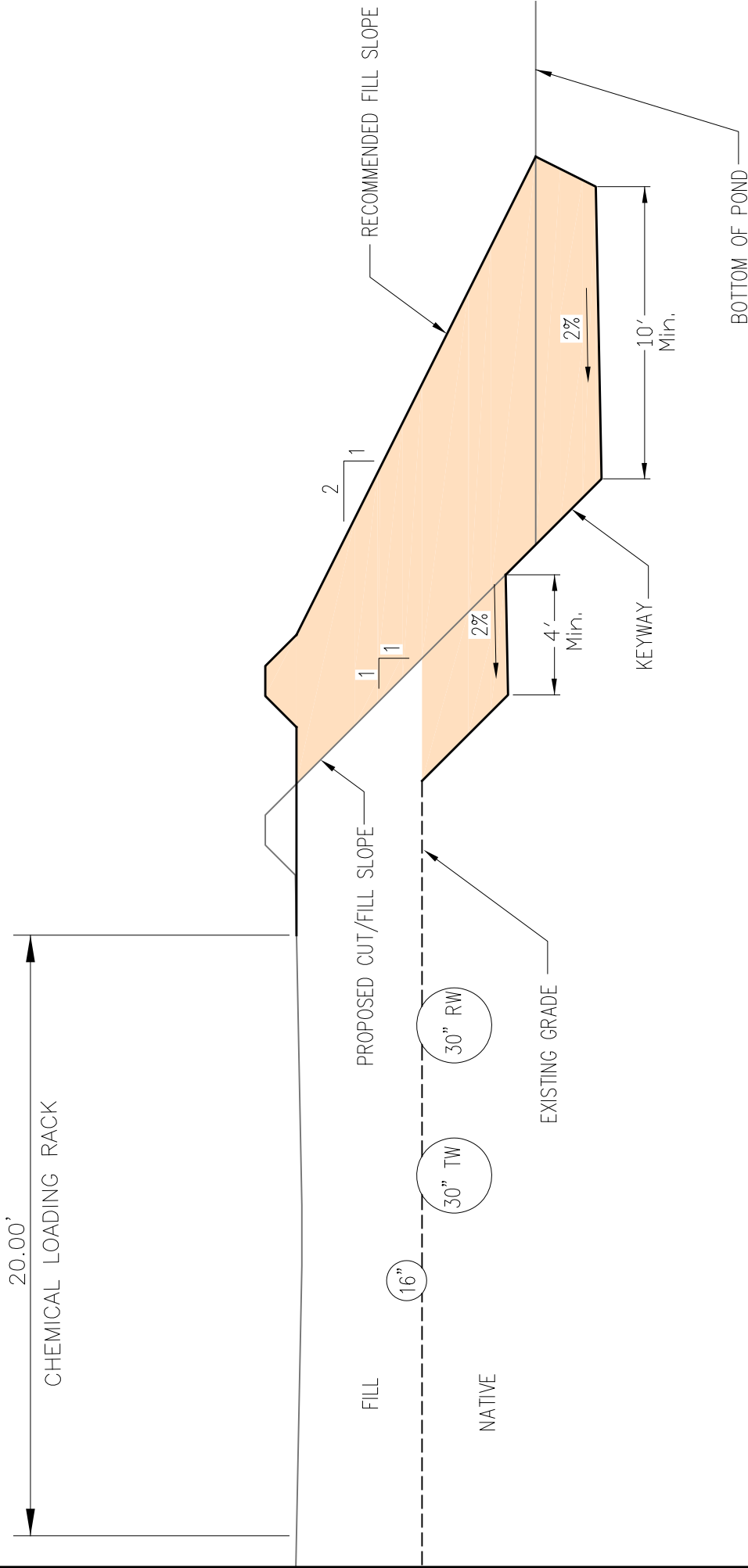
PACIFIC CREST ENGINEERING INC.



Elizabeth M. Mitchell, GE
President/Principal Geotechnical Engineer
GE 2718, Expires 12/13/18

