

SET NO: _____
OMWD AGREEMENT NO: _____



Municipal Water District

San Diego County, California

**CONTRACT DOCUMENTS
FOR THE CONSTRUCTION OF:**

**LUSARDI PHASE III
CATHODIC PROTECTION REPLACEMENT PROJECT**

May 16, 2023

Project #: D120038

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OLIVENHAIN MUNICIPAL WATER DISTRICT

SAN DIEGO COUNTY, CALIFORNIA

CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

**LUSARDI PHASE III
CATHODIC PROTECTION REPLACEMENT PROJECT**

OMWD PROJECT # D120038

May 2023



05/16/2023

Lindsey Stephenson
Engineering Manager

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BID FORM CHECKLIST

(This checklist is to be placed in the Bidder's Contract Documents in front of the Table of Contents)

Bid Form Page	Requirement	Initial
1 of 4	BID NOTICE-Fill in date of the non- mandatory Pre-Bid Conference attended: _____	
1 of 17	BID FORM- Fill out the form and acknowledge <u>all</u> addenda in the spaces provided at the end of the first paragraph	
2 of 17	BIDDING INSTRUCTIONS- Examination of the site and review of the Contract Documents has been completed. Bid Schedule and all Bid forms are to be submitted with this Bid Form Checklist	
5-8 of 17	BID SCHEDULES- Fill out all items in the Bid Schedules, including dollar amounts in words and in numbers for each item	
9 of 17	DESIGNATION OF SUBCONTRACTORS- Fill in all information required on the form	
10 of 17	LISTING OF MANUFACTURERS- Fill in all information required on the form	
11 of 17	Fill in the type of Bid Bond enclosed in the first paragraph, and list all principals of the company in the third paragraph	
12 of 17	Fill in Bidder's license classification, license number, and all other information required in the fourth paragraph, including signature and date	
13 of 17	CERTIFICATE OF DRUG-FREE WORKPLACE- Fill in Bidder's name at the top and Certification section at the bottom of the page, including signature and date	
14 of 17	CERTIFICATE OF NONDISCRIMINATION- Fill in all information required on the form, including signature and date	
15 of 17	NONCOLLUSION AFFIDAVIT- Fill in all information required on the form including signature and date and provide notarization	
16 of 17	BIDDER'S EXPERIENCE- Fill in all information required on the form and provide signature and date at the bottom	
17 of 17	INSURANCE ACKNOWLEDGEMENT- Fill in all information required on the form and provide signature and date where indicated	
1 of 2	BID BOND- Fill in all required information including dollar amount	
2 of 2	BID BOND- Fill in all required information, provide signatures of the bidder and surety where indicated, provide notarization for principal of bidder and surety, and attach a certified Power of Attorney for surety	
00810 2 of 12	1.04 MARKING AND ADDRESSING BID ENVELOPE- Contract Documents are sealed in an envelope marked and addressed as required in this section	

Dated _____ Signature of Bidder _____

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PART I BIDDING AND CONTRACT REQUIREMENTS

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INSURANCE ENDORSEMENT (WORKERS' COMPENSATION) -----	1 to 2 Blue
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APPENDIX A: Project Vicinity Map, Site Map, and Pictures

APPENDIX B: Olivenhain Municipal Water District Standard Drawing G-1, G-3, G-4, G-9, G-10, G11, G-13, and Shunt Diagram.

REFERENCE STANDARDS

Olivenhain Municipal Water District, Standard Specifications and Drawings for the Construction of Water, Recycled Water, and Sewer Facilities, Latest Edition.

Standard Specifications for Public Works Construction, "Latest Edition.

San Diego Regional Standard Drawings, Latest Edition.

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PART I

BIDDING AND CONTRACT REQUIREMENTS

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NOTICE INVITING SEALED BIDS
FOR THE CONSTRUCTION OF
LUSARDI PHASE III CATHODIC PROTECTION REPLACEMENT PROJECT
FOR THE
OLIVENHAIN MUNICIPAL WATER DISTRICT

NOTICE IS HEREBY GIVEN that the Board of Directors of said District invites and will receive sealed bids up to the hour of **2:00 p.m. on the 22nd of June 2023** for the furnishing to said District of all transportation, labor, materials, tools, equipment, services, permits, utilities, and other items necessary to construct said work. At said time, said bids will be publicly opened and read aloud at the office of the Olivenhain Municipal Water District, 1966 Olivenhain Road, Encinitas, CA 92024, (760) 753-6466.

Bids shall conform to and be responsive to the Contract Documents for the work. Copies of the Contract Documents will be open to public inspection during business hours in the office of the District.

The District will conduct a non-mandatory pre-bid meeting at the Olivenhain Municipal Water District, 1966 Olivenhain Road, Encinitas, CA 92024, at **10:00 a.m. on May 25th, 2023**

All questions relative to this project prior to the opening of bids shall be directed to the District (see enclosed Pre-Bid Question Form). It shall be understood that no specification interpretations will be made by telephone nor will any "or equal" products be considered for approval prior to award of the contract. Bidders are encouraged to submit their pre-bid questions as early as possible, in writing by email, so they can be answered in writing through an addendum if necessary.. Pre-bid questions will be received in writing up to **2:00 p.m. June 8th, 2023**, after which they will not be answered.

Contract Documents consisting of plans, specifications and bidding documents can be downloaded from the "Bids and Planning" link under "About Us" on the home page of the District's website at www.olivenhain.com. Contract documents are not available at the District. It will be the Bidder's responsibility to download and acknowledge receipt of all addenda. If you wish to be placed on the plan holders list, please send your company name, contact person, contact phone number and email address to prebid@olivenhain.com . The plan holders list will be posted on the District's website.

Each bid shall be submitted on the bid form furnished as part of the Contract Documents and must state the Contractor's applicable license classification, license number, license expiration date, name of license holder, and relationship to Bidder. The license classification desired for this project is Class A General Engineering. Each bid must be accompanied by cash, a cashier's check, a certified check, or a bidder's bond executed by an admitted surety insurer. This bid guarantee shall be in an amount of not less than 10 percent of the amount of the bid and made payable to the order of or for the benefit of the district. Each bid shall be sealed and delivered to District personnel at 1966 Olivenhain Road, Encinitas, CA 92024 on or before the day and hour set for the opening of bids. Bids not marked as being received by District personnel on or before the day and hour of bid opening will be rejected. It is the responsibility of the Bidder to ensure that the bid is received by District personnel on or

before the day and hour of bid opening. Said cash, check, or bond shall be given as guarantee that the Bidder will enter into a contract with the District and furnish the required payment and performance bonds and insurance certificates and endorsements if awarded the work, and will be declared forfeited if the Bidder refuses to timely enter into said contract or furnish the required bonds or insurance certificates and endorsements if his bid is accepted.

Bidders shall have a minimum of five similar projects successfully completed during the last five (5) years performing the type of work required by this contract. Where the Bidder is a corporation or partnership, the entity must demonstrate at least five (5) years of successful experience with the work required by the contract. Bidders failing to demonstrate this experience may be rejected as nonresponsive at the option of the District.

Under the provisions of the California Public Works Apprenticeship Standards, Sections 1777.5, 1777.6, and 1777.7 of the Labor Code, a copy of the "Extract of Public Works Contract Award" has been included. This document will be filed with the California Department of Industrial Relations at the time of the award of the Contract.

The Board of Directors has obtained from the Director of the California Department of Industrial Relations a determination of the general prevailing rate of per diem, wages, and the general prevailing rate for legal holiday and overtime work in the locality in which said work is to be performed for each craft, classification, or type of worker needed. Not less than the determined rates shall be paid to all workers employed in the performance of the contract. Such rates of wages are on the file with the Department of Industrial Relations and in the office of the District and are available to any interested party upon request.

Pursuant to Public Contract Code Section 22300, the Contractor may substitute equivalent securities for retention amounts which this Contract requires. However, the District reserves the right to solely determine the adequacy of the securities being proposed by the Contractor and the value of those securities. The District shall also be entitled to charge an administrative fee, as determined by the District in its sole discretion, for substituting equivalent securities for retention amounts.

The Contractor agrees that the District's decision with respect to the administration of the provisions of Section 22300 shall be final and binding and not subject to subsequent litigation or arbitration of any kind as to acceptance of any securities being proposed, the value of these securities, the costs of administration and the determination of whether or not the administration should be accomplished by an independent agency or by the District. The District shall be entitled, at any time, to request the deposit of additional securities of a value designated by the District, in the District's sole discretion, to satisfy this requirement. If the District does not receive satisfactory securities within 12 calendar days of the date of the written request, the District shall be entitled to withhold amounts due Contractor until securities of satisfactory value to the District have been received.

Pursuant to Section 995.710 of the Code of Civil Procedures, the Contractor may substitute any of the instruments specified in Code of Civil Procedure Section 995.710 for the performance and payment bonds required by the Contract Documents. All such substitutions shall be subject to review and approval by the District. Contractor agrees to pay all attorney's fees and all other fees, costs, and expenses incurred by the District in reviewing substitutes proposed by the Contractor and in preparing and implementing any agreements determined appropriate by the District to adequately protect District.

All bidders shall agree to obtain and maintain in full effect all required insurance with limits not less than the amounts indicated. Bidders who fail to comply with the insurance requirements of this contract may have their bids rejected as nonresponsive at the election of the District.

Pursuant to California Labor Code Section 6705, the cost of sheeting, shoring, and bracing of trenches, or equivalent method, where part of the job, shall constitute a separate bid item under these contract documents.

The Board of Directors of the District reserves the right to select the schedule(s) under which the bids are to be compared and contract(s) awarded, to reject any and all bids, and to waive any and all irregularities or defects in any bid.

OLIVENHAIN MUNICIPAL WATER DISTRICT

Dated: 05/16/2023



LINDSEY STEPHENSON
ENGINEERING MANAGER

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Prior to the opening of bids, all questions relative to this project **shall be directed to Olivenhain Municipal Water District, Attn: Pre-bid**. Bidders are encouraged to submit their pre-bid questions as early as possible, in writing to prebid@olivenhain.com , so they can be answered in writing through addendum, if necessary. **Pre-bid questions will be received up to 2:00 p.m., June 8th, 2023 after which no questions will be taken or answered.**

This image shows a single page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, leaving small margins at the top and bottom. There are no vertical margin lines, text, or other markings on the page.

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BID FORM
PROPOSAL TO
OLIVENHAIN MUNICIPAL WATER DISTRICT
SAN DIEGO COUNTY, CALIFORNIA
FOR THE CONSTRUCTION OF
LUSARDI PHASE III CATHODIC PROTECTION REPLACEMENT PROJECT

Name of Bidder: _____

Business Address: _____

_____ Phone No.: _____

TO THE GOVERNING BODY OF THE OLIVENHAIN MUNICIPAL WATER DISTRICT

Pursuant to and in compliance with your Notice Inviting Sealed Bids and the other documents relating thereto, the undersigned Bidder, being fully familiar with the terms of the Contract Documents, local conditions affecting the performance of the Contract, the character, quality, quantities, and scope of the work, and the cost of the work at the place where the work is to be done, hereby proposes and agrees to perform within the time stipulated in the Contract, including all of its component parts and everything required to be performed, and to furnish any and all of the labor, material, tools, equipment, transportation, services, permits, utilities, and all other items necessary to perform the Contract and complete in a workmanlike manner, all of the work required in connection with the construction of said work all in strict conformity with the Plans and Specifications and other Contract Documents, including Addenda Nos. __, __ and __ for the prices hereinafter set forth.

The undersigned as Bidder, declares that the only persons or parties interested in this bid as principals are those named herein; that this bid is made without collusion with any person, firm, or corporation; and he proposes and agrees, if the bid is accepted, that he will execute a Contract with the Owner in the form set forth in the Contract Documents.

BIDDING INSTRUCTIONS
FOR THE CONSTRUCTION OF
LUSARDI PHASE III CATHODIC PROTECTION REPLACEMENT PROJECT

Prior to the opening of bids, all questions relative to this project shall be directed to the Owner. Bidders are encouraged to submit their pre-bid questions as early as possible by email, so they can be answered in writing through addendum, if necessary.. Pre-bid questions will be received in writing up to **2:00 p.m., June 8, 2023**, after which they will not be answered.

Bidders shall have a minimum of five (5) similar projects successfully completed by the Bidder during the last five (5) years performing the type and magnitude of work required by this Contract. Bidders failing to demonstrate this experience may be rejected as nonresponsive at the option of the Owner.

Bidders agree to obtain and maintain in full effect all required insurance with limits not less than the amounts indicated. Insurers must be authorized to do business and have an agent for service of process in California, have an "A" policyholder's rating and a financial rating of at least Class VI in accordance with the most current rating by A.M. Best Company. Bidders who fail to comply with the insurance requirements of this Contract may have their bids rejected as nonresponsive at the election of the Owner.

The Bidder's attention is directed to Article 3-1 "Award of Contract or Rejection of Bids" in the General Provisions concerning the above conditions.

Bidders must satisfy themselves as to the character of the work to be performed by examination of the site and review of the Contract Documents. After bids have been submitted, the Bidder expressly waives the right to assert that there was a misunderstanding concerning the nature of the work to be done. Any bid protests must be submitted within three (3) calendar days of the bid.

The Contract Documents contain the provisions required for the construction of the Project. Information obtained from an officer, agent, or employee of the Owner or any other personnel shall not affect the risks or obligations assumed by the Contractor, or relieve him from fulfilling any of the conditions of the Contract.

Bids shall be submitted on the Bid Form and Bid Bond included within these Contract Documents. Bidders shall designate the subcontractors and list the manufacturers of materials to be used in the Project on the Designation of Subcontractors form included with these Contract Documents. All subcontractors listed to perform any of the work must be licensed in the State of California. No single subcontractor may perform more than 25% of the work listed in the Bid Schedule unless specifically approved in advance by the District prior to the submission of bids. The Owner reserves the right to find a bid non-responsive in its sole discretion if a Bidder lists any unlicensed subcontractors to perform any of the work. Submit with the bid the completed Certificate of Drug-Free Workplace, Certificate of Nondiscrimination, Noncollusion Affidavit, Designation of Subcontractors, Bidder's Experience, and Insurance Acknowledgment included in the Bid Form. Completely fill out the one page Bid Form Checklist included in front of the Table of Contents and include it with the bid. The Owner reserves the right to find a bid non-responsive in its sole discretion if a Bidder fails to complete or include any of the aforementioned certificates or acknowledgements.

The pay items listed in each Bid Schedule are described in Specification Section 01150 – Measurement and Payment.

There are multiple Bid Schedules. In order for the Owner to consider a Bidder's bid and for the bid to be considered responsive, all bid schedules must be completed. If any bid schedule is not filled in, the bid will be determined to be non-responsive and will be rejected. The Owner reserves the right to delete

certain Bid Schedules, to select the Bid Schedules under which the bids are to be compared, to reject any and all bids, to waive any irregularity in the bids received and to award the Contract on the basis of the responsive bids.

Basis for the award shall be based on the total Base Bid price for Schedule A and Schedule B. The District reserves the right to award any or all Bid Schedules, regardless of order or priority.

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BASE BID SCHEDULE A**LUSARDI PHASE III CP REPLACEMENT PROJECT**

Item	Item Description	Qty.	Unit	Amount
A1.	Mobilization, Demobilization, Bonds, Permits, Insurance, & Cleanup for all work required under this Project for Work Sites 1 through 12. ¹	1	LS	\$ _____
A2.	Work Site #1: See Section 01150 for detailed description of work.	1	LS	\$ _____
A3.	Work Site #2: See Section 01150 for detailed description of work.	1	LS	\$ _____
A4.	Work Site #3: See Section 01150 for detailed description of work.	1	LS	\$ _____
A5.	Work Site #4: See Section 01150 for detailed description of work.	1	LS	\$ _____
A6.	Work Site #5: See Section 01150 for detailed description of work.	1	LS	\$ _____
A7.	Work Site #6: See Section 01150 for detailed description of work.	1	LS	\$ _____
A8.	Work Site #7: See Section 01150 for detailed description of work.	1	LS	\$ _____
A9.	Work Site #8: See Section 01150 for detailed description of work.	1	LS	\$ _____
A10.	Work Site #9: See Section 01150 for detailed description of work.	1	LS	\$ _____
A11.	Work Site #10: See Section 01150 for detailed description of work.	1	LS	\$ _____
A12.	Work Site #11: See Section 01150 for detailed description of work.	1	LS	\$ _____

BASE BID SCHEDULE A

LUSARDI PHASE III CP REPLACEMENT PROJECT

A13. **Work Site #12:** See Section 01150 for detailed description of work. .

1 LS \$ _____

TOTAL AMOUNT OF BASE BID SCHEDULE A

\$ _____

TOTAL AMOUNT OF BASE BID SCHEDULE A (IN WORDS)

Amounts shall be shown in both words and figures, where indicated. In case of discrepancy, the amount shown in words will govern.

The above prices shall include all labor, materials, removal, overhead, profit, insurance, and incidentals required to complete the work.

¹Mobilization for Base Bid Schedule A is limited to 10% of the total bid price for Base Bid Schedule A.

Note: By submission of this Bid, the Contractor acknowledges the two year guarantee as outlined in Section 5-14 of the General Provisions and has included said expenses as a part of this Bid.

BASE BID SCHEDULE B

LUSARDI PHASE III CP REPLACEMENT PROJECT

B1.	Mobilization, Demobilization, Bonds, Permits, Insurance, & Cleanup for all work required under this Project for Work Sites 13 through 19. ²	1	LS	\$ _____
B2.	Work Site #13: See Section 01150 for detailed description of work.	1	LS	\$ _____
B2.	Work Site #14: See Section 01150 for detailed description of work.	1	LS	\$ _____
B3.	Work Site #15: See Section 01150 for detailed description of work.	1	LS	\$ _____
B4.	Work Site #16: See Section 01150 for detailed description of work.	1	LS	\$ _____
B5.	Work Site #17: See Section 01150 for detailed description of work.	1	LS	\$ _____
B6.	Work Site #18: See Section 01150 for detailed description of work.	1	LS	\$ _____
B7.	Work Site #19: See Section 01150 for detailed description of work.	1	LS	\$ _____

TOTAL AMOUNT OF BASE BID SCHEDULE B

\$ _____

TOTAL AMOUNT OF BASE BID SCHEDULE B (IN WORDS)

Amounts shall be shown in both words and figures, where indicated. In case of discrepancy, the amount shown in words will govern.

The above prices shall include all labor, materials, removal, overhead, profit, insurance, and incidentals required to complete the work.

² Mobilization for Base Bid Schedule B is limited to 10% of the total bid price for Base Bid Schedule B.

Note: By submission of this Bid, the Contractor acknowledges the two year guarantee as outlined in Section 5-14 of the General Provisions and has included said expenses as a part of this Bid.

BASE BID SCHEDULE A AND BASE BID SCHEDULE B
LUSARDI PHASE III CP REPLACEMENT PROJECT

TOTAL AMOUNT OF BASE BID SCHEDULE A AND BASE BID SCHEDULE B \$ _____

TOTAL AMOUNT OF BASE BID SCHEDULE A AND BASE BID SCHEDULE B (IN WORDS)

Basis for the award shall be based on the total Base Bid price for Schedule A and Schedule B. The District reserves the right to award any or all Bid Schedules, regardless of order or priority.

Amounts shall be shown in both words and figures, where indicated. In case of discrepancy, the amount shown in words will govern.

The above prices shall include all labor, materials, removal, overhead, profit, insurance, and incidentals required to complete the work.

Note: By submission of this Bid, the Contractor acknowledges the two year guarantee as outlined in Section 5-14 of the General Provisions and has included said expenses as a part of this Bid.

DESIGNATION OF SUBCONTRACTORS

In compliance with the provisions of Section 4100-4114 of the Public Contract Code of the State of California, and any amendments thereof, each Bidder shall set forth below, the name, license number, and location of the mill, shop or office of each subcontractor who will perform work or labor, or render service to the Contractor in an amount in excess of one-half (1/2) of one (1) percent (0.5%) of the total bid, and the portion of the work which will be done by each subcontractor. All subcontractors listed must be licensed to perform the subcontract work in the State of California. No single subcontractor may perform work in excess of 25% of the total work listed in the Bid Schedule unless specifically approved by the District in advance of submission of the Bid. Bidders who list any unlicensed subcontractors on this form may have their bid rejected as non-responsive in the sole discretion of Owner.

If the Bidder fails to specify a subcontractor for any portion of the work in excess of one-half (1/2) of one (1) percent (0.5%) of the total bid to be performed under the Contract, he shall be deemed to have agreed to perform such portion himself, and he shall not be permitted to subcontract that portion of the work except under conditions permitted by law.

Subletting or subcontracting any portion of the work as to which no subcontractor was designated in the original bid shall only be permitted in case of public emergency or necessity, or otherwise permitted by law, and then only after a finding is reduced to writing as a public record of the Owner.

Trade	% of Work To Be Done	Name of Subcontractor	License Number	Address

LISTING OF MANUFACTURERS

The Contractor shall submit this sheet with his bid, completed, to list the manufacturers of materials he intends to use. It shall be understood that where the Contractor elects to not use the material manufacturers called for in the Specifications, he will substitute only items of equal quality, durability, functional character, and efficiency as determined and approved by the Owner. The Contractor should ascertain the acceptability of substitutes prior to bidding. Only one manufacturer shall be listed for each item.

Item or Material	Manufacturer

Substitutions shall be allowed only if requested in accordance with Article 5-10 of the General Provisions within 35 calendar days of the date the Contract is awarded. Should a substitution be allowed, there will be no increase in the amount of the bid originally submitted.

ACCOMPANYING THIS BID IS

(insert the words "cash", "a cashier's check", "a certified check", or "a Bidder's bond" as the case may be) in an amount equal to at least 10 percent of the total amount of the Bid, payable to the

OLIVENHAIN MUNICIPAL WATER DISTRICT

The undersigned deposits the above-named security as a bid guarantee and agrees that it shall be forfeited to the Owner as liquidated damages in case this bid is accepted by the Owner and the undersigned fails to execute a contract with the Owner as specified in the Contract Documents or fails to furnish the required payment and performance bonds, and insurance certificates and endorsements. Should the Owner be required to engage the services of an attorney in connection with the enforcement of this bid, Bidder promises to pay Owner's reasonable attorneys' fees, incurred with or without suit.

The names of all persons interested in the foregoing bids as principals are as follows: (NOTICE - If Bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager thereof; if a general partnership, state true name of firm, also names of all individual partners composing firm; if a limited partnership, the names of all general partners and limited partners; if Bidder or other interested person is an individual, state first and last names in full; if the Bidder is a joint venture, state the complete name of each venturer).

The Owner has determined the license classification necessary to bid and perform the subject contract. In no case shall this Contract be awarded to a specialty contractor whose classification constitutes less than a majority of the project. When a specialty contractor is authorized to bid a portion of the work of this contract, all work to be performed outside of the contractor's license specialty, except work specifically authorized by the Owner, shall be performed by a licensed subcontractor in compliance with the Subletting and Subcontracting Fair Practices Act commencing with Section 4100 et seq., of the Public Contract Code. See Business and Professions Code Section 7059.

The Contractor's license classification(s) required for this project are as follows:

CLASS A – GENERAL ENGINEERING LICENSE

It is the Owner's intent that "plans," as used in Public Contract Code Section 3300, is defined as the construction Contract Documents, which include both the Plans and the Specifications.

Bidder warrants and represents that it has at least five (5) years of successful experience performing the type of work required by this Contract.

Bidder warrants and represents, under penalty of perjury, that license(s) required by California State Contractor's License Law for the performance of the subject project are in full effect and proper order. Bidders must state, under penalty of perjury, the Contractor's applicable license classification, license number, license expiration date, name of license holder, and relationship to Bidder. Any bid not containing this information may be considered nonresponsive and may be rejected by the Owner.

Bidders relying upon licenses of Responsible Managing Employees (RME) or Responsible Managing Officers (RMO) agree to provide the Owner with all information it determines necessary to verify that the Bidder complies with California State Contractor's License Law.

DIR Registration Number: _____

License Classification: _____

License Number: _____

Expiration Date: _____

Name of License Holder: _____

Relationship to Bidder: _____

Name of Bidder: _____

Signatures: _____

Dated: _____, 20____

NOTE: If Bidder is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation and the corporate seal; if Bidder is a partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; if the Bidder is an individual, his signature shall be placed above; if the Bidder is a joint venture, the name of the joint venture shall be set forth above with the signature of an authorized representative of each venturer.

CERTIFICATE OF DRUG-FREE WORKPLACE

BIDDER: _____

The Bidder named above hereby certifies compliance with Government Code Section 8355 in matters relating to providing a drug-free workplace. The above named Bidder will:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations, as required by Government Code Section 8355(a).
2. Establish a Drug-Free Awareness Program as required by Government Code Section 8355(b), to inform employees about all of the following:
 - (a) The dangers of drug abuse in the workplace,
 - (b) The person's or organization's policy of maintaining a drug-free workplace,
 - (c) Any available counseling, rehabilitation and employee assistance programs, and
 - (d) Penalties that may be imposed upon employees for drug abuse violations.
3. Provide as required by Government Code Section 8355(c), that every employee who works on the proposed contract or loan:
 - (a) Will receive a copy of the company's drug-free policy statement, and
 - (b) Will agree to abide by the terms of the company's statement as a condition of employment on the contract or loan.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized legally to bind the Bidder to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

OFFICIAL'S NAME: _____

DATE EXECUTED: _____ EXECUTED IN COUNTY OF: _____

OFFICIAL'S SIGNATURE: _____

TITLE: _____

CERTIFICATE OF NONDISCRIMINATION

1. During the performance of this contract, Bidder and its subcontractors shall not unlawfully discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, medical condition, marital status, age (over 40) or sex. Bidders and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free of such discrimination. Bidder and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code Section 12900 et seq.) and the applicable regulations promulgated thereunder (California Administrative Code, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12900, set forth in Chapter 5 of Division 4 of Title 2 or the California Administrative Code are incorporated into this contract by reference and made a part hereof as if set forth in full. Bidder and its subcontractor shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.
2. This Bidder shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

THE UNDERSIGNED CERTIFIES THAT THE BIDDER WILL COMPLY WITH THE ABOVE REQUIREMENTS.

BIDDER NAME: _____

CERTIFIED BY:

NAME: _____ TITLE: _____

SIGNATURE: _____ DATE: _____

NONCOLLUSION AFFIDAVIT

State of _____)
) ss.
County of _____)

I, _____, being duly sworn, deposes and says that he 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 the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or 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 of Bidder: _____

Subscribed and sworn to before me on this _____ day of _____, 20__.

BIDDER'S EXPERIENCE

Name of Bidder: _____

License Number: _____

List a minimum of five (5) similar projects successfully completed by the Bidder during the last five (5) years. Projects not similar in scope, fee, and complexity will not be considered as representative of this project.

Project Name and Location	Contract Value	Project Owner's Name, Address & Telephone No.	Date Completed
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

I declare, under penalty of perjury, that the foregoing is true and correct.

Dated: _____, 20__

(Signature of Bidder)

INSURANCE ACKNOWLEDGMENT

On behalf of the Bidder making this bid, the undersigned warrants and represents that the Bidder has carefully read and understood all of the insurance requirements of the Contract Documents and has included the full cost of providing insurance meeting all requirements of the Contract Documents in the bid.

Upon request by Owner prior to the time of Award, the Bidder agrees to promptly provide Owner with letters from insurance companies meeting the requirements of the Contract Documents verifying that they are prepared to issue insurance to Bidder meeting all requirements of the Contract Documents. The failure of Bidder to provide Owner with this proof of insurance prior to the time of Award shall entitle Owner to reject the Bidder's bid as nonresponsive and to Award the bid to the next lowest Bidder at the sole discretion of Owner.

The failure of Bidder to provide Owner with insurance meeting all requirements of the Contract Documents within 15 calendar days after the Award, shall constitute a material breach of the Contract, entitling Owner to terminate the Contract and call the bid bond.

By dating and executing this Insurance Acknowledgment, Bidder hereby accepts all terms and conditions of this Insurance Acknowledgment and agrees to be bound by all of its terms.

Dated: _____, 20__

(Name of Bidder)

(Signature)

(Typed Name and Title)

BID BOND

We, _____ as Principal, and
_____ as Surety, jointly and severally, bind
ourselves, our heirs, representatives, successors and assigns, as set forth herein, to the

OLIVENHAIN MUNICIPAL WATER DISTRICT

(herein called Owner) for payment of the penal sum of _____ Dollars
(\$ _____), lawful money of the United States. Principal has submitted the accompanying
bid for the construction of

LUSARDI PHASE III CATHODIC PROTECTION REPLACEMENT PROJECT

If the Principal is awarded the Contract and enters into a written contract, in the form prescribed by the Owner, at the price designated by his bid, and files two bonds with the Owner, one to guarantee payment for labor and materials and the other to guarantee faithful performance, in the time and manner specified by the Owner, and carries all insurance in type and amount which conforms to the Contract Documents and furnishes required certificates and endorsements thereof, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Forfeiture of this bond, or any deposit made in lieu thereof, shall not preclude the Owner from seeking all other remedies provided by law to cover losses sustained as a result of the Principal's failure to do any of the foregoing.

Principal and Surety agree that if the Owner is required to engage the services of an attorney in connection with the enforcement of this bond, each shall pay Owner's reasonable attorney's fees incurred with or without suit.

Executed on _____, 20__

PRINCIPAL

By: _____

(Seal if Corporation) Title: _____

(Attach Acknowledgment of Authorized Representative of Principal)

Any claims under this bond may be addressed to:

_____ (name and address of Surety)

_____ (name and address of Surety's
agent for service of process in
California, if different from above)

_____ (telephone number of Surety's
agent in California)

(Attach Acknowledgment) _____
SURETY

By: _____
(Attorney-in-Fact)

NOTICE:

No substitution or revision to this bond form will be accepted. Sureties must be authorized to do business in and have an agent for service of process in California. A certified copy of the Power of Attorney must be attached.

AGREEMENT

THIS AGREEMENT, made and entered into by and between the

OLIVENHAIN MUNICIPAL WATER DISTRICT

hereinafter referred to as "OWNER" and

_____ ;

a corporation under the laws of the state of _____ ;

a partnership composed of _____ ;

_____ ;

a joint venture composed of _____ ;

_____ ;

an individual doing business as _____ ;

hereinafter referred to as "CONTRACTOR."

OWNER and CONTRACTOR agree as follows:

- (1) **SCOPE OF WORK:** CONTRACTOR will furnish materials and will perform all of the work for the construction of the

LUSARDI PHASE III CATHODIC PROTECTION REPLACEMENT PROJECT

in accordance with the plans and specifications and other contract documents therefor.

- (2) **TIME OF COMPLETION:** The work shall be completed within the times set forth in the Special Provisions. Time is of the essence.
- (3) **CONTRACT SUM:** OWNER will pay CONTRACTOR in accordance with the prices shown in the Bid Form.
- (4) **PAYMENTS:** Monthly progress payments and the final payment will be made in accordance with the General Provisions as modified by the Special Provisions. The filing of the notice of completion by OWNER shall be preceded by acceptance of the work made only by an action of the Governing Body of OWNER in session.
- (5) **COMPLIANCE WITH PUBLIC CONTRACTS LAW:** OWNER is a public agency in the State of California and is subject to the provisions of law relating to public contracts. It is agreed that all provisions of law applicable to public contracts are a part of this Contract to the same extent as though set forth herein and will be complied with by CONTRACTOR.
- (6) **CONTRACT DOCUMENTS:** The complete contract includes all the contract documents set forth herein, to wit: Notice Inviting Sealed Bids, Bid Form, Bid Bond, Agreement, Performance

Bond, Payment Bond, Contractor's Certificate Regarding Workers' Compensation, Certificate of Insurance (Workers' Compensation and Employer's Liability), Insurance Endorsement (Workers' Compensation and Employer's Liability), Certificate of Insurance (Liability), Insurance Endorsement (Liability), General Provisions, Special Provisions, Standard Specifications, Standard Drawings, Referenced Permits, Drawings, Plans, and also addenda thereto and supplemental agreements.

This Agreement is executed by the OWNER pursuant to an action of its Governing Body in session on _____, 20____, authorizing the same, and CONTRACTOR has caused this Agreement to be duly executed.

Dated: _____, 20____ By: _____
(Authorized Representative of Owner)

Title: _____
GENERAL MANAGER

Dated: _____, 20____ _____
(Contractor)

By: _____
(Authorized Representative of Contractor)

Title: _____

(Seal if Corporation)

(Attach Acknowledgment for Authorized Representative of Contractor)

APPROVED:

(Attorney for OWNER)

Date

CERTIFICATE OF CONTRACTOR

I, _____, certify that I am a/the

[designate sole proprietor, partner in partnership, or specify corporate office, e.g., secretary] in the entity named as CONTRACTOR in the foregoing contract.

I hereby expressly certify that the name of the entity to which I am associated is _____

that this entity is in good standing and has complied with all applicable laws and regulations, and that I have been expressly authorized by the proper parties in this entity to execute this contract on behalf of the above-named entity.

(Signature)

ATTEST:

Name: _____

(Please Type)

Title: _____

(BLANK)

PERFORMANCE BOND

We, _____ as Principal,
and _____ as Surety, jointly and
severally, bind ourselves, our heirs, representatives, successors and assigns, as set forth herein, to
the

OLIVENHAIN MUNICIPAL WATER DISTRICT

(herein called Owner) for payment of the penal sum of _____
_____, Dollars (\$ _____),

lawful money of the United States. Owner has awarded Principal a contract for the construction of

LUSARDI PHASE III CATHODIC PROTECTION REPLACEMENT PROJECT

THE CONDITION OF THIS OBLIGATION IS SUCH that if the Principal shall in all things abide by and well and truly keep and perform the covenants, and agreements in the said contract, and any alteration thereof made as therein provided, on his part to be kept and performed at the time and in the manner therein specified, including all guarantees of workmanship and/or materials for a three (3) year period, and shall indemnify and save harmless the Owner, District, the Engineer/Architect, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents, as therein stipulated, this obligation shall become null and void, otherwise, it shall be and remain in full force and effect.

Surety agrees that no change, extension of time, alteration, or addition to the terms of the contract, or the work to be performed thereunder, or the plans and specifications shall in any wise affect its obligation on this bond, and it does hereby waive notice thereof.

Principal and Surety agree that if the Owner is required to engage the services of an attorney in connection with the enforcement of this bond, each shall pay Owner's reasonable attorney's fees incurred, with or without suit, in addition to the above sum.

Executed in three original counterparts on _____, 20__

PRINCIPAL

By: _____

(Seal if Corporation) Title: _____

(Attach Acknowledgment of Authorized Representative of Principal)

Any claims under this bond may be addressed to:

_____ (name and address of Surety)

_____ (name and address of Surety's agent for service of process in California, if different from above)

_____ (telephone number of Surety's agent in California)

(Attach Acknowledgment) _____
SURETY

By: _____
(Attorney-in-Fact)

APPROVED:

(Attorney for OWNER) Date

NOTICE:

No substitution or revision to this bond form will be accepted. Sureties must meet all requirements of Code of Civil Procedure Section 995.660(a). A certified copy of the Power of Attorney must be attached.

PAYMENT BOND

We, _____ as Principal,
and _____ as Surety, jointly and
severally, bind ourselves, our heirs, representatives, successors and assigns, as set forth herein, to
the

OLIVENHAIN MUNICIPAL WATER DISTRICT

(herein called Owner) for payment of the penal sum of _____
_____, Dollars (\$ _____),

lawful money of the United States. Owner has awarded Principal a contract for the construction of

LUSARDI PHASE III CATHODIC PROTECTION REPLACEMENT PROJECT

If Principal or any of his subcontractors fails to pay any of the persons named in Section 3181 of the California Civil Code, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract or during the three-year guarantee period, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the contractor and his subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, then Surety will pay the same in an amount not exceeding the sum specified above, and also will pay, in case suit is brought upon this bond, such reasonable attorney's fees as shall be fixed by the court.

This bond shall inure to the benefit of any of the persons named in Section 3181 of the California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Surety agrees that no change, extension of time, alteration, or addition to the terms of the contract, or the work to be performed thereunder, or the plans and specifications shall in any wise affect its obligation on this bond, and it does hereby waive notice thereof.

Principal and Surety agree that should Owner become a party to any action on this bond that, each will also pay Owner's reasonable attorney's fees incurred therein in addition to the sum above set forth.

Executed in three original counterparts on _____, 20____

PRINCIPAL

By: _____

(Seal if Corporation) Title: _____

(Attach Acknowledgment of Authorized Representative of Principal)

Any claims under this bond may be addressed to:

_____ (name and address of Surety)

_____ (name and address of Surety's agent for service of process in California, if different from above)

_____ (telephone number of Surety's agent in California)

(Attach Acknowledgment) _____
SURETY

By: _____
(Attorney-in-Fact)

APPROVED:

(Attorney for OWNER) Date

NOTICE:

No substitution or revision to this bond form will be accepted. Sureties must meet all requirements of Code of Civil Procedure Section 995.660(a). A certified copy of the Power of Attorney must be attached.

**CONTRACTOR'S CERTIFICATE
REGARDING WORKERS' COMPENSATION**

Name of Contract: **LUSARDI PHASE III CATHODIC PROTECTION REPLACEMENT PROJECT**

Name of Owner: **OLIVENHAIN MUNICIPAL WATER DISTRICT**

Labor Code Section 3700:

"Every employer except the State shall secure the payment of compensation in one or more of the following ways:

- (a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.
- (b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees.
- (c) For all political subdivisions of the state, including each member of a pooling arrangement under a joint exercise of powers agreement (but not the state itself), by securing from the Director of Industrial Relations a certificate of consent to self-insure against workers' compensation claims, which certificate may be given upon furnishing proof satisfactory to the director of ability to administer workers' compensation claims that may become due to its employees. On or before March 31, 1979, a political subdivision of the state which, on December 31, 1978, was uninsured for its liability to pay compensation, shall file a properly completed and executed application for a certificate of consent to self-insure against workers' compensation claims. The certificate shall be issued and be subject to the provisions of Section 3702."

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.

Dated: _____, 20____

(Contractor)

By: _____
(Authorized Representative of Contractor)

Title: _____

(Seal if Corporation)

(Labor Code Section 1861 provides that the above certificate must be signed and filed by the Contractor with the Owner prior to performing any work under this Contract.)

CERTIFICATE OF INSURANCE

Name of Contract: **LUSARDI PHASE III CATHODIC PROTECTION REPLACEMENT PROJECT**

Name of Owner: **OLIVENHAIN MUNICIPAL WATER DISTRICT**

Type of Insurance: **WORKERS' COMPENSATION INSURANCE AND
EMPLOYER'S LIABILITY INSURANCE**

THIS IS TO CERTIFY that the following policy has been issued by the below-stated company in conformance with the requirements of Articles 8-1 and 8-2 of the General Provisions and is in force at this time.

The Company will give at least 30 days' written notice by certified mail to the Owner and Engineer/Architect prior to any material change or cancellation of said policy.

<u>POLICY NUMBER</u>	<u>EXPIRATION DATE</u>	<u>TYPE OF INSURANCE</u>	<u>LIMITS OF LIABILITY</u>	
_____		A. WORKERS' COMPENSATION	Statutory Limits Under the Laws of the State of California	
_____		B. EMPLOYER'S LIABILITY	Each Employee	Each Accident
		Bodily Injury By Accident	\$	\$
		Bodily Injury By Disease	\$	\$

_____ Named Insured (Contractor)	_____ Insurance Company
_____ Street Number	_____ Street Number
_____ City and State	_____ City and State

By: _____
(Company Representative)
(SEE NOTICE ON PAGE 3 OF 3)

NOTARY PUBLIC

State of _____)
County of _____) ss.