Copies: 2 to Client



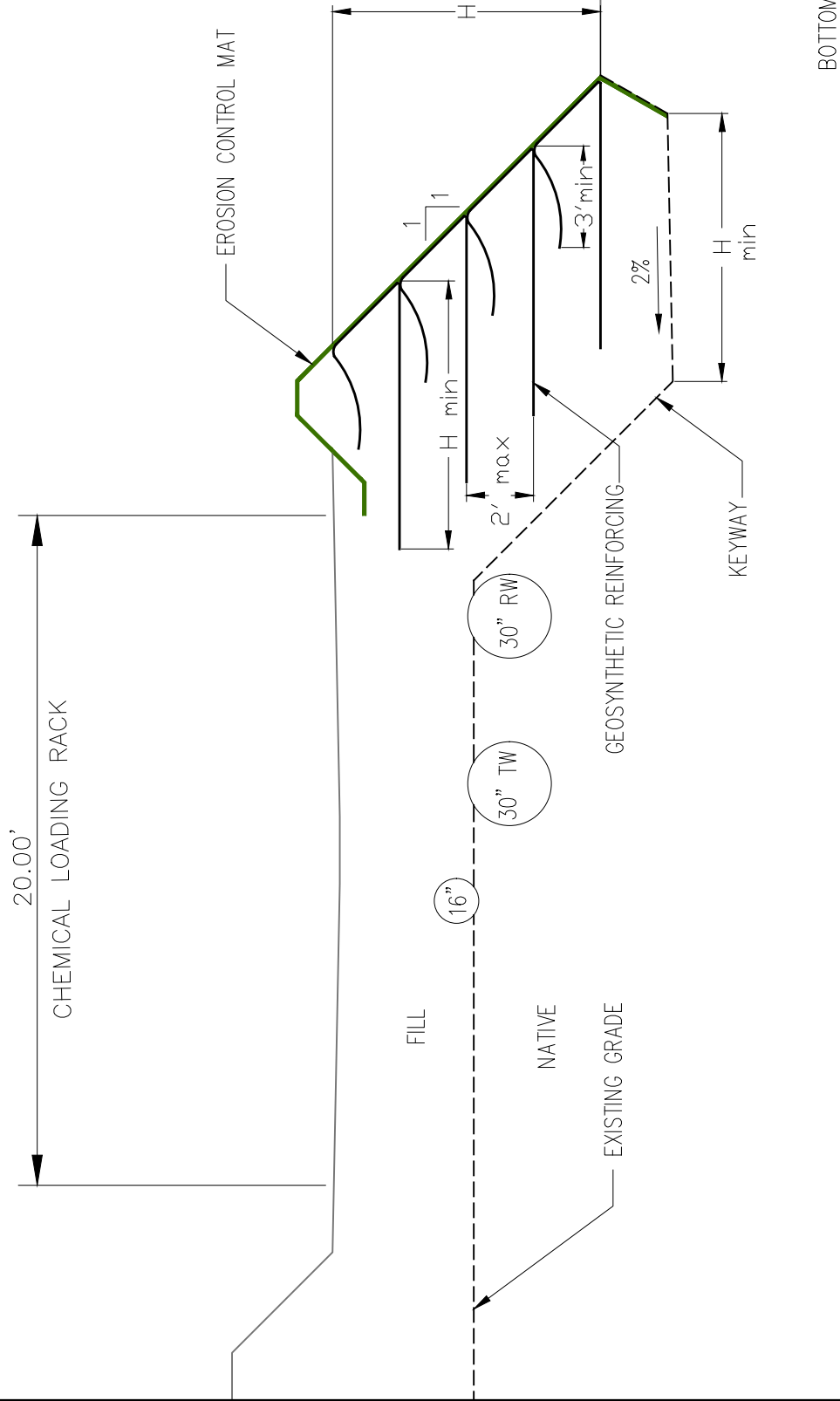


Pacific Crest Engineering Inc.
 444 Airport Blvd., Suite 106
 Watsonville, CA 95076
 Ph: (831) 763-6191
 Fax: (831) 763-6195

SANTA MARGARITA WELL SITE
 ASR SITE EXPANSION
 CROSS SECTION A-A'

Scale: 1"=5'
 Drawn By: MJM 2/5/18
 Project No: 0922.1
 PM: EM
 Rev: 0

Drawing No:
FIGURE 1



Pacific Crest Engineering Inc.

444 Airport Blvd., Suite 106
 Watsonville, CA 95076
 Ph: (831) 763-6191
 Fax: (831) 763-6195

SANTA MARGARITA WELL SITE
 ASR SITE EXPANSION

CROSS SECTION A-A'

Scale:
 1"=5'

Drawn By:
 MJM 2/23/18

Project No:
 0922.1

PM: EM
 Rev: 0

Drawing No:

FIGURE 2

Attachment D – Storm Water Pollution Prevention Plan

*The Contractor must download this as a separate document from the website
<https://www.mpwmd.net/who-we-are/bid-construction-smwtf/>*

The Storm Water Pollution Prevention Plan is incorporated by reference into this Call for Bids. MPWMD does not assume any liability or responsibility based on any defective or incomplete copying, excerpting, scanning, faxing, downloading or printing of the Plans and Specifications.