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document

On _____ before me, _____
Date Here Insert Name and Title of the Officer

Personally appeared _____
Name(s) of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the withing instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

NOTARY PUBLIC

Insurance Company Agent for Service
of Process in California:

Name

Agency

Street Number

Street Number

City and State

City and State

Telephone Number

Telephone Number

This certificate or verification of insurance is not an insurance policy and does not amend, extend, or alter the coverage afforded by the policies listed herein. Notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate or verification of insurance may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions, and conditions of such policies.

NOTICE:

No substitution or revision to the above certificate form will be accepted. If the insurance called for is provided by more than one insurance company, a separate certificate in the exact above form shall be provided for each insurance company.

Insurers must be authorized to do business and have an agent for service of process in California, have an "A" policyholder's rating and a financial rating of at least Class VI in accordance with the most current rating by A.M. Best Company.

INSURANCE ENDORSEMENT

Name of Contract: **LUSARDI PHASE III CATHODIC PROTECTION REPLACEMENT PROJECT**

Name of Owner: **OLIVENHAIN MUNICIPAL WATER DISTRICT**

Type of Insurance: **WORKERS' COMPENSATION INSURANCE AND
EMPLOYER'S LIABILITY INSURANCE**

This endorsement forms a part of Policy No. _____.

ENDORSEMENT:

It is agreed that with respect to such insurance as is afforded by the policy, the Company waives any right of subrogation it may acquire against the Owner, the Engineer/Architect, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents by reason of any payment made on account of injury, including death resulting therefrom, sustained by any employee of the insured, arising out of the performance of the above-referenced contract.

This endorsement does not increase the Company's total limits of liability.

Named Insured (Contractor)

Insurance Company

Street Number

Street Number

City and State

City and State

By: _____
(Company Representative)

(SEE NOTICE ON PAGE 2 OF 2)

State of _____)
County of _____) ss.

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document

On _____ before me, _____
Date Here Insert Name and Title of the Officer

Personally appeared _____
Name(s) of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the withing instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

NOTARY PUBLIC

NOTICE:

No substitution or revision to the above endorsement form will be accepted. If the insurance called for is provided by more than one policy, a separate endorsement in the exact above form shall be provided for each policy.

Insurers must be authorized to do business and have an agent for service of process in California, have an "A" policyholder's rating and a financial rating of at least Class VI in accordance with the most current rating by A.M. Best Company.

CERTIFICATE OF INSURANCE

Name of Contract: **LUSARDI PHASE III CATHODIC PROTECTION REPLACEMENT PROJECT**

Name of Owner: **OLIVENHAIN MUNICIPAL WATER DISTRICT**

Type of Insurance: **LIABILITY INSURANCE**

THIS IS TO CERTIFY that the following policies have been issued by the below-stated company in conformance with the requirements of Articles 8-1 and 8-3 of the General Provisions and are in force at this time. The policy shall be an occurrence policy with a deductible not to exceed \$5,000.

<u>POLICY NUMBER</u> <u>EXPIRATION DATE</u>	<u>TYPE OF INSURANCE</u>	LIMITS OF LIABILITY In Thousands (000)	
		Occurrence	Aggregate
_____	A. GENERAL LIABILITY		
	Bodily Injury, Personal Injury, and Property Damage Combined	\$	\$
_____	B. EXCESS GENERAL LIABILITY	\$	\$
_____	C. AUTOMOBILE LIABILITY		
	Bodily Injury and Property Damage Combined	\$	\$
_____	D. EXCESS AUTOMOBILE LIABILITY	\$	\$

The following types of coverage are included in said policies (indicate by "X" in space):

A. GENERAL LIABILITY

Comprehensive Form-----YES___ NO___

Premises-Operations-----YES___ NO___

Explosion and Collapse Hazard----- YES___ NO___

Underground Hazard-----YES___ NO___

Products/Completed Operations Hazard -----YES___ NO___

Contractual Insurance -----YES___ NO___

Broad Form Property Damage Including Completed Operations-----YES___ NO___

Independent Contractors-----YES___ NO___

Personal Injury-----YES___ NO___

B. EXCESS GENERAL LIABILITY

Umbrella Form-----YES___ NO___

Other Than Umbrella Form-----YES___ NO___

If other than Umbrella Form, please explain below:

C. AUTOMOBILE LIABILITY

Comprehensive Form Including Loading and Unloading -----YES___ NO___

Owned -----YES___ NO___

Hired-----YES___ NO___

Non-Owned-----YES___ NO___

D. EXCESS AUTOMOBILE LIABILITY

Umbrella Form-----YES___ NO___

Other Than Umbrella Form-----YES___ NO___

If other than Umbrella Form, please explain below:

This certificate or verification of insurance is not an insurance policy and does not amend, extend, or alter the coverage afforded by the policies listed herein. However, the insurance provided shall meet the requirements of the Contract Documents and include coverage as specified in this certificate.

The Company will give at least 30 days' written notice by certified mail to the Owner and the Engineer/Architect prior to any material change or cancellation of said policies.

Named Insured (Contractor)

Insurance Company

Street Number

Street Number

City and State

City and State

By: _____
(Company Representative)

(SEE NOTICE ON PAGE 5 OF 5)

State of _____)
County of _____) ss.

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document

On _____ before me, _____
Date Here Insert Name and Title of the Officer

Personally appeared _____
Name(s) of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the withing instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

NOTARY PUBLIC

Insurance Company Agent for Service
of Process in California:

Name

Agency

Street Number

Street Number

City and State

City and State

Telephone Number

Telephone Number

NOTICE:

No substitution or revision to the above certificate form will be accepted. if the insurance called for is provided by more than one insurance company, a separate certificate in the exact above form shall be provided for each insurance company.

Insurers must be authorized to do business and have an agent for service of process in California, have an "A" policyholder's rating and a financial rating of at least Class VI in accordance with the most current rating by A.M. Best Company.

INSURANCE ENDORSEMENT

Name of Contract: **LUSARDI PHASE III CATHODIC PROTECTION REPLACEMENT PROJECT**

Name of Owner: **OLIVENHAIN MUNICIPAL WATER DISTRICT**

Type of Insurance: **LIABILITY INSURANCE**

This endorsement forms a part of Policy No. _____.

ENDORSEMENT:

The Owner, the Engineer/Architect, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents are included as additional insureds under said policies but only while acting in their capacity as such and only as respects operations of the named insured, his contractors, any subcontractor, any supplier, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable in the performance of the above-referenced contract. This insurance shall not apply if the loss or damage is ultimately determined to be the result of the sole and exclusive negligence (including any connected with the preparation or approval of maps, drawings, opinions, reports, surveys, designs, or specifications) of one or more of the aforesaid additional insureds. The insurance afforded to these additional insureds is primary insurance. If the additional insureds have other insurance which might be applicable to any loss, the amount of this insurance shall not be reduced or prorated by the existence of such other insurance.

The Contractual Liability Insurance afforded is sufficiently broad to insure all of the matters set forth in the article entitled "Indemnity" in the General Provisions of the above-referenced contract except those matters set forth in the third paragraph thereof.

This endorsement does not increase the Company's total limits of liability.

Named Insured (Contractor)

Insurance Company

Street Number

Street Number

City and State

City and State

By: _____
(Company Representative)

(SEE NOTICE ON PAGE 2 OF 2)

State of _____)
County of _____) ss.

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document

On _____ before me, _____
Date Here Insert Name and Title of the Officer

Personally appeared _____
Name(s) of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

NOTARY PUBLIC

NOTICE:

No substitution or revision to the above endorsement form will be accepted. If the insurance called for is provided by more than one policy, a separate endorsement in the exact form shall be provided for each policy.

Insurers must be authorized to do business and have an agent for service of process in California, have an "A" policyholder's rating and a financial rating of at least Class VI in accordance with the most current rating by A.M. Best Company.

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GENERAL PROVISIONS

SECTION 1 DEFINITIONS, TERMS, AND ABBREVIATIONS

1-1 DEFINITIONS

Whenever the following terms occur in the Contract Documents, the meaning shall be interpreted as follows:

ACCEPTANCE, FINAL ACCEPTANCE - The formal action by the Owner accepting the work as being complete.

ACCEPTED BID - The bid (proposal) accepted by the Owner.

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BIDDER - Any individual, partnership, corporation, joint venture, or other combination thereof submitting a proposal for the work contemplated, acting directly or through an authorized representative.

CALENDAR DAY - Means all days of the week including Saturdays, Sundays and Holidays with the first day counted being the first day following the date specified.

CONTRACT - The written agreement executed between the Owner and the Contractor covering the performance of the work.

CONTRACTOR - The individual, partnership, corporation, joint venture, or other combination thereof who has entered into the contract with the Owner for the performance of the work. The term "Contractor" means the Contractor or his authorized representative.

CONTRACT DOCUMENTS - The Contract Documents set forth in the Agreement; also any and all supplemental agreements amending or extending the work contemplated. Supplemental agreements are written agreements covering alterations, amendments, or extensions to the contract and include contract change orders.

DAYS - Unless otherwise specified, days shall mean calendar days.

ENGINEER/ARCHITECT – The term "Engineer/Architect" means the Engineer/Architect or his authorized representative.

OWNER - The public entity identified as such in the Agreement. The term "Owner" means the Owner or his authorized representative.

OWNER'S REPRESENTATIVE - The person or firm authorized by the Owner to represent it during the performance of the work by the Contractor. The term "Owner's Representative" means the Owner's Representative or his assistants.

PLANS, DRAWINGS - The Plans (drawings), or reproductions thereof, which show the location, character, dimensions, and details of the work to be done.

SPECIAL PROVISIONS - Additions, deletions, and changes to the General Provisions and Standard Specifications.

SPECIFICATIONS - The directions, provisions, and requirements contained in the General Provisions and Standard Specifications as supplemented by the Special Provisions.

STANDARD SPECIFICATIONS - The Contract Documents identified or referenced as such.

SUBCONTRACTOR - An individual, partnership, corporation, joint venture, or other combination thereof who has a contract with the Contractor to perform any of the work at the site. Subcontractor also means an individual, partnership, corporation, joint venture, or other combination thereof who has a contract with another subcontractor to perform any of the work at the site.

STANDARD DRAWINGS, STANDARD PLANS - That portion of the Plans identified or referenced as such.

UTILITY - Public or private fixed works for the transportation of fluids, gases, power, signals, or communications.

WORK - Any and all obligations, duties, and responsibilities necessary to complete the construction assigned to, or undertaken by, the Contractor pursuant to the Contract Documents including all materials, equipment, and supplies incorporated or to be incorporated in the construction. Also, the completed construction or parts thereof required to be provided under the Contract Documents.

1-2 TERMS

Wherever the terms "required," "permitted," "ordered," "designated," "directed," "prescribed," or terms of like import are used, it shall be understood that the requirements, permission, order, designation, direction, or prescription of the Owner's Representative is intended. Similarly, the terms "acceptable," "satisfactory," "or equal," or terms of like import shall mean acceptable to or satisfactory to the Owner's Representative, unless otherwise expressly stated. The word "provide" shall be understood to mean furnish and install.

1-3 ABBREVIATIONS

Wherever abbreviations are used, they shall have the meanings as set forth in the Special Provisions.

SECTION 2 PROPOSAL REQUIREMENTS AND CONDITIONS

2-1 CONTRACT DOCUMENTS

The Contract Documents are set forth in the Agreement form and the definition of "Contract Documents" is in Article 1-1 DEFINITIONS.

2-2 LICENSE AND BIDDER'S EXPERIENCE

No bid will be accepted from a bidder who is not licensed to conduct business in the state of California and licensed to perform the class of work defined by the Contract Documents. All bidders shall complete the Bidder's Experience form as part of their bid. Bidders failing to complete and submit the Bidder's Experience form with their bid may be treated as nonresponsive at the option of the Owner. Bidders unable to demonstrate five (5) years of successful prior experience performing the type and magnitude of work required by this contract may also be rejected as nonresponsive.

2-3 PROPOSALS/BIDS

Bids shall be made upon the Bid Form furnished by the Owner and a part of the Contract Documents. The Bid Form Checklist, Bid Form and Bid Bond must be submitted with the bid. All bids shall be properly executed and with all items filled in; the signatures of all persons signing shall be in longhand. Erasures, interlineations, or other corrections shall be authenticated by affixing in the margin immediately opposite the correction the initials of a person signing the bid. Written amounts shall govern in case of discrepancy between the amounts stated in writing and the amounts stated in figures. If the unit price and the total amount named by a bidder for any item are not in agreement, the unit price alone shall be considered as representing the bidder's intention, and the totals shall be corrected to conform thereto.

Bids shall not contain any recapitulation of the work to be done. Alternative proposals will not be considered, except as called for. No oral, telegraphic, or telephonic proposals or modifications will be considered.

Bids shall be accompanied by a "Bid Guarantee" in the form of a cashier's check, a certified check, or bidder's bond executed by an admitted surety insurer, in an amount not less than 10% of the amount of bid, and made payable to or for the benefit of the Owner. Said check, or bond shall be given as a guarantee that the bidder will enter into a contract and furnish the required bonds or substitutes and insurance certificates and endorsements if awarded the contract, and in case of refusal or failure to enter into said contract and furnish the required bonds or substitutes and insurance certificates and endorsements within 15 calendar days after notice of award by the Owner in writing, the cash or the check and the money represented by said check shall be forfeited to the Owner, or in the event that a bond is deposited, said security shall be forfeited. Forfeiture does not preclude the Owner from seeking all other remedies provided by law to recover losses sustained as a result of the Contractor's failure to enter into the contract or to furnish the required bonds or insurance certificates and endorsements.

Bids shall be sealed in an envelope marked and addressed as set forth in the Special Provisions. Bids shall be delivered to personnel of the Owner at the location designated in the Notice Inviting Sealed Proposals (Bids) on or before the day and hour set for the opening of bids. Bids not marked as being received by personnel of the Owner on or before the day and hour of bid opening will be rejected. It is the responsibility of the bidder to ensure that the bid is received by personnel of the Owner on or before the day and hour of bid opening.

2-4 WITHDRAWAL OF BID

A bidder may withdraw his bid by a signed written request any time prior to the day and hour for receiving bids designated in the Notice Inviting Sealed Proposals. Thereafter the Bid may be

withdrawn only as permitted in accordance with Public Contract Code Section 5100, et seq., regarding relief of Bidders.

The withdrawal of a bid does not prejudice the right of a bidder to file a new bid so long as the new bid is delivered as set forth in Article 2-3 PROPOSALS prior to the closing time specified for all bids.

2-5 BIDDERS INTERESTED IN MORE THAN ONE BID

No person, partnership, or corporation shall be allowed to make or file, or be interested in more than one bid for the work, unless alternative bids are called for. A person, partnership, or corporation submitting a subproposal to a bidder, or who has quoted prices on material to a bidder, is not thereby disqualified from submitting a subproposal or quoting prices to other bidders.

2-6 INTERPRETATION OF PLANS AND OTHER CONTRACT DOCUMENTS

If any person or entity contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the Plans, Specifications, or other Contract Documents, or finds discrepancies in, or omissions from the Plans and Specifications or other Contract Documents, he may submit to the Owner a written request for an interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery prior to the last date/time noticed for prebid questions as stipulated in the Notice Inviting Sealed Proposals (Bids). An interpretation or correction of the Contract Documents will be made only by Addendum duly issued by the Owner. Notice of the availability of such Addendum will be electronically delivered (email) to each person or entity that has received a set of such documents. The Owner and the Engineer/Architect will not be responsible for any other explanation or interpretation of the documents.

2-7 ADDENDA

Addenda issued before the time in which to submit bids expires shall be included in the bid and shall be made a part of the contract.

2-8 EXISTING CONDITIONS AND EXAMINATION OF CONTRACT DOCUMENTS

The bidder represents that he has carefully examined the Contract Documents and the site where the work is to be performed and that he has familiarized himself with all local conditions and federal, state and local laws, ordinances, rules, and regulations that may affect in any manner the performance of the work. The bidder further represents that he has studied all surveys and investigation reports about subsurface and latent physical conditions pertaining to the jobsite, that he has performed such additional surveys and investigations as he deems necessary to complete the work at his bid price, and that he has correlated the results of all such data with the requirements of the Contract Documents. The submittal of a bid shall be conclusive evidence that the bidder has investigated and is satisfied as to the conditions to be encountered, including locality, uncertainty of weather and all other contingencies, and as to the character, quality, quantities, and scope of the work.

The Plans and Specifications for the work show subsurface conditions or otherwise hidden conditions as they are supposed or believed by the Engineer/Architect to exist; but it is not intended or to be inferred that the conditions as shown thereon constitute a representation that such conditions are actually existent. Except as otherwise specifically provided in the Contract Documents, the Owner, the Engineer/Architect, and their consultants shall not be liable for any loss sustained by the

Contractor as a result of any variance of such conditions as shown on the Plans and the actual conditions revealed during the progress of the work or otherwise.

Where the Owner or the Engineer/Architect or their consultants have made investigations of subsurface conditions in areas where the work is to be performed, such investigations were made only for the purpose of study and design. The conditions indicated by such investigations apply only at the specific location of each boring or excavation at the time the borings or excavations were made. Where such investigations have been made, bidders or Contractors may inspect the records as to such investigations subject to and upon the conditions hereinafter set forth. The inspection of the records shall be made at the office of the Engineer/Architect.

The records of such investigations are not a part of the contract and are shown solely for the convenience of the bidder or Contractor. It is expressly understood and agreed that the Owner, the Engineer/Architect, and their consultants assume no responsibility whatsoever in respect to the sufficiency or accuracy of the investigations; the records thereof; or of the interpretations set forth therein or made by the Owner's consultants, the Engineer/Architect or his consultants in the use thereof by the Engineer/Architect, and there is no warranty or guarantee, either express or implied, that the conditions indicated by such investigations or records thereof are representative of those existing throughout such areas, or any part thereof, or that unlooked-for developments may not occur, or that materials other than, or in proportions, densities, or other characteristics different from, those indicated may not be encountered.

When a log of test borings showing a record of the data obtained by the investigation of subsurface conditions by the Owner, the Engineer/Architect, or their consultants is included with the Plans or other documents, it is expressly understood and agreed that said log of test borings does not constitute a part of the contract, represents only the opinion of the Owner or the Engineer/Architect or their consultants as to the character of the materials encountered by them in the test borings, is included in the Plans or other documents only for the convenience of bidders, and its use is subject to all of the conditions and limitations set forth in this article.

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

No information derived from such inspection of records of investigations or compilation thereof made by the Owner, the Engineer/Architect, or their consultants will in any way relieve the bidder or Contractor from any risk or from properly fulfilling the terms of the contract nor entitle the Contractor to any additional compensation. In the event Contractor encounters unknown subsurface conditions, Contractor may receive a change order for an equitable adjustment in the schedule and/or compensation.

SECTION 3 AWARD AND EXECUTION OF CONTRACT

3-1 AWARD OF CONTRACT OR REJECTION OF BIDS

The award of the contract, if it be awarded, will be to the lowest responsible responsive bidder complying with the instructions contained in the Contract Documents. The Owner, however, reserves the right to select the schedules under which the bids are to be compared; to delete certain bid items from the Bid Schedule, to reject any and all bids, and to waive any irregularity in bids received. If, in

the judgment of the Owner, a bid is unbalanced or if the bidder is not responsible, it shall be considered sufficient grounds for rejection of the entire bid.

The Owner shall have the period of time set forth in the Special Provisions after the opening of bids within which to accept or reject the bids. No bidder may withdraw his bid during said period. The Owner will return the proposal guarantees, except any guarantees which have been forfeited, and except bidders' bonds, to the respective bidders whose proposals they accompanied after the execution of the contract by the successful bidder or rejection of all bids or upon receipt of a written request therefor received after said period of time set forth in the Special Provisions. The proposal guarantee of the unsuccessful bidders will be returned by the Owner no later than 60 calendar days following the date of award of contract.

Before award of the contract, any bidder shall furnish upon request, proof of required insurance, a recent statement of his financial condition, and previous construction experience or such other evidence of his qualifications as may be requested by the Owner. If a bidder fails to furnish in a timely manner the information requested, it shall be considered sufficient grounds for rejection of such bidder's entire bid.

3-2 EXECUTION OF CONTRACT

The form of agreement, bonds, and other documents which the successful bidder, as Contractor, will be required to execute are included as a part of the Contract Documents.

The contract shall be signed by the successful bidder and returned to the Owner, together with the bonds or substitutes and insurance certificates and endorsements, within 15 calendar days or such additional time as may be allowed by the Owner from the date of the mailing of notice from the Owner to the bidder or from the date of personal delivery of notice from the Owner to the bidder that the agreement is ready for signature. The agreement, bonds or substitutes, insurance certificates and endorsements, and other documents to be executed by the Contractor shall be executed in original-triplicate, one each of which shall be filed with the Owner and one each with the Attorney for the Owner and the Contractor.

3-3 BONDS

The successful bidder, simultaneously with execution of the Contract Documents, shall either furnish a Payment Bond and Performance Bond each in an amount equal to 100% of the contract amount, or equivalent cash or securities in lieu of these bonds in accordance with Code of Civil Procedure Section 995.710. The failure of Contractor to make a written request to Owner to use alternative securities meeting the requirements of Code of Civil Procedure Section 995.710 at the time the Contract Documents are signed shall be deemed a waiver of the right of Contractor to subsequently substitute these alternative securities. Alternative securities proposed by the Contractor shall be subject to review and approval by Owner. Contractor agrees to provide Owner with a deposit in a sum determined adequate by the Owner to cover all attorney's fees and all other fees, costs, and expenses incurred by the Owner in reviewing Contractor's request to use alternative securities in lieu of the required bonds and to prepare all agreements determined necessary by Owner to adequately protect Owner's interest. Performance and Payment Bonds shall be furnished by surety companies meeting the requirements of Code of Civil Procedure Section 995.660(a) and shall be completed on the forms furnished as part of the Contract Documents. Surety companies, to be acceptable to Owner, must meet all requirements of Code of Civil Procedure Section 995.660(a).

If at any time a surety on any such bond fails to comply with Code of Civil Procedure Section 995.660(a), the Contractor shall, within 10 calendar days after notice from the Owner, substitute new bonds with surety companies meeting all requirements of Code of Civil Procedure Section 995.660(a). All premiums on these new bonds shall be paid solely by the Contractor. No further progress payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished new bonds to Owner meeting all requirements of Code of Civil Procedure Section 995.660(a).

The Performance Bond and the Payment Bond, or alternative securities meeting the requirements of Code of Civil Procedure Section 995.710 approved by the Owner, must remain in full effect throughout the period of the Work and for a period of two-year thereafter as required by Article 5-14 TWO-YEAR GUARANTEE.

3-4 INSURANCE REQUIREMENTS

The successful bidder will be required to furnish the Owner proof of full compliance with all insurance requirements as specified in SECTION 8 CONTRACTOR'S INSURANCE. The forms of Certificate of Insurance and Endorsement which the successful bidder, as Contractor, will be required to furnish are included as a part of the Contract Documents.

3-5 FAILURE TO EXECUTE CONTRACT

Failure by a bidder to whom the contract is awarded to execute the contract or to furnish the required bonds or insurance certificates and endorsements within the period of time required by Section 3-2 Execution of Contract shall be just cause for the annulment of the award and the forfeiture of the proposal guarantee.

A bidder who is awarded the contract and fails to execute the contract or furnish the required bonds or substitutes, or insurance certificates and endorsements shall be liable to the Owner for all damages resulting therefrom including reasonable attorneys' fees. The proposal guarantee forfeited shall not be a limitation thereon.

SECTION 4 SCOPE OF WORK

4-1 WORK TO BE DONE

The work to be done consists of furnishing all transportation, labor, materials, tools, equipment, services, permits, utilities and all other items which are necessary or appurtenant to construct and complete the entire project and construct the project designated in the Contract Documents, and to leave the grounds in a neat and presentable condition.

4-2 CHANGES IN THE WORK

The Owner may require changes in, additions to, or deductions from the work, including complete termination thereof. Adjustment, if any, in the amounts to be paid to the Contractor by reason of any such change, addition, or deduction shall be determined as set forth in SECTION 9 ESTIMATES AND PAYMENTS.

The Owner's Representative may order minor changes in the work not involving an increase or decrease in the contract amount, not involving a change in the time for completion, and not

inconsistent with the purposes for which the work is being constructed. **If the Contractor believes that any order for minor changes in the work for which the contract amount or time for completion should be changed, he shall not proceed with the changes in the work so ordered and shall within seven calendar days of the receipt of such order notify the Owner's Representative in writing of his estimate of the changes in the contract amount and time for completion he believes to be appropriate.**

No payment for changes in the work will be made and no changes in the time for completion by reason of changes in the work will be made, unless the changes are covered by a written change order approved by the Owner in advance of the Contractor's proceeding with the changed work.

4-3 OBSTRUCTIONS

The Contractor shall remove and dispose of all structures, debris, or other obstructions of any character necessary to accommodate the work. Where such obstructions consist of improvements not required by law to be removed by the owner thereof, all such improvements shall be removed, maintained, and permanently replaced by the Contractor at his expense except as otherwise specifically provided in the Contract Documents.

4-4 UTILITIES

The Engineer/Architect has endeavored to determine the existence of utilities at the site of the work from the records of the owners of known utilities in the vicinity of the work. The positions of these utilities as derived from such records are shown on the Plans. The service connections to these utilities are not shown on the Plans.

The Contractor shall make his own investigations, including exploratory excavations, to determine the locations and type of existing service laterals or appurtenances when their presence can be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the site of the work. If the Contractor discovers utility facilities not identified in the Plans or Specifications or in a position different from that shown in the Plans and Specifications, he shall immediately notify in writing the Owner's Representative and the owner of the utility facility.

The Owner shall have the responsibility for the timely removal, relocation, protection, and temporary maintenance of existing main or trunkline utility facilities which are not indicated in the Plans and Specifications with reasonable accuracy.

In case it should be necessary to remove, relocate, protect, or temporarily maintain a utility because of interference with the work, the work on such utility shall be performed and paid for as follows:

When it is necessary to remove, relocate, protect, or temporarily maintain an existing main or trunkline utility facility not indicated in the Plans and Specifications with reasonable accuracy, the Owner will compensate the Contractor for the costs of locating, for the costs of repairing damage not due to the failure of the Contractor to exercise reasonable care, for the costs of removing, relocating, protecting, or temporarily maintaining such utility facilities, and for the costs for equipment on the site necessarily idled during such work. These costs, the work to be done by the Contractor in locating, removing, relocating, protecting, or temporarily maintaining such utility facilities shall be covered by a written change order conforming to the provisions of Article 4-2 CHANGES IN THE WORK and Article 9-1 PAYMENT FOR CHANGES IN THE WORK. The Owner may make changes in the alignment and grade of

the work to obviate the necessity to remove, relocate, protect, or temporarily maintain such utility facilities or to reduce the costs of the work involved in removing, relocating, protecting, or temporarily maintaining such utility facilities. Changes in alignment and grade will be ordered in accordance with Article 4-2 CHANGES IN THE WORK.

When it is necessary to remove, relocate, protect, or temporarily maintain a utility (other than [1] existing main or trunkline utility facilities not indicated in the Plans and Specifications with reasonable accuracy, or [2] existing service laterals or appurtenances when their presence cannot be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the site of the work) the cost of which is not required to be borne by the owner thereof, the Contractor shall bear all expenses incidental to the work on the utility or damage thereto. The work on the utility shall be done in a manner satisfactory to the owner thereof; it being understood that the owner of the utility has the option of doing such work with his own forces, or permitting the work to be done by the Contractor. No representations are made that the obligations to remove, relocate, protect, or temporarily maintain any utility and to pay the cost thereof is or is not required to be borne by the owner of such utility, and it shall be the responsibility of the Contractor to investigate to find out whether or not said cost is required to be borne by the owner of the utility.

The right is reserved to governmental agencies and to owners of utilities to enter at any time upon any street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the work and for the purpose of maintaining and making repairs to their property.

4-5 PLANS AND SPECIFICATIONS FURNISHED BY THE OWNER

The Owner will furnish to the Contractor free of charge up to five (5) full size copies of Plans and Specifications reasonably necessary for the execution of the work. The Contractor shall keep one set of Plans and Specifications in good order with red line changes available to the Owner's Representative at the site of the work.

4-6 FINAL CLEANUP

Upon completion and before making application for acceptance of the work, the Contractor shall clean all rights-of-way, streets, borrow pits, and all other grounds occupied by him in connection with the work of all rubbish, excess materials, temporary structures, and equipment, and all parts of the work and grounds occupied by him shall be left in a neat and presentable condition.

SECTION 5 QUALITY OF THE WORK

5-1 AUTHORITY OF THE OWNER'S REPRESENTATIVE

The Owner's Representative shall decide any and all questions which may arise as to the interpretation of the Plans and Specifications and shall have authority to disapprove or reject materials and equipment furnished and work performed which, in his opinion, is not in accordance with the Contract Documents. The Owner's Representative shall also have the authority to require the Contractor or any subcontractor to replace any workman or supervisor who, in his opinion, is not performing the work in a safe manner, fails to follow the instructions of the Owner's Representative, fails to perform work in accordance with the Contract Documents, fails to properly supervise the work, or demonstrates lack of competence to perform the particular work assigned to the workman or supervisor. The failure of the Contractor or any subcontractor to replace a worker or supervisor

as directed by the Owner's Representative shall constitute a material breach of this agreement. Neither the Owner's Representative nor the Owner shall be liable to Contractor, any subcontractor, or any other person or entity for removing a workman or supervisor in accordance with the terms of this article.

5-2 SUPPLEMENTAL DRAWINGS

The Plans shall be supplemented by such drawings as are necessary to better define the work. All such drawings delivered to the Contractor by the Owner's Representative shall be deemed written instructions to the Contractor. If the Contractor believes that any supplemental drawings call for changes in the work for which the contract amount or time for completion should be changed, he shall not proceed with the changes in the work so called for and shall within seven calendar days of the receipt of the supplemental drawings notify the Owner's Representative in writing of his estimate of the changes in the contract amount and time for completion he believes to be appropriate.

No payment for changes in the work will be made and no change in the time for completion by reason of changes in the work will be made, unless the changes are covered by a written change order approved by the Owner in advance of the Contractor's proceeding with the changed work.

5-3 CONFORMITY WITH CONTRACT DOCUMENTS AND ALLOWABLE DEVIATIONS

The work shall conform to the lines, grades, dimensions, tolerances, and material and equipment requirements shown on the Plans or set forth in the Specifications. Although measurement, sampling, and testing may be considered evidence as to such conformity, the Owner's Representative shall be the sole judge as to whether the work or materials deviate from the Plans and Specifications, and his decision as to any allowable deviations therefrom shall be final.

If specific lines, grades, and dimensions are not shown on the Plans, those furnished by the Owner's Representative shall govern.

5-4 MANUFACTURER'S INSTRUCTIONS

All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier, or distributor, except as otherwise specifically provided in the Contract Documents.

5-5 COORDINATION OF PLANS AND SPECIFICATIONS

The Plans, Specifications, and other Contract Documents are essential parts of the contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for the complete work. In the event of an apparent difference between Plans and Specifications, reference shall be made to the Owner's Representative whose decision thereon shall be final.

Special Provisions shall govern over General Provisions and Standard Specifications.

5-6 INTERPRETATION OF PLANS AND SPECIFICATIONS

Figured dimensions on drawings shall govern, but work not dimensioned shall be as directed. Work not particularly shown or specified shall be the same as similar parts that are shown or specified. Large-scale details shall take precedence over smaller scale drawings as to shape and details of

construction. Specifications shall govern as to materials and workmanship. Plans and Specifications are intended to be fully complementary and to agree. The Specifications calling for the higher quality material or workmanship shall prevail. Materials or work described in words which so applied have a well known technical or trade meaning shall be deemed to refer to such recognized standards. In the event of any discrepancy between any drawings and the figures thereon, the figures shall be taken as correct. In the event of any doubt or question arising respecting the true meaning of the Plans or Specifications, reference shall be made to the Owner's Representative whose decision thereon shall be final.

5-7 ERRORS OR DISCREPANCIES NOTED BY CONTRACTOR

It is the duty of the Contractor to promptly notify the Owner's Representative in writing of any design, materials, or specified method that the Contractor believes may prove defective or insufficient. If the Contractor believes that a defect or insufficiency exists in design, materials, or specified method and fails to promptly notify the Owner's Representative in writing of this belief, the Contractor waives any right to assert that defect or insufficiency in design, materials, or specified method at any later date in any legal or equitable proceeding against Owner, or in any subsequent mediation, arbitration, or settlement conference between the Owner and the Contractor. The Owner's Representative, on receipt of any such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, any work done by the Contractor after he comes to the belief that a defect or insufficiency exists in design, materials, or specified method which is directly or indirectly affected by such alleged defect or insufficiency in design, materials, or specified method will be at his own risk and he shall bear all cost arising therefrom.

If the Contractor, either before commencing work or in the course of the work, finds any discrepancy between the Plans and the Specifications or between either of them and the physical conditions at the site of the work or finds any error or omission in any of the Plans or in any survey, he shall promptly notify the Owner's Representative of such discrepancy, error, or omission. If the Contractor observes that any Plans or Specifications are at variance with any applicable law, ordinance, regulation, order, or decree, he shall promptly notify the Owner's Representative in writing of such conflict. The Owner's Representative, on receipt of any such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, any work done by the Contractor after his discovery of such error, discrepancy, or conflict which is directly or indirectly affected by such error, discrepancy, or conflict will be at his own risk and he shall bear all cost arising therefrom.

5-8 SUPERVISION AND SUPERINTENDENCE

The Contractor shall supervise and direct the work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the work in accordance with the Contract Documents.

The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction, but the Contractor shall not be solely responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence, or procedure of construction which is indicated in and required by the Contract Documents except as otherwise provided in Article 5-7 ERRORS OR DISCREPANCIES NOTED BY CONTRACTOR.

The Contractor shall be responsible to see that the completed work complies with the Contract Documents.

The Contractor shall designate and keep on the work at all times during its progress a competent superintendent who shall not be replaced without written notice to the Owner's Representative. The superintendent will be the Contractor's representative at the site and shall have authority to act on behalf of the Contractor. All communications given to the superintendent shall be as binding as if given to the Contractor. During periods when the work is suspended, the Contractor shall make appropriate arrangements for any emergency work which may be required.

Whenever the superintendent is not present on any particular part of the work where the Owner's Representative may desire to inform the Contractor relative to interpretation of the Plans and Specifications or to the disapproval or rejection of materials or work performed, the Owner's Representative may so inform the foreman or other worker in charge of the particular part of the work in reference to which the information is given. Information so given shall be as binding as if given to the superintendent.

5-9 SHOP DRAWINGS

Shop drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data which are prepared by the Contractor or any subcontractor, manufacturer, supplier, or distributor and which illustrates some portion of the work.

The Contractor shall review, mark with his approval, and submit for review by the Owner's Representative shop drawings as called for in the Special Provisions and Standard Specifications or requested by the Owner's Representative. Shop drawings shall be submitted by email as a PDF to the Owner's Representative and be accompanied by the Shop Drawing Submittal Form included at the end of the General Provisions. Shop drawings shall show the name of the project, the name of the Contractor, and, if any, the names of suppliers, manufacturers, and subcontractors. Shop drawings shall be submitted with promptness and in orderly sequence so as to cause no delay in prosecution of the work.

Shop drawings shall be complete in all respects. If the shop drawings show any deviations from the requirements of the Plans and Specifications because of standard shop practices or other reasons, the deviations and the reasons therefor shall be set forth in the Shop Drawing Submittal Form.

By submitting shop drawings, the Contractor represents that material, equipment, and other work shown thereon conforms to the Plans and Specifications, except for any deviations set forth in the Shop Drawing Submittal Form. A log shall be maintained by the Contractor showing the following information: sequential shop drawings number, brief description, date submitted, date approved, any other data relevant to the shop drawings.

Within 30 calendar days after receipt of said shop drawings, the Owner's Representative will return via electronic mail (email) the shop drawings to the Contractor with any comments noted thereon.

If so noted by the Owner's Representative, the Contractor shall correct the drawings and resubmit them in the same manner as specified for the original submittal. The Contractor, in the Shop Drawing Submittal Form accompanying resubmitted shop drawings, shall direct specific attention to revisions other than the corrections requested by the Owner's Representative on previous submittals.

The review by the Owner's Representative is only of general conformance with the design concept of the project and general compliance with the Plans and Specifications and shall not be construed as relieving the Contractor of the full responsibility for: providing materials, equipment, and work

required by the contract; the proper fitting and construction of the work; the accuracy and completeness of the shop drawings; selecting fabrication processes and techniques of construction; and performing the work in a safe manner.

No portion of the work requiring a shop drawing submittal shall be commenced until the submittal has been reviewed by the Owner's Representative and returned to the Contractor with a notation indicating that resubmittal is not required.

If the Contractor believes that any shop drawing or communication relative thereto calls for changes in the work for which the contract amount or time for completion should be changed, he shall not proceed with the changes in the work so called for and shall within seven calendar days of the receipt of the shop drawings notify the Owner's Representative in writing of his estimates of the changes in the contract amount and time for completion he believes to be appropriate.

No payment for changes in the work will be made and no change in the time for completion by reason of changes in the work will be made, unless the changes are covered by a written change order approved by the Owner in advance of the Contractor's proceeding with the changed work.

5-10 QUALITY AND SAFETY OF MATERIALS AND EQUIPMENT

All equipment, materials, and supplies to be incorporated in the work shall be new, unless otherwise specified. All equipment, materials, and supplies shall be produced in a good and workmanlike manner. When the quality of a material, process, or article is not specifically set forth in the Plans and Specifications, the best available quality of the material, process, or article shall be provided.

Whenever any material, process, or article is indicated or specified by grade, patent or proprietary name, or by name of manufacturer, such Specification shall be deemed to be used for the purpose of facilitating description of the materials, process, or articles desired and shall be deemed to be followed by the words "or equal", and the Contractor may offer any material, process, or article which shall be substantially equal or better in every respect to that so indicated or specified; provided, however, that if the material, process, or article offered by the Contractor is not, in the opinion of the Owner's Representative, equal or better in every respect to that specified, then the Contractor must furnish the material, process, or article specified or one that in the opinion of the Owner's Representative is the substantial equal or better in every respect. In the event that the Contractor furnishes material, process, or article more expensive than that specified, the difference in cost of such material, process, or article so furnished shall be borne by the Contractor.

In accordance with Public Contract Code Section 3400, the Contractor shall submit data substantiating requests for substitution of "equal" items within 35 calendar days after award of the contract. This 35-day period of time is included in the number of days allowed for the completion of the work.

All materials, equipment, and supplies provided shall, without additional charge to Owner, fully conform with all applicable state and federal safety laws, rules, regulations, and orders, and it shall be Contractor's responsibility to provide only such materials, equipment, and supplies notwithstanding any omission in the Contract Documents therefor or that a particular material, equipment, or supply was specified.

All machinery and equipment provided by the Contractor for the work shall include locking mechanisms capable of locking any shut-down devices on the machinery and equipment before commencement of any repairs or other work. Any machinery or equipment provided by the Contractor, which does not have this locking ability, shall be altered at the expense of the Contractor to provide these locking mechanisms without compromising any safety features on the equipment or machinery prior to the commencement of any repairs or work on the equipment or machinery. The Contractor shall not commence any work or repairs on any machinery or equipment which has been shut down until the locking mechanism has been activated and the Contractor has tagged the applicable machinery or equipment with a tag stating "Danger Do Not Operate." This tag shall include the name of the employee who locked the equipment prior to the commencement of any work or repairs. The Contractor shall insure that all equipment and machinery fully complies with Title 8 of California Administrative Code Sections 3202, 3314, 6003, 2320.4-2320.6, 2530.43, and 2530-86 at all times during performance of the work.

5-11 STANDARDS, CODES, SAMPLES, AND TESTS

Whenever reference is made to a standard, code, Specification, or test and the designation representing the date of adoption or latest revision thereof is omitted, it shall mean the latest revision of such standard, code, Specification, or test in effect on the day the Notice Inviting Sealed Proposals (Bids) is dated.