Attachment E - Safety Alert - Ordnance and Explosives at former Fort
Ord

Fort Ord Military Munitions Recognition and Safety Training

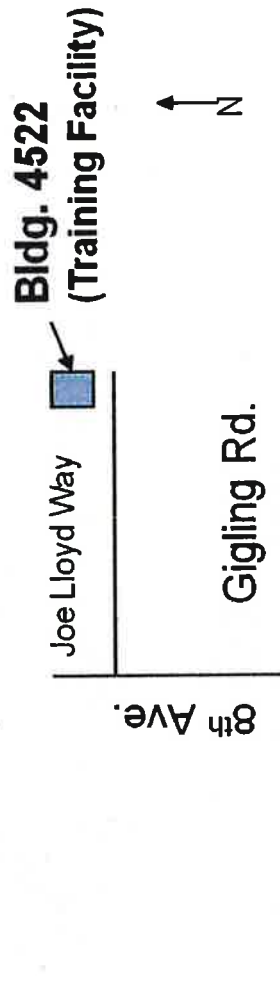
As a result of the Army's use of military munitions on the former Fort Ord, unexploded ordnance (UXO) may be encountered by those working on and reusing former Fort Ord property.



This training is recommended for anyone excavating on Fort Ord and required for all workers entering restricted munitions response sites.

The U.S Army Corps of Engineers (USACE) offers training to all contractors, property owners and workers involved in intrusive (digging) activities on the former Fort Ord. The training will orient attendees on UXO avoidance, the visual characteristics of UXO and the precautions necessary if it is encountered. Attendees will also be provided the procedures for contacting authorities if UXO is encountered.

- It is free.
- It takes about 30 minutes at the USACE facility.



To schedule training contact:

Fort Ord Community Relations Office at email:

Melissa.M.Broadston.ctr@mail.mil or (831) 393-1284.

Visit our website at: www.fortordcleanup.com for more information.

DANGER

Areas where unexploded ordnance may be present are posted with DANGER signs. Do not enter areas where you see signs like the ones below. Off-road vehicular traffic is prohibited on the former Fort Ord.

PELIGRO

Las zonas donde podría estar presente material de artillería que aún no ha explotado están marcadas con letreros de PELIGRO. No entre en zonas donde vea letreros como los que se muestran abajo. El tráfico automotor fuera de la vía principal está prohibido en el antiguo Fort Ord.



If you have questions regarding the ordnance and explosives cleanup at the former Fort Ord, please contact:

Si tiene preguntas relacionadas con los armamentos y la erradicación de explosivos en el antiguo Fort Ord, por favor póngase en contacto

Fort Ord Base Realignment and Closure Field Office
831-393-1284

SAFETY ALERT

Ordnance and Explosives at former Fort Ord

If you discover any object that resembles those shown inside this brochure

DO NOT TOUCH IT!

Instead, **MARK THE LOCATION,** and **CALL THE POLICE - 911** to report what you've found.

ALERTA DE SEGURIDAD

Material de artillería y explosivos en el antiguo Fort Ord

Si descubre cualquier objeto que se asemeje a los que se muestran en este folleto

¡NO LO TOQUE!

En su lugar, **MARQUE LA UBICACIÓN,** y **LLAME A LA POLICÍA - 911**



HISTORY

As an active U.S. Army post, Fort Ord's mission was to train soldiers to protect the interests of the United States. An important part of the mission was infantry and artillery training. As a result of this training, unexploded ordnance remains on portions of the now-closed Fort Ord.

After reviewing the records of past training activities, the Army identified areas where ordnance may still remain and began conducting investigations and removing ordnance from those areas. Cleanup of all identified areas will not be completed for many years.

If you find an object (or even a piece of one) that resembles those shown in the photograph —

Don't Touch It
Mark the Location
Call 911

Si descubre cualquier objeto que se asemeje a los que se muestran en este photographia —

¡NO LO TOQUE!
MARQUE LA UBICACIÓN
LLAME AL 911



Attachment F – Owner Purchased Chemical Feed Pump Skids



Customer:

Maureen Hamilton
 Monterey Peninsula Water Management District
 5 Harris Court, Building "G"
 Monterey, CA 93940

Submitted by:

General Manager Rich Hopkins

Project Name: Santa Margarita ASR Facility Disinfection System

We are pleased to offer you the following quotation for your favorable consideration.