Tests shall be made in accordance with commonly recognized procedures of technical organizations and such special procedures as may be prescribed elsewhere in the Plans and Specifications. The Contractor shall furnish without charge such samples for testing as may be required by the Owner's Representative.

5-12 OBSERVATION OF WORK BY OWNER'S REPRESENTATIVE

The Owner's Representative shall at all times have access to the work during construction and shall be furnished with every reasonable facility for ascertaining full knowledge respecting the progress, workmanship, and character of materials and equipment used and employed in the work.

Whenever the Contractor varies the normal period during which work or any portion of it is carried on each day, he shall give timely notice to the Owner's Representative so that the Owner's Representative may, if he wishes, be present to observe the work in progress. If the Contractor fails to give such timely notice, any work done in the absence of the Owner's Representative will be subject to rejection. Any time spent by the Owner's Representative in the observation of work in progress that exceeds eight (8) hours in any single day shall be compensated back to the Owner by the Contractor at the Owner's fully loaded rate.

The Contractor shall give timely notice to the Owner's Representative in advance of backfilling or otherwise covering any part of the work so that the Owner's Representative may, if he wishes, observe such part of the work before it is concealed.

The observation, if any, by the Owner's Representative of the work shall not relieve the Contractor of any of his obligations to fulfill the contract as prescribed. Defective work shall be made good, and materials and equipment furnished and work performed which is not in accordance with the Contract Documents may be rejected notwithstanding the fact that such materials, equipment, and work have been previously observed by the Owner's Representative or that payment therefor has been included in an estimate for payment.

5-13 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

Any work which does not conform the requirements of the Contract Documents or which is found unacceptable or deficient by the Owner or the Owner's Representative shall be remedied or removed and replaced by the Contractor at the Contractor's sole cost and expense, together with any other work which may be displaced in so doing, and no compensation will be allowed the Contractor for such removal, replacement, or remedial work. All materials found inadequate or deficient by the Owner or the Owner's Representative shall be immediately removed from the site.

Any work done beyond the lines and grades shown on the Plans or established by the Owner or any changes in, additions to, or deductions from the work done without written authority from the Owner will be considered as unauthorized and will not be paid for. Work so done will be ordered remedied, removed, or replaced by the Owner or the Owner's Representative at the Contractor's sole cost and expense.

Upon failure on the part of Contractor to comply promptly with any order of the Owner or Owner's Representative made under the provisions of this article the Owner or Owner's Representative shall have authority to cause all non-conforming materials, rejected work, or unauthorized work to be remedied, removed, or replaced at the Contractor's sole cost and expense and to deduct all fees and costs incurred by the Owner including staff time from any monies due or to become due the Contractor under this contract.

5-14 TWO-YEAR GUARANTEE

Besides guarantees required elsewhere, the Contractor shall and hereby does guarantee all work, materials, parts, equipment and supplies to be free from all defects due to faulty materials or workmanship for a period of two-years after the date of formal acceptance of the work by the Board of Directors of Owner except for any portion of the work that is utilized or placed into service by the Owner in accordance with the provisions of Article 6-6 USE OF COMPLETED PORTIONS. The guarantee period for portions of the work so utilized or placed into service shall be two-years commencing on the date of the written notification to the Contractor described in Article 6-6 USE OF COMPLETED PORTIONS. The Contractor shall repair or remove and replace any and all such work, together with any other work which may be displaced in so doing, that is found to be defective by Owner in workmanship and/or materials, equipment, parts or supplies within the two-year period, at the Contractor's sole cost and expense, ordinary wear and tear and unusual abuse or neglect excepted. In the event the Contractor fails to correct all defects identified by the Owner within seven (7) consecutive days after written notice of the defects from Owner, the Owner is hereby authorized to proceed to have the defects remedied and made good at the sole expense of the Contractor who hereby agrees to pay the cost and charges therefore immediately on demand. Such action by the Owner will not relieve the Contractor of the guarantees required by this article or elsewhere in the Contract Documents.

The Performance Bond and the Payment Bond shall continue in full force and effect for the guarantee period.

If, in the opinion of the Owner, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the Owner or to prevent interruption of operations of the Owner, the Owner may require the Contractor to correct the defects in a shorter period of time determined solely by Owner. If the Contractor does not correct the defects within the time specified by Owner, Owner may proceed to make such corrections or provide such attention; and all fees and

costs of such correction or attention shall be charged against the Contractor. Such action by the Owner will not relieve the Contractor of the guarantees required by this article or elsewhere in the Contract Documents.

This article does not in any way limit the guarantee on any items for which a longer guaranty is specified or on any items for which a manufacturer or supplier gives a guarantee for a longer period. The Contractor agrees to act as a co-guarantor with such manufacturer or supplier and shall furnish the Owner all appropriate guarantee or warranty certificates upon completion of the project. No guarantee period whether provided for in this article or elsewhere in this contract shall in any way limit the liability of the Contractor or his subcontractors, materialmen, suppliers, sureties or insurers for the full statutory periods provided by California law.

SECTION 6 PROSECUTION AND PROGRESS

6-1 CONTRACTOR'S LIABILITY

The Contractor shall be solely liable and responsible to the Owner for all acts and omissions of the Contractor's directors, officers, agents, owners, and employees and for all acts and omissions of all subcontractors, materialmen and suppliers and their respective directors, officers, managers, members, agents, owners and employees performing any of the work or providing any materials or supplies included as part of the work. The Owner, the Engineer/Architect and the Owner's Representative shall not be liable in any way for any acts or omissions of the Contractor, any subcontractors, any materialmen, any suppliers, or any of their respective directors, officers, managers, members, agents, employees or owners. Nothing contained in the Contract Documents shall create any contractual relationship between any subcontractor materialman, or supplier and the Owner. The Contractor shall bind all subcontractors to all terms of the Contract Documents for all work being performed by those subcontractors.

The divisions and sections of the Specifications and the identifications of any Drawings shall not control the Contractor in dividing the work among subcontractors.

6-2 ASSIGNMENT

The performance of the contract may not be assigned, except upon the written consent of the Owner. Consent will not be given to any proposed assignment which would relieve the original Contractor or his sureties or insurers of their responsibilities under the contract, nor will the Owner consent to any assignment of a part of the work under the contract.

Upon obtaining a prior written consent of the Owner, the Contractor may assign moneys due or to become due him under the contract, to the extent permitted by law, but any assignment of moneys shall be subject to all proper setoffs in favor of the Owner and to all deductions provided for in the contract, and particularly all money withheld, whether assigned or not, shall be subject to being used by the Owner for the completion of the work in the event that the Contractor should be in default therein.

No assignment of this contract will be approved unless it shall contain a provision that the funds to be paid to the assignee under the assignment are subject to a prior lien for services rendered or materials supplied for performance of the work called for under the contract in favor of all persons, firms, or corporations rendering such services or supplying such materials and that the Owner may

withhold funds due until all work required by the Contract Documents is completed to the Owner's satisfaction.

In the event of bankruptcy of the Contractor, whether voluntary or involuntary, this Agreement may be automatically terminated at the election of the Owner. The election to terminate in accordance with this provision shall be deemed effective as of the date the Owner mails notice of termination in accordance with this section to the Contractor at the Contractor's last known address without any further action of any party. Upon termination in accordance with this provision, the Contractor shall be entitled to no further payments over and above the reasonable value of the actual Work completed as of the date the termination notice is mailed.

6-3 CONTRACTOR'S CONSTRUCTION SCHEDULE AND COST BREAKDOWN

Within fourteen (14) days after Notice to Proceed, the Contractor shall deliver to the Owner's Representative a construction progress schedule and cost breakdown in bar chart form showing the proposed dates of commencement and completion and cost of each of the various parts of the work and the anticipated amount of each monthly payment that will become due the Contractor in accordance therewith. The Owner shall be entitled to terminate this Contract if, in the Owner's opinion, the Contractor is failing to carry on the work diligently or in accordance with the approved construction schedule and breakdown. The Contractor has been advised and understands that time is of the essence with respect to completion of all phases of the work in accordance with the approved construction schedule.

6-4 TIME FOR COMPLETION AND FORFEITURE DUE TO DELAY

The Contractor shall complete all or any designated portion of the work called for under the contract within the time set forth in Special Provisions. Time is of the essence in this contract.

Failure of the Contractor to perform any covenant or condition contained in the Contract Documents within the time period specified shall constitute a material breach of this contract entitling the Owner to terminate the contract unless the Contractor applies for, and receives, an extension of time in accordance with the procedures set forth in this article and Article 6-5 EXTENSION OF TIME.

Failure of the Owner to insist upon the performance of any covenant or condition within the time period specified in the Contract Documents shall not constitute a waiver of the Contractor's duty to complete performance within the designated periods unless the waiver is in writing.

The Owner's agreement to waive a specific time provision or to extend the time for performance shall not constitute a waiver of any other time provisions contained in the Contract Documents. Failure of the Contractor to complete performance promptly within the additional time authorized in the waiver or extension of time agreement shall constitute a material breach of this contract entitling the Owner to terminate.

In accordance with Government Code 53069.85, Contractor agrees to forfeit and pay Owner the amount per day set forth in the Special Provisions for each and every day of delay which shall be deducted from any payments due or to become due the Contractor.

The Contractor shall not be deemed in breach of this contract and no forfeiture due to delay shall be made because of any delays in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor provided the Contractor requests an

extension of time in accordance with the procedures set forth in this article and Article 6-5 EXTENSION OF TIME. Unforeseeable causes of delay beyond the control of Contractor shall include acts of God, acts of a public enemy, acts of the government, acts of the Owner, or acts of another contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and weather, or delays of subcontractors due to such causes, or delays caused by failure of the Owner or the owner of a utility to provide for removal or relocation of existing utility facilities. Delays caused by actions or neglect of Contractor or his agents, servants, employees, officers, subcontractors, directors, or of any party contracting to perform part or all of the work or to supply any equipment or materials shall not be excusable delays. Excusable delays (those beyond Contractor's control) shall not entitle the Contractor to any additional compensation. The sole remedy of the Contractor shall be to seek an extension of time except Contractor may receive a change order for an equitable adjustment in compensation for mobilization, demobilization, rental costs for rentals that cannot be returned, changes to the project site, labor increases that are themselves due to a force majeure event.

6-5 EXTENSION OF TIME

The Contractor shall not be entitled to any increase in the contract price as a result of the Owner's approval of any extension of time except to the extent that the Owner approves an increase in the contract price on a properly executed Change Order.

The time specified for completion of all of the work or any part of the work may be extended only by a written change order executed by the Owner or other written form executed by the Owner.

Requests for an extension of time must be delivered to the Owner's Representative within ten consecutive calendar days following the date of the occurrence which caused the delay. The request must be submitted in writing and must state the cause of the delay, the date of the occurrence causing the delay, and the amount of additional time requested. Requests for extensions of time shall be supported by all evidence reasonably available or known to the Contractor which would support the extension of time requested. Requests for extensions of time failing to include the information specified in this article and requests for extensions of time which are not received within the time specified above shall result in the forfeiture of the Contractor's right to receive any extension of time requested.

If the Contractor is requesting an extension of time because of weather, he shall supply daily written reports to the Owner's Representative describing such weather and the work which could not be performed that day because of such weather or conditions resulting therefrom and which he otherwise would have performed.

The Owner's acceptance of the daily reports shall not be deemed an admission of the Contractor's right to receive an extension of time or a waiver of the Owner's right to strictly enforce the time provisions contained in the Contract Documents.

When the Contractor has submitted a request for an extension of time in accordance with the procedures of this article and Article 6-4 TIME FOR COMPLETION AND FORFEITURE DUE TO DELAY, the Owner will ascertain the facts and extent the delay and extend the time for completing the work if, in its judgment, the findings of fact justify such an extension, and its findings of facts thereon shall be final and conclusive. An extension of time may be granted by the Owner after the expiration of the time originally fixed in the contract or as previously extended, and the extension so granted shall be deemed to commence and be effective from the date of such expiration.

Any extension of time shall not release the sureties upon any bond required under the contract.

6-6 USE OF COMPLETED PORTIONS

When the work or any portion of it is sufficiently complete to be utilized or placed into service, the Owner shall have the right upon written notification to the Contractor to utilize such portions of the work and to place the operable portions into service and to operate same.

Upon said notice and commencement of utilization or operation by the Owner, the Contractor shall be relieved of the duty of maintaining the portions so utilized or placed into operation; provided, however, that nothing in this article shall be construed as relieving the Contractor of the full responsibility for completing the work in its entirety, for making good defective work and materials, for protecting the work from damage, and for being responsible for damage and for the work as set forth in the General Provisions and other Contract Documents nor shall such action by the Owner be deemed completion and acceptance, and such action shall not relieve the Contractor, his sureties, or insurers of the provisions of SECTION 8 CONTRACTOR'S INSURANCE, of Article 7-12 INDEMNITY, and of Article 5-14 TWO-YEAR GUARANTEE.

SECTION 7 LEGAL RELATIONS AND RESPONSIBILITIES

7-1 OBSERVING LAWS AND ORDINANCES

The Contractor shall keep himself fully informed of all existing and future laws, ordinances, and regulations which in any manner affect those engaged or employed to perform any of the work or providing any materials or supplies or which in any way affect the conduct of the work and of all statutes, laws, rules, regulations, orders, decisions, and decrees of any court or governmental agency having any jurisdiction or authority over all or any of the work or the conduct of the work, including all federal, state and local safety rules, regulations, and orders. This shall expressly include all ordinances, rules, regulations, and requirements applying to the work or the conduct of the work enacted by the Owner. If any discrepancy or inconsistency is discovered in the Plans, Specifications, or contract for the work the relation to any such law, rule, regulation, ordinance, order or decree, the Contractor shall forthwith report the same to the Owner's Representative in writing and cease operations on that part of the work until the Owner's Representative has given him appropriate instructions as provided for Article 5-7 ERRORS OR DISCREPANCIES NOTED BY CONTRACTOR.

The Contractor shall at all times observe and comply with and shall cause all of his directors, officers, agents, managers, members, owners, employees, subcontractors, materialmen and suppliers to observe and comply with all existing and future laws, ordinances, regulations, orders, and decrees, and shall hold harmless, indemnify, and defend the Owner, the Water Authority, the Engineer/Architect, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents from and against any and all liability, claims, causes of action, damages, losses, claim fees and costs, staff time, expenses, fees, and costs, including all costs of defense and attorneys' fees, arising from or based on the violation any such law, ordinance, regulation, order, or decree by the Contractor, any subcontractor, any materialman or supplier or any of their respective directors, officers, agents, managers, members, owners, or employees.

7-2 PERMITS AND LICENSES

The Contractor shall be solely liable and responsible for securing all permits and licenses necessary to perform all of the work, for paying all fees and charges necessary to secure any such permit,

license, or approval, and for giving all notices which are appropriate or necessary to the proper and safe prosecution of the work. The Owner shall have no obligation to procure any permit, license, or approval necessary to perform all or any portion of the work. The Contractor shall also be solely liable and responsible for fully complying with all requirements of any permits, licenses or approvals pertaining to all or any of the work. The failure of Contractor to strictly comply with all requirements of any permits, licenses, or approvals applying to all or any of the work shall constitute a material breach of the contract.

7-3 INVENTIONS, PATENTS, AND COPYRIGHTS

The Contractor shall pay all royalties and assume all costs arising from the use of any invention, design, process, materials, equipment, product, or device which is the subject of patent rights or copyrights.

The Contractor shall hold harmless, indemnify, and defend the Owner, the Water Authority, the Engineer/Architect, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents from and against all claims, damages, losses, expenses, and other costs, including costs of defense and attorneys' fees, arising out of any infringement of patent rights or copyrights incident to the use in the performance of the work or resulting from the incorporation in the work of any invention, design, process, materials, equipment, product or device, and shall defend all such claims in connection with any alleged infringement of such rights.

7-4 PUBLIC CONVENIENCE AND SAFETY

The Contractor shall conduct his operations at all times in a manner that creates the least possible obstruction and inconvenience to the public, and he shall have under construction no greater length or amount of work than he can prosecute properly with due regard to the rights of the public and all property owners in the area of the work. The Contractor shall be solely liable and responsible for ensuring that all of the work is conducted at all times in a safe manner that does not injure or damage any workers, members of the public or private or public property.

Convenient access to driveways, houses, and buildings along the line of work shall be maintained and temporary crossings shall be provided and maintained in good condition at all times during performance of the work. Not more than one crossing or intersecting street or road shall be closed at any one time.

The Contractor shall provide and maintain such fences, barriers, directional signs, lights, and flagmen as are necessary to give adequate warning to the public at all times of any conditions to be encountered as a result of the work and to give directions to the public. The Contractor shall ensure that all unsafe conditions created by the work are promptly remedied and that any unsafe conditions created by the work are protected by barriers, safeguards and warnings preventing vehicular, bicycle or walking access in any unsafe areas.

It shall also be the sole responsibility of the Contractor to ensure that the work is performed at all times in a manner that does not injure or harm any person or injure or damage any real or personal property of any person or entity.

The Contractor shall perform the work only the areas expressly identified on the drawings. The Contractor must operate entirely within the limits of the project site. No equipment or materials may be parked, stockpiled, or stored outside the project site or designated Contractor staging areas. The

Contractor shall not enter onto, occupy, or disturb any privately owned land or any public or private habitat not scheduled for removal in the approved plans with any men, tools, materials, dirt, or equipment except with the prior express written consent of the Owner and all owners of any privately-owned land. The Contractor has been advised, and understands, that any request to enter onto, occupy, or disturb any privately-owned land or habitat must be submitted to the General Manager of the Owner for written approval prior to entering onto, occupying, or disturbing any privately-owned land or public or private habitat for any purpose. The violation of this section by Contractor shall constitute a material breach of this contract.

The Contractor and any subcontractors, materialmen, or suppliers shall not, at any time, conduct any of the work in any manner that creates any public or private nuisance or trespass on the land of any private party or public agency. It shall be the sole responsibility of Contractor to conduct the work at all times in a manner that avoids creating any nuisance or trespass on any real or personal property owned by any private party or public agency.

The Contractor hereby agrees to indemnify, defend, and hold harmless the Owner, the San Elijo Joint Powers Authority, City of Encinitas, Engineer/Architect, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents from and against any and all liability, claims, causes of action, actions, damages, losses, fees, costs, or expenses, of whatever type or nature, including all costs of defense, attorneys' fees, and claim fees or costs, arising out of or resulting from performance of any of the work by the Contractor, its subcontractors, materialmen, or suppliers, or their respective directors, officers, agents, managers, members, owners, or employees which results in any injury or damage to persons or property including wrongful death regardless of whether or not such claim, cause of action, damage, loss or expense is caused in whole or in part by the negligence, active or passive, of Owner, the Engineer/Architect, or the Owner's Representative excepting only those claims and causes of action caused by the sole active negligence or intentional misconduct of the Owner, the Engineer/Architect, or the Owner's Representative. From and after the date of submission of any claim or demand to Owner, the indemnified parties shall recover from the Contractor all attorneys fees, expert fees and costs, claim costs, and staff time involved in handling the claim or any subsequent action on the claim at the standard hourly rates for staff handling the claim or action.

7-5 RESPONSIBILITY FOR LOSS, DAMAGE, OR INJURIES

The Contractor shall be solely responsible for all liability, claims, causes of action, demands, losses, costs, fees, expenses, and damages, of whatever type or nature, from any cause arising out of or resulting from or in connection with the performance of any of the work, excepting only those claims and causes of action caused solely and exclusively by the active negligence or intentional misconduct of the Owner, the Engineer/Architect, the Owner's Representative, or their consultants, directors, officers, employees, and agents. This exclusive responsibility shall extend to all liability, claims, causes of action, demands, losses, costs, fees, and expenses, of whatever type or nature, after completion of the work as well as during the progress of the work.

In the event any hazardous or toxic materials, including but not limited to asbestos, are utilized in construction or hazardous or toxic materials are otherwise encountered during construction, the Contractor shall take all appropriate precautions to protect persons and property and shall comply with all applicable regulations for the installation and handling of such hazardous or toxic materials. The Contractor is solely responsible for protection of all persons and property that could be affected by any construction or work and for the proper handling and disposal of all such hazardous or toxic materials.

Contractor has been advised that the Owner has Safety Data Sheets (hereinafter "SDS") available for review on any hazardous chemical they may be exposed to while working in or around Owner facilities. It shall be the sole responsibility of Contractor to request and inspect these SDS forms prior to commencement of any work and to alert all employees and agents of Contractor of potential hazardous waste exposure from Owner facilities. It shall be the sole responsibility of Contractor to provide the Owner's Representative with completed SDS forms for all hazardous or toxic substances that the Contractor utilizes as part of the work prior to the use of any hazardous or toxic substances and to provide these SDS forms to the Contractor's agents and employees prior to their exposure to any hazardous or toxic substance utilized by the Contractor. Further, Contractor shall comply with all provisions contained in General Industry Safety Orders Section 5194 of Title 8 of the California Administrative Code (the California Hazardous Communication Regulation) at all times during performance of the work.

7-6 CONTRACTOR'S RESPONSIBILITY FOR THE WORK

Until formal acceptance of the work by action of the Board of Directors of Owner, the Contractor shall be solely liable and responsible for all aspects of the work and all equipment materials and supplies to be provided as part of the work (including materials for which he has received partial payment or materials which have been furnished by the Owner) and shall bear the sole risk of injury, loss, or damage to any of the work, or any materials, supplies, or equipment being used or provided in conjunction with the work from any act of nature or the elements and from all other causes, whether arising from the execution or from the non-execution of the work.

The Contractor, at the Contractor's sole cost and expense, shall rebuild, repair, restore, and make good all injuries, losses, or damages whatsoever to any portion of the work or to any materials, equipment, or supplies from any cause before completion and formal acceptance of the work by formal action of the Board of Directors of Owner and shall solely bear the expense thereof. Where the Owner or the Owner's Representative determines it is necessary to protect the work or materials from any damage or injury, the Contractor shall at his sole expense provide suitable drainage and erect any additional structures and take all additional protective actions determined necessary or appropriate by either the Owner or the Owner's Representative to protect the work or materials from further damage or injury. The suspension of the work or the granting of an extension of time from any cause whatsoever shall not relieve the Contractor of his sole responsibility for the work, materials, or equipment as specified herein.

In an emergency affecting the safety of life or property, including any adjoining property, the Contractor, without special instructions or authorizations, shall promptly act to prevent such threatened loss or injury. The Contractor shall also promptly implement any and all directions given by the Owner or the Owner's Representative to protect the safety of life or property during any emergency as determined by Owner.

Notwithstanding the foregoing provisions of this section, the Contractor shall not be responsible for the cost of repairing or restoring damage to the work where the damage has been determined to have been caused solely by an Act of God in excess of 5% of the contract and amount provided that the work damaged is built in accordance with accepted and applicable building standards and in strict compliance with the Plans and Specifications. For the purpose of this paragraph, "Acts of God" shall include only earthquakes in excess of a magnitude of 3.5 on the Richter Scale and tidal waves. No other actions of the elements, nature, or man shall be treated as Acts of God under this paragraph.

7-7 PRESERVATION OF PROPERTY

The Contractor shall be solely liable and responsible for avoiding injury or damage or interfering with the construction or operation of any and all existing improvements or facilities, all utility facilities, all personal and real property whether owned by any public agency or private party, and any and all trees, shrubbery, landscaping and habitat that are not to be removed. The Contractor shall be solely liable and responsible for any and all damage and injury to any real or personal property of any person or entity both during and after performance of the work.

All trees, shrubbery, and landscaping that are not to be removed, and all lines, fences, signs, survey markers and monuments, buildings and structures, conduits, pipelines both under or above ground, all sewer and water pipelines or facilities, all highway or street facilities, and any and all other improvements, facilities, habitat, trees, or landscaping within or adjacent to the work not to be removed in the approved plans shall be protected by the Contractor from all injury or damage and the Contractor shall provide and install suitable safeguards to protect all such objects from any injury or damage. If any of the foregoing objects are injured or damaged either during or after performance of the work, they shall be promptly replaced or restored to a condition as good as when the Contractor commenced work or as good as required by the Plans and Specifications if any such objects or are part of the work being performed, at the Contractor's sole cost and expense. The Owner, the Engineer/Architect and the Owner's Representative and their respective Directors, officers, agents and employees shall have no liability whatsoever for any injury or damage caused in whole or in part by the actions or omissions of the Contractor, any subcontractor, any materialmen or supplier, or any of their respective directors, officers, agents, employees, managers, or members except where the injury or damage is caused by the sole and exclusive active negligence or intentional misconduct of the Owner, the Engineer/Architect, the Owner's Representative, or their consultants, directors, officers, employees, and agents. The Contractor shall also be solely liable and responsible for any and all damage or injury to any landscaping or habitat caused in whole or in part by the actions or omissions of the Contractor, any subcontractor, any materialmen or supplier, or their respective directors, officers, agents, employees, managers, owners, or members.

The fact that any pipeline or other underground facility is not shown on the Plans, shall not relieve the Contractor of his responsibility under this section.

In addition to any requirements imposed by law, the Contractor shall shore up, brace, underpin, and protect all foundations, structures, or improvements adjacent to or adjoining the site of the work which are in any way affected by the excavations or by any of the work. Whenever any notice is required to be given by the Owner or the Contractor at any adjacent or adjoining landowner or other party before commencement of any work, this notice shall be given by the Contractor.

7-8 REGIONAL NOTIFICATION CENTER CONTACT

The Contractor, except in an emergency, shall contact the appropriate regional notification center prior to commencing any excavation work. Notify the center at least two working days in advance or up to a maximum of 14 calendar days in advance of any excavation work. The Contractor shall delineate the proposed excavation site with white paint on paved surfaces or with markings such as flags or stakes in unpaved areas. The Contractor shall provide the regional notification center with all job site location information. The regional notification center will assign to the Contractor a Dig Alert Number which validates the Contractor's excavation permit and will notify all of its members having subsurface installations in the area. No excavation shall be commenced and carried out by

the Contractor until all existing subsurface installations have been field marked and the Owner has been given the Dig Alert Number by the Contractor.

Emergency shall be defined as a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. Emergency includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage (Government Code Section 4216).

Subsurface installation means any underground pipeline, conduit, duct, wire, or other structure operated or maintained in or across a public street or public right-of-way (Government Code Section 4216).

7-9 EXCAVATION PLANS FOR WORKER PROTECTION REQUIRED BY LABOR CODE SECTION 6705

If the total amount of the contract is in excess of \$25,000, the Contractor shall submit to the Owner for acceptance, in advance of excavation, a detailed Plans 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 any trench or trenches 5 feet or more in depth. The Plans shall be prepared by a registered civil or structural engineer. As a part of the Plans, a note shall be included stating that the registered civil or structural engineer certifies that the Plans complies with all CAL-OSHA Construction Safety Orders and regulations, or that the registered civil or structural engineer certifies that the Plans is not less effective than the shoring, bracing, sloping, or other provisions of the Safety Orders and regulations.

The Owner or the Engineer/Architect or their consultants may have made investigations of subsurface conditions in areas where the work is to be performed. If so, these investigations are identified in the Special Provisions and the records of such investigations are available for inspection at the office of the Engineer/Architect. The detailed Plans showing the design of shoring, etc., which the Contractor is required to submit to the Owner for acceptance in advance of excavation will not be accepted by the Owner if the Plans are based on subsurface conditions which are more favorable than those revealed by the investigations made by the Owner or the Engineer/Architect or their consultants; nor will the Plans be accepted if it is based on soils-related design criteria which is less restrictive than the criteria set forth in the report on the aforesaid investigations of subsurface conditions.

The detailed Plans showing the design of shoring, etc., shall include surcharge loads for nearby embankments and structures, for spoil banks, and for construction equipment and other construction loadings.

The Plans shall indicate for all trench conditions the minimum horizontal distances from the side of the trench at its top to the near side of the surcharge loads.

Nothing contained in this article shall be construed as relieving the Contractor of the full responsibility for providing shoring, bracing, sloping, or other provisions which are adequate for worker protection.

7-10 SAFETY

In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for conditions of the jobsite, including safety of all persons and property during performance of the work, and the Contractor shall fully comply with all state, federal and other laws, rules, regulations, and orders relating to safety of the public and workers.

The right of the Engineer/Architect or the Owner's Representative to conduct construction review or observation of the Contractor's performance will not include review or observation of the adequacy of the Contractor's safety measures in, on, or near the construction site.

7-11 PERSONAL LIABILITY

No director, officer, employee, or agent of the Owner, the Engineer/Architect, the Owner's Representative, or their consultants shall be personally responsible for any liability arising under or by virtue of the contract.

7-12 DEFENSE AND INDEMNITY

The Contractor hereby agrees to indemnify, defend, and hold harmless the Owner, the Engineer/Architect, and the Owner's Representative and their respective directors, officers, agents, employees and consultants from and against any and all liability, claims, demands, causes of action, actions, damages, losses, fees, costs, or expenses, of whatever type or nature, including all costs of defense and attorneys' fees, caused in whole or in part, or claimed to be caused in whole or in part, by any act or omission of the Contractor, any subcontractor, any supplier or materialman or any of their respective directors, officers, agents, employees, managers, members, or owners except only those claims and causes of action caused by the sole active negligence or intentional misconduct of the Owner, the Engineer/Architect or the Owner's Representative or their respective agents or employees. This indemnification shall extend to all claims, demands, causes of action, actions, or liability occurring after completion of the project as well as during the progress of the Work.

The Contractor further agrees to indemnify, defend, and hold harmless the Owner, the Engineer/Architect, and Owner's Representative and their respective directors, officers, agents, employees, and consultants from and against any and all liability, claims, causes of action, actions, losses, fees, costs, expenses, or damages, of whatever type or nature, including all costs of defense and attorneys' fees, as a result of the failure of or claimed failure of the Contractor to strictly comply with any of the Contractor's obligations under this contract. This indemnity shall expressly include claims by the Owner for any injury, damages, losses, costs, fees or expenses arising from or related to the failure of the Contractor or any of his subcontractors, materialmen, or suppliers to strictly comply with all terms of this contract or as a result of any improper workmanship or defective supplies or materials.

The Contractor's indemnity obligations as contained in this section shall remain in full force and effect and shall apply whether or not the claim, cause of action, damage, cost, fee, or expense is covered by any applicable insurance policy and regardless of any position that may be taken by any insurance company regarding a defense or coverage for any claim or cause of action asserted. From and after the date any claim or demand is submitted to Owner covered by these indemnity provisions, the indemnified parties shall be entitled to recover from Contractor all fees and costs incurred in investigating the claim, all staff time involved in handling the claim or any subsequent action on the

claim at staff's ordinary hourly rates, all expert fees and costs, all attorneys' fees, and all court costs. The Contractor shall also be solely liable and responsible for paying any and all damages, fees or costs awarded to the claimant as a result of any settlement or final judgment of any cause of action or action covered by these indemnity provisions. This indemnity shall expressly include all wrongful death actions as well as any actions asserting any damage or injury to any persons or real or personal property.

From and after submission of any claim or demand to any of the indemnified parties, the indemnified party shall be entitled to appoint their own independent counsel to represent them and the Contractor shall pay all fees, costs, and expenses of whatever type or nature (including all staff time) incurred by each of the indemnified parties within thirty (30) consecutive days of receipt of a demand for reimbursement of these costs, fees, or expenses by each of the indemnified parties. A breach of this indemnity provision by Contractor shall constitute a material breach of the contract.

7-13 HOURS OF LABOR

The Contractor shall forfeit as a penalty to the Owner \$25 for each worker employed in the execution of the contract by the Contractor or any subcontractor under him for each calendar day during which such worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of the Labor Code and, in particular, Section 1810 to Section 1815 thereof, inclusive, except that work performed by employees of Contractors in excess of 8 hours per day and 40 hours during any one week shall be permitted upon compensation for all hours worked in excess of 8 hours per day at not less than one and one-half times the basic rate of pay as provided in said Section 1815.

7-14 PREVAILING WAGE

The Contractor shall comply with Labor Code Section 1775. In accordance with said Section 1775, the Contractor shall forfeit as a penalty to the Owner \$50 for each calendar day or portion thereof for each worker paid less than the stipulated prevailing rates for such work or craft in which such worker is employed for any work done under the contract by him or her or by any subcontractor under him or her in violation of the provisions of the Labor Code and in particular, Labor Code Sections 1770 to 1780, inclusive. In addition to said penalty and pursuant to said Section 1775, the difference between such stipulated prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by the Contractor. Pursuant to Labor Code Section 1775, to the extent there is insufficient money due a contractor to cover all penalties forfeited and amounts due, the Division of Labor Standards Enforcement shall be notified of the violation and the Division of Labor Standards Enforcement shall be entitled to maintain an action in any court of competent jurisdiction to recover the penalties and the amounts due pursuant to Labor Code Section 1775.

Section 1776 of the Labor Code requires each contractor and its subcontractors to keep accurate payroll records showing the name, address, social security number, work classification, straight time, and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the work required by these Contract Documents. These payroll records shall be made available for inspection or furnished to all employees, any representative of the Owner, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations. Contractor shall provide a certified copy of these payroll records to any of the

aforementioned parties within 10 calendar days after receipt of a written request for these records. Contractor understands that it is the responsibility of the Contractor to ensure that these payroll records are maintained by Contractor and all subcontractors performing the work in accordance with Labor Code Section 1776(h). The payroll records shall be on forms provided by the Division of Labor Standard Enforcement or provide the same information as the information required by this form.

Pursuant to Labor Code Section 1777.1, whenever any contractor or subcontractor performing a public works project is found by the Labor Commissioner or the Owner to be in violation of Labor Code Section 1770 et seq., except Section 1775, the contractor or subcontractor or any firm, corporation, partnership, or association of which the contractor or any subcontractor has a substantial interest, shall be ineligible to bid on or to receive any public works contract for a period of not less than one-year or more than three years. The period of debarment shall run from the date the determination of the violation is made by the Labor Commissioner.

The Owner shall be entitled to withhold wages and penalties due as a result of any violation of the Labor Code from Payments due the Contractor in accordance with Labor Code Section 1726. These withheld amounts shall be paid to the Labor Commissioner for disbursement in accordance with Labor Code Section 1730. The Contractor's right to recover these wages and penalties shall be limited as provided in the Labor Code.

7-15 TRAVEL AND SUBSISTENCE PAYMENTS

Each worker needed to execute the work must be paid travel and subsistence payments as defined in the applicable collective bargaining agreements filed in accordance with Labor Code Section 1773.8.

7-16 APPRENTICES

Attention is directed to the provisions in Sections 1777.5, 1777.6, and 1777.7 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under him.

The Contractor and any subcontractor under him shall comply with the requirements of Sections 1777.5 and 1777.6 of the Labor Code in the employment of apprentices.

Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

Willful violations of Section 1777.5 will result in the Contractor, and the business entity under which the Contractor is doing business, being denied the right to bid on, or to receive, any public works contract for a period of up to one year for the first violation and for a period of up to three years for the second and subsequent violations commencing from the date the determination of noncompliance by the Administrator of Apprenticeship Council. In addition, if the Contractor violates Section 1777.5, he will forfeit as a civil penalty the sum of \$50 for each calendar day of non-compliance which shall be withheld from progress payments by Owner upon notice from the Department of Industrial Relations. (Labor Code Section 1777.7.)

7-17 WARRANTY OF TITLE

No materials, supplies, or equipment for the work under this contract shall be purchased subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest therein or any part thereof is retained by the seller or supplier. The Contractor warrants clear and good title to all materials, supplies, and equipment installed and incorporated in the work and agrees upon completion of all work to deliver the premises together with all improvements and appurtenances constructed or placed thereon by him to the Owner free from any claims, liens, encumbrances, or charges and further agrees that neither he nor any person, firm, or corporation furnishing any material or labor for any work covered by the contract shall have any right to a lien upon the premises or any improvement or appurtenance thereon, provided that this shall not preclude the Contractor from installing metering devices or other equipment of utility companies or of municipalities, the title of which is commonly retained by the utility company or the municipality. Nothing contained in this article, however, shall defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection or any right under any law permitting such persons to look to funds due the Contractor in the hands of the Owner. The provisions of this article shall be inserted in all subcontracts and material contracts, and notices of its provision shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

7-18 PROPERTY RIGHTS IN MATERIALS

Nothing in the contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been attached or affixed to the work or the soil. All such materials shall become the property of the Owner upon being so attached or affixed. Soil, stone, gravel, and other materials found at the site of the work and which conform to the Plans and Specifications for incorporation into the work may be used in the work. No other use shall be made of such materials except as may be otherwise described in the Plans and Specifications.

7-19 MUTUAL RESPONSIBILITY OF CONTRACTORS

Nothing in the contract shall be interpreted as granting to the Contractor exclusive occupancy of the site of the project. The Contractor must ascertain to his own satisfaction the scope of the project and the nature of any other contracts that have been or may be awarded by the Owner in the construction of the project, to the end that the Contractor may perform this contract in the light of such other contracts, if any.

The Contractor shall not cause any unnecessary hindrance or delay to any other contractor working on the project. If the performance of any contract for the project is likely to be interfered with by the simultaneous performance of some other contract or contracts, the Owner's Representative shall decide which contractor shall cease work temporarily and which contractor shall continue or whether the work under the contracts can be coordinated so that the contractors may proceed simultaneously. On all questions concerning conflicting interest of contractors performing related work, the decision of the Owner's Representative shall be binding upon all contractors concerned and the Owner, the Engineer/Architect, the Owner's Representative, and their consultants shall not be responsible for any damages suffered or extra costs incurred by the Contractor resulting directly or indirectly from the award or performance or attempted performance of any other contract or contracts on the project or caused by a decision or omission of the Owner's Representative respecting the order of precedence in the performance of the contracts.

If through acts of neglect on the part of the Contractor, any other contractor or any subcontractor shall suffer loss or damage on the work, the Contractor agrees to settle with such other contractor or subcontractor by agreement or arbitration, if such other contractor or subcontractor will so settle. If such other contractor or subcontractor shall assert any claim against the Owner, the Engineer/Architect, the Owner's Representative, or their consultants or any of their directors, officers, employees, or agents on account of any damage alleged to have been so sustained, the Owner shall notify the Contractor who shall hold harmless, indemnify, and defend the Owner, the San Elijo Joint Powers Authority, City of Encinitas, the Engineer/Architect, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents against any such claim, including all attorneys' fees and any other costs incurred by the indemnified parties relative to any such claim.

7-20 TERMINATION FOR BREACH

If the Contractor refuses or fails to prosecute the work or any separable part thereof with such diligence as will ensure its completion within the time specified herein, or any extension thereof, or fails to complete such work within such time, or if the Contractor should be adjudged a bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he files a petition to take advantage of any debtor's act, or if he or any of his subcontractors should violate any of the provisions of the contract, or if he should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials to complete the work in the time specified, or if he should fail to make prompt payment to subcontractors or for material or labor, or if he should persistently disregard laws, ordinances, or instructions given by the Owner or Owner's Representative, the Owner may, without prejudice to any other right or remedy, serve written notice upon the Contractor and his surety of his intention to terminate the contract, said notice to contain the reasons for such intention to terminate the contract, and unless within ten days after the service of such notice such violations shall cease and satisfactory arrangements for the corrections thereof be made, the contract shall upon the expiration of said ten days cease and terminate. In such case, the Contractor shall not be entitled to receive any further payment until the work is finished.

In the event of any such termination, the Owner shall immediately serve written notice thereof upon the surety and the Contractor, and the surety shall have the right to take over and perform the contract; provided, however, that if the surety within 15 calendar days after the serving upon it of a notice of termination does not give the Owner written notice of its intention to take over and perform the contract or does not commence performance thereof within 30 calendar days from the date of serving said notice, the Owner may take over the work and prosecute the same to completion by contract or by any other method it may deem advisable for the account and at the expense of the Contractor, and his surety shall be liable to the Owner for any excess cost or other damage occasioned the Owner thereby, and in such event the Owner may, without liability for so doing, take possession of and utilize in completing the work such materials, appliances, plants, and other property belonging to the Contractor that may be on the site of the work and be necessary therefor. For any portion of such work that the Owner elects to complete by furnishing its own employees, materials, tools, and equipment, the Owner shall be compensated for such in accordance with the schedule of compensation for force account work in Article 9-1 PAYMENT FOR CHANGES IN THE WORK.

If the unpaid balance of the contract price exceeds the direct and indirect costs of completing the work, including, but not limited to, all costs to Owner arising from professional services and attorneys' fees and all costs generated to insure or bond the work of substituted contractors or subcontractors

utilized to complete the work, such excess shall be paid to Contractor. If such costs exceed the unpaid balance, Contractor shall pay the difference to Owner promptly upon demand; on failure of Contractor to pay, the surety shall pay on demand by Owner. Any portion of such difference not paid by Contractor or surety within 30 calendar days following the mailing of a demand for such costs by Owner shall earn interest at the rate of 10% per annum or the maximum rate authorized by California law, whichever is lower.

The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to the Owner.

In the event Owner fails to pay Contractor any undisputed invoices when due, Contractor shall have the right to suspend the work or terminate this Agreement.

7-21 NOTICE AND SERVICE THEREOF

Any notice required or given under the contract shall be in writing, be dated, and signed by the party giving such notice or his duly authorized representative, and be served as follows:

If to the Owner, by personal delivery or by deposit in the United States mail.

If to the Contractor, by personal delivery to the Contractor or to his authorized representative at the site of the project or by deposit in the United States mail.

If to the surety or any other person, by personal delivery to said surety or other person or by deposit in the United States mail.

All mailed notices shall be in sealed envelopes, shall be sent by certified mail with postage prepaid, and shall be addressed to the addresses in the Contract Documents or such substitute addresses which a party designates in writing and serves as set forth herein.

7-22 PARTIAL INVALIDITY

If any provision of this contract is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way.

7-23 ATTORNEYS' FEES

In the event any arbitration proceeding, administrative proceeding or litigation in law or in equity, including an action for declaratory relief, is brought to invalidate, enforce, or interpret any term or provision of this contract, the prevailing party shall recover all attorneys' fees, all expert fees and costs, and all costs of the proceeding which shall be determined by the Court or the presiding officer at the proceeding authorized to make a determination of the issues or in a separate action brought for that purpose, in addition to any other relief provided by California law.

If any party to this agreement becomes a party to any litigation, administrative proceeding or arbitration concerning the invalidation, enforcement or interpretation of the provisions of this agreement or the performance of this agreement by reason of any act or omission of another party or authorized representative of another party to this agreement and not by any act or omission of a party that becomes a party to that proceeding or any act or omission of its authorized representatives, the party that causes another party to become involved in the proceeding shall be

liable to that party for all expert fees and costs, all attorneys' fees, and all costs of the proceeding. The award of these expert fees and costs, attorneys' fees, and costs shall be determined as provided above.

From and after any date of submission of any demand or claim to Owner or any of the other indemnified parties covered by any indemnity provisions of this contract, the indemnified party shall be entitled to appoint their own independent counsel to represent them and the Contractor shall pay all fees and costs incurred by the indemnified parties to investigate and evaluate the claim or cause of action, for all staff time at the hourly rates of each staff member handling the claim or cause of action, all attorneys' fees, all expert fees and costs, and all court costs when and as these fees and costs are incurred by each of the indemnified parties. The Contractor agrees to pay all of these fees, costs, and expenses to each of the indemnified parties not later than thirty (30) days following a demand for reimbursement of these fees, costs, and expenses by each of the indemnified parties. Amounts not paid by the Contractor within this thirty (30) day period shall earn interest at the rate of one percent (1%) per month until paid by Contractor in full.

In the event opposing parties have each prevailed on one or more cause of action actually contested or admitted by pleadings or pre-hearing documents on file, the presiding officer may offset such fees and costs between prevailing parties after considering the necessity of the proceeding and the importance of the issue or issues upon which a party has prevailed. However, the court or presiding officer shall have no authority to relieve the Contractor of the Contractor's obligation to pay all damages, fees, costs, and expenses of each of the indemnified parties as provided in the indemnity provisions of this contract.

The term "prevail" as used in this section shall include any action at law, in equity, or pursuant to arbitration in which either party has been successful including, but not limited to, demurrers, motions to strike, judgments on the pleadings, summary judgments or summary adjudications of issues, any other motion of whatever type or nature, or any trial proceeding or motion.

7-24 LANDS AND RIGHTS-OF-WAY

The lands and rights-of-way for the facility to be constructed will be provided by the Owner. The Contractor shall make his own arrangements and pay all expenses for additional area required by him outside the limits of the Owner's lands and rights-of-way.

Work in public right-of-way shall be done in accordance with the requirements of the permit issued by the public agency in whose right-of-way the work is located in addition to conforming to the Plans and Specifications. If a permit is not required, the work shall conform to the standards of the public agency involved in addition to conforming to the Plans and Specifications.

7-25 NO WAIVER OF RIGHTS OR REMEDIES

No action or failure to act by the Owner, Engineer/Architect, or Owner's Representative shall constitute a waiver of any right or duty afforded any of them under the Contract Documents, nor shall any such action or failure to act constitute an approval of or acquiescence in a breach of this contract by Contractor. No oral waiver of any rights or remedies granted to the Owner, Engineer/Architect, or Owner's Representative shall be effective for any purpose. To be effective, the waiver must be in writing and executed by an authorized representative of Owner, the Engineer/Architect, or the Owner's Representative. Contractor has been informed, and understands, that the Engineer/Architect and Owner's Representative have no authority whatsoever

to waive any rights or remedies granted to the Owner by this contract or to alter any term or provision of the Contracts Documents or the approved Plans and Specifications. Any such purported waiver shall be void and unenforceable.

7-26 TAXES

The Contractor shall pay all sales, consumer, use, and other taxes.

NOTICE OF TAXABLE POSSESSORY INTEREST - The terms of this document may result in the creation of a possessory interest. If such a possessory interest is vested in a private party to this document, the private party may be subjected to the payment of personal property taxes levied on such interest.

7-27 ASSIGNMENT OF ANTI-TRUST ACTIONS

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

In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

Contractor shall insure that a comparable provision is included in all subcontracts at all tier levels which are executed pursuant to this Agreement.

7-28 PAYROLL RECORDS

It shall be the responsibility of the Contractor to maintain an accurate payroll record showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each employee in accordance with Labor Code Section 1776, and to ensure that each subcontractor also complies with all provisions of Labor Code Section 1776 and this contract provision.

All payroll records shall be certified as accurate by the applicable contractor or subcontractor or its agent having authority over such matters.

The Contractor shall ensure that all payroll records are available for inspection at the Contractor's principal office during normal business hours and shall notify the Owner, in writing, of the place where all payroll records are located from time to time.

The Contractor shall furnish a copy of all payroll records, upon request, to employees or their authorized agents, to the Owner, to the Division of Labor Standards Enforcement, and to the Division of Apprenticeship Standards of the Department of Industrial Relations. The Contractor shall also furnish a copy of payroll records to the general public upon request provided the public request is made through the Owner, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement of the Department of Industrial Relations. In no event shall members of the general public be given access to payroll records at the Contractor's principal office.

Records made available to the general public in accordance with the prior paragraph shall be marked or obliterated in such a manner that the name and address of the Contractor and/or subcontractor and the name, address, and telephone number of all employees does not appear on the modified record.

The Contractor shall file a certified copy of any requested payroll records with the entity that requested such records within ten days of the date a written request for payroll records has been received.

Failure of the Contractor to comply with any provisions of this article or Labor Code Section 1776 within ten days of the date of a written request for compliance is received shall result in a forfeiture of up to \$50 per calendar day or portion thereof, for each worker, until strict compliance is obtained. Upon notification by the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement of the Department of Industrial Relations, the Owner shall withhold penalties under this article or Labor Code Section 1776 from the Contractor's payments then due.

7-29 MODIFICATION

This contract may not be altered in whole or in part except by modification in writing and properly executed by all parties hereto or by change as provided herein.

7-30 JURISDICTION AND VENUE

In the event any legal or equitable proceeding is commenced to invalidate, enforce, or interpret any of the terms or provisions of this contract, the parties expressly agree that jurisdiction and venue shall lie only in the Superior Court located in the North County Judicial District, County of San Diego, State of California. The Contractor acknowledges and agrees that this contract has been executed and requires performance solely within the jurisdiction and venue of the North County Judicial District and that the contract requires work solely within the jurisdiction and venue of the North County Judicial District.

7-31 HAZARDOUS WASTE

It shall be the responsibility of the Contractor to pay all fees and costs associated with removal and cleanup of any hazardous waste used at or brought to the job site by the Contractor, any subcontractor, or any agent, representative, or employee of the Contractor or any subcontractor.

The Contractor shall identify and remove all such hazardous waste in accordance with all federal, state, and local rules and regulations and shall promptly notify the Owner's Representative of any such hazardous waste. If hazardous waste is discovered during performance of the work which has not been brought to, or used at, the job site by the Contractor, any subcontractor, or any agent, representative, or employee of the Contractor or any subcontractor, the Contractor shall identify and

remove this hazardous waste in accordance with all federal, state, and local rules and regulations and in accordance with directions of the Owner and the Contractor shall be entitled to request an increase in compensation due for these removal and cleanup costs in accordance with Article 9-1 PAYMENT FOR CHANGES IN THE WORK.

7-32 EXCAVATIONS BELOW FOUR (4) FEET

If any work required by this contract includes digging trenches or other excavations that extend deeper than four feet below the surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the Owner in writing of any:

Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law.

Subsurface or latent physical conditions at the site differing from those indicated.

Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.

Nothing in this article is intended to relieve the Contractor of his responsibility to carefully examine the Contract Documents and the site where the work is to be performed in accordance with Article 2-8 EXISTING CONDITIONS AND EXAMINATION OF CONTRACT DOCUMENTS; to familiarize himself with all local conditions and federal, state, and local laws, ordinances, rules, and regulations that may affect the performance of any work; to study all surveys and investigation reports about subsurface and latent physical conditions pertaining to the job site; to perform such additional surveys and investigations as the Contractor deems necessary to complete the work at his bid price; and to correlate the results of all such data with the requirements of the Contract Documents.

If the Owner determines that hazardous waste exists and that conditions exist which Contractor could not discover through the investigations required by the preceding paragraph, the Owner shall notify the Contractor and the Contractor may request a change order in accordance with Article 9-1 PAYMENT FOR CHANGES IN THE WORK. Nothing in this article shall relieve the Contractor of the obligation to pay all fees and costs associated with removal and cleanup of any hazardous waste used at, or brought to, the job site by the Contractor as specified in Article 7-31 HAZARDOUS WASTE. Nor shall this article relieve the Contractor of responsibility for site conditions discoverable by any investigation required by the preceding paragraph.

In the event that a dispute arises between the Owner and the Contractor involving hazardous waste and whether site conditions differ materially from those the Contractor could or should have discovered by the investigations required by this contract, the Contractor shall not be excused from the scheduled completion date provided in the Contract Documents and shall proceed with all work in the manner and in the time required by the Contract Documents.

7-33 ARBITRATION

All public works claims between the Contractor and Owner relating to this contract where the total claims of both parties are equal to or less than \$375,000 shall be submitted to mediation first and then to arbitration in accordance with Public Contract Code Section 20104, et seq. A copy of Public Contract Code Section 20104, et seq stating these arbitration requirements is attached following the General Provisions. When a total payment of the Contractor and the Owner exceed a total of \$375,000, this section shall not apply and neither the Owner nor the Contractor shall have any obligation to arbitrate the claim.

SECTION 8 CONTRACTOR'S INSURANCE

8-1 GENERAL

The Contractor shall not commence or continue to perform any work unless he, at his own expense, has in full force and effect all required insurance. The Contractor shall not permit any subcontractor to perform work on this project unless the Workers' Compensation Insurance requirements have been complied with by such subcontractor.

The types of insurance the Contractor shall obtain and maintain are Workers' Compensation Insurance and Employer's Liability Insurance, Liability Insurance, , all as set forth herein.

Workers' Compensation Insurance and Employer's Liability Insurance and Liability Insurance shall be maintained in effect for the full guarantee period.

Insurers must be authorized to do business and have an agent for service of process in California, have an "A" policyholder's rating and a financial rating of at least Class VI in accordance with the most current rating by A.M. Best Company.

As evidence of specified insurance coverage, the Contractor shall provide certificates of insurance and endorsements on the forms provided as a part of the Contract Documents. No alteration or substitution of said forms will be allowed.

8-2 WORKERS' COMPENSATION INSURANCE AND EMPLOYER'S LIABILITY INSURANCE

Upon execution of the Agreement, the Contractor shall provide a Certificate(s) of Insurance certifying that he has obtained for the period of the contract full Workers' Compensation Insurance coverage for no less than the statutory limits and Employer's Liability Insurance coverage in limits not less than the amounts set forth in the Special Provisions, for all persons whom he employs or may employ in carrying out the work under the contract. At the same time, the Contractor shall provide the Insurance Endorsement(s) on the forms provided as part of the Contract Documents. This insurance shall be in strict accordance with the requirements of the most current and applicable state Workers' Compensation Insurance laws.

8-3 LIABILITY INSURANCE

Upon execution of the Agreement, the Contractor shall provide a Certificate(s) of Insurance showing that he has Liability Insurance coverage in limits not less than the amounts set forth in the Special Provisions. At the same time, the Contractor shall provide the Insurance Endorsement(s) on the forms provided as part of the Contract Documents.

All liability insurance shall include occurrence coverage with a deductible amount not exceeding the amount specified on the liability certificate form.

Included in such insurance shall be a "Cross Liability" or "Severability of Interest" clause.

The Liability Insurance coverage shall include each of the following types of insurance:

A. General Liability

- (1) Comprehensive Form.
- (2) Premises-Operations.
- (3) Explosion and Collapse Hazard.
- (4) Underground Hazard.
- (5) Products/Completed Operations Hazard.
- (6) Contractual Insurance.
- (7) Broad Form Property Damage Including Completed Operations.
- (8) Independent Contractors.
- (9) Personal Injury.

B. Automobile Liability

- (1) Comprehensive Form Including Loading and Unloading.
- (2) Owned.
- (3) Hired.
- (4) Non-Owned.

The Liability Insurance shall include as additional insureds: the Owner, the Engineer/Architect, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents. The insurance afforded to these additional insureds shall be primary insurance. If the additional insureds have other insurance which might be applicable to any loss, the amount of the insurance provided under this article on LIABILITY INSURANCE shall not be reduced or prorated by the existence of such other insurance.

8-4 BUILDERS' RISK "ALL RISK" INSURANCE

Not used on this Project.

8-5 CONTRACTOR'S LIABILITY NOT LIMITED BY INSURANCE

Nothing contained in these insurance requirements is to be construed as limiting the liability of the Contractor or the right of the Owner to secure damages in excess of any insurance which may be provided.

SECTION 9 ESTIMATES AND PAYMENTS

9-1 PAYMENT FOR CHANGES IN THE WORK

The Contractor shall not be entitled to any increase in the contract price due to any change in the work unless the Contractor submits a written request within seven calendar days from the date of the event which causes the Contractor to request a change in the price.

Changes in, additions to, or deductions from the work, including increases or decreases in the quantity of any item or portion of the work, shall be set forth in a written change order executed by the Owner and by the Contractor which shall specify:

The changes, additions, and deductions to be made.

The increase or decrease in compensation due the Contractor, if any.

Adjustment in the time of completion, if any.

Adjustment in the compensation due the Contractor shall be determined by one or more of the following methods in the order of precedence listed below:

Unit price contained in the contract.

Mutually agreeable lump sum or unit prices. If requested by the Owner's Representative, the Contractor shall furnish an itemized breakdown of the quantities and prices used in computing proposed lump sum and unit prices.

Force account whereby the Contractor is compensated for furnishing labor, materials, tools, and equipment as follows:

Cost of labor plus 10% for workers directly engaged in the performance of the work. Cost of labor shall include actual wages paid including employer payments to or on behalf of the workers for health and welfare, pension, vacation, and similar purposes plus payments imposed on payroll amounts by state and federal laws plus subsistence and travel allowance payments to workers.

Cost of material plus 10%. Cost of material shall include sales tax, freight, and delivery charges. The Owner reserves the right to furnish such materials as he deems advisable and the Contractor shall not be paid the 10% markup on such materials.

For tools and equipment actually engaged in the performance of the work, rental rates plus 10%. The rental rates shall be those prevailing in the area where the work is performed. No rental charge shall be made for the use of tools or equipment having a replacement value of \$500 or less.

Subcontractor invoices to the Contractor plus 5%. Subcontractor invoices shall be based on the above-described cost of labor plus 10%, cost of material plus 10%, and tool and equipment rental rates plus 10%.

No payment shall be made for any item not set forth above, including without limitation, Contractor's overhead, general administrative expense, supervision, or damages claimed for delay in prosecuting the remainder of the work.

For force account work, the Contractor shall submit to the Owner's Representative for his verification, daily work sheets showing an itemized breakdown of labor, materials, tools, and equipment used in performing the work. No payment will be made for work not verified by the Owner's Representative.

9-2 PROGRESS PAYMENTS

The Contractor shall, on or before the third day of each calendar month after actual construction work is started, prepare the Progress Estimate and Payment Form included at the end of the General Provisions. The Contractor and the Owner's Representative shall review each work item and agree on the total value of work performed during the previous month. In the event the Contractor and the Owner's Representative cannot agree on the estimated total value of work during the previous month, the estimated total value of work performed as determined by the Owner's Representative during the previous month shall be used. No progress payment will be processed by the Owner until all information required by the Progress Estimate and Payment Form has been completed and the Contractor has signed the form. By signing the Progress Estimate and Payment Form, the Contractor expressly waives and releases any claims the Contractor may have, of whatever type or nature, for the period specified which is not shown as a retention amount or a disputed claim on the Release Form included at the end of the General Provisions. The Contractor shall submit to the Owner within seven days from signing the Progress Estimate and Payment Form a completed and signed Release Form that corresponds to the same pay estimate work period. The Owner shall have no obligation to pay the Contractor for any work done until the Release Form has been executed by the Contractor and submitted to the Owner for the corresponding pay period in accordance with Article 9-6 REQUIRED RELEASES.

Properly submitted Progress Estimate and Payment Form with corresponding Release Form shall be paid by the Owner within thirty days after receipt. Properly submitted forms not paid within this thirty-day period shall earn interest at the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure. The Contractor and Owner agree that the thirty-day period for payment shall not commence until the Contractor has executed and submitted the Release Form to the Owner for the corresponding pay period.

In preparing any progress payment with the Contractor, the Owner's Representative will may use the cost breakdown in by Article 6-3 CONTRACTOR'S CONSTRUCTION SCHEDULE AND COST BREAKDOWN. No allowance shall be made for materials delivered but not installed. In evaluating any progress payment, the Owner's Representative may take into consideration any facts and conditions deemed proper by him or her in his or her sole discretion including, but not limited to, the ratio of the difficulty or cost of the work done to the probable difficulty or cost of the work remaining to be done under the contract, the value of the work actually completed, and the estimated cost to complete all of the work in accordance with the contract price. In the event of any dispute between the Owner and the Contractor on the amount that should be paid for any progress payment, the determination of the Owner or the Owner's Representative shall control and be binding on the Contractor. No dispute between the Contractor and the Owner concerning the amount to be paid for any progress payment shall relieve the Contractor of its continuing obligation to complete all contract work within the time required by the Contract Documents, and to complete the work for the contract price and shall not relieve the Contractor of any other obligations contained in the Contract Documents. Owner shall retain five percent (5%) of each progress payment approved by the

Owner's Representative as part security for the fulfillment of the contract by Contractor, unless Contractor has substituted adequate equivalent securities as required by Article 9-5 WITHHELD CONTRACT FUNDS. The total amount retained will equal 5% of the contract price. In the event of a dispute between the Owner and Contractor, the Owner shall have the right to withhold an amount up to 150% of the disputed amount in accordance with Public Contract Code Section 7107(c). As part of any progress payment the Owner shall have the express right to deduct and withhold from any payments due the Contractor any amounts the Owner or the Owner's Representative determines are necessary or appropriate to cover all fees, costs, expenses, and damages incurred or estimated by the Owner as a result of any breach of this contract by the Contractor and to cover any and all damages suffered or estimated by the Owner as a result of the breach of any term or provision of the contract by the Contractor. Amounts the Owner may withhold also expressly include any and all liquidated damages authorized by the terms of this contract.

9-3 FINAL ESTIMATE AND PAYMENT

Contractor shall not make any request for the final payment until all work required by the Plans and Specifications of the Contract Documents has been completed to the satisfaction of the Owner's Representative. Upon receipt of a request from Contractor for final payment, the Owner's Representative will make a final inspection of the work done and advise the Contractor of additional work required before final payment will be processed. All prior progress estimates and payments shall be subject to correction in the final estimate and payment.

The final payment shall not be due and payable until 60 calendar days after the date of filing a Notice of Completion of the accepted work. The date of completion shall be determined in accordance with Public Contract Code Section 7107. In the event of a dispute between the Owner and the Contractor, Owner shall be entitled to withhold an amount up to 150% of the disputed amount.

It is mutually agreed between the parties to the contract that no certificate given or payment made under this contract shall constitute evidence of performance of the contract and no payment by Owner shall be construed as an acceptance of any defective work or improper materials.

Contractor shall not be entitled to payment of the final amount due until Contractor has executed a Release Form in accordance with Article 9-6 REQUIRED RELEASES. Contractor hereby expressly agrees that payment of the final amount due under the contract shall release the Owner, the Engineer/Architect, the Owner's Representative, and their consultants, and each of their directors, officers, employees, and agents, from any and all claims relating to the work for which Contractor is being paid. It is the declared intention of the parties that this provision comply with Public Contract Code Section 7100 and that this section shall be construed as in compliance with Public Contract Code Section 7100 to the maximum feasible extent.

9-4 OWNER'S RIGHT TO WITHHOLD CERTAIN AMOUNTS AND MAKE APPLICATION THEREOF

In addition to the amounts which the Owner may retain under Sections 9-2 and 9-3 of this contract, the Owner may withhold a sufficient amount or amounts from any payment otherwise due to the Contractor (including any final payment) as may be necessary or appropriate in Owner's sole and exclusive judgment to cover each of the following:

Payments which are or may be past due and payable for properly filed claims against the Contractor or any subcontractors for any labor, materials, or equipment furnished in or about

the performance of the work on the project under this contract including any amounts asserted as attorneys' fees, costs, or interest by the claimant.

All fees, costs, and expenses estimated by the Owner for correcting any work determined to be defective by the Owner.

Any amounts determined appropriate or necessary by the Owner to cover the Owner's estimate of any damages paid or payable as a result of any claim or cause of action on the contract caused, or claimed to be caused by any action or omission of Contractor, any subcontractor, supplier or materialmen or their respective directors, officers, agents, employees, members, managers or consultants and all fees, costs, and expenses, including all attorneys' fees, expert fees and costs, staff time at each staff members' normal hourly rates and all court costs estimated by the Owner in responding to the claim or cause of action.

Any amounts determined necessary or appropriate by Owner to cover all of the indemnity obligations of Contractor under this contract.

Any amounts claimed by the Owner as forfeiture due to delay and any and all other amounts, fees, costs, or expenses estimated by the Owner as offsets.

The Owner has the express authority to withhold any amount or amounts determined appropriate by Owner from time to time from any payments otherwise due Contractor to cover all or any of the preceding items in the Owner's sole and exclusive judgment. The Owner may also apply all or any portion of any such withheld amount or amounts to the payment of any claims in such amounts and at such times as are determined appropriate by Owner, in Owner's discretion. In withholding any sums permitted by this section or in paying any claims, the Owner shall be deemed the agent of the Contractor and any payments made by the Owner on any claim shall be considered as a payment made under the contract by the Owner to the Contractor. The Owner shall not be liable to the Contractor for Owner's withholding of any and all amounts permitted by this section or Owner's payment of any claims as permitted by this section. Such withholdings and payments may be made by Owner at any time without prior judicial determination of the merits of any claims or causes of action. The Owner will render to the Contractor a proper account of any funds withheld or disbursed as permitted by this section.

9-5 WITHHELD CONTRACT FUNDS

Pursuant to Public Contract Code Section 22300, the Contractor may substitute equivalent securities for retention amounts which this Contract requires. However, the Owner reserves the right to solely determine the adequacy of the securities being proposed by the Contractor and the value of those securities. The Owner shall also be entitled to charge an administrative fee, as determined by Owner in its sole discretion, for substituting equivalent securities for retention amounts.

The Contractor agrees that the Owner's decision with respect to the administration of the provisions of Section 22300 shall be final and binding and not subject to subsequent litigation or arbitration of any kind as to acceptance of any securities being proposed, the value of these securities, the costs of administration and the determination of whether or not the administration should be accomplished

by an independent agency or by the Owner. The Owner shall be entitled, at any time, to request the deposit of additional securities of a value designated by the Owner, in Owner's sole discretion, to satisfy this requirement. If the Owner does not receive satisfactory securities within 12 calendar days of the date of the written request, Owner shall be entitled to withhold amounts due Contractor until securities of satisfactory value to Owner have been received.

9-6 REQUIRED RELEASES

In accordance with Public Contract Code Section 7100, the Contractor shall not be entitled to any payment specified in this Contract which is undisputed until such time as the Contractor has executed the Release Form(s) included at the end of the General Provisions releasing the Owner from all claims relating to work for which the Contractor is being paid. The Release Form contains space for the Contractor to claim any disputed amount and to designate the retention amount for each pay period associated with the release. Contractor hereby expressly agrees that failure on his part to designate any disputed amount or to designate the correct retention amount for each release period on the Release Form shall constitute an express waiver of the right of the Contractor to claim any disputed amount or any retention amount at any later date. The Owner shall have no obligation to pay the Contractor for any work done until the Release Form at the end of the General Provisions has been executed by the Contractor and submitted to the Owner.

SECTION 10 AUTHORITY AND STATUS OF OWNERS REPRESENTATIVES

10-1 STATUS OF OWNERS REPRESENTATIVES

The Contractor has been informed, and understands, that the Engineer/Architect and the Owner's Representative are not agents or employees of Owner. They are independent contractors retained by Owner to assist in preparation of the design plans for the work and in supervising the work to be performed by the Contractor. Owner does not direct the Engineer/Architect or the Owner's Representative in the performance of their respective duties and obligations. Owner shall not be liable for any errors or omissions of the Engineer/Architect, the Owners Representative or their respective directors, officers, agents or employees.

10-2 AUTHORITY OF OWNER'S REPRESENTATIVES

Contractor has been informed, and understands, that the Engineer/Architect and the Owner's Representative have no authority to alter any of the terms or provisions of the Contract Documents

or to alter any of the requirements contained in the plans and specifications approved by Owner. In the event that Contractor desires to modify any term or provision of the Contract Documents or to modify any of the requirements of the approved plans and specifications, a written request must be submitted with the requested changes to the Owner through the Owner's Representative. Only the general manager of Owner has the authority to alter or modify any of the terms or provisions of the Contract Documents. No modification or change to the Contract Documents shall be effective for any purpose unless the change or modification has been expressly approved, in writing, by the general manager of Owner. Any requested changes by the Contractor to the approved plans and specifications must be submitted to the Owner's Engineer for review and approval through the Owner's Representative. No changes to the approved plans or specifications shall be effective for any purpose unless the Owner's Engineer has expressly approved of the change, in writing. The Contractor is expressly prohibited from entering onto private property, disturbing any habitat, or using private property to stockpile, store, or spread any men, tools, equipment, materials, or dirt without

the express prior written consent of the general manager of Owner. The violation of this section by Contractor or any of its subcontractors, materialmen, or suppliers or their respective directors, officers, managers, members, agents, consultants or employees shall constitute a material breach of this Agreement.

SECTION 11 FORMS

11-1 APPROVED MATERIALS LIST SUBMITTAL

The Contractor shall complete the Approved Materials List (AML) which can be found on the Bids and Planning page of the District's website at www.olivenhain.com as called for in the Special Provisions and Standard Specifications and submit as directed by the Owner's Representative. No substitution or revision to this form will be accepted or approved by the Owner.

11-2 SHOP DRAWING SUBMITTAL FORM

The Contractor shall complete the Shop Drawing Submittal Form included at the end of the General Provisions when submitting Shop Drawings as called for in the Special Provisions and Standard Specifications or requested by the Owner's Representative. Duplication of this form is permissible to comply with the requirements of the Contract Documents. No substitution or revision to this form will be accepted and approved by the Owner.

11-3 PROGRESS ESTIMATE AND PAYMENT FORM

The Contractor will use the Progress Estimate and Payment Form included at the end of the General Provisions when preparing the monthly progress payment for review. No progress payment will be processed to pay the Contractor until the progress estimate and payment form and the release form included at the end of these general provisions have been fully completed and submitted by the Contractor to the Owner's Representative and approved by the Owner.

11-4 RELEASE FORM(S)

The Contractor shall complete the Conditional and/or Final Release Forms (as appropriate) included at the end of the General Provisions and submit to the Owner for the corresponding pay period in accordance with Article 9-6, REQUIRED RELEASES. Duplication of this form is permissible to comply with the requirements of the Contract Documents. No substitution or revision to this form will be accepted. No payment request to the Contractor will be processed until the Release Form has been fully completed and submitted by the Contractor.

END OF SECTION

PROGRESS ESTIMATE AND PAYMENT FORM

Owner: **OLIVENHAIN MUNICIPAL WATER DISTRICT** OMWD Project # **D120038**
 Project: **LUSARDI PHASE III CP REPLACEMENT PROJECT** Contract End Date _____
 Contractor: _____ Revised Contract End Date _____
PAY ESTIMATE NO. _____
PERIOD WORK PERFORMED: _____ Contract Job No. _____
 Date Created _____

Work Item	Description of Work Item	Total Cost of Work Item	Percent Complete	Value of Work

Total Project Cost of Work Items			-----
Estimated Total Value of Work Performed			
Less Five Percent (5%) of Such Estimated Total Value			
Total Amount Due for Work Performed			
Less All Previous Payments			
AMOUNT DUE AND PAYABLE TO THE CONTRACTOR			

Prepared by Owner's Representative

 Accepted by CONTRACTOR Approved by OWNER
 By: _____ By: _____
 Date: _____ Date: _____

Distribution: ☐ Owner ☐ Contractor ☐ Engineer ☐ Finance

(BLANK)

**CONDITIONAL WAIVER AND RELEASE ON
PROGRESS PAYMENT**

(CA CIVIL CODE §8132) (1)

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information:

Name of Claimant: _____

Name of Customer: **Olivenhain Municipal Water District**

Job Location: _____

Owner: Olivenhain Municipal Water District

Through Date: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: Olivenhain Municipal Water District

Amount of Check: _____

Check Payable to: _____

This document does not affect any of the following:

- (1) Retentions.
- (2) Extras for which the claimant has not received payment.
- (3) The following progress payments for which the claimant has previously given a conditional waiver and release but has not received payment:
Date(s) of waiver and release: _____
Amount(s) of unpaid progress payment(s): \$ _____
- (4) Contract rights, including:
(A) a right based on rescission, abandonment, or breach of contract, and
(B) the right to recover compensation for work not compensated by the payment.

SIGNATURE

Claimant's Signature: _____

Claimant's Title: _____

OLIVENHAIN MWD
LUSARDI PHASE III CP REPLACEMENT PROJECT

CONDITIONAL WAIVER & RELEASE ON PROGRESS PAYMENT

Date of Signature: _____

(BLANK)

**CONDITIONAL WAIVER AND RELEASE ON
FINAL PAYMENT**
(CA CIVIL CODE §8136) (3)

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information:

Name of Claimant: _____

Name of Customer: **Olivenhain Municipal Water District** _____

Job Location: _____

Owner: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: Olivenhain Municipal Water District _____

Amount of Check: _____

Check Payable To: _____

Exceptions

This document does not affect any of the following:

Disputed claims for extras in the amount of: \$ _____

SIGNATURE

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

(BLANK)

PROPOSED CHANGE ORDER

Owner: **OLIVENHAIN MUNICIPAL WATER DISTRICT**
Project: LUSARDI PHASE III CP REPLACEMENT PROJECT

OMWD PN: **D120038**

Contractor: _____

PROPOSED CHANGE ORDER NO. _____

Date: _____

*A change to the contract documents for the above referenced project is being considered. Please provide cost and schedule impact(s) for the following described work:

DESCRIPTION OF CHANGE / PCO's

Cost Impact

Schedule Impact

\$ _____

_____ Day(s)

TOTAL

\$ _____

_____ **Calendar Day(s)**

NOTE: Attention is called to the sections in the General Provisions on Scope of Work and Estimates and Payments.

THIS PROPOSED CHANGE ORDER IS NOT EFFECTIVE UNTIL A CONTRACT CHANGE ORDER HAS BEEN APPROVED BY OWNER.

This PCO was initiated by _____

On _____

Submitted

On _____

Contractor

(BLANK)

Article 1.5

RESOLUTION OF CONSTRUCTION CLAIMS

Section	Section
20104. Application of article; provisions included in plans and specifications.	20104.6. Payment on undisputed portion of claim;
20104.2. Claims; requirements; tort claims excluded.	interest on arbitration awards or judgments
20104.4. Civil action procedures; mediation and arbitration; trial de novo; witnesses.	20104.8. Repealed.

Article 1.5 was added by Stats. 1994, c. 726 (A.B. 3069), § 22, eff. Sept. 22, 1994.

Former Article 1.5, Resolution of Construction Claims, consisting of §§20104 to 20104.8, added by Stats. 1990, c. 1414 (A.B. 4165), § 2, was repealed by Stats. 1990, c. 1414 (A.B. 4165), § 2, operative Jan. 1, 1994.

§ 20104. Application of article; provisions included in plans and specifications

(a) (1) This article applies to all public works claims of three hundred seventy-five thousand dollars (\$375,000) or less which arise between a contractor and local agency.

(2) This article shall not apply to any claims resulting from a contract between a contractor and a public agency when the public agency has elected to resolve any disputes pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2.

(b) (1) "Public work" has the same meaning as in Sections 3100 and 3106 of the Civil Code, except that "public work" does not include any work or improvement contracted for by the state or the Regents of the University of California.

(2) "Claim" means a separate demand by the contractor for (A) a time extension, (B) payment of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public work and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (C) an amount the payment of which is disputed by the local agency.

(c) The provisions of this article or a summary thereof shall be set forth in the plans or specifications for any work which may give rise to a claim under this article.

(d) This article applies only to contracts entered into on or after January 1, 1991.

(Added by Stats. 1994, c. 726 (A.B. 3069), § 22, eff. Sept. 22, 1994.)

Historical and Statutory Notes

1990 Legislation

Former § 20104 was renumbered Public Contract Code § 20103.5 and amended by Stats. 1990, c. 1414 (A.B. 4165), § 1.

Former § 20104, added by Stats. 1990, c. 1414 (A.B. 4165), § 2, relating to application of article regarding resolution

of construction claims, was repealed by Stats. 1990, c. 1414 (A.B. 4165), § 2, operative Jan. 1, 1994. See, now, this section.

Derivation: Former § 20104, added by Stats. 1990, c. 1414, § 2.

§ 20104.2 Claims; requirements; tort claims excluded

For any claim subject to this article, the following requirements apply:

(a) The claim shall be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims.

(b) (1) For claims of less than fifty thousand dollars (\$50,000), the local agency shall respond in writing to any written claim within 45 days of receipt of the claim, or may request, in writing, within 80 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 15 days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.

(c) (1) For claims of over fifty thousand dollars (\$50,000) and less than or equal to three hundred seventy-five thousand dollars (\$375,000), the local agency shall respond in writing to all written claims within 60 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 30 days after receipt of the further documentation, or within a period of time no greater than that taken by the claimant in producing the additional information or requested documentation, whichever is greater.

(d) If the claimant disputes the local agency's written response, or the local agency fails to respond within the time prescribed, the claimant may so notify the local agency, in writing, either within 15 days of receipt of the local agency's response or within 15 days of the local agency's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the local agency shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(e) Following the meet and confer conference, if the claim or any portion remains in dispute, the claimant may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the claimant submits his or her written claim pursuant to subdivision (a) until the time that claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

(f) This article does not apply to tort claims and nothing in this article is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of Government Code.

(Added by Stats. 1994, c. 726 (A.B. 3069), § 22, eff. Sept. 22, 1994.)

Historical and Statutory Notes

1990 Legislation

Former § 20104.2, added by Stats. 1990, c. 1414 (A.B. 4165), § 2, amended by Stats. 1991, c. 1029 (A.B. 1086), § 1, relating to requirements for claims filed under the article,

was repealed by Stats. 1990, c. 1414 (A.B. 4165), § 2, operative Jan. 1, 1994. See, now, this section.

Derivation: Former § 20104.2, added by Stats. 1990, c. 1414, § 2, amended by Stats. 1991, c. 1029, § 1.

Library Reference

California Practice Guide: Alternative Dispute Resolution, Knight, Fannin & Disco, see Guide's Table of Statutes for chapter paragraph number references to paragraphs discussing this section.

Civil Procedure Before Trial, Well & Brown, Guide's Table of Statutes for chapter paragraph number references to paragraphs discussing this section.

§ 20104.4 Civil action procedures, mediation and arbitration; trial de novo; witnesses

The following procedures are established for all civil actions filed to resolve claims subject to the article:

(a) Within 60 days, but no earlier than 30 days, following the filing or responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, shall be commenced within 30 days of the submittal, and shall be concluded within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator.

(b) (1) If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

(2) Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this article shall be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses shall be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division. In no event shall these fees or expenses be paid by state or county funds.

(3) In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, any party who after receiving an arbitration award requests a trial de novo but does not obtain more favorable judgment shall, in addition to payment of costs and fees under that chapter, pay the attorney's fees of the other party arising out of the trial de novo.

(c) The court may, upon request by any party, order any witnesses to participate in the mediation or arbitration process.

(Added by Stats. 1994, c. 726 (A.B. 3069), § 22, eff. Sept. 22, 1994.)

Historical and Statutory Notes

1990 Legislation

Former § 20104.4, added by Stats. 1990, c. 1414 (A.B. 4165), § 2, amended by Stats. 1991, c. 1029 (A.B. 1086), § 2, relating to procedures for civil actions filed to resolve construction claims, was repealed by Stats. 1990, c. 1414

(A.B. 4165), § 2, operative Jan. 1, 1994. See, now, this section.

Derivation: § 20104.4, added by Stats. 1990, c. 1414, § 2, amended by Stats. 1991, c. 1029, § 2.

Library Reference

California Practice Guide: Alternative Dispute Resolution, Knight,
Fannin & Disco, see Guide's Table of Statutes

for chapter paragraph number references to paragraphs
discussing this section.

§ 20104.6 Payment on undisputed portion of claim; interest on arbitration awards or judgments

(a) No local agency shall fail to pay money as to any portion of a claim which is undisputed except as otherwise provided in the contract.

(b) In any suit filed under Section 20104.4, the local agency shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

(Added by Stats. 1994, c. 726 (A.B. 3069), § 22, eff. Sept. 22, 1994.)

Historical and Statutory Notes

1990 Legislation

Former § 20104.6, added by Stats. 1990, c. 1414 (A.B. 4165),
§ 2, relating to payment of undisputed portion of claims, was
repealed by Stats. 1990, c. 1414 (A.B. 4165), § 2, operative Jan.
1, 1994. See, now, this section.

Derivation: Former § 20104.6, added by Stats. 1990, c.
1414, § 2.

§ 20104.8 Repealed by Stats. 1990, c. 1414 (A.B. 4165), § 2, operative Jan. 1, 1994

Historical and Statutory Notes

The repealed section, added by Stats. 1990, c. 1414 (A.B.
4165), § 2, related to application of the article to specified

contracts and provided for repeal of the article on Jan 1, 1994.