#	Material #	Description	Qty	Net	Ext. Net
1		Section 1 - NaOCl 20-Inch Line			
1.1	S1CBH10050PVTS070UD81001EN	Sigma/ 1 Control version b The Sigma/ 1 motor-driven diaphragm metering pump features a high strength inner housing for the mechanically loaded parts and an additional plastic housing to protect it from corrosion. The pump capacity is adjusted via the stroke length (4 mm), in 0.5% increments, with a self-locking rotary dial. Capacity: * 12.9GPH; 49L/H * 145PSI; 10BAR Selected Options: * Liquid End Materials: PVDF with PTFE seal * Seal: Standard diaphragm / PTFE seal * Diaphragm type: Safety diaph w/ visual indicat * Liquid End Options: without valve springs * Hydraulic Connection: PVDF clamping nut & insert * Labeling: Standard with ProMinent logo * Voltage Supply: 100 - 240 V * Cable and Plug: North American plug, 115 V * Relay: 4-20mA out+fault/pacing relay * Control Variants: Option 0 + analog control * Overpressure Shut-off: without pressure shut-off * Operating Unit (HMI): HMI + 0.5m cable * Access code: Access code * Language: English	2		
1.2	1001301	Universal control cable, 5-pin round plug; 5-wire 15 ft. (5m)	2		
1.3	7745682	CP2 TWO PUMP 120VAC SCADA PANEL Dual Pump H/O/A Scada Interface Panel Includes: NEMA 4X FRP Enclosure Main 20A circuit breaker (20A, 120VAC 1ph, 60hz power) Circuit breaker for each pump (15A) Two, H/O/A selector switches Two, PXU digital process controllers Two, Alarm pilot lights	1		

Misc terminals, relays as required

Inputs:

Two, Analog (4-20ma) speed command
Two Digital (on/off) run command

Outputs:

Two, Digital (on/off) run status
Two, Digital (on/off) alarm status
Two, Digital (on/off) in-remote status
Two, Analog (4-20ma) speed indication.

1.4	DO000006	MS2A-A050_FLOOR_PVC/VITON_PD	1		
<p>1/2" PVC/Viton® Primary Backup System Primary/Backup arrangement PP/PE skid for motor driven pumps (48.75"W x 30"D x 60"H) 1/2" PVC/Viton socket weld pipe and fittings Wye strainer 500ml PVC calibration column Pressure gauge with isolator Two pressure relief valves Two 164ml PVC/Viton pulsation dampener Back pressure valve Discharge Side High Pressure Switch Plumbing and components rated at 150 PSI regardless of pump pressure.</p>					

2	Section 2 - NaOCl 16-Inch Line				
---	--------------------------------	--	--	--	--

2.1	S1CBH10022PVTS070UD81001EN	<p>Sigma/ 1 Control version b The Sigma/ 1 motor-driven diaphragm metering pump features a high strength inner housing for the mechanically loaded parts and an additional plastic housing to protect it from corrosion. The pump capacity is adjusted via the stroke length (4 mm), in 0.5% increments, with a self-locking rotary dial.</p> <p>Capacity: * 6.9GPH; 26L/H * 145PSI; 10BAR</p> <p>Selected Options: * Liquid End Materials: PVDF with PTFE seal * Seal: Standard diaphragm / PTFE seal * Diaphragm type: Safety diaph w/ visual indicat * Liquid End Options: without valve springs * Hydraulic Connection: PVDF clamping nut & insert * Labeling: Standard with ProMinent logo * Voltage Supply: 100 - 240 V * Cable and Plug: North American plug, 115 V * Relay: 4-20mA out+fault/pacing relay * Control Variants: Option 0 + analog control * Overpressure Shut-off: without pressure shut-off * Operating Unit (HMI): HMI + 0.5m cable * Access code: Access code * Language: English</p>	2		
-----	----------------------------	--	---	--	--