SECTION 00810 SPECIAL PROVISIONS

1.01 DEFINITIONS

Whenever the following terms occur in the Contract Documents, the meaning shall be interpreted as follows:

ATTORNEY FOR OWNER – Nossaman LLC, 777 S. Figueroa Street, 34th Floor, Los Angeles, California 90017, (213) 612-7831.

BOARD OF DIRECTORS - Board of Directors of the Olivenhain Municipal Water District.

DATE OF AWARD OF CONTRACT - The date of the District Resolution (formal action of the Board of Directors of the District) awarding the Contract.

DISTRICT - Olivenhain Municipal Water District (OMWD), 1966 Olivenhain Road, Encinitas, California 92024, (760) 753-6466.

DISTRICT'S REPRESENTATIVE - The Owner's Representative.

DRAWINGS or PLANS - Olivenhain Municipal Water District select Standard Drawings located in Appendix B. For items not included in Appendix B, construct the item in accordance with the Olivenhain Municipal Water District Standard Specifications and Drawings A-1.1 through G-15 of the Olivenhain Municipal Water District, Standard Specifications and Drawings for the Construction of Water, Recycled Water, and Sewer Facilities, Current Edition

ENGINEER/ARCHITECT - See OWNER

OWNER - Olivenhain Municipal Water District (OMWD), 1966 Olivenhain Road, Encinitas, California 92024, Tel: (760) 753-6466, Fax: (760) 753-1578.

OWNER'S REPRESENTATIVE - The person or engineering/architectural firm authorized by the District to represent it during the performance of the work and until final acceptance. The Owner's Representative is referred to throughout the Contract Documents as if singular in number and masculine in gender. The Owner's Representative means the Owner's Representative and his assistants.

PUBLIC WORKS SPECIFICATIONS - Standard Specifications for Public Works Construction Current Edition by APWA/AGC, the "GREENBOOK" with 2000 Regional Supplement Amendments.

REGIONAL STANDARD DRAWINGS – Standard Drawings for Agencies in the San Diego Region as recommended by the Regional Standards Committee and published by the San Diego County Department of Public Works, Current Edition.

GENERAL PROVISIONS SUPPLEMENT - Section 00810 of the specifications.

SPECIFICATIONS - Division 1 to 16 of the technical specifications contained in these Contract Documents, and those technical specifications contained in the drawings.

STANDARD DRAWINGS - Drawings A-1.1 through G-15 of the Olivenhain Municipal Water District, Standard Specifications and Drawings for the Construction of Water, Recycled Water, and Sewer Facilities, Current Edition.

STANDARD SPECIFICATIONS - Divisions 1 through 16 of the Olivenhain Municipal Water District, Standard Specifications and Drawings for the Construction of Water, Recycled water, and Sewer Facilities, Current Edition.

STATE STANDARD SPECIFICATIONS - State of California, Department of Transportation, Standard Specifications, Current Edition, Caltrans.

STATE STANDARD PLANS - State of California, Department of Transportation, Standard Plans, Current Edition, Caltrans.

Whenever the following terms appear in the State Standard Specifications or Public Works Specifications, the meaning shall be interpreted as follows:

AGENCY, BOARD or DEPARTMENT - The Owner.

ENGINEER - The Owner's Representative.

1.02 TERMS

Command type sentences used in the Contract Documents refer to and are directed to the Contractor.

1.03 ABBREVIATIONS

Interpret abbreviations used on the Drawings and in the Specifications as explained on the drawings.

1.04 MARKING AND ADDRESSING BID ENVELOPE

Bids shall be made on the Bid Form and Bid Bond included within the Contract Documents. Include the one page Bid Form Checklist along with the 13 page Bid Form and Bid Bond all completely filled out, when submitting a bid. Seal these documents in an envelope marked and addressed as follows:

BID FOR CONSTRUCTION OF:
LUSARDI PHASE III CATHODIC PROTECTION REPLACEMENT PROJECT
OLIVENHAIN MUNICIPAL WATER DISTRICT
Attention: Pre-Bid, Engineering Department
1966 Olivenhain Road
Encinitas, CA 92024

1.05 AWARD OF CONTRACT OR REJECTION OF BIDS

Within a period of 60 calendar days after the opening of bids, the District will accept or reject the bids.

1.06 CONTRACTOR'S LICENSING REQUIREMENTS

The District has determined the license classification necessary to bid and perform the subject contract. In no case shall this contract be awarded to a specialty contractor whose classification constitutes less than a majority of the portion of the work of this contract, all work to be performed outside of the contractor's license specialty, except work specifically authorized by District, shall be performed by a licensed subcontractor in compliance with the Subletting and Subcontractor Fair Practices Act commencing with Section 4100 et seq., of the Public Contract Code. See Business and Professions Code { 7059.

The Contractor's license classification required for this project is a California State **Contractor's License Class A.**

It is the District's intent that "plans", as used in Public Contract Code Section 3300, is defined as the construction Contract Documents, which include both the Drawings and the Specifications.

1.07 TIME FOR COMPLETION AND FORFEITURE DUE TO DELAY

The work shall be completed within ONE HUNDRED AND TWENTY (120) CONSECUTIVE CALENDAR DAYS from and after the date of the Notice to Proceed. Additionally, all work must occur between September 1st and February 15th outside of the general bird breeding season unless otherwise approved in writing by the District.

The Contractor will not be permitted to begin work until the agreement, bonds or substitutes, insurance certificates and endorsements are acceptable to the District and Attorney for Owner. This period of time is set forth in Paragraph 3-2 Execution of Contract in the General Provisions. Time is of the essence in this contract.

The Contractor shall complete all work in its entirety as specified in the Contract Documents within these time periods. Time of completion shall also include time for all submittals and coordination required to satisfy the requirements of these Contract Documents.

The Contractor agrees that the work shall be prosecuted regularly, diligently, and uninterruptedly and at such rate of progress as will insure full completion thereof within the Time for completion stated above. It is expressly understood and agreed, by and between Contractor and Owner that the Time for completion is reasonable for the completion of the WORK, taking into consideration the average climatic range, usual industrial conditions prevailing in this locality, and lead time required to procure equipment.

Pursuant to Government Code 53069.85, forfeiture for each day completion is delayed beyond the time allowed will be at the rate of \$1,500.00 per day.

1.08 PERMITS

The Contractor shall obtain and pay for all required permits and provide copies of all permits to the District's Representative prior to starting work, including the San Diego County Air Pollution Control District's permits for construction and operation of diesel generators. The Contractor shall comply with the ordinances, directives, and regulations of the respective agencies with jurisdiction over the area of the work. All work not specifically covered in the required permits shall conform to the requirements of these Specifications. The cost of all permits and plan check review shall be borne by the Contractor and included in the Contractor's bid.

The Contractor shall be responsible for developing haul routes for the importing or exporting of materials or equipment for the project and obtaining and paying for all required permits from the affected agencies of jurisdiction, i.e., City of Encinitas. The Contractor shall provide copies of all permits to the District's Representative prior to starting work. The Contractor shall comply with the ordinances, directives, and regulations of the respective agencies with jurisdiction over the area of the work. All costs for transport fees, dump fees, plan or haul route reviews, permits, and related incidentals shall be borne by the Contractor and included in the Contractor's bid.

1.09 USE OF ASBESTOS PRODUCTS NOT PERMITTED

The intent of the Contract Documents is to provide asbestos-free components throughout the project in accordance with the recent Environment Protection Agency stated policy seeking a ban on the use of all products containing asbestos. Where the Contract Documents or the referenced specifications, standards, codes, or tests refer to products containing asbestos, the Contractor shall provide acceptable alternatives under those documents, or in the absence of such referenced alternatives, he shall submit a proposed substitute to the District's Representative for review and acceptance.

1.10 ASBESTOS CEMENT PIPE REMOVAL AND DISPOSAL

If asbestos cement pipe must be cut and handled in the field to accomplish the work, the Contractor is solely responsible for and shall take all appropriate precautions for protecting against threats to health and safety of the work force and general public arising out of construction involving asbestos. The Contractor shall comply with all applicable regulations for the handling, cutting, shaping, installation and disposal of asbestos. Asbestos cement pipe to be disposed shall be properly manifested, prepared for transport following criteria of County of San Diego Department of Public Works, Solid Waste Division, and delivered to a landfill permitted for disposal of non-friable asbestos containing materials. The completed Generator copy (yellow) manifest shall be returned to the District's Representative. If necessary, all costs for handling and disposal of the AC pipe shall be negotiated as a change to the Contractor's bid.

1.11 ABATEMENT OF AIR POLLUTION

Comply with all applicable Federal, State, County, and City laws and regulations concerning the prevention and control of air pollution. Conduct construction activities and equipment in

a manner so as to minimize atmospheric emissions or discharges of air contaminants. Equipment or vehicles that show excessive emissions of exhaust gases shall not be operated on the site.

1.12 NOISE CONTROL REQUIREMENTS

The Contractor shall comply with all local sound control and noise level rules, regulations and ordinances which apply to any work performed pursuant to the Contract.

Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without said muffler.

Noise level requirements shall apply to all equipment on the job or related to the job, including but not limited to trucks and transient equipment that may or may not be owned by the Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety for the protection of personnel.

1.13 AMOUNT OF LIABILITY INSURANCE

A. Employer's Liability Insurance:

1. Bodily injury coverage by accident shall be for not less than \$1,000,000 for each employee and \$1,000,000 for each accident.
2. Bodily injury coverage by disease shall be for not less than \$1,000,000 for each employee and \$1,000,000 for each disease.

B. General Liability:

Bodily injury, personal injury, and property damage coverage shall be in a combined single limit of not less than \$2,000,000 for each occurrence and \$2,000,000 aggregate.

C. Automobile Liability:

Bodily injury and property damage coverage shall be in a combined single limit of not less than \$2,000,000 for each occurrence.

D. Earthquake and Tidal Wave Insurance:

Earthquake and Tidal Wave Insurance is not required for this project.

E. Builder's Risk

Builder's Risk is not required for this project.

1.14 MEASUREMENT AND PAYMENT

A. General:

1. The measurement and payment provisions of referenced standards are not applicable to this contract.
2. The price set forth in the Bid Form for the work shall include all costs and expenses incidental to completing the work, and payment of the price bid will be payment in full under this contract, except as provided by Article 9-1 PAYMENT FOR CHANGES IN THE WORK of the General Provisions.
3. As a condition precedent to approval of the Contractor's monthly payment application by the District's Representative, the Contractor shall attend all progress or issue resolution meetings scheduled by the District's Representative. In addition, the Contractor shall submit a monthly construction schedule properly updated and accurately showing the work completed to date and the work yet to be performed in the remaining Contract time. The Contractor agrees failure to comply with the foregoing to the satisfaction of the District's Representative shall delay the monthly progress payment to the Contractor without penalty to the District.

B. Work Items Listed in the Bid Schedule:

1. The lump sum prices include full compensation for furnishing the labor, materials, tools, and equipment and doing all the work involved to complete the work included in the Contract Documents.
2. The application for payment will be for a specific work item based on the percentage completed. The percentage complete will be based on the value of partially completed work relative to the value of the item when entirely completed and ready for service. The application for payment will be in accordance with Article 9-2 PROGRESS PAYMENTS of the General Provisions.

C. Work Items Not Listed in the Bid Schedule:

1. The General Provisions and items in the Special Provisions which are not listed in the schedule of work items of the Bid Form are, in general, applicable to more than one listed work item, and no separate work item is provided therefor. Include the cost of work not listed but necessary to complete the project designated in the Contract Documents in the various listed work items of the Bid Form.
2. The bids for the work are intended to establish a total cost for the work in its entirety. Should the Contractor feel that the cost for the work has not been established by specific items in the Bid Form, he shall include the cost for that work in some related bid item so that his proposal for the project does reflect his total cost for completing the work in its entirety.

1.15 USE OF THE STANDARD DRAWINGS

Where the Drawings make reference to the Standard Specifications and Drawings, or wherever the specification for a particular item is not included in these Technical Specifications, furnish and construct the item in accordance with the details and materials as specified in the Olivenhain Municipal Water District, Standard Specifications and Drawings for the Construction of Water, Recycled Water, and Sewer Facilities dated June 2008 with

revisions. These Standard Specifications and Drawings are available for purchase at the office of the District.

1.16 CONSTRUCTION SCHEDULE AND BID BREAKDOWN

Due to the anticipated short time period of the project, the Contractor shall submit to the District's Representative a construction progress schedule and bid breakdown in a spreadsheet format ("3 week look ahead"). Divide each lump sum bid item into its major elements of work and show separately labor, materials and equipment costs. The District's Representative will use this cost breakdown as a basis for the monthly progress estimate and payment. The schedule shall specifically include and identify the construction sequence requirements defined on the plans, if any.

1.17 STORM DRAIN PROTECTION

The Contractor shall comply with County of San Diego Ordinance No. 9424, National Pollutant Discharge Elimination Permit Number CAS 0108758 and State Water Resources Control Board NPDES Permit No. CAS000002. Contractor shall install, implement and maintain Best Management Practices (BMPs) to the Maximum Extent Practicable (MEP) to prevent or reduce pollutant discharges to local storm drain/storm water conveyance systems and/or receiving waters from construction activities. BMPs to be implemented are detailed in the County of San Diego "Stormwater Standards Manual" and shall be applied in the following areas, if applicable to the project:

- (1) Erosion control on slopes;
- (2) Erosion control on flat areas; or BMPs to desilt runoff from flat areas;
- (3) Runoff velocity reduction;
- (4) Sediment control;
- (5) Offsite sediment tracking control;
- (6) Materials management;
- (7) Waste management;
- (8) Vehicle and equipment management;
- (9) Water conservation;
- (10) Structure construction and painting;
- (11) Paving operations;
- (12) Dewatering operations;
- (13) Planned construction operations;

- (14) Downstream erosion control;
- (15) Prevention of non-stormwater discharges;
- (16) Protection of ground water; and

BMPs shall include post-construction BMPs for permanent control of erosion from slopes. These BMPs can include structures to convey runoff safely from the tops of slopes, vegetation or alternative stabilization of all disturbed slopes and/or the use of natural drainage systems to the MEP.

1.18 (NOT USED)

1.19 (NOT USED)

1.20 HOURS OF WORK

Hours of work shall be 8:00 A.M. to 5:00 P.M. Saturday or nighttime work will only be allowed with prior written approval by the Owner. **Absolutely no equipment shall be started or warmed up prior to 8:00 AM or after 5:00 P.M.** No work other than overtime and shift work approved by Owner shall be done between the hours of 5:00 P.M and 8:00 A.M., nor on weekends, or District recognized holidays, except such work as is necessary for the proper care and protection of the work already performed, except in case of emergency, and as specified herein. The District recognized holidays are as follows:

- New Year's Day
- Martin Luther King, Jr. Day
- Presidents' Day
- Memorial Day
- Independence Day
- Labor Day
- Veterans Day
- Thanksgiving Day And The Following Friday
- Christmas Day

In the event that a national holiday falls on a Saturday, the previous Friday shall be considered a holiday. If a national holiday falls on a Sunday, the following Monday shall be considered a holiday.

1.21 CONSTRUCTION SURVEYS

A. LAND MONUMENTS

The Contractor shall notify the Engineer of any existing Federal, State, City, County, and private land monuments encountered. All monuments shall be preserved, or if necessary

The Contractor shall notify the Engineer of any existing Federal, State, City, County, and private land monuments encountered. All monuments shall be preserved, or if necessary to be destroyed during performance of the Work, shall be replaced by a licensed surveyor under contract to the District. Appropriate record of survey drawings shall be filed with the County of San Diego for all replaced monuments. When government monuments are encountered, the Contractor shall notify the Engineer at least two (2) weeks in advance of the proposed construction to allow sufficient time for the Engineer to reference these monuments for later replacement.

1.22 GEOTECHNICAL WORK

A Geotechnical report has not been prepared for the project. The Contractor may make independent geotechnical investigations of the project site in order to satisfy himself of the subsurface conditions that may be encountered. No additional compensation will be made for additional geotechnical investigations.

1.23 CONSTRUCTION TESTING

- A. The Owner will furnish compaction testing for all bedding, backfill, and soil compaction testing, and will provide for all concrete sampling and testing.
- B. The Owner shall furnish all materials testing and special inspections called for in the Contract Documents.
- C. When any work is determined to be unsatisfactory, faulty or defective, or does not conform to the requirements of the Contract Documents, the costs incurred by the Owner for additional tests or inspections shall be reimbursed by the Contractor. Said costs shall be paid by the Owner and deducted from progress payments to the Contractor.

1.24 WATER AVAILABILITY

If necessary, the Contractor shall obtain and pay for a construction water meter from the District and shall be responsible for all highlines and other temporary equipment and facilities necessary to provide adequate construction water to the project site

1.25 CONTRACTOR STAGING AND LAYDOWN AREA

The Contractor shall be responsible for returning all areas used to their original conditions. No laydown area has been established by Owner for this project.

1.26 SAFETY

- A. Owner and its inspectors, consultants, agents and other representatives are in no way responsible for safety and are there only to observe the work compliance with plans and specifications.
- B. The Contractor acknowledges responsibility for jobsite and acknowledges that the Owner and Engineer and their agents, employees, consultants and representatives will not have any such responsibility. To the fullest extent permitted by law the Contractor shall indemnify,

defend and hold harmless the OWNER, Engineer (defined hereinafter as Infrastructure Engineering Corporation), their present companies, subsidiaries, agents, and employees from and against all claims, damages, losses and expenses, including but not limited to attorney fees and claim costs, arising out of or resulting from performance of work by the Contractor, its subcontractors, or their agents and employees, which results in damage, loss or expense is caused in whole or in part by the negligence, active or passive, of OWNER, Engineer, their parent and subsidiary companies, as well as their agents and employees, excepting only the sole negligence of OWNER, Engineer, their parent or subsidiary companies and their agents and employees.

1.27 PROTECTION OF EXISTING UTILITIES

The Contractor shall coordinate their efforts with the District and shall take every precaution to protect all existing utilities and structures at the project site. The Contractor shall be responsible for all Underground Service Alert notification and mark outs prior to the beginning of work.

1.28 PRE-CONSTRUCTION CONFERENCE

A Pre-Construction Conference shall be scheduled prior to start of construction. The District, Contractor, and Engineer shall be present. The Contractor's detailed sequence of work and a list of labor, material and equipment rates for additional work shall be established and maintained throughout the project. Contractor shall identify all personnel assigned to the project and a complete set of approved submittal data for use by inspection personnel. Contractor shall have a designated representative for this project.

1.29 INDEMNIFICATION

Contractor hereby releases and agrees to indemnify, defend, hold harmless the Owner, Design Engineer, their parent and subsidiary companies, agents, employees, consultants and representatives for any and all damage to persons or property or wrongful death regardless of whether or not such claim, damage, loss or expense is caused in whole or in part by the negligence, active or passive, of Owner, Design Engineer, their parent and subsidiary companies, as well as their agents and employees, excepting only the sole negligence of Owner, Design Engineer, their parent or subsidiary companies and their agents and employees to the fullest extent permitted by law. Such indemnification shall extend to all claims, demands, actions, or liability for injuries, death or damages occurring after completion of the project, as well as during the work's progress. Contractor further agrees that it shall accomplish the above at its own cost, expense and risk exclusive of and regardless of any applicable insurance policy or position taken by any insurance company regarding coverage.

Contractor shall defend, indemnify and hold the Owner and Engineer/Architect, its employees, officers, or agents, harmless against any and all claims by any parties arising from, or related to, any and all damages, including legal costs and attorney's fees, resulting from interference with, interruption of, damage to, or any and all injuries which result from damage caused to subsurface installation, which is unforeseen and despite Engineer/Architect's effort during the design process was not located, excepting only the gross negligence or willful misconduct of Engineer in providing its services.

1.30 NOTICE OF COMPLETION

Contractor shall apply for acceptance of the work encompassed in the Contract Documents. Upon substantial completion of the work encompassed in the Contract Documents, the District, at the District's sole discretion, will issue a Notice of Substantial Completion for this work.

Upon completion of all work in the Contract Documents, Contractor shall apply for acceptance of the work. Upon acceptance of the work encompassed in the Contract Documents, the District, at the District's sole discretion will prepare a Notice of Completion for consideration and approval by the District Board of Directors.

1.31 GUARANTEE

For all work encompassed in the Bid Schedule a two-year guarantee shall be furnished by the Contractor as required in the General Provisions, Article 5-14, except that any guarantee included for materials or equipment beyond the period specified herein shall be solely the responsibility of the guarantor and not the Contractor. This guarantee period shall commence with the District's Board of Director's approval of a Notice of Completion.

1.32 LABOR COMPLIANCE PROGRAM AND CONTRACTOR REGISTRATION WITH STATE OF CALIFORNIA

In accordance with requirements defined by the California State Legislature via Senate Bill 854, all contractors and subcontractors involved with public works project shall be registered with the State Department of Industrial Relations. Registration is completed through an on-line application process and the payment of a fee to the State. The registration process requires contractors and subcontractors to provide workers' compensation coverage to its employees, hold a valid Contractors State Board License, have no delinquent unpaid wage or penalty assessments, and not be subject federal or state debarment. The registration form is located on the State Department of Industrial Relations website:

<http://www.dir.ca.gov/DLSE/dlsepublicworks.html>

Prior to start of construction, the Contractor shall submit to the District evidence of completing this registration for the prime firm and all subcontracting firms. Failure to submit the requested documentation shall be cause for delay of the project and subject to forfeiture due to delay in accordance with paragraph 1.07 of the Special Provisions.

END OF SECTION

PART II

TECHNICAL SPECIFICATIONS

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SECTION 01010 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 LOCATION AND DESCRIPTION OF WORK

- A. The site of Work is generally located in the County of San Diego, California. Site address is adjacent to San Dieguito Rd, San Diego, California 92127.
- B. The Project will consist of drilling three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet at nineteen (19) locations as specified in the contract documents for purposes of installing new cathodic protection magnesium anodes provided by the Contractor. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. Contractor shall make provisions accordingly.
- C. Contractor will furnish all labor, materials, equipment and supervision required for the excavation and drilling work specified below. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.
- D. Work Summary
 - 1. Mobilization, Demobilization, Bonds, Permits, Insurance, & Cleanup for all work required under this Project.
 - 2. Drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet at nineteen (19) locations as specified in the contract documents, split between two separate bid schedules.
 - 3. Cad Weld two (2) #8 HMWPE Wire (Pipe Leads) to Steel Pipe at one (1) location.
 - 4. Work at Site #1 through Site #19 as described in Section 01150 Measurement and Payment.

1.2 ENVIRONMENTAL CONSTRAINT

- A. The Project is located within the Lusardi Creek County Preserve and is an environmentally protected area for biological resources and nesting birds. All work must occur between September 1st and February 15th outside of the general bird breeding season unless otherwise approved in writing by the District.
- B. If construction occurs with the general breeding season, the Owner shall supply a qualified biologist to conduct a pre-activity nesting bird survey in the suitable habitat within 300 feet of the location of proposed construction activity. The pre activity nesting bird survey shall occur within one week before any construction activity is to occur. Contractor

SECTION 01010 - SUMMARY OF WORK

shall provide at least two weeks' notice for commencement of construction activity. If an active nest is detected, the Contractor shall coordinate with the Owner to delay activities within 300 feet of the nest until species specific measures to prevent impacts to the birds are determined and applied by the qualified biologist

1.3 INVOICES

Invoices submitted by Contractor to Owner and determined by Owner to be accurate will be paid no later 30 days after receipt.

1.3 CONTRACTS

A. The Work shall be constructed under one prime contract.

1.4 WORK BY OTHERS

A. Work by Franchise Utilities. All costs for coordination with the franchise utilities or for any Work performed by Contractor associated with franchise utilities shall be borne by Contractor at no additional cost to Owner. Costs for compensation to franchise utilities for work performed by their forces shall be paid for by the Contractor.

B. Owner, utilities, and others may perform activities within Project area while the Work is in progress.

1. Schedule the Work with Owner, utilities, and others to minimize mutual interference.

2. Cooperate with others to minimize interference and delays.

3. When cooperation fails, submit recommendations and perform Work in coordination with work of others.

1.5 CONTRACT METHOD

A. The work hereunder will be constructed under a single contract, the total cost of which is a total lump sum.

B. The Contractor shall include all Contract Documents as a part of all its subcontract agreements.

1.6 CONTRACTOR'S USE OF PREMISES

A. Contractor's use of the premises shall be coordinated with OMWD staff.

B. Contractor shall:

1. Assume full responsibility for protection and safekeeping of products stored on or off premises.

SECTION 01010 - SUMMARY OF WORK

- 2. Move stored products that interfere with the operations of Owner or other contractors.
- C. Work is to be performed within Public Right of Way or within limits of established Owner easements. No work shall be permitted outside of this limits. All work is to be coordinated with Owner prior to commencement of work.

1.7 OWNER'S USE OF THE PROJECT

- A. The Contractor shall cooperate with the Owner to minimize interference with the Owner's operations and to facilitate the Owner's operations in accordance with Section 01043.

1.8 OPERATION OF EXISTING WATER SYSTEM PROHIBITED

- A. The Contractor shall at no time undertake to close off any lines, open any valves or take any other action which would affect the operation of the existing water system, except as specifically required by the Contract Documents and after approval is granted by the Owner. Request approval two (2) working days in advance of the time that interruption of the existing system is required.
- B. Work on existing structures and facilities shall be performed on a schedule and in a manner that will permit the existing facility to operate continuously, unless otherwise approved in writing by the Owner of the existing utility and/or facility affected.

1.9 CONTRACT TERMINATION

- A. The Owner may terminate this Contract without cause by giving seven (7) days prior written notice to the Contractor. In event of a contract termination the Owner will pay the Contractor for that portion of the Contract completed as of the date of termination, less the aggregate of previous payments already disbursed. The Owner will also reimburse the Contractor for all costs necessarily incurred for organizing and carrying out the stoppage of the work and paid directly by the Contractor, not including overhead, general expenses and profit. Contractor shall not be entitled to profit on any portion of the project which has not been completed.

1.10 OWNER'S RIGHT TO STOP WORK

- A. The Owner reserves the right to stop work for any reason, at any time. The Contractor's claim for compensation shall apply to an adjustment in the completion time of the project only. Any additional costs incurred due to any stop work order, shall be incurred by the Contractor.

1.11 HAZARDOUS WASTE

- A. The Contractor shall perform work in such a manner that there will be no hazardous wastes (fuel, oil, chemical, etc.) generated or left on the site. Should the generation of hazardous waste be necessary in order to complete the Work, it shall be the Contractor's responsibility to take all necessary steps to legally dispose of the waste and any contaminated soil or material. All hazardous waste and/or contaminated soil

SECTION 01010 - SUMMARY OF WORK

found on the site which has been left by the Contractor shall be properly disposed of by the Contractor. All necessary documentation of the disposal shall be obtained by the Contractor and shall be submitted to the Owner.

Note: It is unacceptable to store fuels and/or oils on site. The Contractor and Subcontractors must make provisions to fuel equipment on a mobile basis only.

END OF SECTION

SECTION 01043 - COORDINATION WITH OWNER'S OPERATIONS

PART 1 - GENERAL

1.1 CONTINUATION OF OPERATIONS

- A. The Contractor will be performing work in the vicinity of existing water transmission and distribution facilities. Under these conditions, precautions will be necessary to assure that no damage or unscheduled shutdowns occur to any facilities, including piping, utilities, roads, and structures that are to remain in operation and are not to be modified or replaced. Any temporary facilities, materials, equipment and labor required to achieve this objective shall be provided by the Contractor at his own expense. At the completion of work, all such temporary facilities, materials and equipment remaining shall be removed from the site.
- B. The Contractor is responsible for maintaining access at all times for District vehicles traveling around the work area.

1.2 ORDER OF THE WORK

The work shall be carried on at such places on the project and also in such order or precedence as may be found necessary by the Owner to expedite the completion of the project. After work has begun on any portion or designated part of the project, it shall be carried forward to its final completion.

1.3 PROGRESS UPDATES

- A. Contractor shall submit a daily log of construction activities to the Owner. These logs shall be detailed with activities that took place during each day. Submit daily progress updates to Owner by end of the following workday, or as otherwise agreed upon by District's Representative.

END OF SECTION

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SECTION 01070 – ABBREVIATIONS AND SYMBOLS

PART 1 - GENERAL

1.1 ABBREVIATIONS

- A. Interpret abbreviations used on the Contract Documents as defined in ANSI Y1.1.

1.2 ORGANIZATION ABBREVIATIONS

- A. Abbreviations of organizations that may be used in these Specifications are:

	AASHTO	American Association of State Highway and transportation Officials
ACS		American Chemical Society
ACI		American Concrete Institute
AGA		American Gas Association
AGMA		American Gear Manufacturers Association
AI		The Asphalt Institute
AIA		American Institute of Architects
AIEE		American Institute of Electrical Engineer
AIChE		American Institute of Chemical Engineers
AISC		American Institute of Steel Construction
AISI		American Iron and Steel Institute
ANSI		American National Standards Institute
APCD		Air Pollution Control District
APHA		American Public Health Association
API		American Petroleum Institute
APWA		American Public Works Association
AREA		American Railway Engineering Association
ASA		American Standard Association (now ANSI)
ASTM		American Society for Testing and Materials
ASCE		American Society of Civil Engineers
ASHRAE		American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME		American Society of Mechanical Engineers
ASTM		American Society of Testing Materials
AWS		American Welding Society
AWWA		American Water Works Association
DIPRA		Ductile Iron Pipe Research Association
CALOSHA		California Occupational Safety and Health Association
CALTRANS		State of California Department of Transportation
CBC		California Building Code
CDFG		California Department of Fish and Game
CEQA		California Environmental Quality Act

SECTION 01070 – ABBREVIATIONS AND SYMBOLS

CRSI	Concrete Reinforcing Steel Institute
EBE	Emerging Business Enterprise
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FM	Factory Mutual
HEW	Department of Health, Education and Welfare
HUD	Department of Housing and Urban Development
ICBO	International Conference of Building Officials
IEEE	Institute of Electrical and Electronic Engineers
IRI	Industrial Risk Insurance
ISO	Insurance Services Office
NAAMM	National Association of Architectural Metal Manufacturers
NACE	National Association of Corrosion Engineers
NARUC	National Association of Railroad and Utilities Commissioners
NBFU	National Board of Fire Underwriters
NEC	National Electric Code
NEMA	National Electrical Manufacturers Association
NEPA	National Environmental Policy Act
NF	National Fire Protection Association
NPDES	National Pollution Discharge Elimination System
NSF	National Sanitation Foundation
OSHA	Occupational Safety and Health Act
OMWD	Olivenhain Municipal Water District
PCA	Portland Cement Association
PCI	Precast Concrete Institute
SDRS	San Diego Regional Standards
SMACNA	Sheet Metal and Air Conditioning National Association
SSPC	Steel Structures Painting Council
SSPWC	Standard Specifications for Public Works Council
UL or U/L	Underwriters Laboratories, Inc.
USACE	United States Army Corp of Engineers
USASI	United States of American Standard Institute (now ANSI)
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
USPHS	United States Public Health Service
WAS	Water Agencies' Standard
WWEMA	Water and Wastewater Equipment Manufacturers Association
WPCF	Water Pollution Control Federation

SECTION 01070 – ABBREVIATIONS AND SYMBOLS

1.3 LEGEND

- A. Legends of symbols used are shown on the contract drawings, and in general, use of symbols is confined to the contract drawings.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

(BLANK)

SECTION 01080 - DEFINITIONS

PART 1 - GENERAL

1.1 PURPOSE

- A. Wherever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof.

1.2 DEFINITIONS

- A. **ADDENDA** - Written or graphic instruments issued prior to the opening of Bids that make additions, deletions, or revisions to the Contract Documents.
- B. **AGREEMENT** - The written contract between the Owner and the Contractor covering the Work to be performed; other documents are attached to the Agreement and made a part thereof as provided therein.
- C. **APPLICATION FOR PAYMENT** - The form furnished by the Construction Manager which is to be used by the Contractor to request progress or final payment and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
- D. **BID** - The offer or proposal of the Bidder submitted on the prescribed form setting forth the price or prices for the Work.
- E. **BONDS** - Bid, Performance, and Payment Bonds and other instruments that protect against loss due to inability or refusal of the Contractor to perform its Contract.
- F. **CHANGE ORDER** - A document recommended by the Construction Manager, which is signed by the Contractor and the Owner and authorizes an addition, deletion, or revision in the Work, or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.
- G. **CONSTRUCTION MANAGER** - The individual, partnership, corporation, joint venture or other legal entity named as such by written notice from the Owner.
- H. **CONTRACT DOCUMENTS** - The Notice Inviting Bids, Instructions to Bidders, Bid Forms (including the Bid, Bid Schedule(s), Information Required of Bidder, Bid Bond, and all required certificates and affidavits), Agreement, Performance Bond, Payment Bond, General Conditions, Supplementary General Conditions, Technical Specifications, Drawings, and all addenda, and change orders executed pursuant to the provisions of the Contract Documents.
- I. **CONTRACT PRICE** - The total monies payable by the Owner to the Contractor under the terms and conditions of the Contract Documents.
- J. **CONTRACT TIME** - The number of successive calendar days stated in the Contract Documents for the completion of the Work.
- K. **CONTRACTOR** - The individual, partnership, corporation, joint venture or other legal entity with whom the Owner has executed the Agreement.

SECTION 01080 - DEFINITIONS

- L. DAY - A calendar day of 24 hours measured from midnight to the next midnight.
- M. DEFECTIVE WORK - Work that is unsatisfactory, faulty, or deficient; or that does not conform to the Contract Documents; or that does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents; or Work that has been damaged prior to the Construction Manager's recommendation of final payment.
- N. DESIGN CONSULTANT - The individual, partnership, corporation, joint venture or other legal entity named as such in the Contract Documents.
- O. DRAWINGS - The drawings, plans, maps, profiles, diagrams, and other graphic representations which indicate the character, location, nature, extent, and scope of the Work and which have been prepared by the Design Consultant and are referred to in the Contract Documents. Shop Drawings are not Drawings as so defined.
- P. EFFECTIVE DATE OF THE AGREEMENT - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
- Q. ENGINEER - Wherever the word "Engineer" is found in these Contract Documents or in any referenced document, it shall mean the Construction Manager.
- R. FIELD ORDER - A written order issued by the Construction Manager that does not involve a change in the Work.
- S. GENERAL REQUIREMENTS - Division 1 of the Technical Specifications.
- T. HAZARDOUS WASTE - As defined in Section 25117 of the Health and Safety Code, which is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law, whichever is more restrictive.
- U. LAWS AND REGULATIONS; LAWS OR REGULATIONS - Any and all applicable laws, rules, regulations, ordinances, codes, and/or orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.
- V. MECHANIC'S LIEN - A form of security, an interest in real property which is held to secure the payment of an obligation. When referred to in these Contract Documents, "Mechanic's Lien" or "lien" means "Stop Notice".
- W. MILESTONE - A principal event specified in the Contract Documents relating to an intermediate completion date of a portion of the Work, or a period of time within which the portion of the Work should be performed prior to Substantial Completion of all the Work.
- X. NOTICE OF AWARD - The written notice by the Owner to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein within the time specified, the Owner will enter into an Agreement.

SECTION 01080 - DEFINITIONS

- Y. NOTICE OF COMPLETION - A form signed by the Owner recommending to the Owner's governing body that the Work is Completed in accordance with the Contract Documents. After acceptance of the Work by the Owner's governing body, the form is signed by the Owner and filed with the County Recorder. This filing starts the 60-day retainage lien-filing period on the Work.
- Z. NOTICE TO PROCEED - The written notice issued by the Owner to the Contractor authorizing the Contractor to proceed with the Work and establishing the date of commencement of the Contract Time.
- AA. OWNER – The Owner shall be Olivenhain Municipal Water District, 1966 Olivenhain Road, Encinitas, CA 92024, acting through its legally designated officials, officers, or employees.
- AB. PARTIAL UTILIZATION - Use by the Owner of a substantially completed part of the Work for the purpose for which it is intended prior to Substantial Completion of all the Work.
- AC. PROJECT - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.
- AD. RESIDENT PROJECT REPRESENTATIVE - The authorized representative of the Construction Manager who is assigned to the site or any part thereof.
- AE. SHOP DRAWINGS - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for the Contractor and submitted by the Contractor to illustrate some portion of Work and all illustrations, brochures, standard schedules, performance charts, instructions, and diagrams to illustrate material or equipment for some portion of the Work.
- AF. SPECIFICATIONS - (Same definition as for Technical Specifications hereinafter).
- AG. STOP NOTICE - A legal remedy for subcontractors and suppliers who contribute to public works, but who are not paid for their work, which secures payment from construction funds possessed by the Owner.

For public property, the Stop Notice remedy is designed to substitute for mechanic's lien rights.
- AH. SUB-CONSULTANT - The individual, partnership, corporation, joint-venture or other legal entity having a direct contract with Design Consultant, the Construction Manager or with any of their Consultants to furnish services with respect to the Project and who is identified as such in the Supplementary General Conditions.
- AI. SUBCONTRACTOR - An individual, partnership, corporation, joint-venture or other legal entity having a direct contract with the Contractor or with any other Subcontractor for the performance of a part of the Work at the site.

SECTION 01080 - DEFINITIONS

- AJ. SUBSTANTIAL COMPLETION - Refers to when the Work has progressed to the point where, in the opinion of the Construction Manager as evidenced by Notice of Completion as applicable, it is sufficiently complete, in accordance with the Contract Documents, so that the Work can be utilized for the purposes for which it is intended; or if no such notice is issued, when final payment is due in accordance with Paragraph 14.8. The terms "substantially complete" and "substantially completed" as applied to any work refer to substantial completion thereof.
- AK. SUPPLEMENTARY GENERAL CONDITIONS - The part of the Contract Documents that make additions, deletions, or revisions to these General Conditions.
- AL. SUPPLIER - A manufacturer, fabricator, supplier, distributor, materialman, or vendor.
- AM. TECHNICAL SPECIFICATIONS - Divisions 1 through 17 of the Contract Documents consisting of the General Requirements and written technical descriptions of products and execution of the Work.
- AN. UTILITIES - All pipelines, conduits, ducts, cables, wires, tracks, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities which have been installed underground or above the ground to furnish any of the following services or materials: water, sewage and drainage removal, electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, traffic, or other control systems.
- AO. WORK - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing, or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.
- AP. GOVERNING BODY - Owner's Board of Directors.

END OF SECTION

SECTION 01090 - REFERENCE STANDARDS

PART 1 - GENERAL

1.1 GENERAL

- A. Applicable Publications: Whenever in these specifications references are made to published specifications, codes, standards, or other requirements, it shall be understood that wherever no date is specified, only the latest specifications, standards, or requirements of the respective issuing agencies which have been published as of the date that the Work is advertised for bids shall apply; except to the extent that said standards or requirements may be in conflict with applicable laws, ordinances, or governing codes. No requirements set forth herein or shown on the drawings shall be waived because of any provision of, or omission from, said standards or requirements.
- B. When a reference standard is specified, comply with requirements and recommendations stated in that standard, except when they are modified by the Contract Documents, or when applicable laws, ordinances, rules, regulations or codes establish stricter standards. The latest provisions of applicable standards shall apply to the Work.
- C. Reference standards include, but are not necessarily limited to, the following:
 - 1. American Association of State Highway and Transportation Officials.
 - 2. American Concrete Institute.
 - 3. American Gear Manufacturers Association.
 - 4. American Institute of Steel Construction.
 - 5. American Iron and Steel Institute.
 - 6. American National Standards Institute.
 - 7. American Society of Heating, Refrigerating and Air Conditions Engineers.
 - 8. American Society of Mechanical Engineers.
 - 9. American Society for Testing and Materials.
 - 10. American Water Works Association.
 - 11. American Welding Society.
 - 12. City of Encinitas Standard Drawings
 - 13. Concrete Reinforcing Steel Institute.
 - 14. Factory Mutual Association.
 - 15. Institute of Electrical and Electronics Engineers.

SECTION 01090 - REFERENCE STANDARDS

16. National Electrical Manufacturer's Association
17. National Fire Protection Association.
18. Prestressed Concrete Institute.
19. Underwriter's Laboratories, Inc.
20. Standard Specifications for Public Works Construction (SSPWC), Current Edition (Greenbook).
21. San Diego Area Regional Standard Drawings, Current Edition
22. State of California, Department of Transportation Standard Specifications (Standard Specifications), Current Edition.
23. All other applicable standards listed in the Specifications, and the standards of utility service companies, where applicable.

1.2 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. Without limiting the generality of other requirements of the specifications, all Work specified herein shall conform to or exceed the requirements of all applicable codes and the applicable requirements of the following documents to the extent that the provisions of such documents are not in conflict with the requirements of these Specifications nor the applicable codes.
- B. References herein to "Building Code" or UBC shall mean the Uniform Building Code of the International Conference of Building Officials (ICBO). The latest edition of the code as approved and used by the local agency as of the date of award, as adopted by the agency having jurisdiction, shall apply to the Work herein, including all addenda, modifications, amendments, or other lawful changes thereto. The UBC is hereby incorporated in and made a part of these Contract Documents, to the extent of the applicable references thereto.
- C. No provisions of any referenced standard specification, manual or code, whether or not specifically incorporated by reference in the Contract Documents, shall be effective to change the duties and responsibilities of the Owner, Engineer, or Contractor from those set forth in the Contract Documents. Nor shall they be effective to assign to the Engineer any duty of authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of the Contract Documents.
- D. In case of conflict between codes, reference standards, drawings and the other Contract Documents, the most stringent requirements shall govern. All conflict shall be brought to the attention of the Engineer for clarification and directions prior to ordering or providing any materials or labor. The Contractor shall bid the most stringent requirements.

SECTION 01090 - REFERENCE STANDARDS

- E. Applicable Standard Specifications: The Contractor shall construct the Work specified herein in accordance with the requirements of the Contract Documents and the referenced portions of those referenced codes, standards, and specifications listed herein.
- F. References herein to "SSPWC" or "Green Book" shall mean "Standard Specifications for Public Works Construction," latest addition, including the County of San Diego Regional and City of San Diego Supplement Amendments.
- G. References to "Standard Drawings" shall mean the "San Diego Area Regional Standard Drawings, Current Edition" including all current supplements, addenda, and revisions thereof.
- H. Reference herein to "OMWD Standard Specifications" shall mean the "Olivenhain Municipal Water District Standard Specifications" dated July 2017, and including all current supplements, addenda, and revisions thereof. The specifications and standard drawing details contained in these Contract Documents shall take precedence over the "OMWD Standard Specifications".
- I. References herein to "Cal-OSHA" shall mean State of California, Department of Industrial Relations, Construction Safety Orders, as amended to date, and all changes and amendments thereto which are effective as of the date of construction.
- J. References herein to "OSHA Regulations for Construction" shall mean Title 29, Part 1926, Construction Safety and Health Regulations, Code of Federal Regulations (OSHA), including all changes and amendments thereto.
- K. References herein to "OSHA Standards" shall mean Title 29, Part 1910, Occupational Safety and Health Standards, Code of Federal Regulations (OSHA), including all changes and amendments thereto.

1.3 TRADE NAMES AND ALTERNATIVES

- A. For convenience in designation in the Contract Documents, materials to be incorporated in the Work may be designated under a trade name or the name of a manufacturer and its catalog information. The use of alternative material which is equivalent in quality and of the required characteristics for the purpose intended will be permitted, subject to the following requirements:
 - 1. The burden of proof as to the quality and suitability of such alternative equipment, products, or other materials shall be upon the Contractor.
 - 2. The Engineer will be the sole judge as to the comparative quality and suitability of such alternative equipment, products, or other materials and its decision shall be final.
- B. Wherever in the Contract Documents the name or the name and address of a manufacturer or distributor is given for a product or other material, or if any other source of a product or material is indicated therefore, such information is given for the convenience of the Contractor only, and no limit, restriction, or direction is indicated or intended thereby, nor is the accuracy or reliability of such information

SECTION 01090 - REFERENCE STANDARDS

guaranteed. It shall be the responsibility of the Contractor to determine the accurate identity and location of any such manufacturer, distributor, or other source of any product or material called for in the Contract Documents.

- C. The Contractor may offer any material, process or equipment which it considers equivalent to that indicated. Unless otherwise authorized in writing by the Engineer, submission of data substantiating a request for a substitution of "an equal" item shall be submitted after bid opening and prior to 60 days after award of the Contract. The Contractor, at its sole expense, shall furnish data concerning items it has offered as equivalent to those specified. The Contractor shall provide any materials as required by the Engineer to determine that the quality, strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, service, and suitability are such that the items will fulfill its intended function.

Installation and use of a substitute item shall not be made until approved by the Engineer. If a substitute offered by the Contractor is found to be not equivalent to the specified material, the Contractor shall furnish and install the specified material.

- D. The Contractor's attention is further directed to the requirement that its failure to submit data substantiating a request for a substitution of an "equivalent" item within said period prior to and after the award of the contract, shall be deemed to mean that the Contractor intends to furnish one of the specific brand-named products named in the specification, and the Contractor does hereby waive all rights to offer or use substitute products in each such case. Wherever a proposed substitute product has not been submitted within said period, or wherever the submission of a proposed substitute product fails to meet the requirements of the specifications and an acceptable resubmittal is not received by the Engineer within said period, the Contractor shall furnish only one of the products originally named in the Contract Documents.

END OF SECTION

SECTION 01150 – MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The items described below in Paragraph 1.4 - Pay Items refer to and are the same pay items listed in the Bid Form. They constitute all of the pay items for the completion of the Work. No direct or separate payment will be made for providing miscellaneous temporary or accessory works, plant, services, Contractor's or Engineer's field offices, layout surveys, job signs, sanitary requirements, testing, safety devices, shop drawings, record drawings, water supplies, power, maintaining traffic, removal of waste, watchmen, bonds, insurance, and all other requirements of the Contract Documents. Compensation for all such services, materials, and items shall be included in the prices stipulated for the lump sum or unit price pay items listed herein.
- B. The lump sum bid prices and unit cost bid prices will be deemed to include an amount considered by the Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

1.2 SCOPE

- A. Payment shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies and manufactured articles and for all labor, operations and incidentals that are appurtenant to the items of Work and necessary to complete the various items of Work in accordance with the requirements of the Contract Documents. This shall include all appurtenances and the costs of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the California Division of Industrial Safety and the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA).
- B. Payment shall include all measures necessary to comply with all applicable State and Federal requirements for handling, transporting and disposal of asbestos containing materials (i.e., asbestos cement) including special handling these materials in a manner that will preclude their classification as regulated asbestos containing material and worker protection to reduce health and safety risks resulting from exposure to asbestos containing materials.

1.3 BREAKDOWN OF CONTRACT PRICE OF LUMP SUM CONTRACTS

- A. Prior to the execution of a lump sum contract, the Contractor shall submit a detailed price breakdown showing the allocated portion of the total bid price to the various items of Work. Contractor must submit a preliminary price breakdown for the review and approval of the Owner. The Owner reserves the right to reject any breakdown submitted by the Contractor which the Owner judges insufficient to allow for the preparation of accurate monthly progress payment estimates or extra work similar in nature to the Work included in the Contractor's bid. The detailed price breakdown shall be listed by specification section number and shall include a separate cost item for all items of equipment or work. The price breakdown shall typically be a unit price type breakdown and shall include quantities, unit prices and total bid cost for each cost item. Where a unit price breakdown is judged impractical, the Owner may allow

SECTION 01150 – MEASUREMENT AND PAYMENT

a breakdown by lump sum for certain cost items. This information will be used by the Owner in preparing monthly progress payment estimates.

1.4 PAY ITEMS

A. Base Bid Schedule A

1. Bid Item #A1: Mobilization, Demobilization, Bonds, Permits, Insurance, and Cleanup for all work required under this Project for Work Sites 1 through 12

Payment shall include compensation for all labor, materials, tools, and equipment including, but not limited to, the following principal items: mobilization and demobilization, obtaining and paying for payment and performance bonds and insurance required by the Contract Documents; obtaining and complying with permits not included in any other bid item; mobilizing labor force, equipment and construction facilities; providing Contractor storage yard; securing construction water supply, providing all temporary construction fencing and safety barriers; providing on-site sanitary facilities; posting OSHA requirements and establishing safety programs; daily and final cleanup; preparing the Schedule of Values prior to the pre-construction meeting; pre-construction and post-construction videos; work not specified for payment in any other bid item; and all incidentals for the mobilization, demobilization, and permitting for construction of the project as described in the Contract Documents.

Payment for this item shall be limited to ten (10) percent of the total bid price for Base Bid Schedule A.

2. Bid Item #A2: Work Site #1 - Excavation and drilling at location BC 308

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 308 as specified in the contract documents. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. Contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

3. Bid Item #A3: Work Site #2 - Excavation and drilling at location BC 307

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 307 as specified in the contract documents. Install new test station. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. Contractor shall make provisions accordingly.

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Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

4. Bid Item #A4: Work Site #3 - Excavation and drilling at location BC 306

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 306 as specified in the contract documents. Install new test station. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. Contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

5. Bid Item #A5: Work Site #4 - Excavation and drilling at location BC 305

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 305 as specified in the contract documents. Install new test station. Connect pipe leads to existing test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. Contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

6. Bid Item #A6: Work Site #5 - Excavation and drilling at location BC 298

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 298 as specified in the contract documents. Install new test station. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

7. Bid Item #A7: Work Site #6 - Excavation and drilling at location BC 297

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Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 297 as specified in the contract documents. Install new test station. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anodes leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

8. Bid Item #A8: Work Site #7 - Excavation and drilling at location BC 296

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 296 as specified in the contract documents. Install new test station. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anodes leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

9. Bid Item #A9: Work Site #8 - Excavation and drilling at location BC 295

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 295 as specified in the contract documents. Install new test station. Provide and install two (2) #8 HMWPE wire (Pipe Leads) to steel pipe. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

10. Bid Item #A10: Work Site #9 - Excavation and drilling at location BC 294

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 294 as specified in the contract documents. Install new test station. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. The drilling

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method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

11. Bid Item #A11: Work Site #10 - Excavation and drilling at location BC 293

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 293 as specified in the contract documents. Install new test station. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

12. Bid Item #A12: Work Site #11 - Excavation and drilling at location BC 292

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 292 as specified in the contract documents. Install new test station. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

13. Bid Item #A13: Work Site #12 - Excavation and drilling at location BC 291

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 291 as specified in the contract documents. Install new test station. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

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B. Base Bid Schedule B

1. Bid Item #B1: Mobilization, Demobilization, Bonds, Permits, Insurance, and Cleanup for all work required under this Project for Work Sites 13 through 19

Payment shall include compensation for all labor, materials, tools, and equipment including, but not limited to, the following principal items: mobilization and demobilization, obtaining and paying for payment and performance bonds and insurance required by the Contract Documents; obtaining and complying with permits not included in any other bid item; mobilizing labor force, equipment and construction facilities; providing Contractor storage yard; securing construction water supply, providing all temporary construction fencing and safety barriers; providing on-site sanitary facilities; posting OSHA requirements and establishing safety programs; daily and final cleanup; preparing the Schedule of Values prior to the pre-construction meeting; pre-construction and post-construction videos, work not specified for payment in any other bid item; and all incidentals for the mobilization, demobilization, and permitting for construction of the project as described in the Contract Documents.

Payment for this item shall be limited to ten (10) percent of the total bid price for Base Bid Schedule B.

2. Bid Item #B2: Work Site #13 - Excavation and drilling at location BC 290

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 290 as specified in the contract documents. Install new test station. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

3. Bid Item #B3: Work Site #14 - Excavation and drilling at location BC 289

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 289 as specified in the contract documents. Install new test station. Connect pipe leads to existing test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to existing test box. The drilling method shall be selected with the knowledge that rock, cobble

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and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

4. Bid Item #B4: Work Site #15 - Excavation and drilling at location BC 288

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 288 as specified in the contract documents. Install new test station. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

5. Bid Item #B5: Work Site #16 - Excavation and drilling at location BC 287

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 287 as specified in the contract documents. Install new test station. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

6. Bid Item #B6: Work Site #17 - Excavation and drilling at location BC 1553

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 1553 as specified in the contract documents. Install new test station. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

7. Bid Item #B7: Work Site #18 - Excavation and drilling at location BC 1554

SECTION 01150 – MEASUREMENT AND PAYMENT

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 1554 as specified in the contract documents. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. Connect new anode leads to shunt panel. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

8. Bid Item #B8: Work Site #19 - Excavation and drilling at location BC 1555

Payment shall include, but is not limited to, drill three (3) minimum 11-inch diameter holes to a minimum depth of 12 feet. The minimum offset is 8' at location BC 1555 as specified in the contract documents. Connect pipe leads to test box. Provide and install new 48-lb magnesium anode per OMWD Standard Specification 15310. Connect new anode leads to test box. Connect new anode leads to shunt panel. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. The contractor shall make provisions accordingly.

Payment shall include all labor, materials, equipment and supervision required for the excavation and drilling work specified. Refer to Appendix A and Appendix B: Project Site Map and OMWD Standard Drawings for additional information.

END OF SECTION

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SECTION 01201 - PRECONSTRUCTION CONFERENCE

PART 1 - GENERAL

1.1 GENERAL

- A. Date, Time and Location: Conference will be held after execution of the Contract and before construction is started at the site. Owner's Representative will fix the date, time and location of the meeting in accordance with requirements of the General Conditions.
- B. Owner's Representative shall prepare agenda, preside at meeting, and prepare and distribute a transcript of proceedings to all parties.
- C. Contractor(s) shall provide any data requested by the Owner or required by the Contract Documents, contribute appropriate items for discussion, and be prepared to discuss all items on agenda. All shop drawings are required to be submitted prior to or at the Conference unless otherwise agreed to in writing by the Owner.

1.2 REQUIRED ATTENDANCE

- A. Contractor, including Superintendent, Foreman, and Representative from any Subcontractors.
- B. Owner's representative.

1.3 AGENDA

- A. Agenda will include, but will not necessarily be limited to, the following:
 - 1. Designation of responsible personnel.
 - 2. Subcontractors.
 - 3. Coordination with other contractors.
 - 4. Construction schedule.
 - 5. Processing of field decisions and Change Orders.
 - 6. Requirements for copies of Contract Documents.
 - 7. Insurance in force.
 - 8. Schedule of Values.
 - 9. Schedule of Payments.
 - 10. Use of premises.
 - 11. Contractor(s) responsibility for safety and first aid procedures.
 - 12. Testing/Inspection

SECTION 01201 - PRECONSTRUCTION CONFERENCE

13. Security.
14. Housekeeping.
15. Record Drawings.
16. Staging
17. Communications
18. All items listed in the Contract Documents that have been identified for discussion during pre-construction conference.

END OF SECTION

SECTION 01370 – SCHEDULE OF VALUES

PART 1 - GENERAL

1.1 GENERAL

- A. The Schedule of Values is an itemized list that establishes the value or cost of each part of the Work. It shall be used as the basis for preparing progress payments and may be used as a basis for negotiations concerning additional Work or credits which may arise during the construction. Quantities and unit prices may be included in the schedule when approved by or required by the Owner's Representative.

1.2 PREPARATION

- A. Schedule shall show breakdown of labor, materials equipment and other costs used in preparation of the Bid.
- B. Costs shall be in sufficient detail to indicate separate amounts for each Section of the Specifications.
- C. Contractor may include an item for bond, insurance, temporary facilities and job mobilization. Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of all offices, buildings and other facilities necessary for Work on the project; and for all other Work and operations which must be performed or costs incurred prior to the beginning Work on the various contract items on the project site. Superintendent's salary shall be paid in equal monthly allocations over the duration of the job. Mobilization will be included for payment at a rate of 50 percent per month for the first two months.
- D. Schedule of Values shall be prepared on 8-1/2-inch by 11-inch white paper.
- E. Use Table of Contents of the Specifications as basis for Schedule format and identify each item with number and title in the Table of Contents. List sub-items of major products or systems as appropriate or when requested by Engineer.
- F. When requested by Engineer, support values with data that will substantiate their correctness.
- G. The sum of the individual values shown on the Schedule of Values must equal the total Contract Price.
- H. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
- I. Schedule shall show the purchase and delivery costs for materials and equipment that the Contractor anticipates he shall request payment for prior to their installation.

SECTION 01370 – SCHEDULE OF VALUES

1.3 SUBMITTAL

- A. A tentative schedule of values shall be submitted prior to or at the pre-construction conference in accordance with Section 01201 of this specification.
- B. Submit three copies of the final schedule to the Owner's Representative for approval at least 20 days prior to submitting first application for a progress payment. After review by Owner's Representative, revise and resubmit schedule as required until it is approved.

END OF SECTION

SECTION 01400 – QUALITY CONTROL

PART 1 - GENERAL

1.1 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. The Contractor shall verify all dimensions in the field and shall check field conditions continuously during construction. The Contractor shall be solely responsible for any inaccuracies built into the Work due to its failure to comply with this requirement.
- B. The Contractor shall inspect related and appurtenant Work and shall report in writing to the Owner's Representative any conditions which will prevent proper completion of the Work. Failure to report any such conditions shall constitute acceptance of all site conditions, and any required removal, repair, or replacement caused by unsuitable conditions shall be performed by the Contractor at its sole cost and expense.

1.2 INSPECTION OF THE WORK

- A. The Work shall be conducted under the general observation of the Owner's Representative and shall be subject to inspection by representatives of the Owner to ensure strict compliance with the requirements of the Contract Documents. Such inspection may include mill, plant, shop, or field inspection, as required. The Owner's Representative shall be permitted access to all parts of the Work, including plants where materials or equipment are manufactured or fabricated.

1.3 TESTING

- A. At completion of the installation, the District shall perform conformance testing which includes pipe to soil voltage potential and anode output testing. Volt meter for the pipe to soil testing shall read 0.85 or higher and anode output voltage shall range between 1.4 and 1.6 volts. Any work found to be outside of acceptable range, shall be remedied immediately by the contractor, and in advance of any payment, and re-tested until within acceptable range. Contractor shall refer to Section 15310 for additional performance and testing requirements.
- B. When not otherwise specified, all sampling and testing shall be in accordance with the methods prescribed in the current standards of the ASTM, as applicable to the class and nature of the article or materials considered; however, the Owner's Representative reserves the right to use any generally-accepted system of inspection which, in the opinion of the Owner's Representative will ensure that the quality of the workmanship is in full accord with the Contract Documents.
- B. Any waiver of any specific testing or other quality assurance measures, whether or not such waiver is accompanied by a guarantee of substantial performance as a relief from the specified testing or other quality assurance requirements as originally specified, and whether or not such guarantee is accompanied by a performance bond to assure execution of any necessary corrective or remedial Work, shall not be construed as a waiver of any technical or qualitative requirements of the Contract Documents.

PART 2 - NOT USED

PART 3 - NOT USED

SECTION 01400 – QUALITY CONTROL

END OF SECTION

SECTION 01545 – PROTECTION OF THE WORK AND PROPERTY

PART 1 - GENERAL

1.1 GENERAL

- A. Contractor shall be responsible for taking all precautions, providing all programs, and taking all actions necessary to protect the Work and all public and private property and facilities from damage as specified in the General Conditions and herein.
- B. Contractor shall furnish all labor, materials, equipment, and incidentals required to provide videographic documentation of the project, including Pre-Constriction and Post-Construction Videos.
- B. In order to prevent damage, injury or loss, Contractor's actions shall include but not be limited to, the following:
 - 1. Store apparatus, materials, supplies, and equipment in an orderly safe manner that will not unduly interfere with the progress of the Work or the Work of any other contractor or utility service company.
 - 2. Provide suitable storage facilities for all materials which are subject to injury by exposure to weather, theft, breakage, or otherwise.
 - 3. Place upon the Work or any part thereof only such loads as are consistent with the safety of that portion of the Work.
 - 4. Clean up daily all refuse, rubbish, scrap materials, and debris caused by his operations, to the end that at all times the site of the Work shall present a safe, orderly and workmanlike appearance.
 - 5. Provide barricades and guard rails around openings and other hazardous areas.
- C. Contractor shall not, except after written consent from proper parties, enter or occupy privately-owned land with men, tools, materials or equipment, except on easements provided herein.
- D. Contractor shall assume full responsibility for the preservation of all public and private property or facility on or adjacent to the site. If any direct or indirect damage is done by or on account of any act, omission, neglect or misconduct in the execution of the Work by the Contractor, it shall be restored by the Contractor, at his expense, to a condition equal to that existing before the damage was done.

1.2 PROTECTION OF EXISTING STRUCTURES

- A. Underground Structures:
 - 1. Underground structures are defined to include, but not be limited to, all sewer, water, gas, storm drains, and other piping, and manholes, chambers, electrical conduits, tunnels and other existing subsurface work located within or adjacent to the limits of the Work.

SECTION 01545 – PROTECTION OF THE WORK AND PROPERTY

2. All underground structures known to Owner are shown. This information is shown for the assistance of Contractor in accordance with the best information available, but is not guaranteed to be correct or complete.
3. Contractor shall explore ahead of his drilling, trenching and excavation Work and shall uncover and pothole all obstructing underground structures a minimum of two (2) weeks prior to start of excavation per Section 01043 to determine their location, to prevent damage to them and to prevent interruption to the services which such structures provide. If Contractor damages an underground structure, he shall restore it to original condition at his expense. If Contractor changes location, Contractor shall repeat effort at the revised location.
4. Necessary changes in the location of the Work may be made by Owner, to avoid unanticipated underground structures.
5. If permanent relocation of an underground structure or other subsurface facility is required and is not otherwise provided for in the Contract Documents, Owner will direct Contractor in writing to perform the Work, which shall be paid for under the provisions of the General Conditions.
6. The Contractor shall call U.S.A. Dig Alert at 811 a minimum of two working days prior to any excavation.

B. Surface Structures:

1. Surface structures are defined as all existing buildings, structures and other facilities above the ground surface. Included with such structures are their foundations or any extension below the surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads, dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, walks and all other facilities that are visible above the ground surface.

C. Protection of Underground and Surface Structures:

1. Contractor shall sustain in their places and protect from direct or indirect injury all underground and surface structures located within or adjacent to the limits of the Work. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structure. Before proceeding with the Work of sustaining and supporting such structure, Contractor shall satisfy the Owner that the methods and procedures to be used have been approved by the party owning same.
2. Contractor shall assume all risks attending the presence or proximity of all underground and surface structures within or adjacent to the limits of the Work. Contractor shall be responsible for all damage and expense for direct or indirect injury caused by his Work to any structure. Contractor shall repair immediately all damage caused by his Work, to the satisfaction of the Owner of the damaged structure.

SECTION 01545 – PROTECTION OF THE WORK AND PROPERTY

- D. All other existing surface facilities, including but not limited to, guard rails, posts, guard cables, signs, poles, markers, and curbs which are temporarily removed to facilitate installation of the Work shall be replaced and restored to their original condition at Contractor's expense.

1.3 PROTECTION OF INSTALLED PRODUCTS

- A. Provide protection of installed products to prevent damage from subsequent operations. Remove protection facilities when no longer needed, prior to completion of Work.

1.4 PRE AND POST CONSTRUCTION VIDEOS

- A. The purpose of the videos is to document the condition of the project sites, both pre- and post-construction.
- B. Areas to be videos shall include all work sites, including access roads and gated entries.
- C. Videos shall be submitted in a digital color video format on a DVD suitable for playback on a standard DVD player or USB flash drive. Video recordings made with cell phones are not acceptable.
- D. Pre-Construction Video: Submit preconstruction videos to the District for approval before the start of construction.
- E. Post-Construction Video: Submit following completion of all Contract work.

END OF SECTION

SECTION 01550 – SITE ACCESS

PART 1 - GENERAL

1.1 HIGHWAY LIMITATIONS

- A. The site of Work is generally located in the County of San Diego, California. Site address is adjacent to San Dieguito Rd, San Diego, California 92127 and is located within a joint easement.
 - a. Work Site 1 through 16 can be accessed through a dirt access road via San Dieguito Rd. Contractor to coordinate access with District. Refer to Appendix A for Vicinity Map and Site Map.
 - b. Work Site 17 through 19 can be accessed via Circa del Sur/Circa Oriente. Access road is routed through a Private Gated Community. Contractor to coordinate access with District. Refer to Appendix A for Vicinity Map and Site Map.
- B. The Contractor shall make its own investigation of the condition of available public and private roads and of clearances, restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress to the site of the Work. It shall be the Contractor's responsibility to construct and maintain, at its own expense, any haul roads required for its construction operations.

1.2 TEMPORARY CROSSING

- A. Not Used.
- B. Street Use: Nothing herein shall be construed to entitle the Contractor to the exclusive use of any public street, alleys, ways, parking area or private road during the performance of the Work hereunder, and it shall so conduct its operations as not to interfere unnecessarily with the authorized work of utility companies or other agencies in such street, alley ways, or parking areas. No street shall be closed to the public without first obtaining permission of the Owner and the jurisdictional authority. Fire hydrants on or adjacent to the Work shall be kept accessible to fire-fighting equipment at all times. Temporary provisions shall be made by the Contractor to assure the use of sidewalks and the proper functioning of all gutters, sewer inlets, and other drainage facilities.
- C. Traffic Control: For the protection of traffic in public or private streets and ways, the Contractor shall provide, place, and maintain all necessary barricades, traffic cones, warning signs, lights, and other safety devices in accordance with the requirements of the "Manual of Uniform Traffic Control Devices, Part IV - Traffic Controls for Street and Highway Construction and Maintenance Operation", published by U.S. Department of Transportation, Federal Highway Administration (ANSI D6.1-1978). The Contractor shall take all necessary precautions for the protection of the Work and the safety of the public. All barricades and obstructions shall be illuminated at night, and all lights shall be kept burning from sunset until sunrise. The Contractor shall station such guards or flaggers and shall conform to such special safety regulations relating to traffic control as may be required by the public authorities within their respective jurisdictions. All signs, signals, and barricades shall conform to the requirements of Cal-OSHA and Subpart G, Part 1926, of the OSHA Safety and

SECTION 01550 – SITE ACCESS

Health Standards for Construction. Contractor shall prepare, apply for, pay associated fees, and obtain all necessary permits and approvals from City of Encinitas for traffic control. The Contractor shall be responsible for the preparation and implementation of all traffic control plans and requirements as defined by the City of Encinitas, including all requirements for areas where night work is required.

- D. Street Closure: If closure of any street is required during construction, a formal application for a street closure shall be made to the authority having jurisdiction at least 30 days prior to the required street closure in order to determine necessary signing and detour requirements.

PART 2 – SITE ACCESS LIMITATIONS

- A. Work is limited to the Public Right of Way or within limits of the Owner established easements. Additional access is not permitted outside of these limits. All site access to be coordinated with Owner prior to commencement of work.

PART 3 - NOT USED

END OF SECTION

SECTION 01560 – TEMPORARY CONTROLS

PART 1 - GENERAL

1.1 GENERAL

- A. The Contractor shall provide and maintain methods, equipment, and temporary construction, as necessary to provide controls over environmental conditions at the construction site and adjacent areas. Remove physical evidence of temporary facilities at completion of Work.

1.2 NOISE CONTROL

- A. Vehicles and equipment shall be such as to minimize noise to the greatest degree practicable. Noise levels shall conform to the latest OSHA standards and in no case will noise levels be permitted which interfere with the work of the Owner or others.

1.3 DUST CONTROL

- A. Control objectionable dust caused by the operation of vehicles and equipment, clearing or any reason whatsoever. Apply water and calcium chloride or use other dust control methods subject to the Engineer's approval.

1.4 WATER CONTROL

- A. Provide methods to control surface water and water from excavations and structures to prevent damage to the Work, the site, or adjoining properties.
 - 1. Control fill, grading and ditching to direct water away from excavations, pits, tunnels and other construction areas; and to direct drainage to proper runoff courses so as to prevent any erosion, damage or nuisance.
- B. Provide, operate and maintain equipment and facilities of adequate size to control surface water.
- C. Dispose of drainage water in a manner to prevent flooding, erosion, or other damage to any portion of the site or to adjoining areas and in conformance with all environmental requirements.

SECTION 01560 – TEMPORARY CONTROLS

1.5 EROSION CONTROL

- A. Plan and execute construction and earthwork by methods to control surface drainage from cuts and fills and from borrow and waste disposal areas, and to prevent erosion and sedimentation.
 - 1. Hold the areas of bare soil exposed at one time to a minimum.
 - 2. Provide temporary control measures such as berms, dikes and drains.
- B. Construct fills and waste areas by selective placement to eliminate surface silts or clays which will erode.
- C. Periodically inspect earthwork to detect any evidence of the start of erosion, apply corrective measures as required to control erosion.

END OF SECTION

SECTION 01620 – STORAGE OF MATERIAL

PART 1 - GENERAL

1.1 GENERAL

- A. Make all arrangements and provisions necessary for the storage of materials and equipment. All excavated materials, construction equipment, and materials and equipment to be incorporated into the Work shall be placed so as not to injure any part of the Work or existing facilities and so that free access can be had at all times to all parts of the Work and to all public utility installations in the vicinity of the Work. Materials and equipment shall be kept neatly and compactly stored in locations that will cause a minimum of inconvenience to other contractors, public travel, adjoining owners, tenants and occupants. Arrange storage in a manner to provide easy access for inspection.
- B. Areas available in the vicinity of the construction site for storage of material and equipment shall be as coordinated and approved by the Owner's Representative during pre-construction meeting Contractor to provide a sketch of proposed laydown area. At no time shall storage of materials or equipment cause access to be blocked to District's Personnel.
- C. Materials and equipment which are to become the property of the Owner shall be stored to facilitate their inspection and ensure preservation of the quality and fitness of the Work, including proper protection against damage by freezing and moisture. They shall be placed in enclosed storage areas unless otherwise acceptable to Owner.
- D. For any staging/laydown areas that may be utilized by the Contractor, the Contractor shall coordinate with the property owner(s), obtain written permission from the property owner(s) for use of the area, coordinate with any resource or permitting agency that may have jurisdiction over the area, obtain and pay for any permits or agreements and provide any environmental mitigation required, and pay any fees or rental charges required for use of the area. The Contractor shall provide to the District Representative a copy of the letter from the Property Owner(s) giving permission to use their property as a staging/laydown area. The Contractor shall be responsible for returning all areas used to their original conditions. At least 14 days prior to moving onto any site, the Contractor shall submit to the District Representative a copy of the written permission letter from the Property Owner(s) of that area, and a description of any permits and mitigation actions that are required for use of the area. All requests for the use of privately-owned land must be submitted to the Owner for written approval prior to its use. The Owner may deny use of any privately owned property for this project in its sole discretion
- E. Contractor shall be fully responsible for loss or damage to stored materials and equipment.
- F. Owner has not pre-arranged any staging areas for this project. Staging area procurement, if required, is sole responsibility of the Contractor.

END OF SECTION

SECTION 01710 – CLEANING

PART 1 - GENERAL

1.1 GENERAL

- A. The Contractor shall execute cleaning during progress of the Work, at completion of the Work, and as required by General Conditions.
- B. Requirements of Regulatory Agencies:
 - 1. In addition to the requirements herein, maintain the cleanliness of the Work and surrounding premises within the Work limits so as to comply with federal, state, and local fire and safety laws, ordinances, codes and regulations.
 - 2. Comply with all federal, state and local anti-pollution laws, ordinances, codes and regulations when disposing of waste materials, debris and rubbish.
- C. Scheduling of Cleaning and Disposal Operations:
 - 1. Prevent accumulation of dust, dirt, debris, rubbish and waste materials on or within the Work or on the premises surrounding the Work.
- D. Waste Disposal:
 - 1. Dispose of all waste materials, surplus materials, debris and rubbish off the site.
 - 2. Do not burn or bury rubbish and waste materials on the site.
 - 3. Do not dispose of volatile or hazardous wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
 - 4. Do not discharge wastes into streams or waterways.
- E. During Construction:
 - 1. Keep the Work and surrounding premises within work limits free of accumulations of dirt, dust, waste materials, debris and rubbish.
 - 2. Keep dust generating areas wetted down.
 - 3. Provide suitable containers for storage of waste materials, debris and rubbish until time of disposal.
 - 4. Dispose of waste, debris and rubbish off site at legal disposal areas.
- F. At Project Completion:
 - 1. Remove and dispose of all excess or waste materials, debris, rubbish, and temporary facilities from the site, structures and all facilities.

SECTION 01710 – CLEANING

2. Repair pavement, roads, sod, and all other areas affected by construction operations and restore them to original condition or to minimum condition specified.
3. Clean all pavements and ground surfaces.
4. Maintain cleaning until acceptance of the Project by the Owner.

END OF SECTION

SECTION 02222 – PROTECTING EXISTING UNDERGROUND UTILITIES

PART 1 - GENERAL

1.01 DESCRIPTION

This section includes materials and procedures for protecting existing underground utilities.

1.02 RELATED WORK SPECIFIED ELSEWHERE

Trenching, Backfilling, and Compacting: Section 02223.

PART 2 - MATERIALS

2.01 REPLACEMENT IN KIND

Except as indicated or as specifically authorized by the District's Representative, reconstruct utilities with new material of the same size, type, and quality as that removed.

2.02 CONTRACTOR SUPPLIED TEMPORARY MATERIALS

Contractor shall supply all materials, including but not limited to, steel beams and bracing, support straps, sheeting and shoring, timbers, and all other items necessary to protect existing underground utilities.

PART 3 - EXECUTION

3.01 GENERAL

- A. Replace in kind street improvements, such as curbs and gutters; fences; signs; paved surfaces; etcetera, that are cut, removed, damaged, or otherwise disturbed by the construction.
- B. Where utilities are parallel to or cross the pipeline trench but do not conflict with the permanent work to be constructed, follow the procedures given below and as indicated on the Drawings. Notify the utility owner 48 hours in advance of the crossing construction and coordinate the construction schedule with the utility owner's requirements. For utility crossings not shown on the Drawings, refer to the instructions of the District's Representative for guidance.

3.02 PROCEDURES

- A. Protect in Place: Protect utilities in place, unless abandoned, and maintain the utility in service, unless otherwise specified.
- B. Remove and Reconstruct: Where necessary or as required by the District's Representative, remove the utility and, after passage, reconstruct it with new materials. Provide temporary service for the disconnected utility.

SECTION 02222 – PROTECTING EXISTING UNDERGROUND UTILITIES

3.03 COMPACTION

- A. Utilities Protected in Place: Backfill and compact under and around the utility so that no voids are left. Where utilities are concrete encased, use the alternative construction method (sand slurry) for backfill around the utility.
- B. Alternative Construction - Sand Slurry: Sand slurry consisting of one sack (94 pounds) of portland cement per cubic yard of sand and sufficient moisture for workability may be required for backfill to aid in reducing compaction difficulties. Submit specific methods and procedures for the review of the District's Representative prior to construction.

3.04 ADJACENT PARALLEL UTILITIES

Protect existing parallel utilities from any disturbances and repair the lines and associated appurtenances if they are damaged in any way. All costs incurred for protection of utilities or any costs incurred due to the presence of the lines, whether or not they lie within the new construction, shall be borne in full by the Contractor.

END OF SECTION

SECTION 02224 – EXCAVATION AND DRILLING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section includes materials, installation, and testing of trench excavation, drilling, backfilling, and compacting.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Drawings.
- B. Protecting Existing Underground Utilities: Section 02222.

1.03 EARTHWORK AND REPAIRS IN CITY, COUNTY, AND STATE RIGHTS OF WAY

- A. Conform to the requirements and provisions of the permits issued by those agencies in addition to the requirements of these Standard Specifications. If a permit is not required, earthwork and repairs shall conform to the standards of the agency in whose right of way the work is done in addition to the requirements of these Standard Specifications.

1.04 SAFETY PRECAUTIONS

- A. Observe safety precautions in all phases of the work. Included shall be trench shoring, bracing, lighting, and barricades as dictated by reason and by the Safety Orders of the Division of Industrial Safety, State of California (CAL/OSHA). Acquire an exemption letter or trenching permit from the California Division of Industrial Safety (CAL/OSHA) and comply with Labor Code Section 6705, Excavation Plans For Worker Protection. Submit a copy of the exemption letter or trenching permit with excavation drawings to the District prior to excavation work.

1.05 REGIONAL NOTIFICATION CENTER CONTACT

- A. The Contractor, except in emergency, shall contact the appropriate regional notification center prior to commencing any excavation work. Notify the center at least two working days in advance or up to a maximum of 14 calendar days in advance of any excavation work. The Contractor shall delineate the proposed excavation site with white paint on paved surfaces or with marking such as flags or stakes in unpaved areas. The Contractor shall provide the regional notification center with all job site location information. The regional notification center will assign to the Contractor a Dig Alert Number which validates the Contractor's excavation permit and will notify all of its members having subsurface installations in the area. No excavation shall be commenced and carried out by the Contractor until all existing subsurface installations have been field marked and the District has been given the Dig Alert Number by the Contractor.
- B. Emergency shall be defined as a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. Emergency includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage (Government Code Section 4216).

SECTION 02224 – EXCAVATION AND DRILLING

- C. Subsurface installation means any underground pipeline, conduit, duct, wire, or other structure operated or maintained in or across a public street or public right-of-way (Government Code Section 4216).

1.06 OBSTRUCTIONS

- A. The Contractor's attention is directed to the possible existence of pipe and other underground improvements which may or may not be shown on the Drawings. Preserve and protect any such improvements whether shown on the Drawings or not. Expose such improvements in advance of the pipeline construction to allow for changes in the alignment as necessary. Where it is necessary to remove and replace or to relocate such improvements in order to prosecute the work, they shall be removed, maintained, and permanently replaced by the Contractor at his expense. Protect existing underground utilities in accordance with Section 02222.

1.07 WATER FOR CONSTRUCTION

- A. Water supplied by the District, for whatever needs and uses, shall be paid for in accordance with the rates and rules of the District. The only exception is by written agreement with the District.
- B. Contractor shall obtain a temporary water meter from the District. Contractor shall provide adequate means of construction water to accompany all work on site, and provide adequate fire protection for the work being performed, including site specific considerations. Means and methods to be determined by the Contractor, similar project work have effectively utilized water trucks or tow-behind water trailer. Specific type and size of portable construction water equipment to be determined during the submittal process.

PART 3 – EXECUTION

3.01 EXCAVATION AND DRILLING

- A. Perform all excavation and drilling regardless of the type, nature, or condition of the material encountered to accomplish the construction. The drilling method shall be selected with the knowledge that rock, cobble and/or water table may be encountered. Contractor shall make provisions accordingly.

3.02 LOCATION OF EXCAVATED MATERIAL

- A. During excavation and drilling, place the excavated material only within the working area or within the areas shown on the Drawings. Do not obstruct any roadways or streets.

END OF SECTION

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

PART 1 - GENERAL

1.01 DESCRIPTION

This section addresses the materials, installation and testing for basic corrosion control and monitoring facilities on buried metallic piping. Materials include herein are: test and bond stations, simple sacrificial anode installations, wire and cable, alumino-thermic welds, casing insulators and end seals, insulating flange kits, supplemental linings at insulators and marker posts. Specifications for large sacrificial anode installations and impressed current cathodic protection systems shall be specifically designed for the particular application.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Standard Drawings
- B. Record Drawings and Submittals: STD SPEC 01300.
- C. Trenching, Backfilling, and Compacting: STD SPEC 02223.
- D. General Concrete Construction: STD SPEC 03000.
- E. Cold Applied Wax Tape Coating: STD SPEC 09952.
- F. Polyethylene Sheet or Tube Encasement: STD SPEC 09954
- G. Painting and Coating: STD SPEC 09900.

1.03 SUBMITTALS

- A. Submit submittal packages in accordance with Standard Specifications Section 01300.
- B. Submit manufacturer's catalog data on precast concrete manholes, frames, and covers. Show dimensions and materials of construction by ASTM reference and grade.