2.2	1001301	Universal control cable, 5-pin round plug; 5-wire 15 ft. (5m)	2		
2.3	7745682	<p>CP2 TWO PUMP 120VAC SCADA PANEL</p> <p>Dual Pump H/O/A Scada Interface Panel Includes: NEMA 4X FRP Enclosure Main 20A circuit breaker (20A, 120VAC 1ph, 60hz power) Circuit breaker for each pump (15A) Two, H/O/A selector switches Two, PXU digital process controllers Two, Alarm pilot lights Misc terminals, relays as required</p> <p>Inputs: Two, Analog (4-20ma) speed command Two Digital (on/off) run command</p> <p>Outputs: Two, Digital (on/off) run status Two, Digital (on/off) alarm status Two, Digital (on/off) in-remote status Two, Analog (4-20ma) speed indication.</p>	1		
2.4	DO000006	<p>MS2A-A050_FLOOR_PVC/VITON_PD</p> <p>1/2" PVC/Viton® Primary Backup System Primary/Backup arrangement PP/PE skid for motor driven pumps (48.75"W x 30"D x 60"H) 1/2" PVC/Viton socket weld pipe and fittings Wye strainer 500ml PVC calibration column Pressure gauge with isolator Two pressure relief valves Two 164ml PVC/Viton pulsation dampener Back pressure valve Discharge Side High Pressure Switch Plumbing and components rated at 150 PSI regardless of pump pressure.</p>	1		
3	Section 3 - Potassium Permanganate System				
3.1	GMXA1009PVT2Q000UDC1300EN	<p>gamma/X</p> <p>The ProMinent gamma/X is a microprocessor-based solenoid-driven diaphragm programmable pump. Continuous electronic stroke length adjustment from 0 - 100% (recommended 30 - 100%). Stroke rate adjustment in 1 stroke/hour increments from 0 to 12,000 strokes/h.</p> <p>Standard features include: - Remote on/off and external contact input 1:1 with pulse control. - Backlit dot matrix display with 3-LED indicators - Fiberglass-reinforced, PPE plastic housing rated to IP65.</p> <p>** (ProMinent Control Cable is required for external control)</p>	4		

Capacity:

- * 2.38GPH; 9.0LH
- * 145PSI; 10BAR

Selected Options:

- * Liquid end materials: PVDF/PVDF
- * Diaphragm/seals: PTFE/PFTE coated
- * Liquid end version: Bleed valve w/o valve springs
- * Hydraulic connections: 1/2" x 3/8"
- * Diaphragm rupture indicator: Not included
- * Version: Standard
- * Logo: Standard, with logo
- * Electrical connection: Universal, 100-230 V 50/60 Hz
- * Cable and plug: N.American plug, 115V
- * Relay, pre-set: Fault relay + 4-20ma output
- * Accessories: Standard accessories
- * Control variant: Option 0 + analog control
- * Metering monitor: Pulse signal input
- * Bluetooth remote stop: Not included
- * Language: Standard (English)
- * Approvals: MET (USA)
- * Documentation: Standard Documentation

3.2	1001301	Universal control cable, 5-pin round plug; 5-wire 15 ft. (5m)	4		
3.3	DO000006	SS2-C_FLOOR_050_PVC\VITON_PD 1/2" PVC/Viton® Primary Backup System Primary/Backup arrangement PP/PE skid for solenoid driven pumps, (44"W x 20"D x 46"H) 1/2" PVC/Viton socket weld pipe and fittings Wye strainer 500ml PVC calibration column Two 164ml CPVC/Viton pulsation dampeners Two pressure relief valves Pressure gauge with isolator Back pressure valve Discharge Side High Pressure Side Plumbing and components rated at 150 PSI regardless of pump pressure.	2		
3.4	7745682	CP2 TWO PUMP 120VAC SCADA PANEL Dual Pump H/O/A Scada Interface Panel Includes: NEMA 4X FRP Enclosure Main 20A circuit breaker (20A, 120VAC 1ph, 60hz power) Circuit breaker for each pump (15A) Two, H/O/A selector switches Two, Chromalox digital process controllers Two, Alarm pilot lights Misc terminals, relays as required Inputs: Two, Analog (4-20ma) speed command Two Digital (on/off) run command	2		



Outputs:
Two, Digital (on/off) run status
Two, Digital (on/off) alarm status
Two, Digital (on/off) in-remote status
Two, Analog (4-20ma) speed indication.

4	Section 4 - Manufacturer's Services				
4.1	777780	Documentation (Submittals and Operations Manuals)	1		
4.2	777780	Testing and Start-up including Travel and living expenses	2		
4.3	777780	Training - Plant Personnel	1		
4.4	777780	Freight to jobsite	1		

GRAND TOTAL FOR ABOVE...\$ 80,469.28

Terms:

Net 30 days.

Quote is valid 90 days.

State and Local taxes and fees not included.

F.O.B.: Pittsburgh, PA

Freight: Included to jobsite.

Delivery: Submittals: 4 to 6 weeks ARO.

Custom Fabrication of Equipment: 16 – 20 Weeks ARA, Common Carrier.

If you have any questions, or if we can be of further service, please do not hesitate to contact us at (925) 240-2160.

Sincerely,

Richard M. Hopkins
General Manager
Hopkins Technical Products, Inc.

END OF CALL-FOR-BIDS