PART 2 - MATERIALS

2.01 TEST STATION

- A. Post Mounted Test Boxes:

- 1. Enclosure: Post-mounted enclosures shall be constructed of one piece molded fiberglass and conform to NEMA 4X. The fiberglass-reinforced resins shall be chemically resistant to a wide range of corrosive atmospheres. It shall have a hinged cover with quick-release lockable latches and a seamless foam gasket. All hardware shall be stainless steel. Hinges shall be corrosion resistance polyester or stainless steel piano hinge. Size as follows unless specified differently in the project drawings:

<u>No. of Wires</u>	<u>Size (inside)</u>	<u>Acceptable Product</u>
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SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

2 or 3 wires	5.5x4.0x5.0"	Hoffman A-645JFGQRR
4 or 5 wires	7.5x6.0x5.28"	Hoffman A-865JFGQRR

2. Panel: The mounting panel shall be fiberglass, micarta or laminated phenolic sheet cross-laminated for resistance to warpage and weathering. Minimum panel thickness shall be 3/16-inch. Panel shall be mounted off of the back of the enclosure to allow sufficient access to make up wire terminals.
3. Components: All terminal lugs shall be solid brass. Provide a properly sized terminal lug for all wires. See Standard Drawings or Drawings for wiring configuration and wire labels.
4. Post: Post shall be seasoned, construction heart garden grade redwood, 4 inches by 4 inches by 5 feet long, and surfaced on four sides. Cut a 3/4-inch chamfer in all 4 top edges and paint per Standard Specification Section 09900 using System No. 60. Color shall be white and green as approved by the District.
5. Conduit: 2-inch diameter galvanized rigid steel conduit per UL 6 approximately 4-feet long with long radius sweeps. Fittings shall be galvanized rigid steel per UL 514.
6. Brass Tags: Wire identification tags shall be 1½-inch diameter, 18 Ga. brass discs with a 3/16-inch diameter hole and die stamped with ¼-inch characters. Tags shall be attached to test wires with un-insulated AWG No. 14 solid copper wire. Tag legend shall be as indicated in the Drawings or Standard Drawings.
7. Concrete Pad: ASTM C-94 ready mix concrete.

2.02 AT-GRADE TEST BOX:

- A. Concrete Box: At-grade test boxes shall be round, pre-cast concrete with dimensions of 13-1/2-inch O.D. by 8-inch I.D. by 12-inches high, similar to Christy G5 Utility Box with a cast iron supporting ring and lid, and shall have sufficient strength to support occasional H-20 vehicular traffic. The lid shall be 10 inches O.D. and cast with the legend "CP Test" using letters not less than 1-1/2-inch high.
- B. Concrete Pad: Test boxes mounted in un-paved areas shall be mounted in a reinforced 26 inches square by 4 inches thick concrete pad constructed of ASTM C94 Ready-Mix concrete. Rebar shall be No. 4. A concrete pad is not required where the test box is placed in pavement.

2.03 BRASS TAGS: SEE PARAGRAPH 2.01 A. 6.

2.04 PREPACKAGED MAGNESIUM ANODES

- A. Magnesium Anode (High Potential): unless otherwise specified anodes shall be high potential prepackaged magnesium alloy ingot of the following chemical composition:

Aluminum	0.010%
Manganese	0.50 to 1.30%
Copper	0.02% MAX
Nickel	0.001% MAX

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

Iron	0.03% MAX
Other	0.05% Each or 0.3% MAX Total
Magnesium	Remainder

- B. Magnesium Anode (Standard Potential): If the Drawings call out standard potential magnesium anodes, the ingot shall have the following chemical composition:

Aluminum	5.3 to 6.7%
Manganese	0.15 to 0.30%
Zinc	2.5 to 3.5%
Copper	0.02% MAX
Nickel	0.002% MAX
Iron	0.003% MAX
Silicon	0.10% MAX
Other	0.05% Each or 0.3% MAX Total
Magnesium	Remainder

- C. Anode Weight: Unless otherwise specified the ingot weight of prepackaged magnesium anodes shall be 48 pounds. The anode ingot shall have a trapezoidal cross section and be approximately 32 inches long. Other anode ingot weights (with different cross sections and dimensions) may be specified in the Drawings.

- D. Anode Backfill: Each magnesium anode shall be prepackaged in a permeable cloth bag with a backfill of the following composition:

Gypsum	75%
Powdered Bentonite	20%
Anhydrous Sodium Sulfate	5%

- E. Backfill grains shall be capable of 100% passing through a 100-mesh screen. The backfill shall be firmly packed around the anode by mechanical vibration to a density, which will maintain the magnesium ingot in the center of the cloth bag and surrounded by at least one inch of backfill.
- F. Prepackage Weight: The total packaged weight of 48-pound (ingot weight) magnesium anodes and backfill shall be approximately 105 pounds. The cloth bag diameter is 8 inches. The packaged weight and diameter of other anode sizes shall be as indicated in the Drawings.
- G. Anode Lead Wire: Anode lead wire shall be AWG No. 12 stranded copper wire with THWN insulation conforming to UL Standard 83. Wire shall be connected to the strap core with silver solder. The connection shall be mechanically secured before soldering and shall have at least one and one-half turns of wire at the connection. The connection shall then be insulated by filling the remainder of the recess with electrical potting compound. Anode lead wire shall be of sufficient length to extend from the anode to the designated termination point without a splice. Wires with cut or damaged insulation will not be accepted and replacement of the entire lead will be required at the Contractor's expense.

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

2.05 PREPACKAGED ZINC ANODES

- A. Zinc Alloy: The anode alloy shall conform to ASTM B 418, Type II and shall be prepackaged with the following chemical composition unless otherwise specified:

Aluminum	0.005% Max
Cadmium	0.003% Max
Iron	0.0014% Max
Zinc	Remainder

- B. Anode Weight: Unless otherwise specified the Ingot weight of the prepackaged zinc anode shall be 30 pounds.
- C. Anode Backfill: Each zinc anode shall be prepackaged in a permeable cloth bag with a backfill of the following composition:

Gypsum	75%
Powdered Bentonite	20%
Anhydrous Sodium Sulfate	5%

- D. Backfill grains shall be capable of 100% passing through a 100-mesh screen. The backfill shall be firmly packed around the anode by mechanical vibration to a density, which will maintain the zinc ingot in the center of the cloth bag and surrounded by at least one inch of backfill. The packaged weight of the 30-pound (ingot weight) zinc anode and backfill shall be approximately 70 pounds. Prepackaged weights for other size zinc anodes shall be as indicated in the Drawings.
- E. Anode Lead Wire: Anode lead wire shall be AWG No. 12 stranded copper wire with THWN insulation conforming to UL Standard 83. Wire shall be connected to the steel rod core with silver solder. The connection shall be mechanically secured before brazing or silver soldering and shall have at least one and one-half turns of wire at the connection. The connection shall then be insulated with a heat-shrinkable sleeve and coated with bituminous compound. The Anode lead wire shall be of sufficient length to extend from the anode to the designated termination point without a splice. Wires with cut or damaged insulation will not be accepted and replacement of the entire lead will be required at the Contractor's expense.

2.06 SHUNTS

Shunts used in the anode test boxes shall be 0.01 ohms - resistance and rated at 6 amperes capacity and accurate to plus or minus 1%. Use Shunt Diagram provided in Appendix B unless otherwise approved.

2.07 WIRE AND CABLE

- A. General: All DC wires shall be stranded copper with high molecular weight polyethylene (HMWPE) or thermal plastic (THWN) insulation suitable for direct burial in corrosive soil and water conforming to UL 83 and ASTM Standards B3 or B8. HMWPE insulation shall conform to the requirements of ASTM D1248 Type 1, Class C. THWN insulation shall conform to the requirements of ASTM D-2220. Wires with cut or damaged insulation will not be accepted and replacement of the entire length of wire will be required at the Contractor's expense.

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

- B. Test Leads: Unless otherwise indicated, test wires shall be AWG No. 8 HMWPE wire. THWN wire shall be used only where specifically called out. Each test lead shall be of sufficient length to extend from the attachment to the pipe or structure to the test box without a splice.
- C. Bond Wires: Bond wires shall be AWG No. 2, No. 4, or No. 6 HMWPE depending on the pipe diameter and as indicated in the detail drawings or directed by the District. Bond wires shall be as short as possible.

2.08 LEAD WIRE CONNECTORS

- A. Terminal Lugs: Terminal lugs shall be solderless, UL 486 copper or brass and sized to accommodate the wire.
- B. Split-bolt Connectors: Split bolt connectors shall be UL 486 copper or brass and sized to accommodate the lead wire and shunt being used.

2.09 INSULATING FLANGE KITS

- A. General: Insulating flange kits shall consist of Type E, full-face gaskets, insulating sleeves and double washers (steel and dielectric) on each end. All insulating material shall be of the type designated by the manufacturer as suitable for the operating temperature and pressure of the service. If the insulating flange kit is not compatible with planned tapping valve, an additional flanged spool or a prefabricated insulating joint will be required.
- B. Gaskets: Insulating gaskets shall be dielectric neoprene-faced phenolic.
 - 1. Sleeves: Use full-length sleeves except for installation on threaded studs where half-length sleeves are required. For installation on threaded bolts, i.e., at butterfly valve flange bonnets and bases, the sleeves shall be half-length.
 - 2. Flanges 12-inches or less: 1/32-inch thick phenolic tube.
- C. Flanges greater than 12-inches: s 1/32-inch thick G10 epoxy glass tube material as per NEMA LI-1.
- D. Washers: Insulating washers shall be 1/8-inch thick G10 epoxy glass sheet material.
 - 1. Flanges 12-inches or less: Phenolic
 - 2. Flanges greater than 12-inches: G10 epoxy glass
- E. Steel Washers: Steel washers shall be 1/8-inch thick cadmium plated or zinc plated carbon steel.

2.10 WAX TAPE WRAP

- A. Surfaces Requiring Wax Tape: All buried piping system surfaces not coated with the primary pipe coating such as flanges, valves, couplings, insulating flanges, adapters, uncoated pipe spools or specialty fittings.
- B. Material and Application Standard: per Standard Specification Section 09952.

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

2.11 INTERNAL SUPPLEMENTAL LINING AT INSULATING FLANGES

- A. Flanges Requiring Supplemental Lining: Supplemental lining is only required on insulating flanges greater than 20-inches and where specifically designated as requiring a supplemental lining in the Project Design Documents.
- B. Lining: Supplemental lining shall be Aquatapoxy as manufactured by Raven Linings Corporation (Tulsa, OK), Hydro-Pox by Con-Tech of California (Stockton, CA), or District approved equal. All internal lining materials must be NSF approved for use in potable water.

2.12 PIPELINE CASING INSULATORS

- A. Body: The casing insulator body shall be constructed of a 12-inch wide steel band with a heat-fused plastic (PVC) coating with a minimum thickness of 10 mils. The steel band shall be flanged with stainless steel tightening bolts and nuts. The body shall be provided with a ribbed PVC liner to protect the pipe coating and prevent slippage.
- B. Runners: 2-inch wide reinforced plastic (18,000 psi compressive strength). Runners are attached with stainless steel nuts on 3/8-inch threaded studs that are welded to the steel band before coating. The bolt holes counterbored and filled with epoxy.
- C. Acceptable Products: Use PSI Model A12G-2 or District's approved equal. Wooden skids or high-density polyethylene casing insulators are not acceptable.

2.13 CASING END SEALS

- A. Type: End seals shall be either a heat shrinkable sleeve type or the mechanical link type. End seals shall provide full dielectric isolation and a watertight seal between the casing and the carrier pipes. Pre-molded casing seals held in place by an external band of metal or other material are not acceptable.
- B. Heat Shrinkable Seal: Heat shrinkable sleeve shall have a minimum tensile strength of 2,500 psi and be resistant to abrasion, corrosive gases and be able to tolerate typical expansion and contraction of the casing and carrier pipes. Provide a separate non-conductive support skirt or transition padding that will allow a smooth transition of the heat shrink material from casing to carrier diameter. Watertight seals on both the casing and the carrier pipes are required. Use Raychem Caseal or Canusa CSK Casing Seal Kit.
- C. Mechanical Link Seal: Articulated mechanical annular seal shall include EPDM rubber seal elements, non-metallic pressure plates and Type 316 stainless steel nuts and bolts for tightening. When compressed a full watertight seal is required. Use link-Seal Model "C" or District approved equivalent.

2.14 ALUMINO-THERMIC WELD KITS AND WELD COATING

- A. Weld Kits: Wire-to-pipe connections shall be made by the alumino-thermic welding process. Weld charges and mold size shall be as specified by the manufacturer for various pipe sizes and surface configurations. Weld charges for use on cast and ductile iron are different from those used on steel. Care should be taken during installation to be sure correct charges are used. Welding charges and molds shall be the product of a

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

manufacturer regularly engaged in the production of such materials. Weld charges for steel pipelines have green caps. Weld charges for cast or ductile iron have orange caps.

- B. Weld Cap Primer: Weld cap primer shall be an elastomer-resin based corrosion resistant primer for underground services such as Royston Roybond Primer 747 or District approved equal.
- C. Weld Caps: Alumino-thermic welds shall be sealed with a pre-fabricated plastic cap filled with formable mastic compound on a base of elastomeric tape. Weld caps shall be Royston Handy Cap 2 or District approved.
- D. Weld Cap Overcoating: Weld caps and the surrounding area shall be overcoated with a cold-applied, black, thixotropic material containing plasticized coal tar pitch, solvents, and special fillers per MIL-C-18480A such as Protecto Wrap 160/160H, Carboline 330M, Tape-Coat TC Mastic or 3M Scotch Clad 244. Apply to at least 20 mils thickness.

2.15 PIPE ENCASEMENT

Unless otherwise specified all ductile iron pipe shall be fully encased in 8 mil (0.008 inches) polyethylene sheet material in accordance with AWWA C105 Method A and STD SPEC 09954. The plastic encasement shall be installed without pinholes or tears and shall be fully protected from damage during backfilling. All pipe sections shall be fully inspected by the District's Inspector before the pipe is backfilled.

2.16 PLASTIC WARNING TAPE

Plastic warning tape shall be run in the wire trench at a depth of 12-inches and above each buried wire. The warning tape shall be 3 inches wide and shall have a printed warning - "Caution - Cathodic Protection Cable Buried Below" or similar.

2.17 MORTAR

Mortar used to repair concrete coated pipe after attachment of bond or pipe test lead wires shall be the fast drying, non-shrinkable type.

2.18 BARRIER POSTS

Where indicated protective barrier post shall be 6-inch Sch 40 steel pipe concrete filled. Pipe height, 4 feet, embedded depth 24-inches in a concrete footing. Paint OSHA safety orange epoxy or as indicated.

PART 3 - EXECUTION

3.01 GENERAL

Except as directed differently below, the installation of corrosion control and monitoring facilities shall conform to NACE Publication RP-0169 (Revised 1996) - Recommended Practice, Control of External Corrosion on Underground and Submerged Metallic Piping Systems and NACE RP0286 Electrical Isolation of Cathodically Protected Pipelines. The installation of impressed current cathodic protection facilities and large sacrificial anode systems is addressed in the Project Design Documents.

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

3.02 TEST BOXES

A. Post Mounted Test Boxes:

1. Location: locate redwood post directly above the pipeline, if possible, but not in a roadway or in a location that clearly obstructs existing access or is particularly susceptible to damage. The district shall approve test station locations.
2. Post: Use white paint for the finish coats and green paint for the top 4 inches of the chamfered end. Excavate a 16-inch diameter by 2-foot deep hole. Center the post and test box in the hole and fill the hole with concrete. The concrete shall be class C per Standard Spec Section 03000.
3. Test box and Conduit: Connect 2-inch galvanized conduit to the anode test box with a threaded flange and collar connection. Attach test box to the redwood post using mounting brackets and threaded fasteners or wood screws through the back of the test box. Attach conduit to the post with conduit clamps and wood screws if necessary. Insert all test leads in the galvanized conduit and run into test box prior to setting the post in concrete.
4. Wire Identification: Brass identification tags shall be securely attached to each of the wires in the test box. Tags shall be stamped with the size-material-service of the pipe to which the test leads are attached. For example 18"-STL-DW. Brass tags on wires in insulating flange test boxes shall be stamped with the additional identification of "N", "S", "E", or "W" for North, South, East or West to indicate on which side of the insulating flange the wires are attached. Attach tags with bare No. 14 copper wire.
5. Concrete Footing: Footing shall be 16-inch diameter by 24-inches deep. Dome concrete slightly to prevent ponding water next to wood post.

3.03 INSTALLING MAGNESIUM ANODES

- A. General: Anodes shall be installed at locations as shown on the Drawings or as directed by the District. Care shall be taken to ensure that the cloth bag is not damaged and no backfill material lost during installation. Each magnesium anode shall be centered in the cloth bag. It may be necessary to re-center the anode in the cloth bag by rolling it on the ground prior to installation. Each magnesium anode shall be lowered into the hole using a sling or rope and placed vertically at the bottom of the hole. Do not lower, transport, handle or lift the anode by the lead wire.
- B. Primary Excavation Method: Prepackaged magnesium anodes shall be installed in a vertical augured hole of 12-inches in diameter. The depth of the hole shall be 12 feet as measured from the finish surface to the bottom of the anode unless otherwise specified.
- C. Alternate Excavation Method: If the 12-foot depth cannot be obtained or if vertical auguring cannot be accomplished due to heavy rock, the District's Representative shall be notified for possible adjustment to the designed depth, position, and orientation of the anodes. Backhoe excavations must be approved by the District.
- D. Relative Position: Anode beds shall be offset from the steel pipe a minimum of 10 feet unless otherwise indicated on the Corrosion Protection Detail Drawings or directed by the

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

District. At no time shall an anode be installed outside of the pipeline right-of-way or District's easement.

- E. Anode Soaking (Augured Holes): Once the prepackaged anode is in the hole, water shall be poured into the hole so that the anode is completely covered with water. Allow to soak for at least 15 minutes. Stone-free native soil shall then be used to backfill the anode hole. Do not use imported sand for backfilling. The anode hole shall be backfilled in stages and carefully tamped to ensure that no voids exist around the bag and that the bag and anode lead wire is not damaged. After backfill is level with the top of the anode, a minimum of 15 gallons of water shall be poured into the hole to completely saturate the soil backfill. More water shall be added if it is suspected that the backfill is not completely saturated. Care must be taken to avoid damage to the anode and anode lead wire.
- F. Anode Soaking (Backhoe Installations): Prepackaged must be pre-soaked in water for at least 15 minutes before installing in the trench. After covering the anode with native, rock-free soil (approximately 3 inches over the anode) the anode and initial backfill shall be further soaked with 15 to 20 gallons of water and allowed to soak for 15 minutes. The remainder of the trench is backfilled with native soil.
- G. Lead Wire: Anode lead wire shall be long enough to reach from the anode to the anode test box without a splice. Anode lead wires shall be trenched a minimum of 36-inches deep and terminate individually in the appropriate anode test box. Care shall be taken not to damage the lead wire thought the installation process.
- H. Wire Tags: Anode wires are not tagged.

3.04 INSTALLING ANODE LEAD WIRES

- A. Wire Trenching: All buried anode and test wires shall be installed at a minimum depth of 36 inches. The bottom of the finished trench shall be sand or stone-free earth. The first three inches of sand backfill material shall be placed directly on the wires. The remainder of the trench shall be backfilled with stone-free earth. Care shall be taken when installing wire and backfilling trench so that insulation is not broken, cut, nicked, or bruised. If wire insulation is damaged during installation, the wire and anode shall be replaced unless wire splices or insulation repairs are approved by the District. Anode replacement shall be at the Contractor's expense. Plastic warning tape shall be installed approximately 12 inches below finished grade.
- B. Wire Splicing and Insulation Repairs: See paragraph 3.07 for general wire splice and insulation repair requirements. Neither splices nor insulation repairs are allowed unless specifically approved by the District Representative.

3.05 EARTHWORK

See Section 02200

3.06 WIRE AND CABLE

- A. General: No less than two test wires shall be attached to the pipe at each designated test site. All test wires shall terminate in a test box without a splice. A minimum of 18 inches of slack wire shall be coiled at the wire-to-pipe connection and in at-grade test boxes for each

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

test wire. At post-mounted test stations slack wire shall be provided inside the box to the extent possible and with one 8-inch diameter loop at the below-grade entrance to the conduit.

- B. Connection to Pipe: Connections of copper wire to the pipeline shall be made with alumino-thermic weld charges or by brazing. Welding charges shall be the product of a manufacturer regularly engaged in the manufacture of the material. Manufacturer's recommend cartridge size and type shall be used. Each weld shall be installed, tested and coated as described below.

1. Preparation of Wire: Use a cutter to prevent deforming wire ends. Remove only enough insulation from the wire to allow the weld connection to be made. Do not use a hacksaw for cutting.
2. Preparation of Metal: Remove all coating, dirt, grime and grease from the metal pipe at weld location by wire brushing and/or use of suitable safe solvents. Clean the pipe to a bright, shiny surface free of all serious pits and flaws by use of mechanical grinder or a file. The area of the pipe where the attachment is to be made must be absolutely dry. Failure to provide a dry surface for welding will result in a poor quality weld and could result in serious injury to the workman. Do not cut reinforcing rods when preparing metal surface for wire attachment.
3. Attachment of Wire to Pipe: The attachment of copper wire shall be made using an alumino-thermic weld as shown on the Standard Drawings. The wire is to be held at 30° to 45° angle to the surface when welding. Only one wire shall be attached with each weld.
4. Testing of All Completed Welds: As soon as the weld has cooled, the weldment shall be tested for strength by striking a sharp blow with a two-pound hammer while pulling firmly on the wire. All unsound welds are to be re-welded and re-tested. All weld slag shall be removed from the weldment.
5. Coating of All Completed Welds: Thoroughly clean by wire brushing the area to be coated. The area must be completely dry. Apply the weld cap primer and the weld cap. Overcoat the weld cap with a bituminous mastic coating material in accordance with the manufacturer's recommendations. Completely coat the weld, all bare pipe surfaces around the weld and any exposed copper wire. Allow sufficient time to dry prior to repair of the mortar coating on steel pipe.
6. Mortar Repair: On mortar coated pipe, the mortar coating shall be repaired after the bituminous weld coating has dried, using fast-setting, non-shrinkable mortar to restore the original outside diameter of the pipe at each weld location.

- C. Plastic Lined Pipe: Do **not** weld test or bond wires directly to plastic lined pipe (sewer or reclaimed water). Wires must be attached to factory installed bonding pads per OMWD Standard Drawings.

- D. Wire Trenching and Backfill:

1. Depth: All buried horizontal test lead runs shall be installed at a minimum depth of 36 inches.

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

2. Backfill: The bottom 2 inches of the finished trench shall be sand or stone-free earth. The first three inches of the backfill shall be sand or stone-free earth placed directly on the wires. The remainder of the trench shall be backfilled with native earth with a maximum stone size of 2 inches and compacted as specified in Standard Specification 02223.
3. Damaged Wire: Care shall be taken when installing wire and backfilling trench so that insulation is not broken, cut, nicked, or bruised. If wire insulation is damaged during installation, it shall be replaced completely at the Contractor's expense.
4. Warning Tape: Plastic warning tape shall be installed over all wire runs 12 inches below grade.

E. Installing Identification Tags

1. Characters: Tags shall be stamped with OMWD, size, material and service. For example a 24-inch CML&C steel water line shall be stamped "OMWD, 24"CML&C, W". An 8-inch ductile iron reclaimed water line would be tagged "OMWD, 8"DIP, RW". Anode lead wires are not tagged. Tags on wires on insulating flanges shall be stamped with "N, E, S or W" indicating which side of the insulating joint to which the wires are attached. The character size shall be 1/4-inch high.
2. Attachment to Wire: Identification tags shall be securely attached to each test wire in the test box with a bare No. 14 copper wire. Do not use plastic or nylon ties.

F. Wire Splices or Repairs

1. Approval: No wire splices or insulation repairs shall be made unless approved by the District Representative.
2. Splices: The minimum amount of insulation shall be removed from each wire end. Brass crimp or split-bolt connectors shall be used. The splice shall be encased in a plastic mold filled with insulating resin such as 3M Scotchcast splice kits.
3. Insulating Repairs: Depending on the severity of the insulation damage repairs shall be made with electrical tape or with a splice kit as determined by the District Representative.
4. Inspection: All splices and insulation repairs shall be inspected by the District Representative before they are buried.

3.07 CONTINUITY BONDING:

- A. General: All joints on buried metallic pipe shall be metallicity continuous by welding or bonding. Joints to be bonded include all unwelded pipe joints and mechanical joints including flanges (except insulating flanges), valves, couplings, adapters and special fittings. All bonding shall be done with single conductor, stranded copper jumper wires with HMWPE insulation. Bond wires shall be as short as possible with only minimal slack. All pipe reaches with one or more unwelded joints (or one or more bonds) will be tested for continuity.

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

- B. Pipe Joints: At least two wires are required for each steel or ductile iron pipe bond. Two wires shall be installed unless otherwise specified. Three wires may be required at valves, couplings, special fittings and across unwelded joints on pipe larger than 24-inches. Bond wire sizes may be No. 2, 4 or 6. Use No. 4 bond wires unless indicated otherwise in the project drawings.
- C. Mechanical Joints and Fittings: All flanges and in-line fittings (valves, couplings, etc.) shall be completely bridged by at least two bond wires. Three wires may be required on fittings larger than 24-inches. One additional No. 6 HMWPE wire is required from the pipe (on either side) to the fitting. Bond wire sizes may be No. 2, 4 or 6. Use No. 4 bond wires unless indicated otherwise in the project drawings.
- D. Wire Attachment Method: Bond wire attachment, testing and subsequent coating of the welds shall be as specified in paragraph 3.07, B.
- E. Wire Attachment Location: Bond wires can either be attached to the pipe or pipe cylinder directly or to the outside edges of flanges that are welded to the pipe. Bond wires shall not be attached to valve bodies, but instead to the flange of the valve.

3.08 INSULATING FLANGE KITS

- A. Flange Kits: Insulating kits shall be installed as shown on drawings and as recommended by the manufacturer. Moisture, soil, or other foreign matter must be carefully prevented from contacting any portion of the mating surfaces prior to installing insulator gasket. If moisture, soil, or other foreign matter contacts any portion of these surfaces, the entire joint shall be disassembled, cleaned with a suitable solvent and dried prior to reassembly.
- B. Spool Assembly: All direct buried insulating kits, greater than 20-inches in diameter, shall be pre-installed and tested on the pipe spool prior to installing the spool in the ditch. If possible, all smaller size direct buried insulating kits shall be similarly pre-installed and tested.
- C. Handling of Gasket: Care shall be taken to prevent any excessive bending or flexing of the gasket. Creased or damaged gaskets shall be rejected and removed from the job site.
- D. Alignment: Alignment pins shall be used to properly align the flange and gasket.
- E. Bolt Tightening: The manufacturer's recommended bolt-tightening sequence shall be followed. Bolt insulating sleeves shall be centered within the insulation washers so that the insulating sleeve is not compressed and damaged.
- F. Testing: All insulating flanges must be tested by a qualified Corrosion Technician or Engineer and accepted by the District Representative. All buried insulating flanges must be tested prior to wax tape wrap coating and backfilling. The assembled flange shall be tested as described below.
- G. Wax Tape Coating: After testing and the District's acceptance, the insulating flange shall be fully wrapped with petrolatum wax tape, including individual wrapping of all bolts, nuts, and washers, and irregular surfaces, per Standard Specification Section 09952.

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

3.09 SUPPLEMENTARY INTERIOR LINING AT INSULATING FLANGES

- A. General: Supplementary linings are required only where called out in the drawings or Project Design Documents. It is the contractor's responsibility to determine and verify which insulating flanges require supplementary internal lining.
- B. Extent of lining: the interior of the pipeline shall be lined with a supplementary epoxy lining for a distance of two pipe diameters in each direction away from an insulating flange. At an insulated flange on a valve, the supplementary lining shall be applied (for a distance of two pipe diameters) only to the pipe directly adjacent to the insulating flange.
- C. Surface Preparation: The surface preparation of the mortar lining shall consist of wire brushing (hand or power) or water blasting to remove the latence and all loose mortar to provide a clean abraded surface for adhesion of the lining. The surface shall be clean and free of dust and standing water but not necessarily dry.
- D. Mixing: The two-part epoxy paint shall be thoroughly mixed per the manufacturer's recommendations but at a minimum of two minutes by hand or with a mechanical mixer before being applied by brush.
- E. Pot Life: A typical pot life is 30 minutes. The lining material shall not be applied after its useful pot life.
- F. Application: Application of undiluted lining material shall be by spray, roller or brush until a maximum coating thickness of 20 mils is achieved. Each ensuing coat shall be applied before the previous coat fully cures, usually within 3 to 6 hours. Typically, this material is applied at the rate of 140 square feet per gallon. This would ordinarily produce the required coating with a total of two coats. However, the 20-mil minimum thickness shall be satisfied regardless of the number of applications necessary to achieve it.
- G. Inspection: Each pipe spool to which the supplementary lining is applied must be inspected and accepted by the District Representative prior to assembly.

3.10 CASING INSTALLATIONS

- A. Casing Insulators: The number and orientation of runners on each casing insulator shall be as recommended by the manufacturer depending on pipe size. The spacing between insulators shall be determined by the civil or structural engineer.
- B. End Seals: Heat shrinkable or mechanical link seals shall be installed in accordance with the manufacturer's recommendations. Remove all contaminants and debris from the annulus. Seals must be watertight.
- C. Casing Test Stations: Test stations (4-wire) shall be installed on all casings. Use 2 each No. 10 HMWPE wires on the casing and 2 each No. 8 HMWPE wires on the carrier pipe unless otherwise directed. Use post-mounted or at-grade test stations as indicted in the project drawings or as directed by the District Representative.

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

PART 4 - SYSTEM TESTING

4.01 TEST LEADS AND BOND WIRES

- A. Responsibility: The Contractor shall be responsible for testing all test leads and bond wire welds.
- B. Test Method: All completed wire connection welds shall be tested for strength by striking the weld with a sharp blow with a 2-pound hammer while pulling firmly on the wire. Welds failing this test shall be re-welded and re-tested. Wire welds shall be spot tested by the District Representative. After backfilling pipe, all test lead pairs shall be tested using a standard ohmmeter or resistance meter for broken welds. Bond wires shall be tested through continuity testing described below.
- C. Acceptance: The resistance between each pair of test leads shall not exceed 150% of the total wire resistance as determined from calculations based on published wire resistance data and an estimate of test wire length.

4.02 ANODE INSTALLATION

- A. Responsibility: The contractor must provide the proper rated potential anode, sufficient anode lead wire length and the proper anode hole depth. The District shall test each installed anode for wire connection integrity and for open-circuit potential.
- B. Notification: The Contractor shall notify the District at least 5 days in advance of the start and completion of the anode installations, including anodes and test stations.
- C. Cathodic Protection Performance Test Method: The performance of the cathodic protection system shall be tested by the District Representative. The testing shall include: measurement of all open-circuit anode potentials; pipe-to-soil potentials at each test station and other locations as necessary before the anodes are connected; initial anode currents after connecting anode leads to the pipe leads; and the pipe-to-soil potential at each previously tested site with all anodes connected. Pre- and post cathodic protection potentials at midpoints between anode beds are required as necessary to verify that the pipeline is fully protected. Adequate protection shall be as defined in NACE RP0169.
- D. Field Report: All system deficiencies shall be listed and described in one or more field test reports and presented to the Contractor for repairs.
- E. Acceptance: The system will be accepted if all anodes, test stations, and supporting facilities are installed properly. Cathodic protection performance, with the exception of materials and installation deficiencies, is not the Contractor's responsibility.

4.03 WIRE TRENCHING

- A. Responsibility: The District Representative, at his or her discretion, shall inspect wire trenches and backfill material and methods.
- B. Test Method: The depth, trench bottom padding and backfill material shall be visually inspected prior to backfilling.

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

- C. Acceptance: Conformance with project specifications.

4.04 INSULATOR TESTING

- A. Responsibility: Insulating flanges shall be inspected and tested by the District Corrosion Engineer or Corrosion Technician. Buried insulators must be tested and approved prior to application of wax tape and backfilling. Large diameter insulators shall be tested on the spool prior to installation in the ditch.
- B. Test Method: The assembled flange shall be tested with an insulator testing device (i.e., Gas Electronics Model 601 Insulation Checker) specifically designed for this purpose. Additionally, the pipe-to-soil potential, using a high impedance voltmeter and suitable reference cell, shall be measured on each side of the insulator after installation in the trench but before backfilling. Potential testing can only be done on piping that has been installed in the ditch.
- C. Acceptance: The installation shall be considered complete when the insulator testing device indicates that no shorts or partial shorts are present and when the potential tests indicate greater than 20-millivolt pipe-to-soil potential difference across the flange. (Note that this test may not be valid if the pipe on each side of the insulator is in contact through interconnection piping or through contacts to the electrical grounding system.) If shorts are detected the Contractor shall assist the District in finding partial shorts or shorted bolts. All disassembly and re-assembly necessary to gain the acceptance of the District shall be done at the Contractor's expense.

4.05 PIPELINE CONTINUITY

- A. Responsibility: The District's Corrosion Engineer shall test the continuity of all sections of buried pipe that contains non-welded pipe joints or mechanical joints or fittings. All such joints are required to be bonded per this specification.
- B. Test Method: Resistance shall be measured by the linear resistance method. A direct current shall be impressed from one end of the test section to the other (test station to test station) using DC power supply (battery). A voltage drop is measured for several current levels. The resistance (R) is calculated using the equation $R = dV/I$, where dV is the voltage drop and I is the current. The resistance shall be calculated for three or four different current levels.
- C. Acceptance: Acceptance is reasonable comparison of the measured resistance with the calculated or theoretical resistance. The measured resistance shall not exceed the theoretical resistance by more than 130%. The Contractor shall submit calculations of the theoretical resistance and the measured resistance for each section of pipe tested.
- D. Deficiencies: If discontinuity or high resistance is found between sections of pipe tested, it is the Contractor's responsibility to locate, excavate, and repair all bonds that are found to be discontinuous. Continuity tests shall be repeated after repairs are made. Note: Discontinuities may be difficult and expensive to locate and may require several excavations to expose pipe joints and attach temporary test leads for progressive continuity testing. Accordingly, the Contractor shall exercise due care in installing continuity bonds and should schedule continuity testing as early as possible so that discontinuity location and repairs, if necessary, do not conflict with road paving operations.

SECTION 15310 CORROSION CONTROL FOR BURIED PIPING

4.06 TEST STATIONS

- A. Responsibility: The District Representative will inspect all test station installations for compliance with this specification. The District Representative or Corrosion Engineer will test all wires for continuity and proper connection.
- B. Test Method: Test stations will be visually inspected. Wire continuity will be tested by potential and resistance measurements.
- C. Acceptance: Installation in accordance with this specification and good workmanship and verification that all wires are properly connected.

4.07 COATING AND SUPPLEMENTARY LINING

- A. Responsibility: The District Representative shall inspect all completed wax tape wrapping and supplementary linings at insulators for compliance with these specifications prior to backfilling.
- B. Test Method: Inspection shall be visual.
- C. Wax Tape Acceptance: Wax tape applications shall be accepted if: the application conforms with this specification; there are no voids or gaps under the wax tape; stud-ends, nuts, couplings rods and all irregular surfaces are individually wrapped such that there is complete coverage with the petrolatum material; the outer wrap is complete and tightly adhering to the wax tape; and the application is done in a good workman-like manner.
- D. Supplementary Lining Acceptance: Internal supplementary linings must cover the specified length of pipe and must be well bonded to the substrate and free of voids or damage.

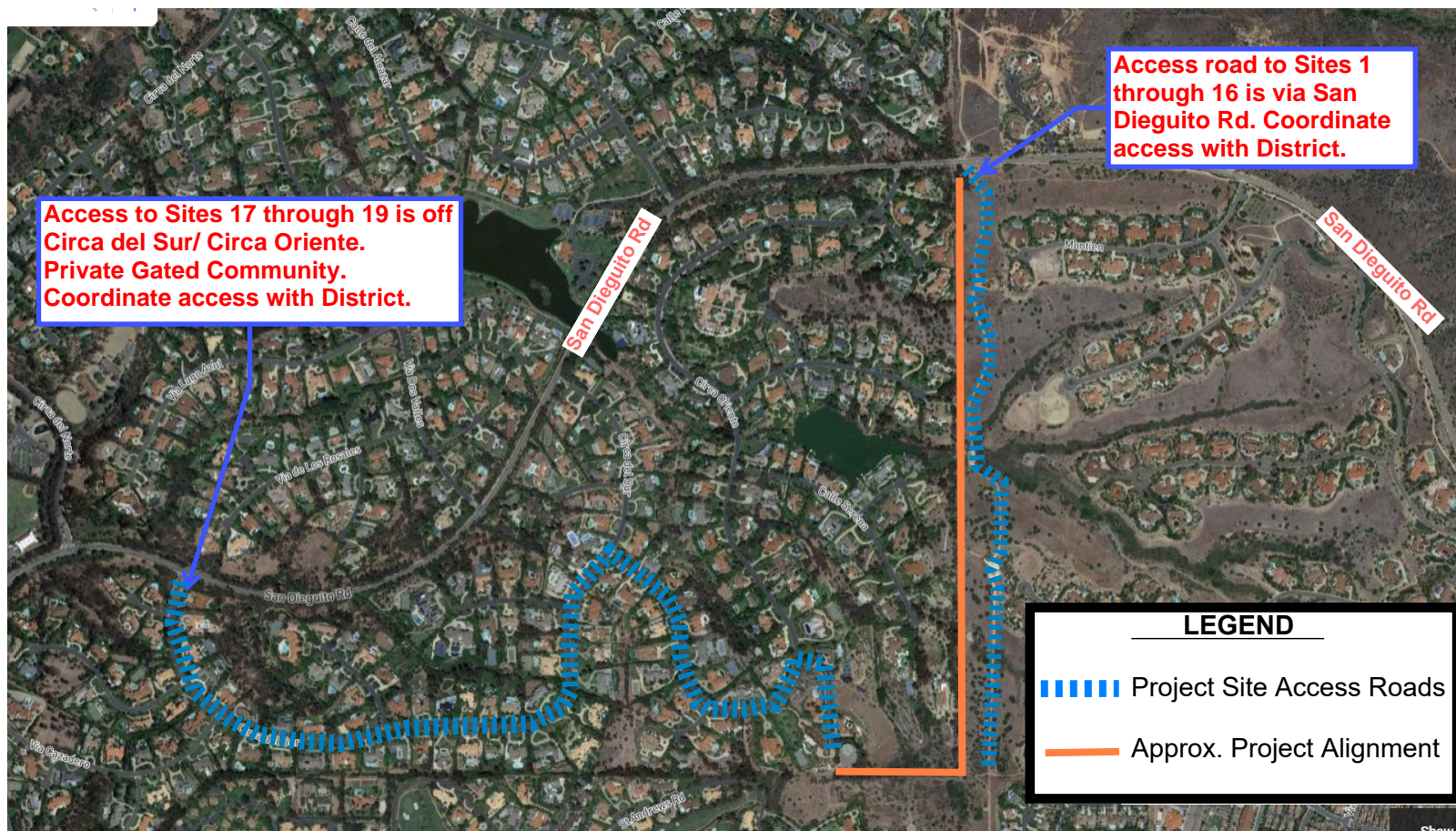
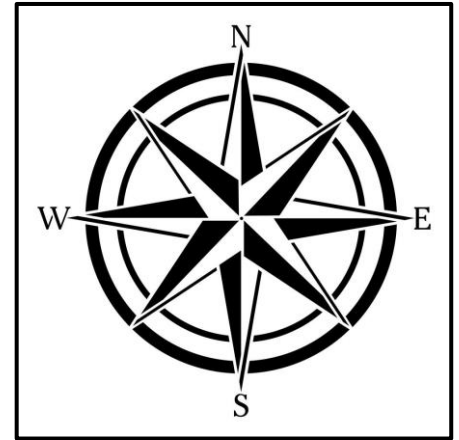
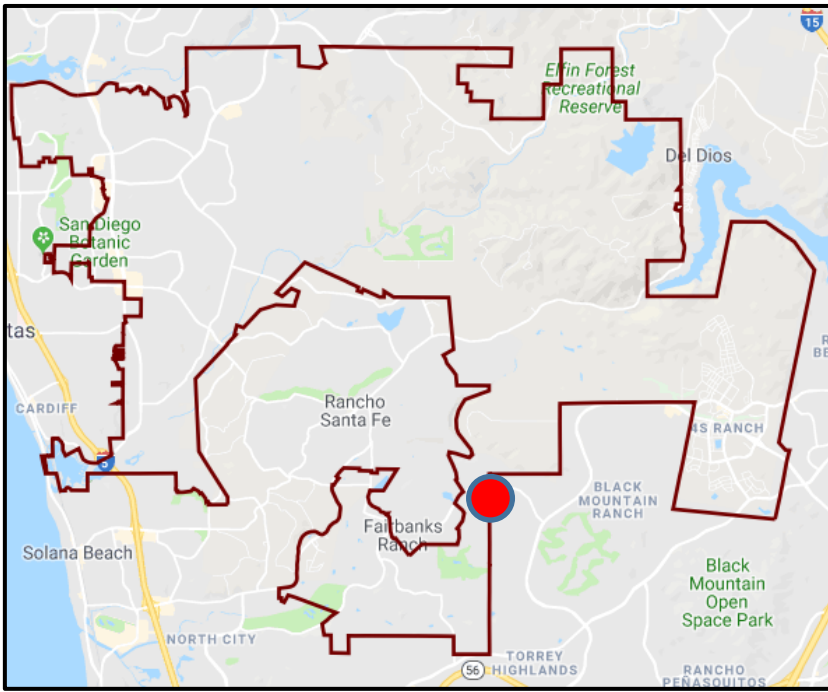
4.08 DEFICIENCIES

Deficiencies: Any deficiencies or omissions in materials or workmanship found by these tests shall be rectified by the Contractor at his expense. Deficiencies shall include but are not limited to: broken or missing test leads; improper or unclean wire trench backfill; inadequate pipeline continuity; shorted or partially shorted insulators; lack of 18-inch slack wire in at-grade test boxes; improperly mounted or located test boxes; improper wire identification; poorly applied wax tape or supplementary lining; and other deficiencies associated with the workmanship, installation and non-functioning equipment.

END OF SECTION

APPENDIX A

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LUSARDI PHASE III CATHODIC PROTECTION PROJECT VICINITY MAP



Work Site #1/BC308

Work Site #2/BC 307

Work Site #3/BC 306

Work Site #4/BC 305

Work Site #5/BC 298

Work Site #6/BC 297

Work Site #7/BC 296

Work Site #8/BC 295

Work Site #9/BC 294

Work Site #10/BC 293

Work Site #11/BC 292

Work Site #12/BC 291

Work Site #13/BC 290

Work Site #14/BC 289

Work Site #18/BC 1554

Work Site #17/BC 1553

Work Site #19/BC 1555

Work Site #15/BC 288

Work Site #16/BC 287

Access road to Sites 1 through 16 is via San Dieguito Rd. See Vicinity Map.

LEGEND

- Project Site Access Roads
- Existing OMWD Easement (Min. 20 ft wide)

EXISTING OMWD 18" STEEL PIPELINE LOCATED WITHIN OMWD EASEMENT.

Access to Sites 17 through 19 is off Circa del Sur. See Vicinity Map.

BC 308

Work Site #1

**ASSUME SITE #2 WORK AREA
SIMILAR TO SITE 1 THROUGH 16.
DISTRICT TO CLEAR SITE #2 PRIOR
TO START OF CONSTRUCTION FOR
CONTRACTOR ACCESS.**

BC 307

Work Site #2



BC 306

Work Site #3

BC 305

Work Site #4

BC 298



Work Site #5



BC 297

Work Site #6



BC 296

Work Site #7



BC 295

Work Site #8

BC 294



Work Site #9

BC 293

Work Site #10

BC 292

Work Site #11



BC 291

Work Site #12

BC 290

Work Site #13



BC 289

Work Site #14



BC 288

Work Site #15

A photograph of a hillside with a chain-link fence and a utility box. The hillside is covered in dry, yellowish-brown grass and some green shrubs. A chain-link fence runs diagonally across the middle of the image. In the foreground, there is a small, light blue utility box mounted on a white post. The background shows a steep hillside with more vegetation and a clear blue sky.

BC 287

Work Site #16



BC 1553

Work Site #17

BC 1554



Work Site #18

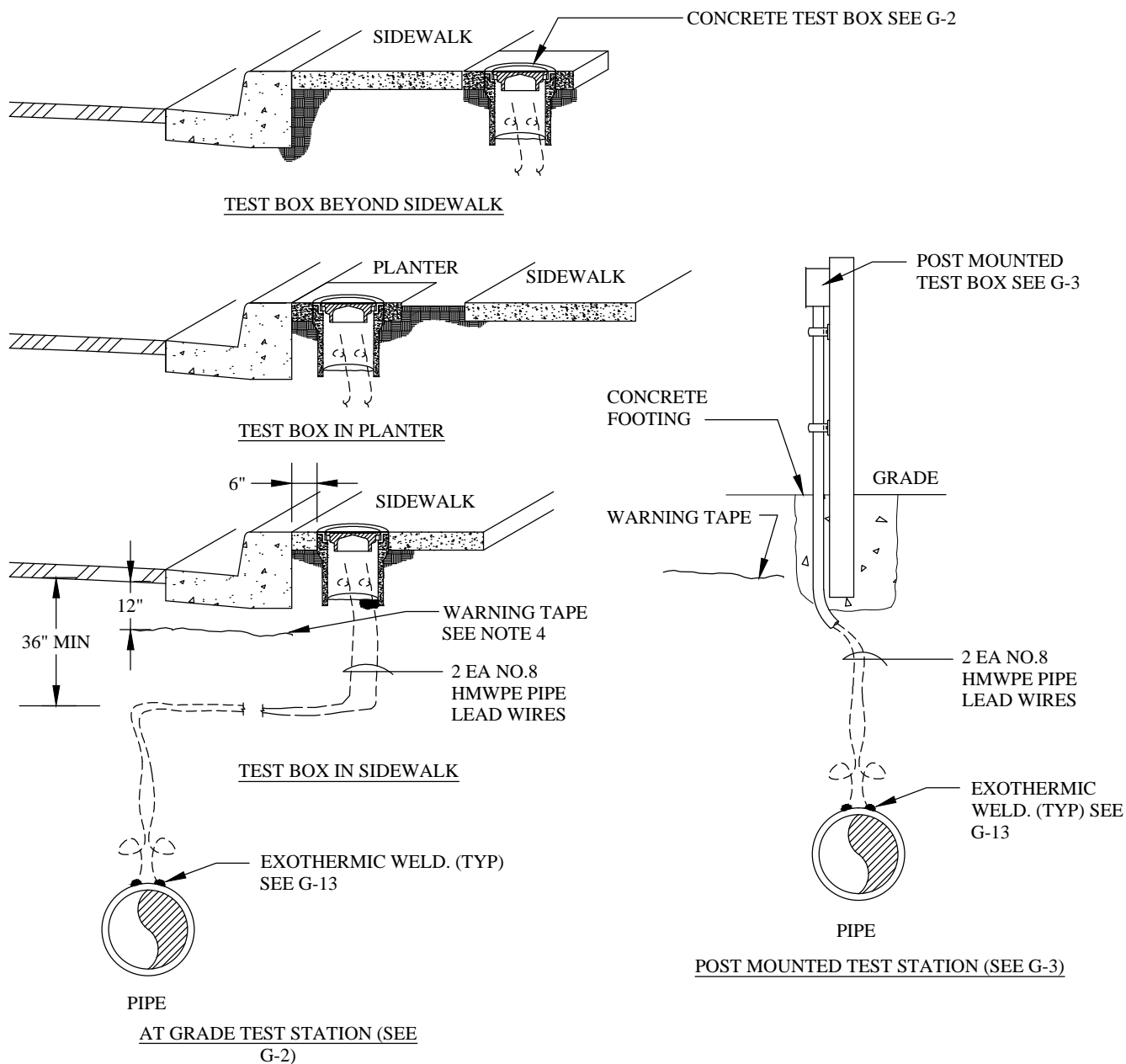


BC 1555

Work Site #19

APPENDIX B

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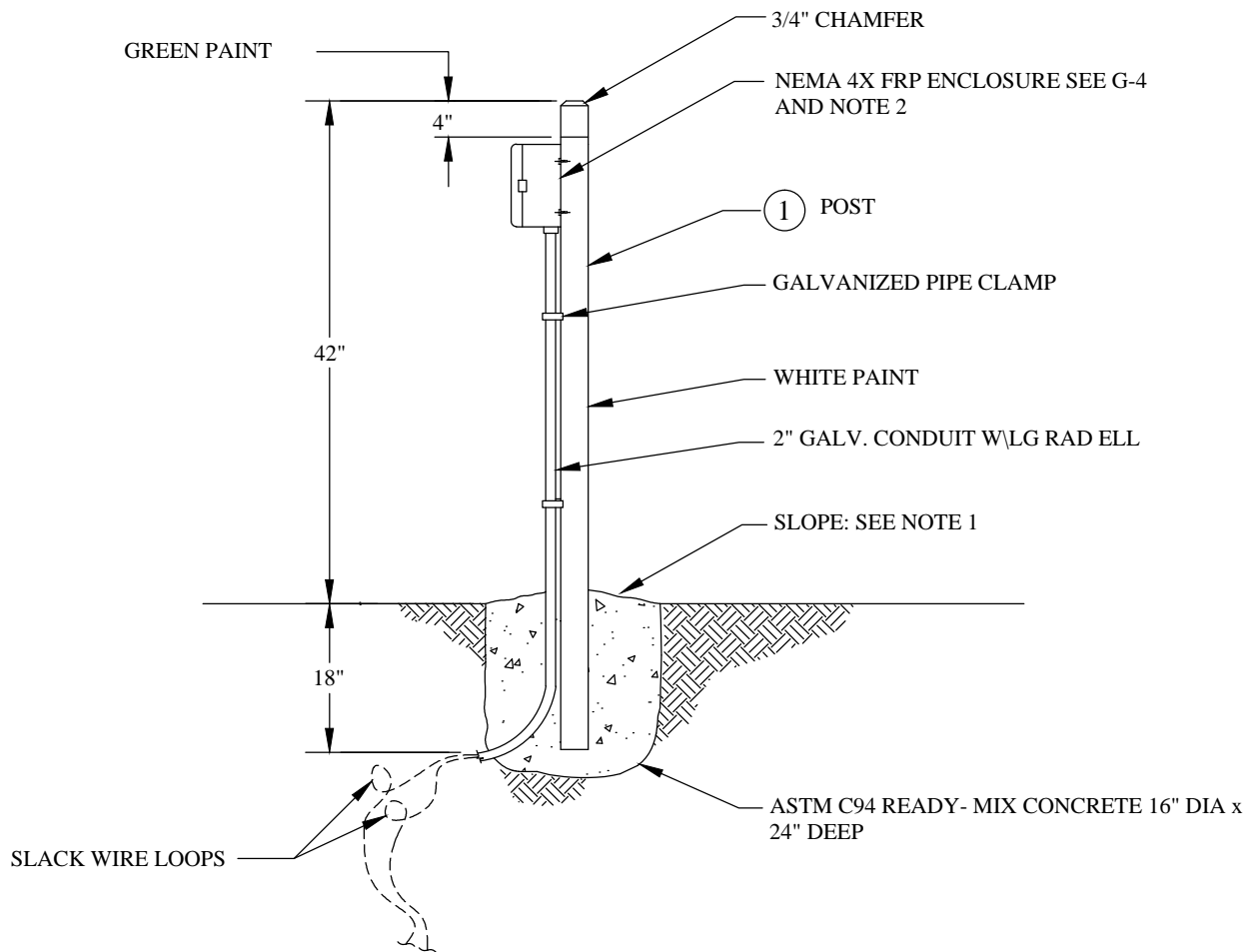
NOTES:

1. PLACE AT GRADE BOX AT ONE OF THE THREE LOCATIONS SHOWN PER DRAWINGS OR PER DIRECTION FROM DISTRICT'S REPRESENTATIVE. FOR ROAD WITHOUT CURB PLACE AT-GRADE CTS BEYOND PAVEMENT OUT OF TRAFFIC LANES BUT WITHIN EASEMENT.
2. USE POST-MOUNTED CTS IN UNDEVELOPED SITES. PLACE DIRECTLY OVER PIPE WHERE POSSIBLE, OR AS DIRECTED BY DISTRICT'S REPRESENTATIVE.
3. PROVIDE SAND BEDDING AND BACKFILL IN WIRE TRENCHES. SEE STD SPEC. 02223
4. WARNING TAPE SHALL BE 6" WIDE, 4 MIL THICK INERT PLASTIC WARNING TAPE PRINTED WITH "CAUTION: CATHODIC PROTECTION CABLE BELOW".
5. USE SIMILAR MOUNTING FOR MULTI-WIRE CTS.

OLIVENHAIN MUNICIPAL WATER DISTRICT

2-WIRE CATHODIC TEST STATION (CTS)

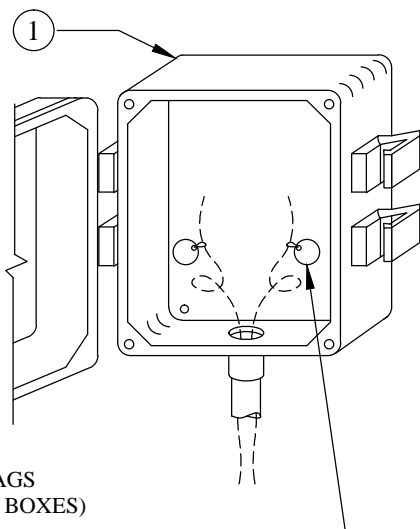
STD DWG NO.
G-1
FEBRUARY 2017



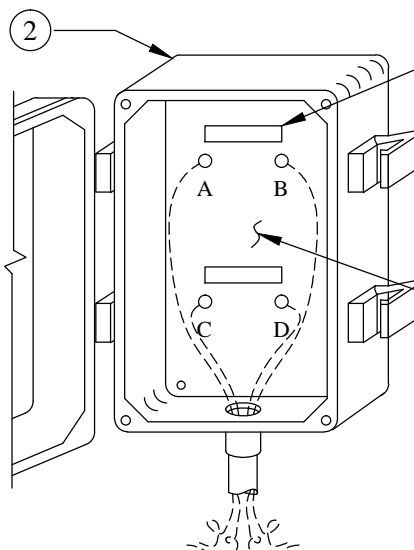
NOTES:

1. SLOPE CONCRETE SLIGHTLY TO PREVENT WATER FROM POOLING NEXT TO POST.
2. ATTACH FRP BOX TO POST WITH 1-1/2" NO. 10 WOOD SCREWS.

ITEM	DESCRIPTION	SPEC/DWG
1	CONSTRUCTION REDWOOD 4"x4"x5' LONG	13110
OLIVENHAIN MUNICIPAL WATER DISTRICT		
	POST MOUNTED TEST BOX	STD DWG NO. G-3 FEBRUARY 2017



BRASS TAGS
(TYP ALL BOXES)
SEE G-2

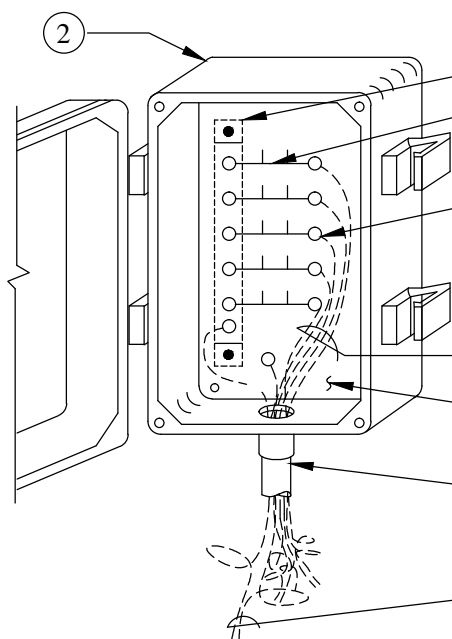


DYMO LABEL W/PIPE SIZE,
MATL. AND DIRECTION
(EXAMPLE: 24" CML&C
NO.)

BACK PANEL
(OFFSET)

2-WIRE CTS

4-WIRE CTS
(2 PIPE INSULATOR OR CASING (CTS))



1/8" X 1" Cu BUS BAR

0.01 OHM SHUNT (TYP.)
(HOLLOWAY TYPE RS)

BRASS LUGS (TYP)

NO. 8 HMWPE ANODE LEADS

BACK PANEL (OFFSET)

2" PVC (TYP)

NO.8 HMWPE PIPE/TEST LEADS (TYP)

1 TO 5 ANODE CTS

NOTE:

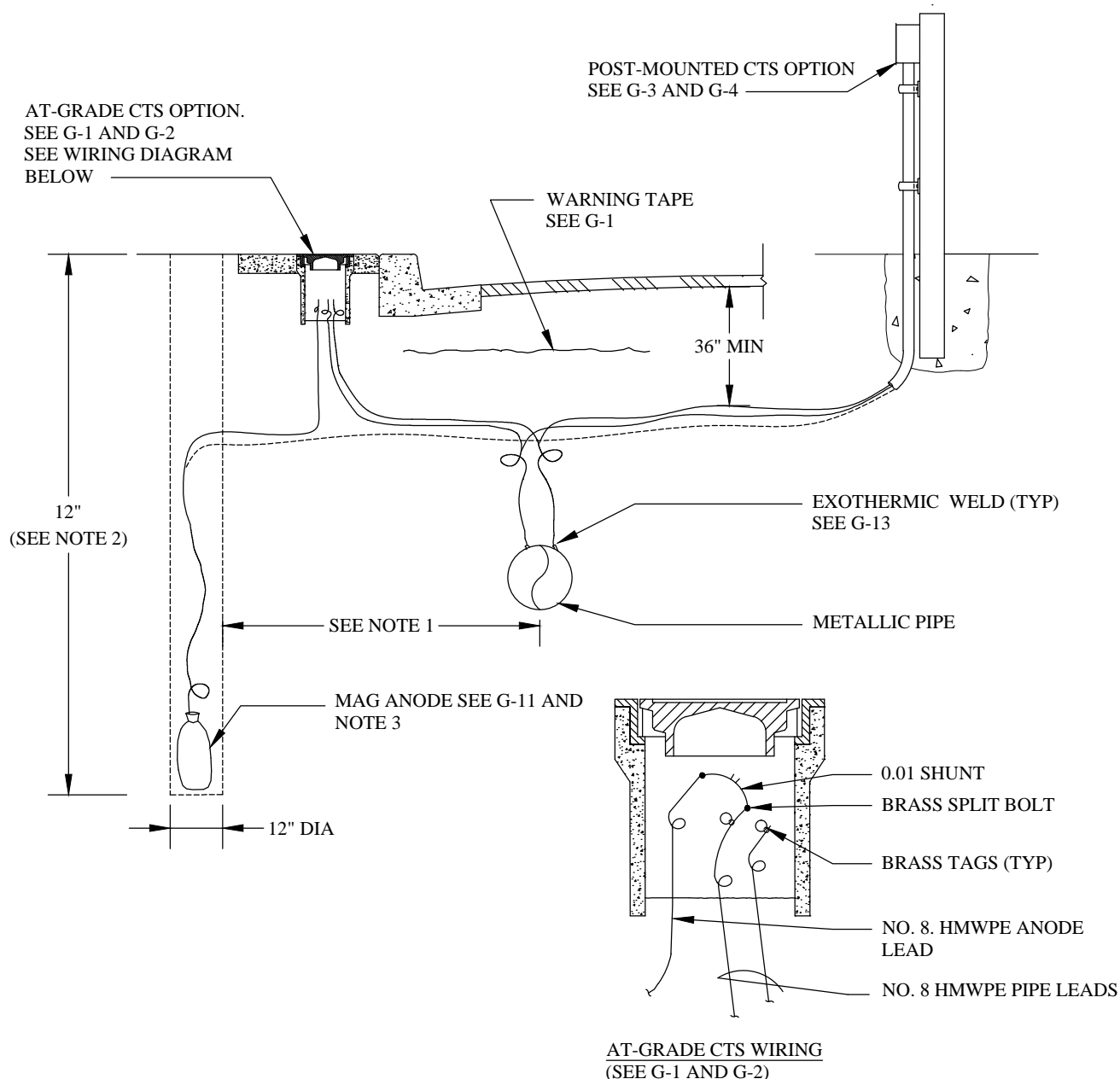
1. FIX TO POST WITH 1-1/2" NO.10 WOOD SCREWS. SEE G-3

ITEM	DESCRIPTION	SPEC/DWG
1	HOFFMAN 4X FRP ENCLOSURE (A-645JFGQRR) 6"x4"x5"	13110
2	HOFFMAN 4X FRP ENCLOSURE (A-1287JFGQRR) 12"x8"x7"	13110

OLIVENHAIN MUNICIPAL WATER DISTRICT

WIRING IN POST-MOUNTED TEST BOX

STD DWG NO.
G-4
FEBRUARY 2017



NOTES:

1. HORIZONTAL ANODE DISTANCE FROM PIPE SHALL BE MAXIMUM ALLOWABLE WITHIN OMWD RIGHT-OF-WAY OR AS INDICATED IN THE DRAWINGS. DO NOT INSTALL ANODE SUCH THAT A FOREIGN METALLIC PIPELINE EXISTS BETWEEN ANODE AND PIPE. MINIMUM OFFSET IS 8' UNLESS OTHERWISE SPECIFIED ON DRAWINGS.
2. DEPTH IS 12' UNLESS OTHERWISE INDICATED ON DRAWINGS.
3. LOCATE ANODE AND TEST BOX PER DRAWINGS OR DISTRICT REPRESENTATIVE'S DIRECTION.
4. INSTALL EITHER AT-GRADE CTS OR POST-MOUNTED CTS AS DEFINED ON DRAWINGS.

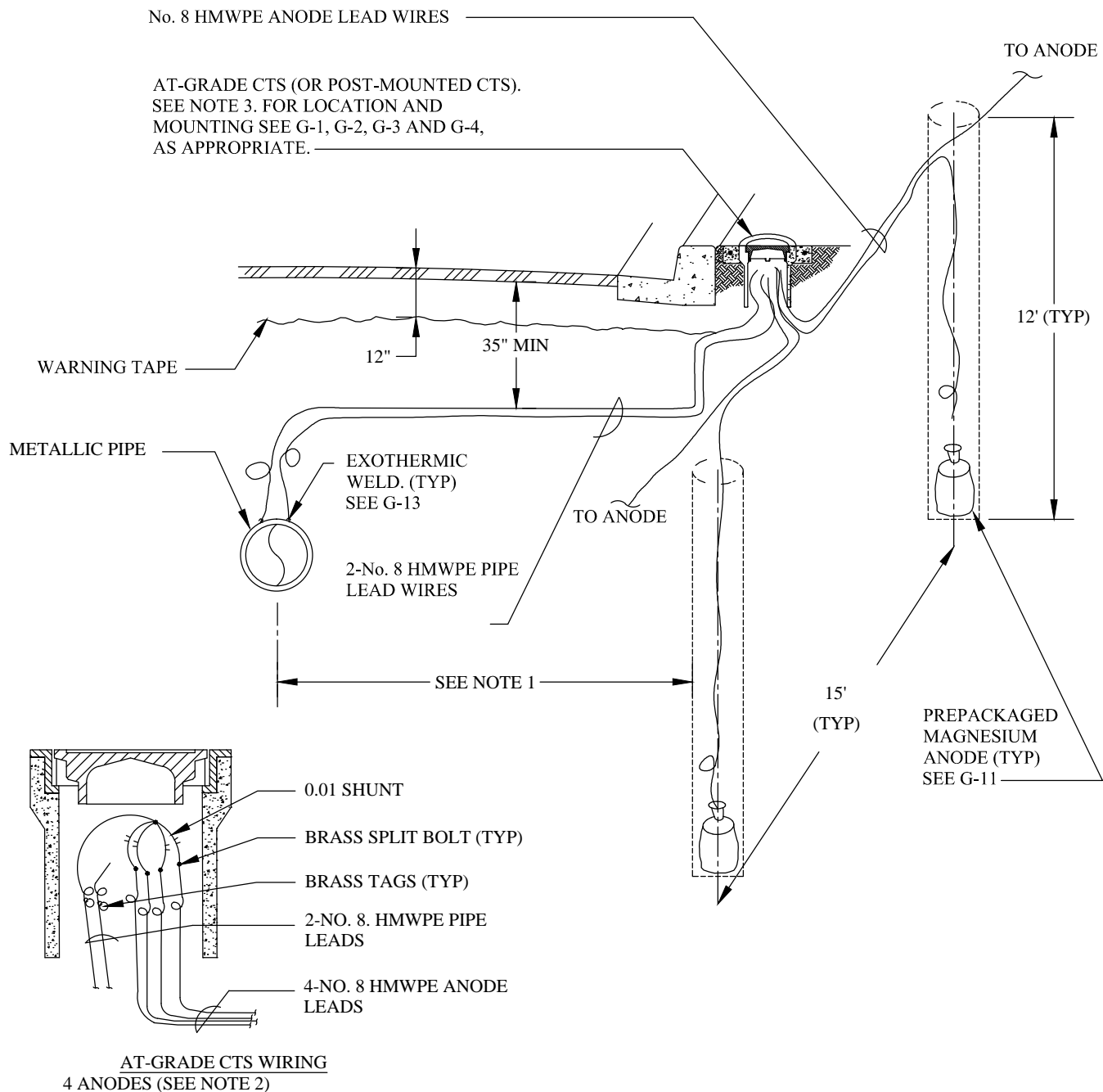
OLIVENHAIN MUNICIPAL WATER DISTRICT

SINGLE ANODE INSTALLATION

STD DWG NO.

G-9

FEBRUARY 2017



NOTES:

1. HORIZONTAL ANODE DISTANCE FROM PIPE SHALL BE MAXIMUM ALLOWABLE WITHIN OMWD RIGHT-OF-WAY OR AS INDICATED IN THE DRAWINGS. DO NOT INSTALL ANODE SUCH THAT A FOREIGN METALLIC PIPELINE EXISTS BETWEEN ANODE AND PIPE. MINIMUM OFFSET IS 8' UNLESS OTHERWISE SPECIFIED ON DRAWINGS.
2. WIRING FOR 4 ANODES SHOWN. USE SIMILAR WIRING FOR 2 TO 5 ANODES.
3. INSTALL EITHER AT-GRADE CTS OR POST-MOUNTED CTS AS DEFINED ON DRAWINGS.

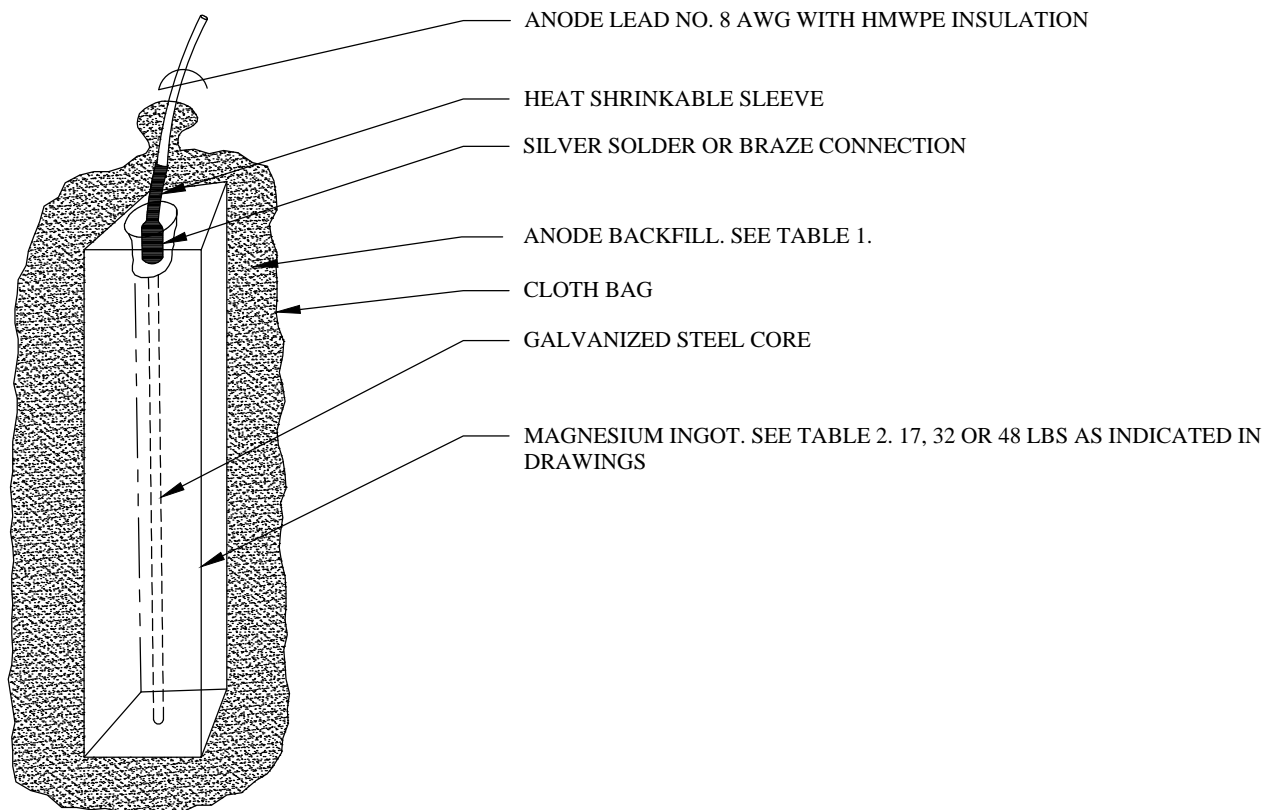
OLIVENHAIN MUNICIPAL WATER DISTRICT

MULTIPLE ANODE INSTALLATION

STD DWG NO.

G-10

FEBRUARY 2017



NOTE:

1. SEE SPEC SECT 15310 FOR ANODE SOAKING AND INSTALLATION REQUIREMENTS.
2. USE HIGH POTENTIAL ANODES UNLESS STANDARD POTENTIAL ANODES ARE REQUIRED ON DRAWINGS.
3. SEE DRAWINGS FOR ANODE WEIGHT.

TABLE 1

BACKFILL COMPOSITION

75% GYPSUM
20% BENTONITE
5% SODIUM SULFATE

MAGNESIUM ANODE ALLOY COMPOSITION
HIGH & STANDARD POTENTIALS

TABLE 1

	HIGH POTENTIAL <u>Weight %</u>	STANDARD POTENTIAL <u>Weight %</u>
<u>Element</u>		
Al	.01 Max	5.3 to 6.7
Mn	0.05 to 1.3	0.15 to 0.30 2.5 to 3.5
Zn	0.002 Max	0.02 Max 0.002 Max
Cu	0.02 Max	0.003 Max 0.10 Max
Ni	0.001 Max	0.05 each Max and 0.3
Fe	0.03 Max	Total Max
Si	0.05 Max	Balance
Other	0.05 each Max and 0.3 Total	
Mg	Balance	

OLIVENHAIN MUNICIPAL WATER DISTRICT

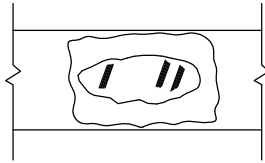
MAGNESIUM ANODE

STD DWG NO.

G-11

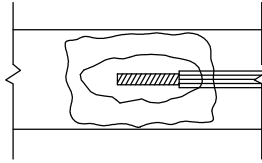
FEBRUARY 2017

STEP 1



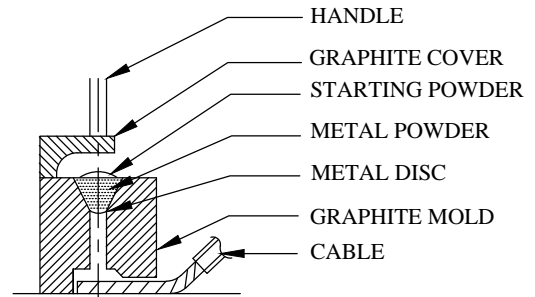
CHIP AWAY MORTAR
IF NECESSARY
FILE/GRIND SURFACE
TO BRIGHT METAL
AND CLEAN

STEP 2



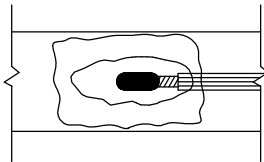
STRIP INSULATION
FROM WIRE

STEP 3



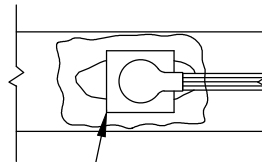
HOLD WELDER FIRMLY WITH OPENING AWAY
FROM OPERATOR, IGNITE STARTING POWDER

STEP 4



REMOVE SLAG FROM
CONNECTION AND TEST.
SEE NOTE 4.

STEP 5

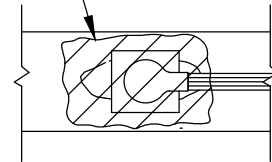


WELD CAP

APPLY 2 COATS PRIMER AND
COVER CONNECTION WITH
PRE-FORMED WELD CAP

BITUMINOUS COATING
UNDER/MORTAR PATCH

STEP 6



COAT WITH A BITUMINOUS
COMPOUND SEE NOTE 3

NOTES:

1. WELDER SHOWN IS FOR HORIZONTAL SURFACES. FOR VERTICAL SURFACES SIDE WELDER IS REQUIRED.
2. ATTACH 1 WIRE PER WELD ALL WIRE WELDS SHALL BE 6 INCHES APART, MINIMUM.
3. ALL EXPOSED METAL (STRUCTURE, WIRE, & WELD) SHALL BE COVERED WITH 2 COATS OF PRIMER AND AN ELASTOMERIC WELD CAP, THEN OVER-COATED WITH BITUMINOUS COMPOUND OVERLAPPING PIPE COATING BY 2 INCHES MIN.
4. ALL WELDS SHALL BE TESTED BY STRIKING THE WELD WITH A 2LB HAMMER WHILE PULLING FIRMLY ON WIRE. ANY WELDS BROKEN OR LOOSENED SHALL BE RE-WELDED AND RE-TESTED. THE SURFACE MUST BE RE-GROUND AND CLEAN BEFORE RE-WELDING. ALL WELD SLAG SHALL BE REMOVED FROM THE WELD.

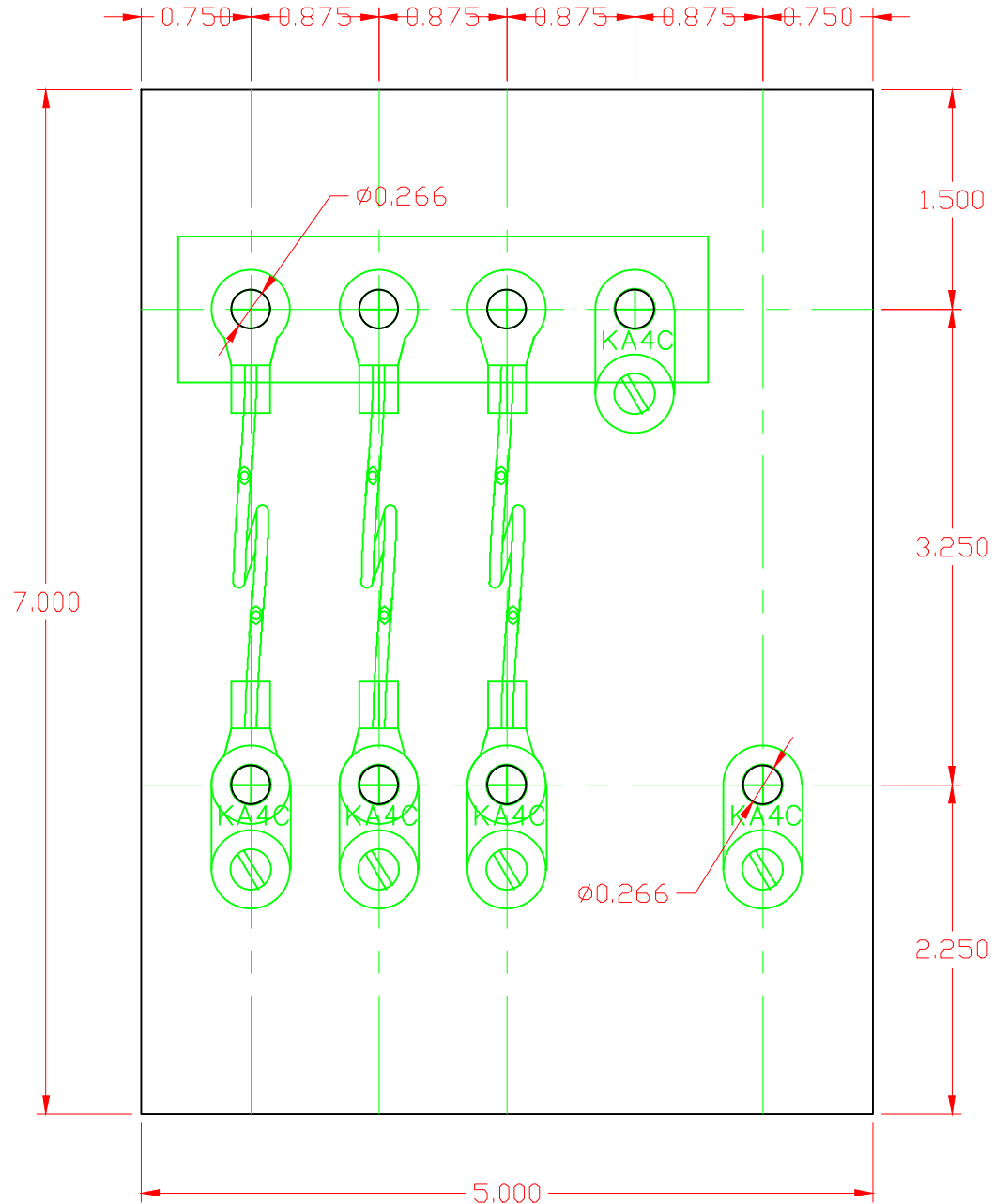
OLIVENHAIN MUNICIPAL WATER DISTRICT

EXOTHERMIC WELD

STD DWG NO.

G-13

FEBRUARY 2017



"ALL DIMENSIONS IN INCHES"
TOLERANCE:
(UNLESS OTHERWISE STATED)

0.XXXX = ±0.0005"
0.XXX = ±0.005"
0.XX = ±0.010"
0.X = ±0.100"

MATERIAL DESCRIPTION:

ENCLOSURE: N/A

PANEL: 5" X 7" X 1/4" PHENOLIC

COMMON: 1-KA4C

CIRCUIT LUG: 3-KA4C

OTHER LUG: 1-KA4C

SHUNT: 3-RS

NOTES:

NO ENCLOSURE

REVISION

REV	DESCRIPTION	DATE	BY	APP
0	FOR APPROVAL	9/29/2022	MM	

CLIENT NAME & ADDRESS:

OLIVENHAIN

MESA

TULSA, OK | Dallas-Ft. Worth, TX | Houston, TX | Tallahassee, FL | Wapahanset, OH
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DESCRIPTION:

5X7, 3-CKT,
5-KA4CM 3-RS

JOB NO.: SCALE: DO NOT SCALE SHEET: 1 OF 1

DRAWN BY: MM DRAWN DATE: 9/29/2022 CHK'D BY: CHK'D DATE:

DWG NO.: 3240 REV: 0